The Big Move

Baseline Monitoring Report

September 2013

METROLINX

AN AGENCY OF THE GOVERNMENT OF ONTARIO

Prepared for Metrolinx by

Executive Summary

Introduction

The Big Move is the Greater Toronto and Hamilton's (GTHA's) multi-modal long-range regional transportation plan. Since 2008, this plan has been providing strategic direction for planning, designing and building a regional transportation network that enhances our quality of life, our environment, and our prosperity. To support this 25-year plan, it is important to regularly take stock of collective efforts to fulfill The Big Move, and to monitor its implementation.

On May 27th, 2013 Metrolinx released an Investment Strategy recommending revenue sources to continue to pay for the major aspects of The Big Move. During that consultation, the public indicated that public accountability is a priority, confirming the importance of one of The Big Move's goals of fairness and transparency. Understanding how the region is doing, and setting a baseline to measure continuous improvement is an important aspect of understanding the region's progress in an efficient, accountable and transparent way.

The Big Move Baseline Monitoring Report establishes a foundation for monitoring progress, using a set of *Key Performance Indicators* (KPIs) to measure achievement of The Big Move's goals.

Five years is a short time to complete the bold changes set out in The Big Move, but taking a regional scan and compiling the available data now helps, going forward, to define regional trends and catalogue individual initiatives that contribute to successfully achieving the goals, objectives and vision of The Big Move.

The Big Move outlines goals and strategies that are affected by macro trends, outlined in the Baseline Monitoring Report, and are important to consider in monitoring the GTHA's progress.

This Baseline Monitoring Report is the result of a collective effort from partners across the GTHA, who are instrumental in implementing The Big Move, including municipalities, transit agencies, and provincial representatives.

Under the *Metrolinx Act, 2006*, Metrolinx has an obligation to review the regional transportation plan at least once every ten years. The information collected for this report provides foundational information to support the first review of the regional transportation plan in 2016.

Monitoring our Goals – Key Performance Indicators

A set of KPIs was developed to align the goals of The Big Move and desired outcomes with currently available data. They make up a framework for which progress on achieving the goals can be measured over the long-term.

The Big Move's goals are:

- Transportation Choices
- Comfort and Convenience
- Active & Healthy Lifestyle
- Safe and Secure Mobility
- Fairness and Transparency
- Reduced Emissions
- Reduced Dependency on Non-Renewables
- Attractive and Well Planned Region
- Prosperity and Competitiveness
- Multi-Modal Integration
- Inter-connectedness
- Efficiency and Effectiveness
- Fiscal Sustainability

Using these goals and stakeholder input, the questions below were developed to help frame the KPIs and the data used to measure them.

Framing Questions	KPIs
How are we moving around the GTHA?	• mode of transportation • transit ridership
Is there more choice in how we travel?	• transit service per capita • length of regional rapid transit
Do more people live and work close to fast and reliable transit?	• living close to rapid transit • working close to rapid transit
Are we providing transportation alternatives for those who need them the most?	• transportation choice for low-income households • accessibility of transit • transportation choice for children • transportation choice for seniors
Are we safer as we travel?	• road safety
Are we reducing the impact of transportation on the environment?	• air quality • emissions
Are we better connected across the GTHA?	• transit between urban centres • highway travel speeds • Pearson Airport access
Is transit provision in the GTHA becoming more fiscally sustainable?	• transit efficiency

The progress of The Big Move should be reported at regular intervals, using the above KPIs as an initial framework. Ongoing work is anticipated to evolve the framework and the KPIs as new sources of data become available, ensuring that the most relevant data and the most appropriate indicators are reported.

Measuring Progress – Actions & Policies

The Big Move sets out an action plan comprised of ten strategies, each of which contains both *Priority Actions* and *Supporting Policies.* In total, the Big Move identifies 92 Priority Actions and Supporting Policies, nine of which are the most transformative Big Moves, to support implementation of the ten strategies, which are:

Strategy #1: Build a Comprehensive Regional Rapid Transit Network
Strategy #2: Enhance and Expand Active Transportation
Strategy #3: Improve the Efficiency of the Road and Highway Network
Strategy #4: Create an Ambitious Transportation Demand Management Program
Strategy #5: Create a Customer-First Transportation System
Strategy #6: Implement an Integrated Transit Fare System
Strategy #7: Build Communities that are Pedestrian, Cycling and Transit-Supportive
Strategy #8: Plan for Universal Access
Strategy #9: Improve Goods Movement within the GTHA and with Adjacent Regions
Strategy #10: Commit to Continuous Improvement

Work has started on more than half of the Priority Actions and Supporting Policies, and there are a number of areas where policy and work have advanced. This report includes a summary of work underway, provided by Metrolinx and delivery partners across the GTHA, which is crucial to benchmark our progress to date and continue to monitor our progress as a region going forward.

Building Rapid Transit

The most visible sign of progress in implementing The Big Move is the considerable progress on delivering the *Top Priority Transit Projects*. More than $16 billion in funding has been committed to advancing these projects, which are in various stages of planning, development and construction:

- Mississauga Transitway
- UP Express
- Finch West LRT
- Toronto-York Spadina Subway Extension
- Eglinton Crosstown LRT
- Scarborough RT Replacement and Extension
- Sheppard East LRT
- York Region VivaNext Rapidways
- GO Transit Rail service expansion

These Next Wave projects are in the planning phase, in preparation for funding commitments:

- Hamilton LRT
- Dundas Street BRT
- Hurontario-Main LRT
- Brampton Queen Street Rapid Transit
- Relief Line
- Yonge North Subway Extension
- Durham-Scarborough BRT
- GO Rail Expansion
- Express Rail on GO Lakeshore
- Electrification of GO Kitchener line and UP Express

The region is also making progress on those projects that have not received funding commitments. For the remainder of the projects to move forward, funding is required.

Looking Ahead

The GTHA continues to grow and evolve. Regional shifts and trends are important to understand the context in which The Big Move is being implemented, to more fully understand the challenges and successes.

There are a number of areas where continued work is important to maintain momentum on delivering The Big Move over the next few years. We will continue to work with our delivery partners to add to the baseline of information summarized in this report, and to refine the methods of measuring our progress to implement The Big Move as a region in a transparent and accountable way.

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Introduction

The Big Move is the first regional transportation plan for the Greater Toronto and Hamilton Area (GTHA). As a long-term, regional transportation plan, it is an integrated vision for the mobility of six regions, 30 municipalities and 10 transit agencies that make up the Metrolinx mandate area. This Baseline Monitoring Report has been prepared in consultation with a multi-stakeholder committee and representatives from municipalities, transit operators, and government ministries. Its purpose is to monitor collective progress and guide future work around delivering an integrated transportation system in the GTHA.

Why Monitor Progress?

Sound measurement is crucial in ensuring that we are making the right decisions for operations and expansion, and for building confidence in the system. With multiple municipalities and transit agencies in the GTHA, this can be challenging, with different approaches to collecting information and reporting on results. This can make collecting regional statistics on performance a challenge. Implementation of The Big Move takes a regional effort. In order to continue the progress made since approval of The Big Move in 2008, we have to take stock of work underway, to fully understand our successes and challenges in transforming the GTHA, and to benchmark our progress moving forward.

Monitoring our efforts and their outcomes is not only good practice; it communicates what has been achieved and where subsequent efforts can be focused. The Big Move Baseline Monitoring Report is an essential part of keeping The Big Move relevant because it helps identify emerging issues and the data to support understanding how they affect our progress.

The Big Move Baseline Monitoring Report is not intended to focus on a particular service agency, such as a municipality or a transit agency. Rather, the Baseline Monitoring Report should be used to assist future decision-making. The report identifies areas where we are collectively doing well as a region and areas that still need work.

About the Baseline Monitoring Report

Under the *Metrolinx Act, 2006*, Metrolinx has an obligation to review the regional transportation plan at least once every ten years. In addition to reviewing and revising the transportation plan, it is good practice to periodically take stock of progress and challenges to inform future review.

As the first in a series, The Big Move Baseline Monitoring Report establishes a foundation for monitoring progress. It identifies *Key Performance Indicators* (KPIs) that will be used to monitor progress towards the achievement of The Big Move's goals.

The Big Move Baseline Monitoring Report also includes a summary of initiatives across the region, focusing on the *Priority Actions and Supporting Policies*. The Baseline Monitoring Report also sets out the regional context by providing information on the external factors that might influence KPI outcomes.

The report is accompanied by three appendices: Monitoring Handbook, which identifies the process, methods, and past trends of the KPIs used to monitor the goals of The Big Move; an Inventory of Initiatives, a detailed depository of initiatives and programs underway by delivery partners in the GTHA; and Building Rapid Transit, detailing the progress in delivering projects of the regional rapid transit network.

The Big Picture

The Big Move is a 25-year integrated land use and transportation plan. It lays out a multi-faceted strategy for creating an integrated regional transit and transportation network for the GTHA that focuses on the traveller experience. It was unanimously approved in 2008 after a comprehensive public engagement process by the Metrolinx Board of Directors, then composed of elected representatives and private residents from across the region

On May 27th, 2013, Metrolinx delivered an Investment Strategy to the Province of Ontario, including proposals for investment tools to support The Big Move through the integration of transportation, growth and land use planning, maximizing the value of public infrastructure investment, and optimizing system and network efficiency. Public outreach while developing the Investment Strategy demonstrated strong support among participants around four key principles: dedication of revenues to specific outcomes, fairness, equity across the region, and accountability and transparency. Reporting on progress through The Big Move Baseline Monitoring Report is a valuable step in demonstrating commitment to this principle of accountability and transparency.

Our Inclusive Approach

This Baseline Monitoring Report is the result of a collective effort from partners across the GTHA, who are instrumental in implementing The Big Move, including municipalities, transit agencies, and provincial representatives. These partners provided detailed research and input, informing the baseline of work underway across the region, summarized in this report. A multi-stakeholder project committee of representatives from GTHA community and business organizations also provided strategic guidance to the Metrolinx project team throughout the development of the report and its contents.

Additional data and information was obtained from Statistics Canada, the Canadian Urban Transit Association (CUTA), Transportation Tomorrow Survey (TTS), Transportation Association of Canada (TAC), and Canadian Urban Institute (CUI).

How do we Define Progress?

We have made significant progress as a region in a short time. More than $16 billion in projects are underway, and signs of progress can be seen all over the GTHA, including the Mississauga Transitway, the York Region vivaNext Bus Rapid Transit Project, and the Union Station Revitalization. These important transit projects are being delivered on time and on budget.

The Big Move consists of ten Strategies, and 92 Priority Actions and Supporting Policies, the most transformative of which are known as nine Big Moves. The projects listed above, all fall under progress towards The Big Move strategies and Priority Actions.

Priority Actions are specific and concrete actions, or a "to-do" list, needed to implement each of the ten Strategies. These actions are broad in scope and include legislation, policies, programs, planning and funding. There are also Supporting Policies that are needed to guide day-to-day decision-making in support of each Strategy.

What Other Factors are Affecting Progress in the Region?

There are factors that we need to consider in evaluating our progress that are outside the control or scope of The Big Move but can have an impact on travel experiences in the GTHA.

When it was developed, The Big Move took account of trends and challenges of the time, such as an increasing reliance on automobiles, urbanization, and increasing energy costs. Since approval of The Big Move, new and updated information is available, such as new statistics from the 2006 census, and population numbers from the 2011 census. Many other reports and information have also been released since late 2008, such as the Metrolinx Electrification Study, additional Benefits Case Analyses from Metrolinx, and municipal Official Plan updates, providing an updated picture of emerging trends in the GTHA.

Major Trends

1) **The GTHA continues to grow.**
Between 2006 and 2011, the population grew by nearly 9%, and is now over 6.5 million. Population growth like this demands more from the transportation system that is already approaching design capacities. The need to act to accommodate this growth becomes even greater.

2) **Our economy has been making slow and steady gains since 2009.**
The GTHA experienced a decline in GDP in 2008 and 2009. Today, GDP is up 5.8% from 2009, and 2.8% from the high in 2007/2008[i].

3) **Household income is changing.**
Median household income declined by about 3.6% across the region from 2001 to 2006[ii], and the proportion of people in low-income households has increased[iii]. For many families, this means less disposable income to spend on mobility.

4) **Air traffic at Pearson International Airport and Billy Bishop Toronto City Airport continues to rise.**
The overall volume of visitors to the GTHA is growing, adding to the demands on our transportation network. A record 33.4 million passengers passed through Pearson International Airport in 2011, representing an increase of nearly 10% from 2008, with passenger traffic at Billy Bishop Toronto City Airport increasing by 50% each year for multiple years[iv].

5) **The urbanization of the GTHA continues to evolve.**
There has been uneven growth across the GTHA. Some areas have seen growth in their downtown cores, while others have had growth in low-density, suburban areas. People are working from home, or commuting across municipal boundaries for work. Transit and walking have become convenient transportation choices in some places, while automobiles are still the main transportation choice available in others.

6) **Changing demographics affect the demand for particular transportation services and infrastructure.**
We are becoming more diverse as a region. From an aging population[v] *to diversity in first-languages*[vi]*, the need for accessible mobility choices and information increases.*

7) **We own more vehicles per household.**
Between 2001 and 2006, household size remained the same but the average vehicles per household increased; it is currently 1.7 vehicles per household[vii].

8) **The cost of getting around the region is going up.**
Both transit fares, and vehicle ownership is increasingly more expensive.

9) **Fuel price has steadily increased from since 2008.**
The price of fuel is generally increasing. Since 2006, the price of fuel in the GTHA has fluctuated between $0.74 to $1.32 per litre[viii]*. Rising fuel prices increase the cost of both driving an automobile and operating bus services, or can accelerate demand for transportation services, having a dynamic impact on the system.*

10) **Extreme weather events are increasing.**
A changing climate, and increasing extreme weather events, impact the transportation infrastucture and services, resulting in increased need to plan for impacts to our infrastructure. Severe flooding in the GTHA on July 8 2013 has been estimated to be the most expensive natural disaster in Ontario history[ix].

These broad trends are shaping the way we travel and our experience getting around the region. It is important to monitor regional trends to understand the impact of The Big Move in the appropriate context.

What's next?

A Next Wave of projects equaling a further $34 billion investment will increase capacity where it's needed most, and improve regional connectivity. These projects were identified in The Big Move, and have been refined and confirmed as next-step priorities for achieving The Big Move's vision through the Investment Strategy.

Metrolinx is committed to continuing work with our delivery partners and stakeholders across the region, in a transparent and accountable way, to build on the progress made and secure sustainable funding to implement The Big Move's projects and programs.

The Metrolinx Act (2006), which mandated the development of an Investment Strategy for implementing The Big Move, also requires a full legislated review of The Big Move, every ten years, with the first to be published in 2016. The regional scan of progress summarized in this report will play an important role in preparing for the full legislated review.

Monitoring our Goals – Key Performance Indicators

The success of The Big Move is determined by the actions undertaken to achieve its goals. The KPIs have been chosen for their meaningful coverage of the goals of The Big Move and because suitable data is available. This chapter sets the stage for understanding trends in transportation in the GTHA.

The Big Move will – when completed – provide a seamless system across all modes of transportation and jurisdictions, offering residents and businesses efficient and attractive access to neighbourhoods, jobs and services.

The KPIs were developed to answer significant questions about the region by tracking progress on a number of important environmental, social and economic fronts. The purpose is to provide valuable information about how the region is evolving over time to meet the goals of The Big Move, so that effective policy options can be developed.

This approach recognizes that economic, social and environmental matters are intimately connected. Addressing transportation, for instance, must include other issues, such as transportation choices, air quality, and accessibility.

Measuring the Goals of The Big Move

The Big Move identifies a set of goals to achieve the vision of an integrated transportation system that supports our quality of life, our environment, and our prosperity.

The goals of The Big Move are:

- Transportation Choices
- Comfort and Convenience
- Active & Healthy Lifestyle
- Safe and Secure Mobility
- Fairness and Transparency
- Reduced Emissions
- Reduced Dependency on Non-Renewables
- Attractive and Well Planned Region
- Prosperity and Competitiveness
- Multi-Modal Integration
- Inter-connectedness
- Efficiency and Effectiveness
- Fiscal Sustainability

The goals are broad, multi-dimensional and complex, and there are multiple indicators that provide insight into different aspects of each goal. As a result, each KPI relates to more than one Big Move goal.

Key Performance Indicators

A set of KPIs was developed to align the goals of The Big Move and desired outcomes with currently available data. These KPIs do not cover all of the ways which we could measure and benchmark our progress, but have the most data available at this time. They comprise a framework for which progress on achieving the goals can be measured over the long-term.

Using The Big Move goals and stakeholder input, the questions below were developed to help frame the KPIs and the data used to measure them.

Framing Questions	KPIs
How are we moving around the GTHA?	• mode of transportation • transit ridership
Is there more choice in how we travel?	• transit service per capita • length of regional rapid transit
Do more people live and work close to fast and reliable transit?	• living close to rapid transit • working close to rapid transit
Are we providing transportation alternatives for those who need them the most?	• transportation choice for low-income households • accessibility of transit • transportation choice for children • transportation choice for seniors
Are we safer as we travel?	• road safety
Are we reducing the impact of transportation on the environment?	• air quality • emissions
Are we better connected across the GTHA?	• transit between urban centres • highway travel speeds • Pearson Airport access
Is transit provision in the GTHA becoming more fiscally sustainable?	• transit efficiency

The KPIs are measures of observed data, primarily collected through external means such as the Census, the Transportation Tomorrow Survey (TTS), and the CUTA factbook. Currently, the most recent data from the Census and TTS was collected in 2006, and there is minimal information about changes in the KPIs since approval of The Big Move in 2008.

The methodology for selecting this framework is detailed in Appendix A, *Monitoring Handbook*. This appendix provides more detailed information about each KPI, including data sources and reporting frequency, and provides important historical baseline data.

Continuing Work to Measure the Goals

The progress of The Big Move should be reported at regular intervals, using the above KPIs as an initial framework. We anticipate ongoing work to evolve the framework and the KPIs as new sources of data become available. This flexibility will allow Metrolinx to better link new data sources and future performance indicators with progress reporting on The Big Move, as the region continues its progress in transforming the regional transportation system. A set of future indicators, for which there is currently insufficient data available, have been identified for further development:

- *Is transit funding becoming more fiscally sustainable?*
  The transit network can be planned, prioritized, and expanded through reliable and predictable funding. Funding is reliable and sustainable if it can be expected at regular intervals over the long-term. The Investment Strategy addresses the question of how resources could be fairly and effectively raised to provide reliable and sustainable funding, and has been provided by Metrolinx to the government for consideration. Feedback from stakeholders suggests that there is also further work to develop an indicator to measure sustainability of funding for transportation as a whole over time.

- *Is the transit system accessible to those with mobility difficulties?*
  While the travel habits of children, seniors, and individuals in low-income households have been looked at in the Baseline Monitoring Report, the overall accessibility of the transit network has not been addressed. Data shows that transit vehicles have been steadily becoming more accessible (kneeling buses, for example). However, there is currently no inventory for infrastructure of the transit network, including stations and stops. CUTA is preparing to undertake a survey of transit accessibility in the GTHA so this data may be available in the future for a new indicator. In parallel to further work to more broadly inventory the accessibility of the transit network, Metrolinx has developed a multi-year accessibility plan, and conducted public outreach in spring 2013 to get input on how its operating divisions could improve accessibility.

- *Do we feel safer as we travel?*
  Data on road-based accidents is available and have been presented as part of this Baseline Monitoring Report. This data does not include, however, other facets of travel safety such as perception of risk, instances of crime on the transit network, trips and falls due to poor infrastructure conditions and other factors. Further work is needed to develop a more complete indicator to more completely address the goal of safety and security.

- *Fairness and transparency: do residents have an opportunity to engage meaningfully in the transportation decision-making process?*
  Transportation issues have always been at the forefront of public policy discourse and the ongoing improvement of the transit network is no exception. The need for public input and agency accountability is critical and it is important to establish good public engagement and for

transportation agencies in the GTHA to be transparent and accountable in its implementation of The Big Move. While transit agencies, including Metrolinx, engage in public consultation and track its engagement through meetings, number of participants, and feedback forms, there is a subjective dimension to *meaningful engagement* that is a challenge to measure. Advisory panels, such as the Let GO Know customer service panel, may help to fill this gap over the long term.

- *Is freight moving efficiently?*
  The indicators presented in the Baseline Monitoring Report focus on moving people, but a large proportion of vehicles are moving goods. At present, the region is lacking in reliable data to support an indicator that could monitor progress in moving freight more effectively. Further study on availability and quality of data for goods movement will continue, as one of the strategic directions identified in Metrolinx's GTHA Urban Freight Study (2011).

Measuring Progress – Actions and Policies

The Big Move sets out ten strategies with 92 Priority Actions and Supporting Policies to achieve its vision, goals, and objectives. Are we making progress towards each of the Priority Actions? Are we implementing the Supporting Policies?

The Big Move sets out an action plan to guide us in transforming the transportation system in the GTHA. It is comprised of ten strategies:

- Build a Comprehensive Regional Rapid Transit Network
- Enhance and Expand Active Transportation
- Improve the Efficiency of the Road and Highway Network
- Create an Ambitious Transportation Demand Management Program
- Create a Customer-First Transportation System
- Implement an Integrated Transit Fare System
- Build Communities that are Pedestrian, Cycling and Transit-Supportive
- Plan for Universal Access
- Improve Goods Movement Within the GTHA and With Adjacent Regions
- Commit to Continuous Improvement

Together, these key strategies provide a long-term vision with the flexibility for nimble action as commuting needs and technologies change. Each strategy contains both *Priority Actions* and *Supporting Policies.* In total, the Big Move identifies 92 Priority Actions and Supporting Policies.

Priority Actions
Priority Actions are specific and concrete action for implementing each strategy. They are broad in scope and include legislation, policies, programs, planning and funding. Timescales for the delivery of each Priority Action varies widely.

Supporting Policies
Supporting Policies are intended to guide day-to-day decision-making in support of each strategy. Regional policies can be adopted by agencies and jurisdictions beyond municipal governments and transit agencies. School boards and health boards, for example, can be critical players in delivering The Big Move.

Where are we now?

Work has started on more than half of the Priority Actions and Supporting Policies, as detailed under each of The Big Move's ten Strategies below. There is significant progress and construction on the First Wave of regional rapid transit projects, and the Next Wave have been confirmed as the subsequent transit projects to be implemented.

More detail on status and work implementing each of the 92 Priority Actions and Supporting Policies is provided in Appendix B, *Inventory of Initiatives*.

Strategy #1: Build a Comprehensive Regional Rapid Transit Network

The majority of the Priority Actions and Supporting Policies under Strategy #1 are underway.

From the 1960s to the 1980s, 135 kilometres of rapid transit services were introduced per decade. This included both the TTC subway and the commuter rail operated by GO Transit. During the 1990s, this expansion all but ground to a halt. Despite significant investment and momentum over the past 10 years, the transit and transportation system has not caught up.

Beyond building rapid transit infrastructure across the GTHA, the Priority Actions in Strategy #1 set out to strengthen transportation connections between municipal boundaries in the GTHA, and establish protocols and best practices to enhance existing transit while providing for tomorrow's transit needs. These Priority Actions also focus on coordinating across the region to promote inter-operability between transit systems.

To facilitate cost-effective procurement, Metrolinx initiated the Transit Procurement Initiative (TPI) to coordinate the standardization and 'bulk' purchasing of transit vehicles and parts across the GTHA. To date, TPI has saved an estimated $5 million among transit agencies across the province.

Details of progress in implement the regional rapid transit network can be found in Appendix C, *Building Rapid Transit*

Big Move #1:
A fast, frequent, and expanded regional rapid transit network

Progress is underway for a number of priority projects in the regional rapid transit network, with $16 billion invested across the GTHA to launch the first projects.

Big Move #2:
High-order transit connectivity to the Pearson Airport district

The UP Express is a 25-km rail route, sharing the upgraded GO Transit rail corridor along the Kitchener line (formerly Georgetown line). The UP Express will provide a 25-minute journey between Union Station and Toronto Pearson.

Progress on other Priority Actions in Strategy #1 includes:

- Transit connectivity to the Pearson Airport district was improved through new transit services, including:
    - Mississauga MiWay Route 107 Airport Express;
    - Brampton Transit Route 115 Airport Express; and
    - The Mississauga Transitway (formerly Highway 403 Transitway)

- New or enhanced regional transit connections recently introduced include:
    - Rail service extension from Georgetown to Kitchener-Waterloo
    - Extended service on the Barrie Line to Allandale Waterfront GO Station
    - A new bus connection between Trent University and Oshawa GO Station

- A high-speed rail study for the Quebec City - Windsor Corridor was completed in November 2011 (by the Governments of Canada, Ontario, and Quebec.)

Big Move #3:
An expanded Union Station – the heart of the GTHA's transportation system

With investment from the Government of Canada, Government of Ontario, and the City of Toronto, Union Station is being revitalized. Construction has started and is anticipated to be completed in 2016.

Key studies have been completed in support of expanding the transit network, such as:

- GO Electrification Study
- Toronto Transit Commission Downtown Rapid Transit Expansion Study
- Union 2031 Demands and Opportunities Study
- Union Station Rail Corridor Capacity Study

Examples of outstanding Priority Actions for Strategy #1 include:

- Establishing a region-wide, 24 hour base transit network
- Establishing protocols between the Province, Metrolinx and transit agencies to use provincially owned lands for transportation facilities
- Amending the *Development Charges Act (1997)* to address the historic level cap on development charges for transit growth and introduce the ability to direct levies to a broader range of transportation initiatives

Strategy #2: Enhance and Expand Active Transportation

The majority of the Priority Actions and Supporting Policies under Strategy #2 are underway.

The active transportation network is a vital part of an integrated transportation system, and is the focus of Strategy #2. Active transportation choices provide healthy, inexpensive, and environmentally friendly means of travel. These choices are suited for short and medium-distance trips, and for supplementing transit or automobile use.

Priority Actions to improve the active transportation network range from pilot studies to new active transportation connections over major roadways.

Since 2008, several new facilities have been completed or are currently under construction. These include:

- Waterfront Trail pedestrian bridge along the east bank of Rouge River and south of CN Rail corridor (Western Gateway-Pickering);
- Two pedestrian crossings over Oshawa Creek and one pedestrian/bike crossing on Waterfront Trail East (Oshawa);
- Multi-use trail bridge crossing over QEW near Red Hill Valley Parkway (Hamilton);
- Pedestrian bridge crossing (Bruce Trail) over Hwy 403, east of Lincoln Alexander Parkway (Hamilton);
- Pedestrian crossing over Highway 401, east of Liverpool Road (Pickering);
- On-road and off-road bicycle paths on Fairview Street under the QEW (City of Burlington, Halton Region);
- Etobicoke Creek Trail crossing under Hwy 401 (Mississauga, Peel Region);
- Multi-use trail tunnel under the QEW at Hurontario Street (Mississauga)
- Multi-use trail tunnel under the CN Tracks / GO Lakeshore Line at Mississauga Road (Mississauga); and
- Pedestrian bridge crossing of the GO rail line at Richmond Hill Centre

Many other pedestrian and cycling connections are in various stages of planning and construction throughout the GTHA. Municipalities, for example, have reported implementing bike lanes and cycle routes, as well as updates to municipal active transportation and cycling plans.

Beyond new connections, other progress includes:

- Eight of ten transit agencies reporting 100% of bus fleet equipped with bike racks
- Crossrides pilot project (Mississauga)
- Green Pavement Marking for Cyclists pilot project (Mississauga)
- Commuter cycling courses in York Region, Markham, Toronto, Peel Region, and Brampton
- Long-distance cycle route study throughout the Province, including the GTHA (MTO)

Examples of outstanding Priority Actions and Supporting policies under Strategy #2 include:

- Establishing a region-wide bike registry to allow for region-wide reporting and searching of stolen bikes
- Development of regionally-coordinated best practices for integrated walking and cycling in road design
- Amendments to the Highway Traffic Act to clarify the relationship between motorists and cyclists
- Amendments to the Public Vehicles Act and Highway Traffic Act so that transit vehicles do not require special permits to install bike racks

Big Move #4: *Complete walking and cycling networks with bike-sharing programs*

Building on the extensive work leading up to The Big Move, additional active transportation connections have been added to the network. Within the past few years, over 15 pedestrian, cycling, or other active transportation crossings have been built over 400-series highways, rivers, and rail lines. Over 300 km of bike lane facilities have been implemented*. A bike-sharing program has opened in one municipality, and four other municipalities are exploring the feasibility of a bike-sharing program within the short- to medium-term.

Strategy #3: Improve the Efficiency of the Road and Highway Network

There is work underway towards all Priority Actions and Supporting Policies under Strategy #3.

Road and highway trips currently make up the majority of trips within and across the GTHA. The road and highway network plays a crucial role in the movement of freight and options for across the GTHA.

An efficient road network is a key component of the integrated, multi-modal transportation system envisioned by The Big Move. Strategy #3 focuses on optimizing the capacity of the existing road and highway infrastructure and providing additional capacity and linkages.

Since 2008, actions to improve the efficiency of the road and highway network include:

- Implementation of seven new carpool facilities, and ongoing planning and construction of an additional seven (Ontario Ministry of Transportation)
- Implementation of High Occupancy Vehicle (HOV) lanes on 400-series highways, with over 16 km of new HOV lanes implemented on the QEW in 2010 (Ontario Ministry of Transportation)
- Priority parking for carpool users at several GO Transit rail stations
- Piloting road capacity enhancement projects, such as reversible lanes for transit (York Region) and bus bypass lanes (City of Toronto)

Progress on improving and expanding the regional highway network including:

- Highway 410 extension from Bovaird Drive to Highway 10 (opened in November 2009)
- Highway 404 extension from Green Lane to Ravenshoe Road (under construction, expected to be completed in Summer 2014)
- Highway 407 from Brock Road to Highway 35/115 (phase 1 construction started in late 2012, phase 2 expected in 2020)
- Highway 427 from Highway 407 to Highway 7 (Environmental Assessment approved in November 2010)
- GTA West (Environmental Assessment underway)
- Niagara-GTA (Environmental Assessment underway)

There has been work undertaken to support Strategy #3 and help manage congestion, such as the Traveler Information Services Framework (see Strategy #5 for more information on the Traveler Information Services Strategy).

Further work is needed to more fully advance some actions under Strategy #3 including:

- Eliminating legal and liability barriers to ride-sharing
- Amending the Ontario Public Vehicles Act to allow third-parties, such as non-government organizations, to provide vanpools
- Developing an Intelligent Transportation Strategy

Strategy #4 Create an Ambitious Transportation Demand Management Program

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #4.

Transportation Demand Management, or TDM, is about using existing transportation infrastructure and services efficiently and sustainably. TDM policies and strategies aim to support different commute choices, such as carpooling, walking and cycling, and transit, and to provide reasonable alternatives for commuting. As TDM can shift travel choices, and complements transit and active transportation initiatives, it is a key component of The Big Move.

Strategy #4 includes policies, strategies, guidelines, and tools that support several goals in The Big Move, including transportation choice, reduced emissions, and active and healthy lifestyles.

Building on work that was in progress prior to The Big Move, progress on TDM includes:

- Across the GTHA, there are 13 SmartCommute offices delivering TDM programs to over 300 employers and 670,000 employees
- The Active and Safe Routes to School pilot project in 25 elementary schools across Halton Region
- Implementation of TDM plans for staff at over 15 universities, hospitals, and provincial agencies, as well as over 200 private sector employers
- School Transportation Plans piloted at selected schools in York Region and Durham Region, providing a toolbox of options to mitigate traffic issues and encourage sustainable transportation
- The Canadian School Travel Planning framework and toolkit piloted in schools in York Region, Durham Region, Peel Region, the City of Toronto, and the City of Hamilton

Outstanding Priority Actions under Strategy #4 include:

- Establishing guidelines to help municipalities develop and implement TDM policies
- Regulations to encourage employers to offer employees a choice between car parking (if currently provided free) and a cash equivalent

Strategy #5: Create a Customer-First Transportation System

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #5.

A customer-first transportation system provides easily accessible information about travel options, transportation conditions, and route planning.

Priority Actions in Strategy #5 focus on provision of information at major transit stations and online, including real-time travel information for both the transit and road networks. The strategy also addresses customer service standards.

The Regional Transit Traveler Information Services Strategy, led by the MTO and Metrolinx, will include a trip planner, real-time next departure information, real-time service alerts, and schedule information. Development of the strategy includes a consolidated database of travel information, allowing a third party development of smartphone apps so that easy-to-use, real-time travel information will be accessible by smartphone, tablet, and online.

Big Move #5:
An information system for travelers, where and when they need it

A Regional Transit Traveler Information Services Strategy is being developed to consolidate real-time travel information and facilitate development of a 'one-stop shop' website and smartphone app, providing travelers with real-time information on travel times, trip planning, and departures.

Other progress under Strategy #5 includes:

- Customer Information Representatives in York Region, providing trip information to customers
- Real-time transit information on existing and planned rapid transit stations, such as Brampton Transit Züm, York Region Transit/Viva, Durham Region Transit (DRT) Pulse, and Toronto Transit Commission subway stations
- Through a collaborative effort between Metrolinx and Ryerson, the GO Mobile application was developed for GO customers to view schedules, see Union Station departure information, and set arrival alerts

Outstanding actions under Strategy #5 include:

- Creating a regional transportation information portal that provides standardized information on transportation alternatives, optimal routings, and comprehensive status updates for the transportation network
- Establishing region-wide standards and public reporting requirements for all transit services in the GTHA
- Fully phasing out restrictions that prevent transit agencies from picking up passengers while passing through neighbouring jurisdictions.

Strategy #6: Implement an Integrated Transit Fare System

All Priority Actions and Supporting Policies for Strategy #6 have work underway.

There are 10 transit agencies in the GTHA, and each has a different fare structure. This means travelers crossing the region have had to pay multiple fares for a single trip. An integrated transit fare system enables travellers to cross municipal boundaries or transfer between transit modes or operators without fare duplication.

The PRESTO fare card system was launched in May 2010. All transit systems in the GTHA currently participate in the PRESTO program, with some stations and transit vehicles outstanding. In Toronto, for example, substantial installation of PRESTO is anticipated on the Toronto Transit Commission (TTC) system by 2015, and fully implemented by 2017.

Transit agencies have been working to provide a better transit experience for passengers through integration of fare structures, co-fare arrangements, and transit pass subsidies. Depending on the transit system, the customer pays a flat fare, fare by distance, or zone fare.

Other recent progress in implementing Strategy #6 includes:

- Expansion of GO Transit co-fare arrangements to include GO Transit bus to local connections outside of GO Rail Stations
- Pilot study to expand the U-Pass program to Summer students and part-time students at the University of Toronto-Mississauga
- Progressing the introduction of a U-Pass Program at Sheridan College
- Continuation of U-Pass programs at Durham College, UOIT, Trent University (Oshawa), McMaster University, Columbia International College, Mohawk College, and Redeemer University/College, and University of Toronto-Mississauga

Big Move #6:
A region-wide integrated transit fare system

PRESTO is a new way to pay transit fares across the GTHA.

It is currently fully accepted on six transit systems. All GO Bus Routes and all GO Rail Stations within the GTHA accept PRESTO for payment, as do 12 stations on the Toronto Transit Commission system.

Full implementation of the PRESTO program is anticipated by 2017. PRESTO is a division of Metrolinx.

Additional work to fully implement some actions under Strategy #6 include:

- Expansion of the U-Pass program to more university and college campuses
- Amendments to tax rules so that employer-provided or employer-subsidized transit passes are tax-exempt
- Partnerships with financial institutions, local businesses, tourism destinations, and public sector agencies to expand the scope of the PRESTO fare card

Strategy #7: Build Communities that are Pedestrian, Cycling and Transit-Supportive

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #7.

The land use in our communities and neighbourhoods plays a significant role in how we choose to travel. Research continues to show that when we live in higher density neighbourhoods with a variety of stores and services nearby, we are much more likely to walk, bike and use transit.

Providing realistic transportation choices such as walking, cycling, and transit relies critically on efficient and sustainable land uses. Building on the province's Growth Plan for the Greater Golden Horseshoe, The Big Move envisions a system of interconnected mobility hubs across the GTHA to strengthen the link between transportation and land use planning. Actions in Strategy #7 relate to policies, programs, guidance documents, and tools to cultivate mobility hubs and land uses that support transit and active transportation.

Big Move #7:
A system of connected mobility hubs

There are 51 designated mobility hubs across the GTHA. Eight mobility hubs met mobility hub criteria prior to development of The Big Move. Mobility hub studies, station master plans, functional designs, and other site planning have already started for additional locations.

Development of a system of interconnected mobility hubs takes time. In many of the areas designated as mobility hubs, multiple land owners are involved; property redevelopment is needed; community and transit infrastructure needs to be built; and transit services need to be enhanced. Over the short-term, guidelines, studies, policies, and plans can be achieved to prepare for future development and investment.

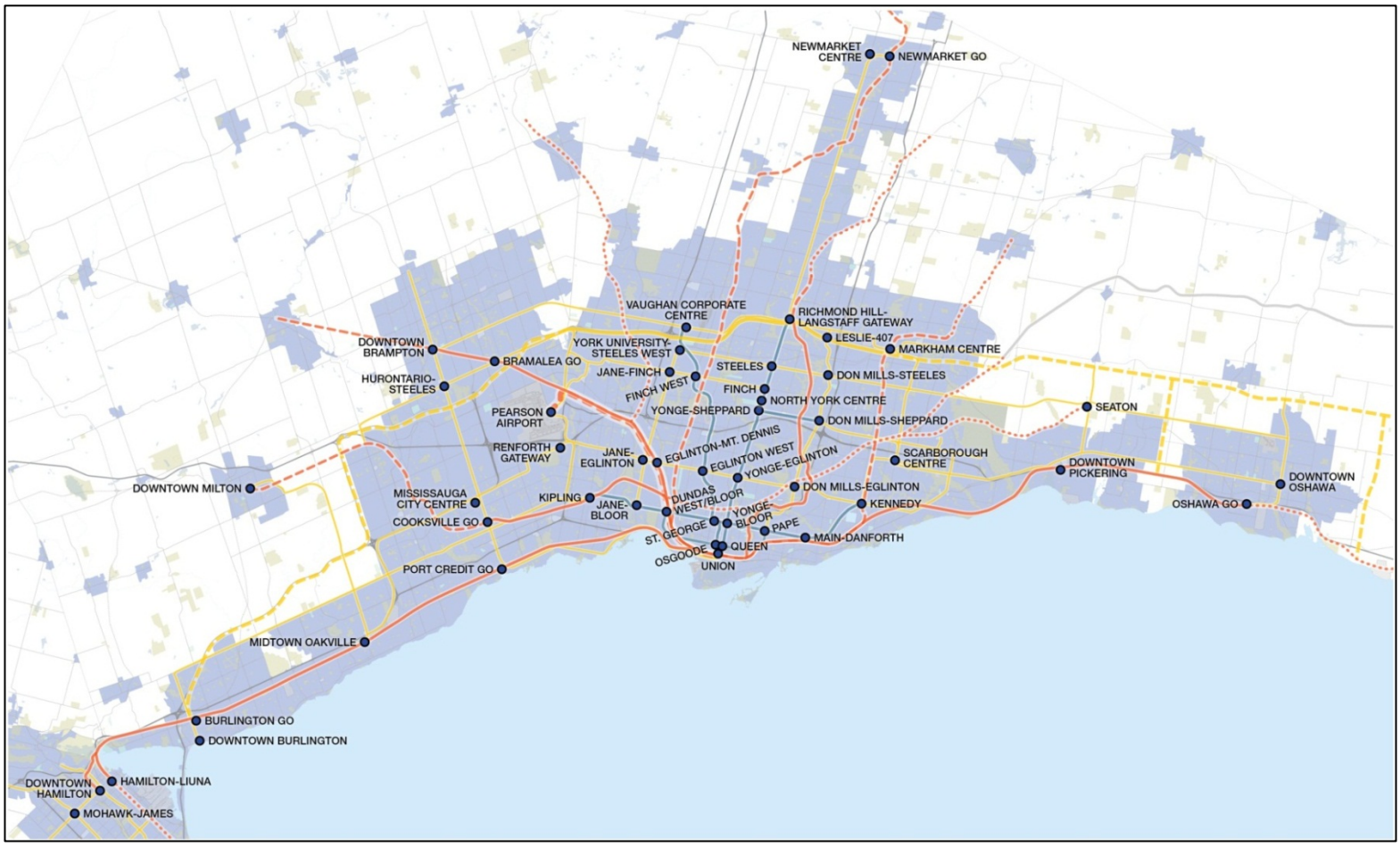
Progress on implementing Strategy #7 includes:

- Adoption of Mobility Hub Guidelines by the Metrolinx Board of Directors
- Adoption of the GO Transit Rail Parking and Station Access Strategy by the Metrolinx Board of Directors
- Updates to the Province's Transit Supportive Land Use Guidelines
- Publication of Mobility Hub Profiles
- *A Report on Metrolinx Land Use Planning Authority at Mobility Hubs and GO Stations* submitted to the Metrolinx Board of Directors in November 2011
- Workshops in Hamilton on site design of schools to support active transportation
- Incorporation of mobility hubs into Official Plans and Transportation Master Plans
- Financing options for mobility hub development are in place or being considered in Hamilton and York Region
- Development of a Comprehensive Parking Strategy in Mississauga
- Nodes, centres, and major transit station area policy studies in Hamilton and York Region
- Avenue and corridor design studies in Halton Region, Hamilton, Pickering, and Toronto
- Intensification studies in Oakville and Richmond Hill

- Mobility hub studies or master plans in Brampton, Hamilton, Bronte, Clarkson, Markham, Mississauga, Newmarket, Oakville, Oshawa, Pickering, Richmond Hill, Toronto, and Vaughan

Outstanding actions for Strategy #7 include:

- Development of a financial program to facilitate mobility hub capital improvements
- Ensuring new residential, commercial and employment developments are within walking distance of a transit stop with frequent service through updates to zoning by-laws and standards
- Updates to municipal parking and zoning by-laws may be further supported by the introduction of a business parking levy on off-street, on-residential parking spaces, as recommended in the Investment Strategy



Mobility Hubs in the Greater Toronto and Hamilton Area

Strategy #8: Plan for Universal Access

All Priority Actions and Supporting Policies for Strategy #8 have work underway.

Work is well underway to implement Strategy #8, with half of the Priority Actions complete, including creating a regional body to advise Metrolinx on matters related to universal access, and development of both region-wide and local implementation strategies for universal access.

An Accessibility Advisory Committee (AAC) was established in February 2009 to advise Metrolinx on universal access, related to the *Accessibility for Ontarians with Disabilities Act, 2005* (AODA). The AAC is comprised of consumers and providers of specialized transit services, and individuals with expertise related to accessible transportation from across the region.

Actions completed under Strategy #8 include:

- A regional Cross-Boundary Study to examine the issues and challenges of addressing cross-boundary transit services, particularly related to universal access
- At the provincial level, the Accessibility Standard for Transportation came into effect in July 2011 for transit providers

Initial work is underway for Strategy #8 including:

- Developing a region-wide accessibility strategy
- Accelerating AODA compliance in transit facilities
- Standardizing eligibility criteria for specialized transit services
- Coordinating trip requests through a “one-window” service
- Expanding traveler education programs for those who are unsure about using accessible conventional transit services
- Coordination of services with transportation providers in the health care sector
- Establishment of a GTHA voucher program for areas where specialized transit service is inadequate

Strategy #9: Improve Goods Movement within the GTHA and with Adjacent Regions

All of the Priority Actions for Strategy #9 are in progress.

The ability to move goods to, from, and through the region is critical to our ability to compete in a global economy. Currently, the majority of freight movements within and across the GTHA are by truck.

The Big Move specifically identified the need for a multi-pronged approach and strong partnerships with stakeholders in the goods movement industry to improve the efficiency of freight movement and to reduce the greenhouse gas emissions arising from goods movement in the GTHA.

In 2010, Metrolinx undertook a comprehensive urban freight study to inform policy development and provide strategic direction for increasing the capacity and efficiency of freight movement within the GTHA.

Big Move #8:
A comprehensive strategy for goods movement

The GTHA Urban Freight Study was presented and approved by the Metrolinx Board of Directors in February 2011 following two roundtables convening industry stakeholders, associations and governing agencies.

The GTHA Urban Freight Study sets out strategic directions and possible actions to improve goods movement. In 2013, The Big Move was updated to reflect Metrolinx's adoption of the GTHA Urban Freight Study and its strategic directions.

Progress under Strategy #9 includes:

- Establishment of a GTHA Urban Freight Forum (UFF) to support the implementation of the Strategy, and establishing the Intergovernmental Sub-Committee to support the UFF
- A two-year project through the University of Toronto to address the need for coordinated Urban Goods Movement (UGM) data collection and data management to support policy and planning (Metrolinx)
- Sponsorship of a Transportation Association of Canada (TAC) study to understand the potential for truck-only lanes in urban areas (Metrolinx)
- Development of Freight Supportive Guidelines (MTO) to assist engineers, planners and other stakeholders with goods movement related land use, traffic and design issues
- Peel Region has a Goods Movement Task Force focused on efficient movement of goods and is an ongoing initiative

Strategy #10 Commit to Continuous Improvement

A majority of the Priority Actions and Supporting Policies have work started under Strategy #10.

Incorporating current research and best practices that respond to changes in the region is important to keep The Big Move relevant across the GTHA.

Strategy #10 focuses on research, coordination of data, prioritization methodologies, and working with other delivery partners to align common objectives, and nurture development of new and innovative transportation solutions.

Progress to date includes:

- Establishing the Transportation Modelling Group (TMG) (University of Toronto) to bring together modelling staff from across the GTHA to discuss and resolve shared issues
- Identifying common approaches to transportation issues with TransLink (Vancouver) and Agence Métropolitaine de Transport (Montréal), including linking regional to national transportation benefits

Outstanding actions include:

- Establishing a Centre of Excellence for Transportation in the GTHA to foster research and innovation in transportation
- Developing a long-range land protection and/or acquisition strategy to accommodate future transportation needs

Implementing The Big Move

When fully implemented, The Big Move is targeted to:

- Reduce the average distance each person travels by car each day from 26 kilometres to 19 kilometres;
- Reduce the percentage of people travelling by car from 70 percent to 50 percent, shifting their choices to transit and other modes;
- Increase the percentage of people who live within two kilometres of rapid transit from 42 percent to 81percent;
- Increase the percentage of people who use transit during the morning rush hour from 16.5 percent to 26.3 percent;
- Grow the total length of rapid transit services in the GTHA from 500 kilometres to 1,725 kilometres;
- Increase annual transit ridership from 546 million to 1.27 billion; and
- Reduce per person greenhouse gas emissions from passenger transportation by almost one-third.

The Big Move identified a broad-level implementation plan. Metrolinx is moving ahead on early stages such as the Benefits Case Analyses and a framework for transit project prioritization, and are working on strategies and goals that take a longer period of time to

complete. Achieving some of The Big Move Strategies, such as Commit to Continuous Improvement (Strategy Ten), will be ongoing over several decades.

Major considerations for continuing progress towards implementing the vision of The Big Move include:

- Implementation of an Investment Strategy. The Investment Strategy proposes 24 recommendations that not only impact how we generate revenue, but how we invest most effectively, touching on many of the Priority Actions of The Big Move. The recommendations are not just about revenue generation, they change the way we approach a range of policy areas that are key to progress. Metrolinx has delivered an Investment Strategy on May 27, 2013.

- Transportation Planning Policy Statement. A key tool to help bring about better alignment between land use and transportation is the development of a Transportation Planning Policy Statement, as described in the *Metrolinx Act*. A policy statement would support increased integration by ensuring municipal planning decisions are consistent with The Big Move, requiring that municipalities and Metrolinx work together to develop transportation master plans, and providing for effective planning for existing and future transportation corridors. The development of a Transportation Planning Policy Statement by the Minister of Transportation is a recommendation of the Investment Strategy.

Big Move #9:
An Investment Strategy to provide immediate, stable, and predictable funding.

Metrolinx has developed an Investment Strategy, outlining its proposals for investment tools to support the implementation of The Big Move.

- A key role for the federal government in delivering the plan. There is ongoing work with local, provincial and federal partners to advance transportation infrastructure needs. Recommendation 8 in the Investment Strategy specifies that the federal government be requested to increase its commitment to implementing The Big Move. Particular consideration should be given to the adoption of a National Transit Strategy that would see the federal government contribute up to one-third of the capital costs of Next Wave transit and transportation infrastructure.

A Range of Initiatives Around the Region

A priority action 4.1 Stepping It Up is a pilot project in select elementary schools to identify issues and solutions for encouraging active and sustainable travel. By December 2011, 30 schools participated in the pilot program. The program is led by Metrolinx, in partnership with the Region of Peel, City of Hamilton, Green Communities Canada, and the University of Toronto, with support from Transport Canada's ecoMOBILITY program.

B priority action 8.2 The City of Hamilton is planning revised eligibility criteria to support an increase in specialized transit service levels. The City has also expanded the number of cross-boundary transfer points for specialized transit services at GO Transit and VIA Rail facilities beyond the Hamilton boundary.

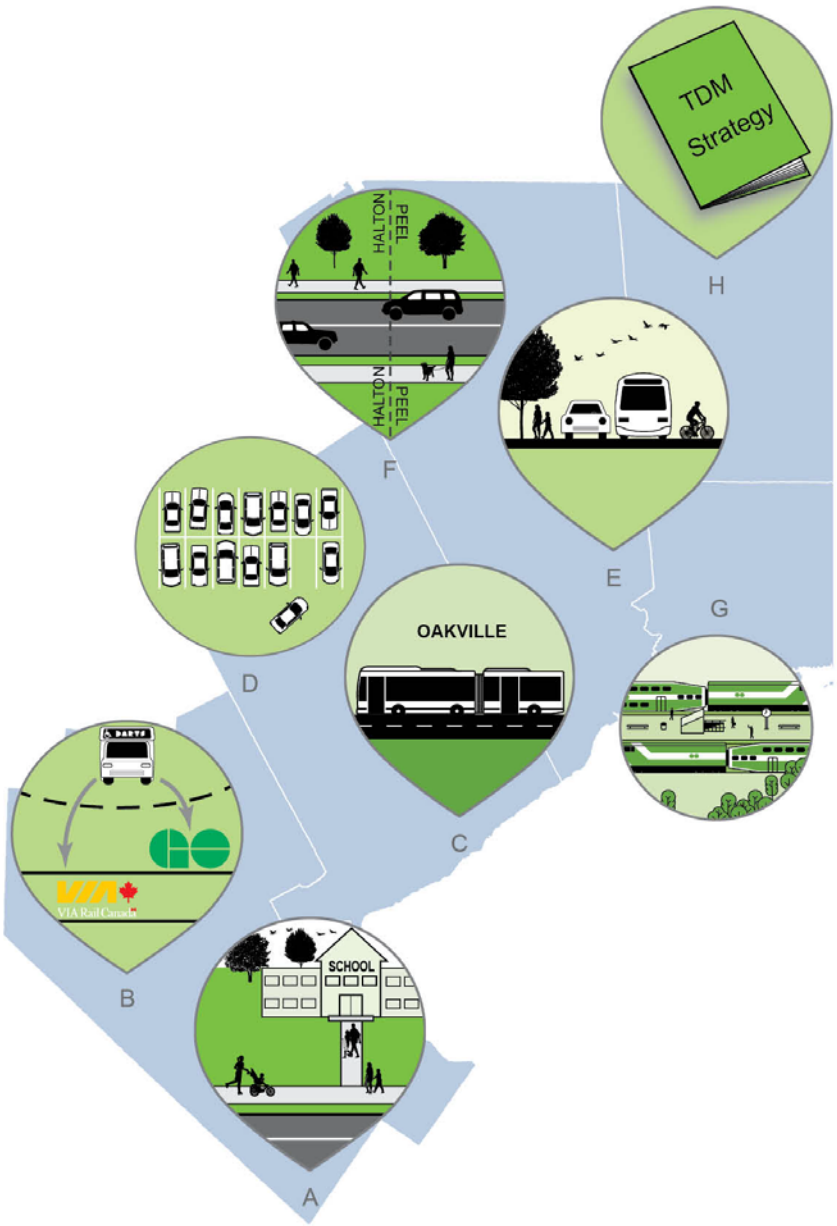
C priority action 7.7 The Town of Oakville transformed its radial transit network to a grid network, supporting efficient land use development and providing passengers with more direct travel routes.

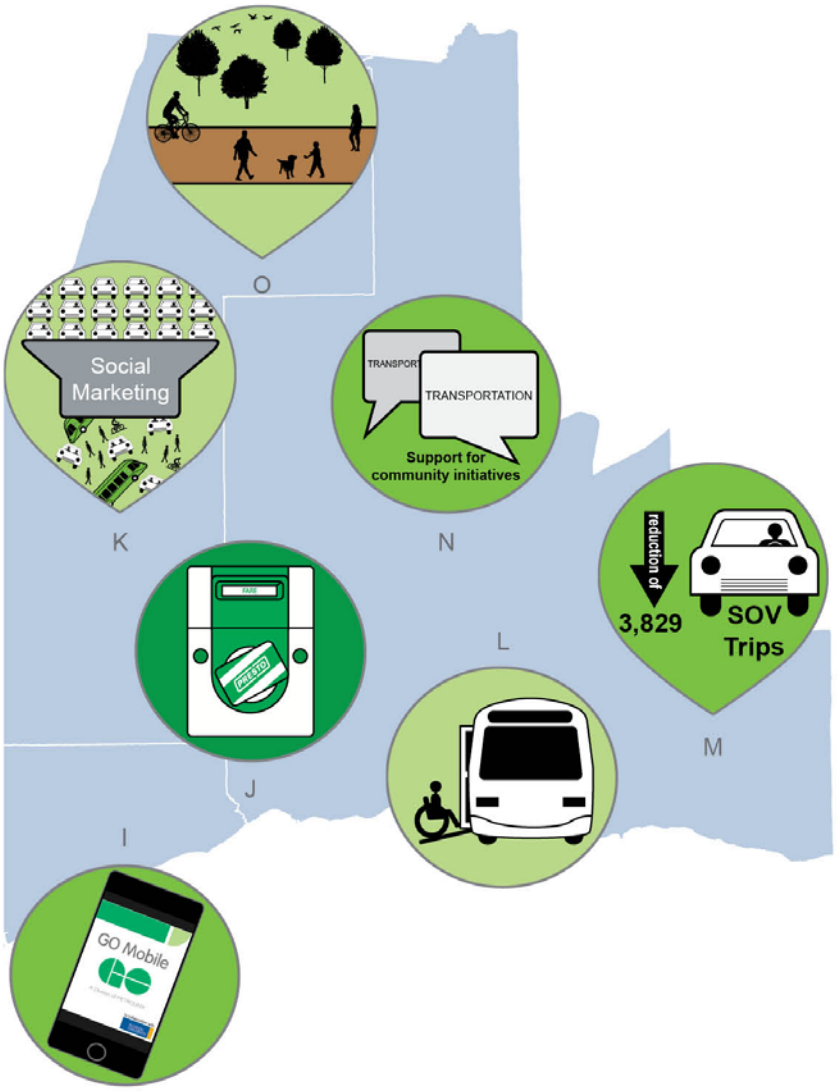
D priority action 3.7 Over 3,000 carpool spaces in 25 carpool lots are available on major highways and interchanges throughout the GTHA. The carpool facilities are free and no registration or permit is required.

E priority action 10.7 The City of Mississauga is developing Multi-Modal Road Design Guidelines, setting out best practices in the design of roads and streets to ensure that sustainable modes of transportation are accommodated and supported appropriately.

F priority action 5.2 The Halton-Peel Boundary Area Transportation Study (HP-BATS) identifies a long-term transportation network to support provincial and inter-municipal planning goals. By identifying opportunities to optimize the existing road network, the study also identified the connections and improvements needed to support municipal planning objectives. The study was completed in 2010.

G priority action 4.1 GO Transit reports on customer service every month, and surveys customer satisfaction each quarter, covering issues such as crowding, safety, cleanliness, on-time performance, and reliability of service.





York Region has developed a TDM Strategy to identify the components that should inform a Region wide TDM program. It identifies key short, medium, and long term steps and coordination required to achieve the TDM objectives. H priority action 4.1

Funded by the MTO and Metrolinx, Ryerson University developed the GO Mobile app, which provides real-time travel information for the GO Rail and Bus networks. The app is available for iPhone, Blackberry, and Android smartphones. I priority action 5.5

Over 550,000 PRESTO fare cards have been issued across the GTHA. The program was first launched in May 2010. J priority action 6.1

York Region carried out a pilot project in social marketing. Directed at over 400 households in two communities, the campaign, directly resulted in reduced Single Occupant Vehicle trips. K priority action 5.8

In 2010, 91% of all transit vehicles in the GTHA were accessible to people with mobility difficulties. That represents a significant increase up from just 31% of all transit vehicles 2002. L priority action 8.2

Through Durham Region Transit's TDM program for its staff, the agency achieved reductions of:
- 3,829 single occupant vehicle trips;
- $74,171 in costs for commuters;
- 120,066 vehicle kilometres traveled; and
- 26 metric tonnes of greenhouse gas emissions.

M priority action 4.1

The Metrolinx Partnerships Program provides funding for initiatives that advance our strategic priorities, and foster dialogue about transportation issues in the GTHA. N priority action 10.5

The Nokiidaa Trail/Tom Taylor Trail, connecting Aurora to Holland Landing, was completed in 2011. This project was funded through York Region's Pedestrian and Cycling Municipal Partnership Program. O priority action 2.1

Closing Remarks

Implementation of The Big Move has begun, with work underway to fulfill many of the Priority Actions. Many challenges and opportunities lie ahead. By periodically taking stock of what has been achieved – and where we need to focus efforts going forward –the GTHA will be in position to effectively deliver on the goals and vision of The Big Move.

The Big Move is Underway

The GTHA continues to grow and evolve. The population grew by almost 9% between 2006 and 2011, with increasing growth in suburban areas. As both transit fares and vehicle ownership becomes increasingly expensive, the cost of getting around the region is going up. These regional trends, and others, are important to understand the context in which The Big Move is being implemented, to more fully understand the challenges and successes.

In the five years since The Big Move was approved, great strides have been made across all ten strategies to implement the Priority Actions and Supporting Policies. This has been the result of a collective effort from partners across the region, and demonstrates momentum behind the implementation of The Big Move.

Initial Steps

There are a number of policy areas where work has been significantly advanced. This is most visible in the construction of the regional rapid transit network, where $16 billion has been invested to launch the first projects, many of which are now under construction. To facilitate cost-effective procurement, Metrolinx initiated the Transit Procurement Initiative (TPI) to coordinate the standardization and' bulk' purchasing of transit vehicles across the province. To date, TPI has saved an estimated $5 million among transit agencies in Ontario. With investment from the Government of Canada, Government of Ontario, and the City of Toronto, Union station – the heart of the GTHA's transportation system – is being revitalized.

Continued progress has been made on better integrating different transit service providers and active transportation. Bike racks are a common fixture on the majority of local buses serving the GTHA, and individual municipalities are continuing to grow the active transportation networks. All transit agencies across the region are now active with PRESTO to provide a common fare payment system, and work is continuing to expand to full coverage for all networks by 2017.

In 2010, Metrolinx undertook a comprehensive urban freight study to inform policy development and provide strategic direction for increasing the capacity and efficiency of freight movement within the GTHA. The strategic directions resulting from the study have been incorporated into The Big Move, and Metrolinx and partners continue to advance work on urban freight and goods movement.

There has been much work to better integrate land use and transportation planning. A number of guidelines and plans have been developed and published, including Metrolinx's Mobility Hub Guidelines, GO Transit Rail Parking and Station Access Plan, and the Province's updated Transit Supportive Land Use Guidelines. These documents provide practical guidance and policies for the planning, design and implementation of major transit station areas and transit station areas guided by principles of transit-oriented development and growth management.

An important step in advancing implementation of The Big Move is the development and release of an Investment Strategy, in May 2013. The Investment Strategy is about more than raising revenues – it's about ways to support The Big Move to grow a more livable, prosperous and sustainable region using a variety of tools and instruments. The recommendations developed in the Investment Strategy support implementation by identifying how land use policies, operations of the transportation network, and other public investments must be aligned and in place to ensure that projects deliver the maximum benefits to the region as a whole.

Areas of Focus for the Future

There are a number of areas where continued work is important to maintain momentum on delivering The Big Move over the next few years.

There is a critical connection between tracking performance of The Big Move and facilitating informed decision-making. Through a long-term reporting process, the KPIs and relevant data sources should be reviewed regularly to fill identified gaps, and to collaborate with stakeholders to ensure that data collected is high quality, reliable, and granular. key performance indicators to ensure that the best available data and indicators are used in future progress reports.

Continuing to advance fare and service integration across the GTHA is an important part of delivering an integrated transportation system and making it as easy as possible for customers to navigate the overall transit system. Improved fare and service integration will enhance the transit customer experience, promote ridership growth, improve mobility across the region, and move people more seamlessly and efficiently by public transit.

Measurable improvement in the customer experience is an important way that the transit network can continue to keep customer service at its core. GO Transit, and more recently, the TTC have developed and implemented Passenger Charters, to outline their respective commitments towards improving the customer experience. Transit service providers should work together to share best practices on continuous improvement in customer service, and to develop common reporting mechanisms were appropriate.

While the First Wave rapid transit projects are being built, Metrolinx will continue to work with the Province, municipalities and other agencies on planning, designing, building and operating the Next Wave projects. The first phase of this work includes securing long term predictable funding through the recommendations of the Investment Strategy and further planning work to finalize the scope and phasing of each project.

A critical aspect of the implementation of The Big Move is the application of the Investment Strategy. Metrolinx delivered its Investment Strategy in May 2013,

recommending investment tools to be specifically dedicated to transit and transportation, as well as specific measures to build accountability and trust, an ongoing role for the federal government in supporting urban transportation systems, and means to ensure oversight of the collection, management and expenditure of the resources raised.

Metrolinx will continue its work transforming transportation across the region, including several projects already under construction. We will continue to work with our delivery partners to add to the baseline of information summarized in this Baseline Monitoring Report, and to refine the methods of measuring our progress to implement The Big Move as a region in a transparent and accountable way.

Appendix: Stakeholder Engagement

The Baseline Monitoring Report was established over a 2.5 year period with the input and advice of the following groups.

External multi-disciplinary Project Committee

Ralph Aprile	Durham College
Robert J. Armstrong	Armstrong Trade and Logistics Advisory Services
David Culham	former Mississauga City Councillor
Anne Golden	The Conference Board of Canada
Niall Haggart	The Daniels Corporation
Mitzie Hunter	Greater Toronto CivicAction Alliance
Chris Jovellanos	Transportation student at Ryerson University
Ed Levy	BA Consulting Group Ltd.
Andy Manahan	Residential and Civil Construction Alliance of Ontario
Braz Menezes	York Quay Neighbourhood Association
Rick Miner	Miner Management Consultants
Colette Murphy	Atkinson Foundation
Lee Parsons	Metrolinx Board of Directors / Malone Given Parsons
Pamela Robinson (Chair)	Planning, Ryerson University
Henry J.P Wiercinski (Vice-Chair)	Retired; formerly McCarthy Tetrault LLP Partner

Municipal Working Group

City of Barrie – Infrastructure, Development & Culture

City of Brampton – Works & Transportation; Planning, Design & Development

City of Burlington – Planning & Building

Region of Durham – Planning & Economic Development

Region of Halton – Planning; Transportation Services

City of Hamilton – Planning & Economic Development; Strategic Planning, Environment & Sustainability

Town of Markham – Development Services

Town of Milton – Planning & Development

City of Mississauga – Transportation; Planning & Building

Town of Newmarket – Legal & Development Services
Region of Niagara – Integrated Community Planning
Town of Oakville – Infrastructure & Transportation Services
City of Oshawa – Development Services
Region of Peel – Planning Policy & Research; Transportation
City of Pickering – Planning & Development
Town of Richmond Hill – Planning & Regulatory Services
City of Toronto – City Planning; Transportation Planning
City of Vaughan – Planning
Region of Waterloo – Transportation Planning
Region of York – Planning & Development Services; Transportation Services

External Transit Agency Working Group

Brampton Transit
Burlington Transit
Durham Region Transit
Hamilton Street Railway
Milton Transit
Mississauga Transit
Oakville Transit
Toronto Transit Commission
York Region Transit

Provincial Working Group

Ministry of Infrastructure – Growth Policy & Planning
Ministry of Municipal Affairs and Housing – Provincial Planning Policy Branch
Ministry of Transportation – Transit Policy Branch; Transportation Planning; Transportation Policy Branch

Peer Review Panel

Pierre Filion	University of Waterloo School of Planning
Eric Miller	University of Toronto Cities Centre
Michael Roschlau	Canadian Urban Transit Association

[i] Expenditure-based Gross Domestic Product for Canada, Statistics Canada 2011

[ii] Between 2001 and 2006. Source: Statistics Canada (analysis based on 26 lower-tier or single-tier municipalities (census subdivisions). <http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/92-596/P1-1.cfm?Lang=eng&T=CSD&TID=0>

[iii] Between 2001 and 2006, the proportion of individuals in low-income households increased on average by 1.2% . The analysis included all census subdivisions in the GTHA. It should be noted that there was some variation to this trend. Hamilton and East Gwillimbury, for example, saw a reduction in the proportion of individuals in low-income households. Source: Statistics Canada (analysis based on 26 lower-tier or single-tier municipalities (census subdivisions). <http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/92-596/P1-1.cfm?Lang=eng&T=CSD&TID=0>

[iv] According to the most recent reports available as of May 2012. The Toronto Port Authority Annual Reports are available online at:< http://www.torontoport.com/About-TPA/Media-Room/Publications.aspx>

[v] Statistics Canada

[vi] Statistics Canada Census Trends

[vii] Transportation Tomorrow Survey

[viii] Statistics Canada, Consumer Price Index

[ix] http://www.ibc.ca/en/Media_Centre/News_Releases/2013/Preliminary_insured_losses_released_in_the_most_expensive_natural_disaster_in_Ontario_history.asp. Retrieved on August 15, 2013

THE BIG MOVE BASELINE MONITORING REPORT

APPENDIX A: MONITORING HANDBOOK

September 2013

Updated July 2014

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Introduction

This Monitoring Handbook accompanies The Big Move Baseline Monitoring Report, providing the historical baseline for Key Performance Indicators (KPIs), and outlining a framework for on-going monitoring of the goals of The Big Move.

Purpose of this Appendix

For the monitoring of progress to be meaningful, it is important that the process is transparent, accountable, and replicable. The purpose of the Monitoring Handbook is to document the development of the KPIs which make up a monitoring framework for the goals of The Big Move. The Monitoring Handbook provides information on data sources, as well as detail on issues, challenges and assumptions associated with the use of this data.

At the request of stakeholders, the Monitoring Handbook provides data that has been disaggregated by geography, where possible.

The Monitoring Handbook is intended for:

- Metrolinx staff, consultants, and stakeholders for the preparation of the future progress reports;
- Municipalities, transit agencies, provincial ministries, and others who are interested in a detailed breakdown of the data and an explanation of the methods; and
- Practitioners in other jurisdictions who may be looking to adopt a similar monitoring framework.

Developing Key Performance Indicators

The use of KPIs is a best practice in many organizations to gauge progress and success. For a long-range planning document, such as The Big Move, it is an important part of the implementation process, to ensure that the actions and work undertaken are moving us closer to achieving the goals, and to provide information about whether course corrections are required.

A set of KPIs was developed to align to the goals of The Big Move and desired outcomes with currently available data. These KPIs do not cover all of the aspects which could be used to measure and benchmark our progress, but have most data available at this time. They comprise a framework for which progress on achieving the goals can be measured over the long-term.

The KPIs answer significant questions about the region by tracking progress on a number of important environmental, social and economic fronts. The purpose is to provide valuable information about how the region is evolving over time to meet the goals of The Big Move.

This approach recognizes that economic, social and environmental matters are intimately connected. Addressing transportation, for instance, must include other issues, such as transportation choices, air quality, and accessibility.

Connecting Goals to Key Performance Indicators

The Big Move identifies a series of goals to achieve the vision of an integrated transportation system that supports our quality of life, our environment, and our prosperity.

The goals of The Big Move are:

- Transportation Choices
- Comfort and Convenience
- Active & Healthy Lifestyle
- Safe and Secure Mobility
- Fairness and Transparency
- Reduced Emissions
- Reduced Dependency on Non-Renewables
- Attractive and Well Planned Region
- Prosperity and Competitiveness
- Multi-Modal Integration
- Inter-connectedness
- Efficiency and Effectiveness
- Fiscal Sustainability

The goals are broad, multi-dimensional and complex, and there are multiple indicators that provide insight into different aspects for each goal. As a result, each KPI relates to more than one goal of The Big Move.

Challenges of developing Key Performance Indicators

- For some goals, there is either insufficient data or no viable data collection method currently exists. Some KPIs, for which no data is available or further work is required for development, have been set aside for future development.

- Many of the goals in The Big Move are comprehensive and multi-faceted, and it can be challenging to capture the goal in a single indicator.

- Data collection varies across different years and geographies and for some KPIs, there have been changes in how data was collected

- Many KPIs rely on data from Statistics Canada and the Transportation Tomorrow Survey, both of which collect data on 5-year cycles, releasing it typically 1 to 2 years after the survey. Different reporting cycles and release times for data means that one indicator may have data available from many previous years, while others may only have data from the last five.

- A few of the goals of The Big Move are related to improving the subjective experience of the user. One customer's interpretation of examples like transportation choice, or comfort and convenience, may be quite different from another.

Stakeholder Input

The development of the Baseline Monitoring Report and KPIs included extensive stakeholder input. A variety of external stakeholder groups met quarterly throughout the process to review material and provide feedback and data:

- A multi-stakeholder project committee, comprised of representatives from GTHA community and business organizations;
- A Municipal Working Group, comprised of director-level and senior representatives from GTHA municipal planning departments;
- A Transit Agency Working Group, comprised of director-level or senior representatives from GTHA transit agencies;
- A Provincial stakeholder group, comprised of representatives from the Ontario Growth Secretariat, the Ministry of Transportation, and the Ministry of Municipal Affairs and Housing.

In addition, the KPIs were peer reviewed by a panel of experts in transit and academia. The panel, consisting of Eric Miller (University of Toronto), Michael Roschlau (Canadian Urban Transit Association), and Pierre Filion (University of Waterloo) provided additional input on the methodology and data collection of the KPIs.

Historical Baseline of Key Performance Indicators

One of the measures of success of The Big Move is to gauge whether we have achieved its goals. The KPIs make up a framework for which progress on achieving the goals can be measured over the long-term. The KPIs are grouped under questions that help frame related KPIs and provide a common thread to connect them to the goals of The Big Move.

To measure whether we are achieving the goals of The Big Move, we must also understand what the trend for each KPI was leading up the implementation of The Big Move. This section provides a historical baseline (1986 to 2006) to provide information about each KPI as it pertains to the GTHA along with more recent data from after the introduction of The Big Move.

How are we moving around the Greater Toronto and Hamilton Area?

Over the past two decades, there has been a slight rise in the proportion of trips taken by automobile, transit trips have declined on a per capita basis, and commuter transit ridership has never been higher. There are distinct, geographic differences in the way we travel, which are largely correlated with the availability of rapid transit networks. Additionally, a recent survey commissioned by Smart Commute has shown that, in general, people are becoming less satisfied with their commute, regardless of mode.

About this indicator group: This indictor group is a fundamental component of monitoring progress. It reveals how people reach their destinations, and whether options for reaching those destinations are improving. This group is comprised of two KPIs:

Mode of transportation

- Transportation mode share for all trips in the GTHA, 6:00 to 9:00 AM

Transit ridership

- Annual transit passenger trips (millions) in the GTHA and annual transit trips per capita in the GTHA

Goals in The Big Move addressed by this indicator group: Transportation choice, comfort, and convenience, active and healthy lifestyle, safe and secure mobility, reduced dependence on non-renewable resources, foundation of an attractive and well-planned region.

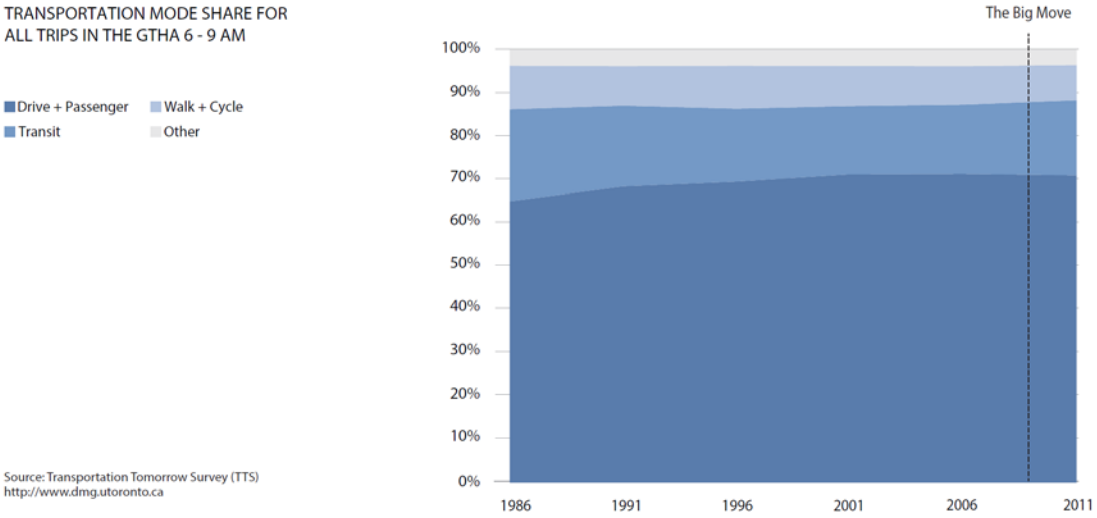
Why this indicator was selected: Data is available. Historical information is available for transportation mode share and transit ridership.

Limitations: The concepts of choice, comfort, convenience, safety, and security are subjective opinions, and may vary depending on how the question is framed.

Key Performance Indicator: Mode of Transportation

The goals of The Big Move include improving transportation choices, promoting active and healthy lifestyles, reducing our dependence on non-renewable resources, and contributing to an attractive and well-planned region. How we travel is an important factor in achieving these goals.

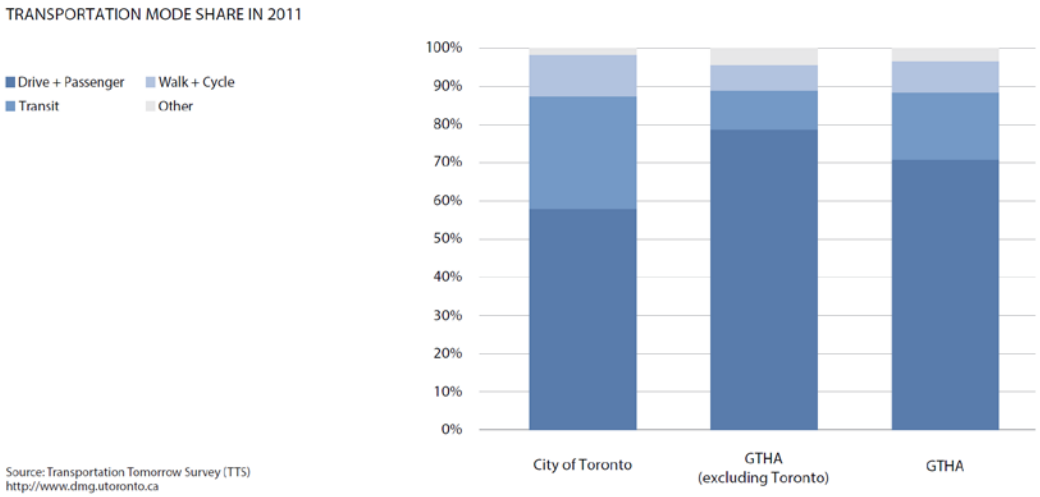
Figure 1: Transportation mode share for all trips in the GTHA (6:00 to 9:00 AM)



Over the past two decades, automobile-based trips constitute the majority of all trips in the GTHA. Auto-based trips have increased slightly over the past two decades while the share of transit trips has declined.

Automobiles have increasingly become the most convenient travel option. Making it more convenient for people to walk, cycle, or take transit creates a sustainable and efficient transportation system that can meet the travel needs of everyone, including children, seniors, and those with mobility difficulties.

Figure 2: Transportation mode share in 2011

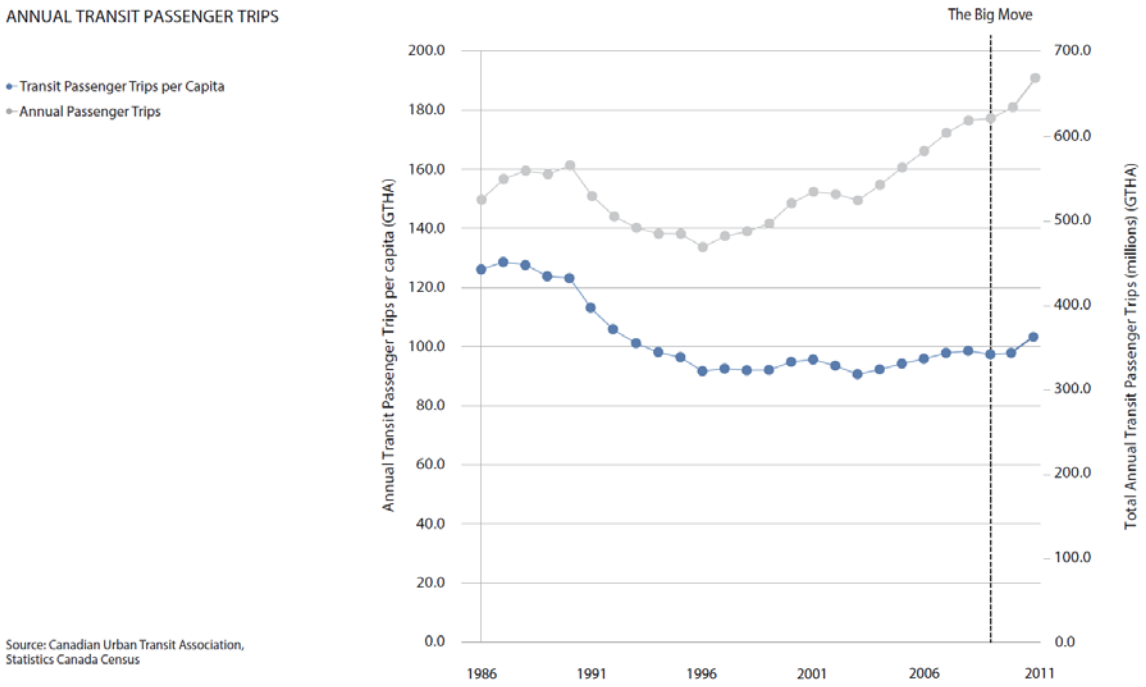


There are geographical differences in the way we travel. Walking, cycling, and taking transit are much more prevalent within Toronto than in areas outside of Toronto. This indicates that transportation choices are greater in Toronto. Outside Toronto, it appears that automobiles are the preferred modal choice. Differences in land use densities, levels of transit service, and other factors contribute to these geographical differences.

Key Performance Indicator: Transit Ridership

This indicator tells us how many people are using transit to meet their day-to-day needs. Transit ridership is tied to many goals in The Big Move: transportation choice, promoting active and healthy lifestyles, reducing our dependence on non-renewables, and planning an attractive region. This indicator looks at ridership on both local and regional transit services.

Figure 3: Annual transit passenger trips



Transit use was higher in the late 1980s than it is today. In the early 1990s, transit trips declined, likely due to a combination of service reductions, increasing fares, and the economic recession. Since the mid-1990s, there has been a steady trend of more people taking transit trips. Many transit agencies, such as GO Transit, are seeing record levels of ridership. Since 2004, transit agencies have improved services due to Provincial gas tax funding, and as a result, the number of transit trips has been going up.

At the same time, the regional population has been growing, and growth in transit ridership would be expected. On a per capita basis, however, there has not been a clear trend in increased transit use since the decline of the early 1990s. It suggests that the increase in transit usage is based on our increasing population, and does not indicate any shifts in travel behaviour with respect to transit use. Investments in the transit system take time to attract new riders and shift travel behaviour.

Another challenge exists in providing sufficient transit service to attract riders in suburban and lower density areas of the GTHA. The proportion of people living outside the urban core of Toronto has been increasing.

Providing reasonable alternatives to the automobile should lead to growth in the number of transit trips per capita. Since 2003, transit trips per capita have been slowly increasing, with a noticeable increase in 2011, but it is too early to tell if this is part of a long-term trend.

Transportation choice is partly related to personal subjective experience: how individuals perceive their transportation choices and how they feel about them.

Since 2005, the Metrolinx Smart Commute office has commissioned Ipsos to complete three independent commuter satisfaction surveys. Through the surveys, it found that most commuters are becoming less satisfied with their commute, with those walking and carpooling showing the steepest declines in satisfaction. The exception to this trend is commuter cyclists, although the small number of respondents (approximately 1,000) limits the statistical validity of the survey.

One of the themes of The Big Move is working with delivery partners to improve satisfaction among all users of the transportation network, and this is strengthened through the Investment Strategy recommendation to develop a common approach to reporting on performance. Future monitoring of this will provide information on whether this goal is being achieved.

Is there more choice in how we travel?

Despite an increase in the overall number of vehicle hours for public transit, transit vehicle hours per capita have declined slightly since the early 1990s. This indicates that transit service has not expanded to accommodate the growing population. Regional rapid transit projects that have recently opened or are currently under construction will increase the viability of transit as a choice for more residents.

About this Indicator Group: This indicator group focuses on whether transit services present an alternative to using an automobile.

Transit service

- transit service per capita

Length of regional rapid transit

Goals in The Big Move addressed by this indicator group: Transportation choice, comfort, and convenience, active and healthy lifestyle, safe and secure mobility, reduced emissions, reduced dependence on non-renewable resources, prosperity, and competitiveness

Why these KPIs were selected: Data is available on an annual basis. Historical baseline data is available.

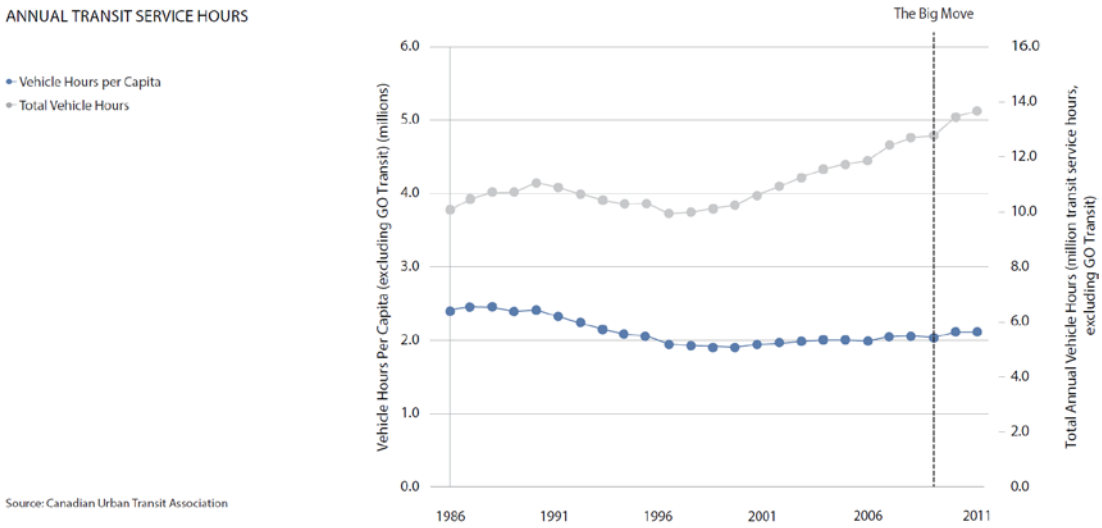
Limitations: Ideally, it would be useful to understand the extent to which other modes, such as walking and cycling, are provided. Whether walking and cycling are realistic transportation choices, however, is more complex than the provision of sidewalks and bicycle lanes. Other factors, such as land use planning, perception of safety and security, attractiveness of streetscapes and urban environments, and travel time and travel distance, factor into the choice.

Key Performance Indicator: Transit Service per Capita

Growing the transit network is about more than just meeting the demand created by population growth; it is about improving the availability of transit service and improving transportation choices. Improvements may include better journey-time reliability, comfort, travel information, actual and perceived safety and security, and the availability of Wi-Fi, for example.

This KPI considers the improvement of transportation choice through the introduction of new routes or through improvements to service on existing routes.

Figure 4: Annual vehicle hours travelled per capita



The amount of transit service provided declined in the early 1990s, likely due to the economic recession and the lack of provincial operating funding (in the later 1990s and early 2000s).

Since the mid-1990s, there has been a steady increase for transit service provided. In 2011, the year for which the most recent information is available, the number of transit service hours across the region was the highest it had been in over 20 years.

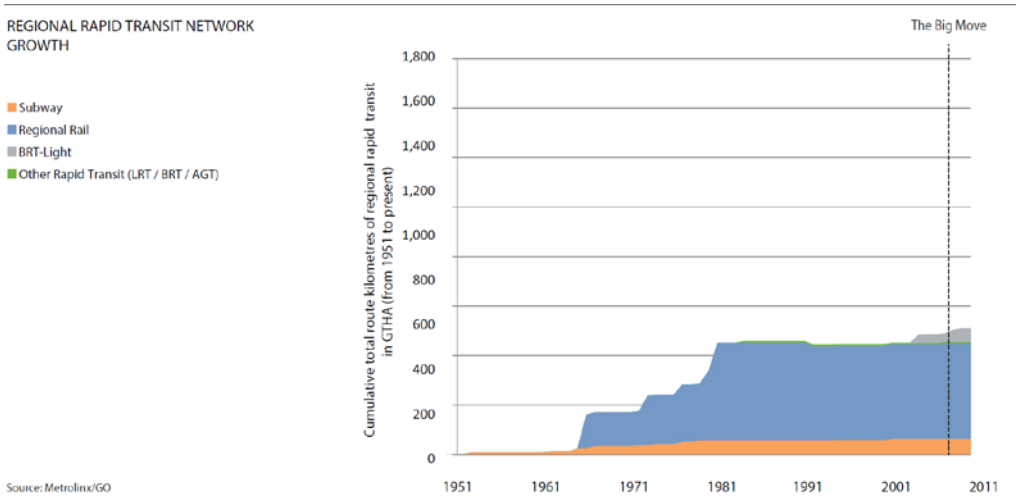
Increasing in transit service provision does not necessarily reflect an improvement to transit service: services may not keep up with the demands of a growing population. Over the past few decades, the population has been growing. On a per capita basis, the number of transit service hours declined in the 1990s, with only incremental increases since 2000. In other words, the transit service hours that have been added to the network appear to just meet the demands of a growing population. Any increase in the availability of transit beyond the pace of population growth is a positive trend.

Key Performance Indicator: Length of Regional Rapid Transit

The rapid transit network is the core of the regional transportation system and is detailed in Schedules 1 and 2 of The Big Move. Full expansion of the network will result in 1,725 km of rapid transit service in the GTHA.

The current network is 541 km[i]. Since 2008, the year The Big Move was published, 56 km have been added to the network, primarily as BRT-light.

Figure 5: Regional rapid transit network growth



Most of the existing regional rapid transit network was built prior to the 1980s. More recently, Bus rapid transit (BRT)-light implementations form a significant portion of the regional rapid transit network. BRT-light refers to enhanced bus services that contain elements of BRT, but do not fully meet the definition of BRT.

Expansion of rapid transit is only part of the equation in providing regional transit service across the region. Other factors, beyond the realm of transportation planning and The Big Move, carry influence in how well the rapid transit network serves the population. The locations where people live and where employers are locating workplaces has as much to do with this as the rapid transit network.

Do more people live and work close to fast and reliable transit?

The Big Move goals include improving transportation choices and connections, and a critical part of this is bringing together land uses and transportation in a way that supports those connections. The rapid transit network must be planned and built to serve people, just as it is critical that residential developments are built close to transit.

This indicator group tells us whether we are building communities and rapid transit in a way that supports regional transportation connections. The locations

where people live and work are considered in relation to the regional rapid transit network.

This indicator group will trend up if rapid transit is expanded and if new development is concentrated next to the rapid transit network or within a short bus ride. Conversely, the trend in this indicator will decline if rapid transit expansion does not keep pace with growth, or if new growth happens far from the rapid transit network. Since the late 1980s, the percentage of homes and workplaces within 2 km of rapid transit has increased, largely due to the emergence of BRT-light.

About this indicator group: This indicator group is a measure of transportation and land use planning. It is useful to know the proportion of the GTHA population that the regional rapid transit network serves, and whether more dense centres and corridors are being built in response to new rapid transit.

Living close to rapid transit

Working close to rapid transit

Goals in The Big Move addressed by this indicator group: Transportation choice, comfort and convenience, prosperity and competitiveness, foundation of an attractive and well-planned region.

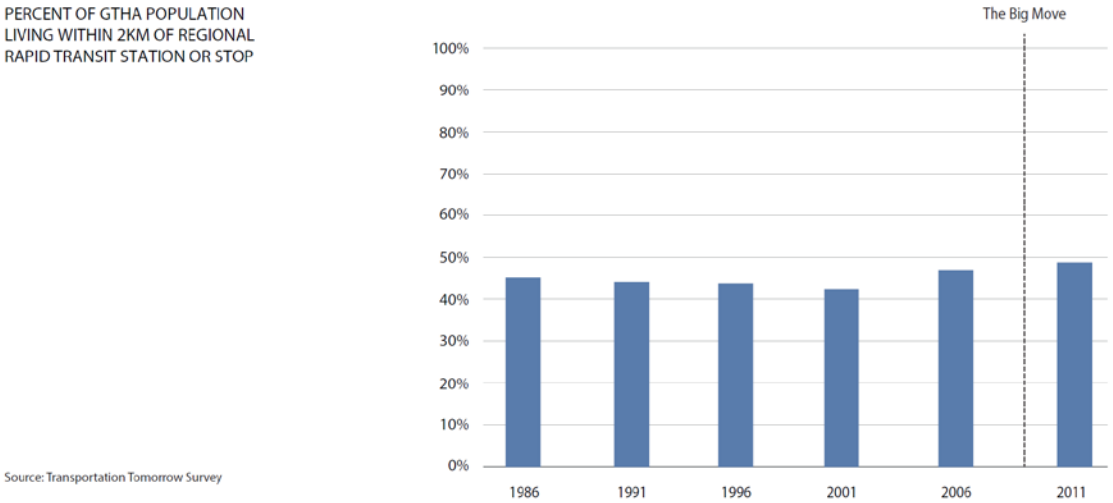
Why these KPIs were selected: This indicator group addresses whether transportation and land uses were being brought together in a way that supports transit connections, examining the provision and delivery of regional transit infrastructure and whether people are choosing to live closer to existing regional rapid transit lines.

Limitations: There has been some discussion of whether 2 km is a reasonable threshold for determining proximity to rapid transit. In developing The Big Move, it was forecasted that full implementation of the regional rapid transit network would bring rapid transit service within 2 km of 81% of the GTHA population. The 2 km threshold was retained in order to maintain consistency with The Big Move.

Key Performance Indicator: Living Close to Rapid Transit

As land use and transportation planning become more aligned, the number of people who live within 2 km of rapid transit will increase and the more regional transportation options will become available. This indicator will trend up when the rapid transit network is expanded and when more people live close to a rapid transit station.

Figure 6: Percent of GTHA population living within 2 km of regional rapid transit

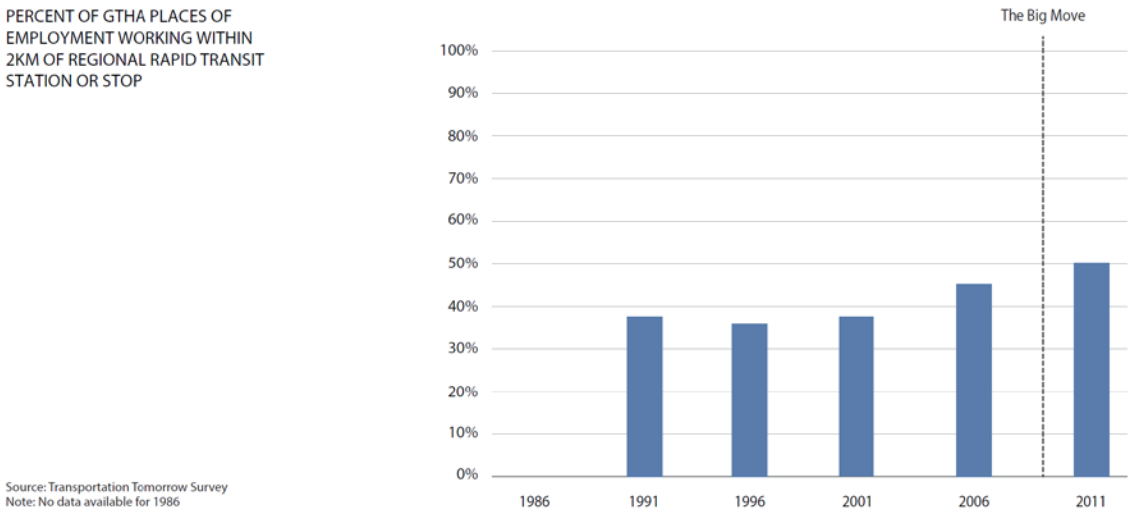


Since 2001, the proportion of the GTHA population within 2 km of a rapid transit line has increased from 43% to 49%. This is primarily due to the introduction of BRT-light services in York Region (Viva), Brampton (Züm) and Toronto. Intensification efforts and the development of apartments and townhouses in urban growth centres also contribute to the positive trend of this indicator.

Where we live is only part of the equation. Rapid transit should also be serving more of the places where we work. A positive trend for this indicator will be partially determined by whether employers choose to locate in places close to rapid transit.

Key Performance Indicator: Working Close to Rapid Transit

Figure 7: Percent of GTHA population working within 2 km of regional rapid transit



The proportion of workplaces close to rapid transit grew by 13 percentage points between 2001 and 2011. Over this period, York Region Transit's Viva and Brampton Züm services were introduced.

In the future, we could see improvement in this indicator through expansion of the rapid transit network and through the development of employment areas near the rapid transit network. There will be an increase in transportation choices and convenience as the number of workplaces within 2 km of the rapid transit network increases.

Are we providing transportation alternatives for those who need them the most?

A transportation system needs to work for everyone, including those who cannot drive or do not wish to. Living near a bus stop does not necessarily mean that transit is a realistic transportation choice. Transit usage depends on factors such as frequency, reliability, routing, and scheduling. We can create a general picture of transportation choice for those who need it by looking at the travel behaviour and the options available for children, seniors, those with mobility difficulties, and individuals from low-income households. There has been a gradual increase in active transportation for low-income households, but outside of Toronto, automobile usage remains the predominant mode of travel.

About this indicator group: This indicator group reflects on goals of equity and fairness in the transportation network. Children, seniors, and individuals who live in low-income households, and those with mobility difficulties, for example, will find it difficult to travel to places without a range of viable, affordable options or in areas where the automobile is the dominant mode of transportation.

Transportation choice for low-income individuals

- Transportation mode share for the commute to work of working individuals over 15 years of age residing in a low-income household

Accessibility of transit

- Proportion of GTHA transit fleet vehicles that are accessible

Transportation choice for children

- Transportation Mode share for all children aged 12-16 for the trip to school

Transportation choice for seniors

- Transportation Mode share for seniors age 65+ for all trips

Goals in The Big Move addressed by this indicator group: Transportation choice, comfort and convenience, active and healthy lifestyle, safe and secure mobility.

Why these KPIs were selected: Different people have different travel needs. Through the goals and the priority actions, The Big Move strives to improve

transportation options for all residents and visitors, including for children, seniors, and individuals with mobility challenges.

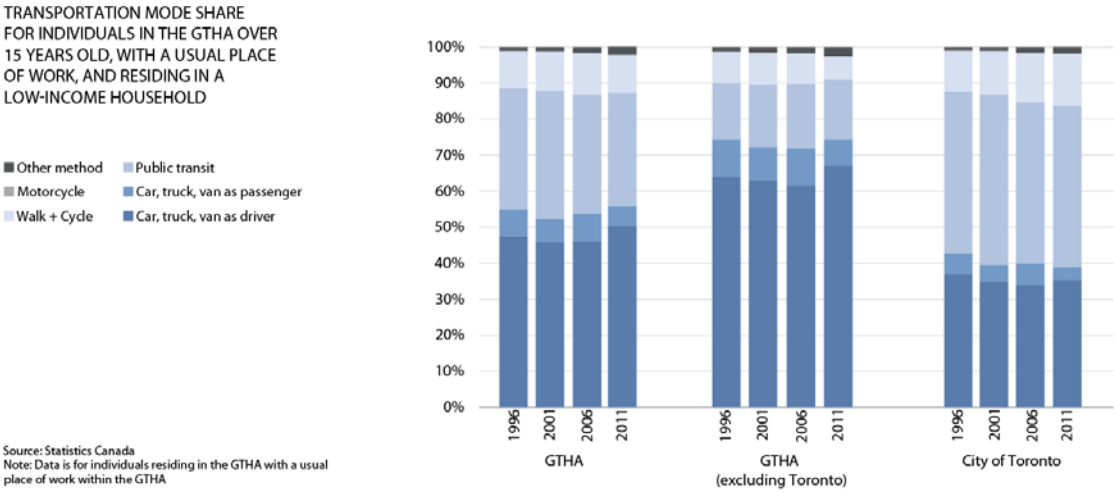
Limitations: Transportation choice can be inferred through travel behaviour patterns. Data is available for the mode of transportation for the journey to work (Statistics Canada) and for all trip purposes (Transportation Tomorrow Survey). Transportation mode is a useful proxy indicator for transportation choice because there is historical data available to establish longer-term trends. Individuals are assumed to travel by the most preferred or optimum choice available. Mode of transportation does not provide an absolute measure of transportation choice; rather, it is useful in showing the trend and direction of choice.

Data for transportation mode share of individuals in low-income households is derived from the long-form census for 1996-2006. For 2011 data, National Household Survey data was used.

Key Performance Indicator: Transportation Choice for Low-Income Households

Ensuring the availability of a realistic and affordable alternative transportation choice is vital to an equitable transportation system. A low-income household may spend a disproportionately high share of its disposable income on transportation, particularly if an automobile is used. For some, the costs of owning, maintaining, insuring, and operating an automobile can come at the expense of meeting other household needs. Due to the expense of owning and operating a private vehicle, it is assumed that an individual residing in a low-income household travels by automobile as a transportation need, rather than as a transportation choice.

Figure 8: Transportation mode share for individuals over 15 years old, with a usual place of work, and residing in a low-income household



There are clear differences in travel behaviour between individuals residing in low-income households in Toronto and those residing in the GTHA outside of Toronto. In areas outside of Toronto, the automobile is used for the majority of

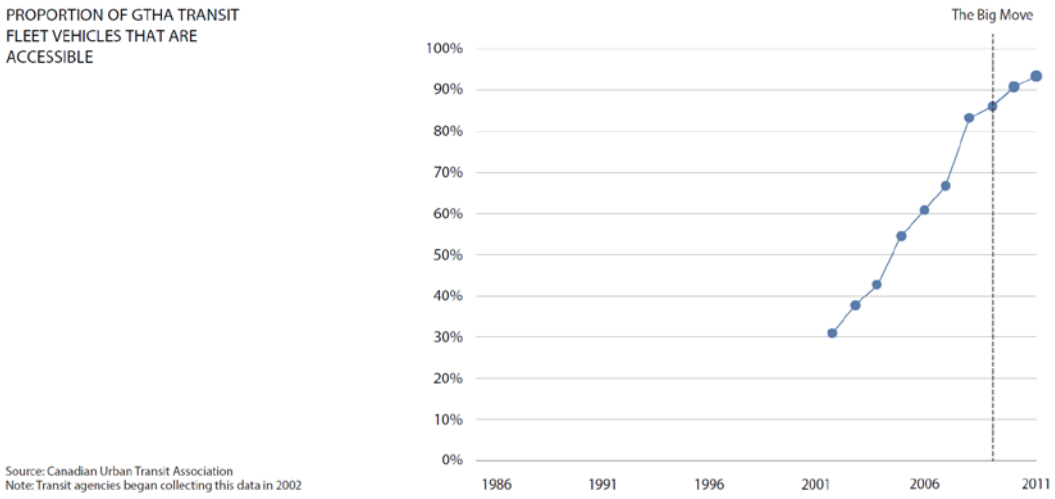
commuting trips and use of transit is much less prevalent. Residents in areas outside of Toronto are also less likely to walk or cycle to work. These differences reflect the difference in transportation choice, namely, that walking, cycling, and taking transit are more realistic options for people living in more dense urban areas with relatively frequent transit service.

In other areas of the region, low-income individuals are just as likely to drive to work as the average GTHA resident. This suggests that car dependency is an issue and transit is not a realistic choice for many. The reasons for this are complex and include many factors that are not tied directly to transportation. There are many studies on how choices are made based on perceived and actual costs. This indicator does not address these in detail, but focuses on the measurable trends.

Key Performance Indicator: Accessibility of Transit

A universally accessible, barrier-free system is fundamental to an equitable transportation system. Transportation choices are improved by improving the comfort and convenience of those with disabilities or those using a mobility device.

Figure 9: Proportion of GTHA transit fleet vehicles that are accessible



Between 2002 and 2012, the proportion of transit vehicles that are accessible increased from 31% to 94%, due to the acquisition of new accessible buses to replace older inaccessible vehicles. Most transit agencies began reporting this information in 2003.

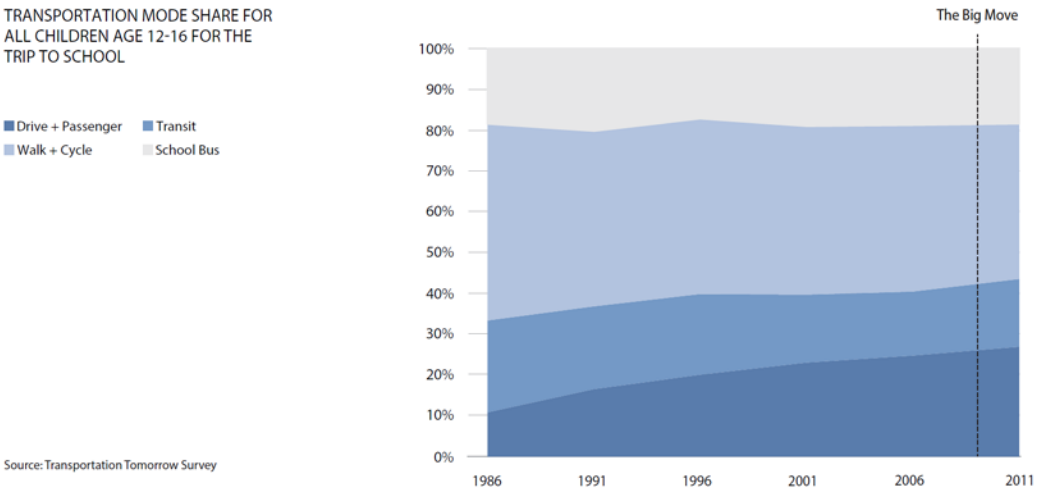
The *Accessibility for Ontarians with Disabilities Act, 2005* requires that the transportation system be accessible for people with disabilities by 2025. Currently, nearly 90% of GO Transit rail stations and almost 50%[ii] of subway and rapid transit stations in the GTHA are accessible.

Additional work is needed to develop a broader indicator to report on accessibility of the transportation system as a whole. Over time, this indicator of accessibility may be improved to include accessibility at bus, streetcar, and light rail stops.

Key Performance Indicator: Transportation Choice for Children

A transportation system needs to work for everyone. If we are improving travel choices, making streets safer and secure, and promoting healthy lifestyles, we should be seeing more children walking or cycling to school.

Figure 10: Transportation mode share for all children age 12-16 for the trip to school



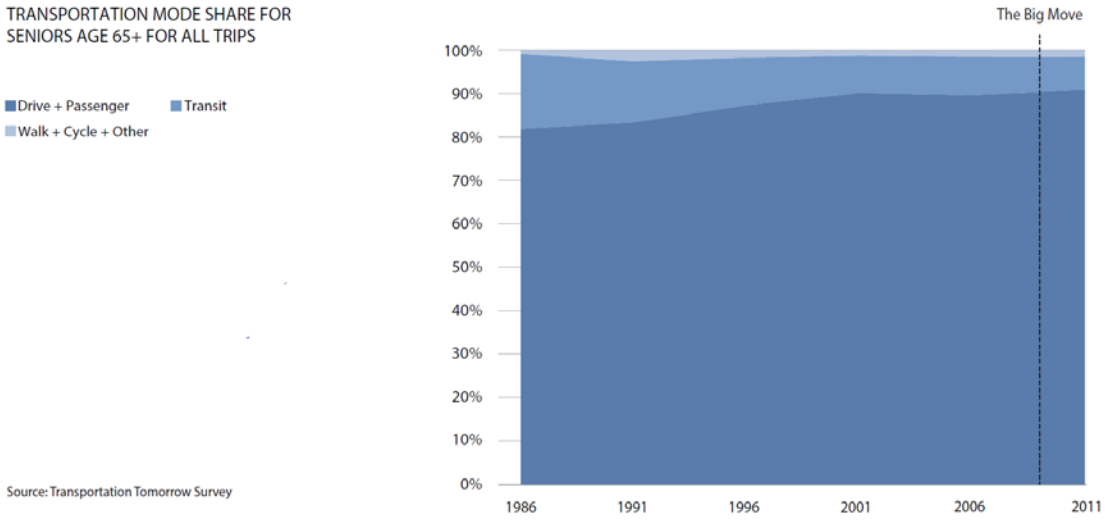
Over the past two decades, we have been seeing more and more children driven to school, with fewer walking, cycling, or taking transit. There may be several reasons for this trend. Safety and security concerns or walkability of a neighbourhood, for example, can have a significant impact on the mode of transportation for the trip to school. Walking to school may not be favoured because of travel distances and a preference for children to be accompanied by an adult.

The Big Move aims to increase the proportion of children walking and cycling to school through school travel programs, cycling safety courses such as CAN-BIKE, and by improving walking and cycling networks. A decline in the proportion of children being driven to school will reflect a positive trend.

Key Performance Indicator: Transportation Choice for Seniors

Measuring the way seniors travel can tell us whether transit is meeting their needs and whether we are creating walkable communities that provide a variety of destinations close by.

Figure 11: Transportation mode share for seniors age 65+ for all trips



If we are improving access to reasonable alternatives to the automobile then we should be seeing more seniors using transit. Instead, over the past two decades, we have seen more and more seniors using automobiles, as either a driver or a passenger. In 1986, 17% of trips by seniors were taken by transit. According to the most recent information available, only 8% of seniors' trips are taken by transit now. This suggests that access to reasonable alternatives to the automobile for seniors may be declining.

Other trends that help explain why fewer seniors are taking transit have little to do with its quality or level of service. For example:

- Seniors are increasingly living in Durham, York, Peel, and Halton, where transit service is generally less available. Between 1986 and 2006, the proportion of seniors living in these regions grew from 28% to 43% (although the mix of new residents and those who have aged in place is difficult to disaggregate);
- Seniors living in the city of Toronto are walking more (from 0.9% in 1986 to 2.7% in 2011), although this still represents a low proportion of trips; and
- Senior women are much more likely to drive today than in the past. Transit use among senior women has declined from 24% in 1986 to 11% in 2006.

Are we safer as we travel?

By improving safety, we improve comfort and sense of security and provide greater confidence in the transportation system.

Tracking road-based accidents and fatalities is one way of monitoring safety. Personal security and the perception of security is equally important, although much more difficult to monitor. In the future, a new KPI may be developed to provide greater depth to our changing understanding of safety and security.

The total number of injuries and fatalities on GTHA roads has gone down significantly since the early 1990s, indicating that our roads are becoming safer.

About this indicator group: A transportation system is only as good as its safety and security. Efforts to improve walking, cycling, or taking transit can be impeded if they are unsafe or perceived to be unsafe. Safety includes accident safety and personal security from attack or injury.

Road Safety

- annual road-based accidents in the GTHA

Goals in The Big Move addressed by this indicator group: Safe and secure mobility.

Why these KPIs were selected: Road-based incidents comprise the majority of accidents and fatalities in the GTHA's transportation system. Historical data for road-based accidents is available and is easily monitored.

Limitations: Ideally, this indicator would capture all of the dimensions of safety, including safety on all modes of travel, perceptions of safety, as well as personal security, both real and perceived risks.

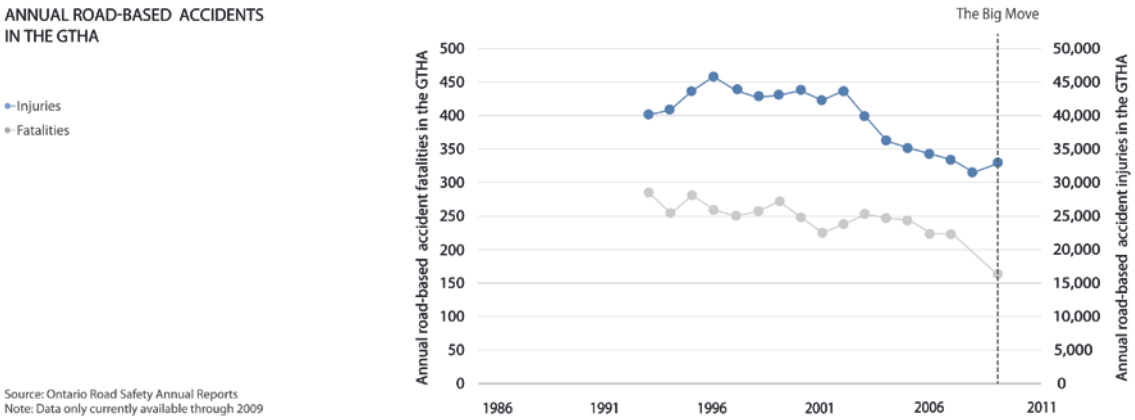
No existing protocols were identified for recording and monitoring other types of transportation accidents. These accidents include train or subway incidents and incidents that occur off-road, such as a cyclist-pedestrian accident on a multi-use trail. The number of road-based incidents currently provides the best information available with respect to the safety of the transportation system.

The indicator does not currently address more subjective facets of personal security and safety on various transportation modes. This is a complex aspect of safety to monitor because it relates to varying degrees of vulnerability and encompasses subjective experience. There are likely demographic and geographic differences in the real and perceived safety of transportation modes.

It is anticipated that this indicator will be further developed to include a more comprehensive indication of safety and security on the GTHA transportation network.

Key Performance Indicator: Road Safety

Figure 12: Annual road-based accidents in the GTHA



The graph shows injuries and fatalities from road-based accidents in the GTHA, which excludes off-road accidents such as those on subways, rail or multi-use trails.

In the past decade, there have been fewer transportation-based fatalities and injuries. With a growing population, more users on the system could add to the likelihood of an accident. In fact, we are seeing a transportation system that is becoming safer.

Over the past number of years, roads have become safer through improved road design standards, improved vehicle design, and police programs such as Reduce Impaired Driving Everywhere (RIDE).

Research shows that as the number of pedestrians and cyclists increases, roads become safer for those users[iii]. The Big Move addresses safety by focusing on active transportation and transit. In future progress reports, data will be available for the period following approval of The Big Move, although it may take several years before the effect of increased transit and active transportation facilities are reflected in road-based accidents and fatalities.

Are we reducing the impact of transportation on the environment?

The transportation system has a considerable effect on the environment. The goals of The Big Move aim to reduce this effect on air quality and climate change by planning for sustainable transportation.

About this indicator group: It is recognized that the transportation network has an impact on the environment, from the construction of infrastructure and the impacts to stormwater and groundwater, to the emissions from automobiles and its effect on air quality and climate change.

The effect of transportation on air quality and climate change is of interest, and relate to one of the goals of The Big Move. Air quality as a KPI looks at the number of smog advisory days in the GTHA.

Transportation is estimated to accounts for approximately a third of energy consumption in Canada; power plants and other sources have a greater effect on air quality and climate change. The selected KPI focuses on greenhouse gas emissions from automobiles.

Air quality
- smog advisory days in the GTHA

Emissions
- greenhouse gas emissions from personal vehicles

Goals in The Big Move addressed by this indicator group: A smaller carbon footprint and lower greenhouse gas emissions.

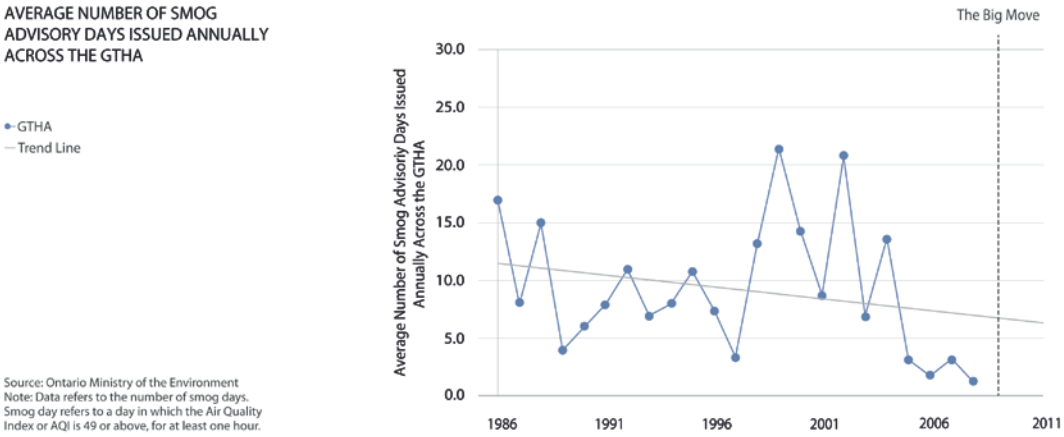
Why these KPIs were selected: This indicator group directly addresses the goal in The Big Move for a smaller carbon footprint and lower greenhouse gas emissions.

Limitations: Year-to-year fluctuations in smog levels are a function of atmospheric conditions, but these annual readings can become useful trends.

Key Performance Indicator: Air Quality

Automobiles emit exhaust gases containing volatile organic compounds, which contribute to smog and poor air quality. The number of smog advisories in the GTHA has declined in the past decade, but the volatility of this indicator and additional influencing factors, such as weather, winds, and urban heat island effects, makes it more difficult to identify a trend in the short term.

Figure 13: Average number of smog advisory days issued annually across the GTHA



Smog reductions resulting from greater use of sustainable transportation may be detected over a longer period. Greater fuel efficiency, the introduction of hybrid and electric vehicles, and a greater proportion of small vehicles may influence the number of smog advisories.

Air quality and smog advisories are impacted by a wide variety of factors beyond transportation and use of personal vehicles. While transportation consumes an estimated 30% of energy in Canada, power generation in Ontario and nearby in the United States is considered the predominant emitter of pollutants affecting air quality in the GTHA. Medium- and longer-term trends in the number of smog advisories issued each year may be due to the reduction in coal-based power generation, rather than changes in the transportation system.

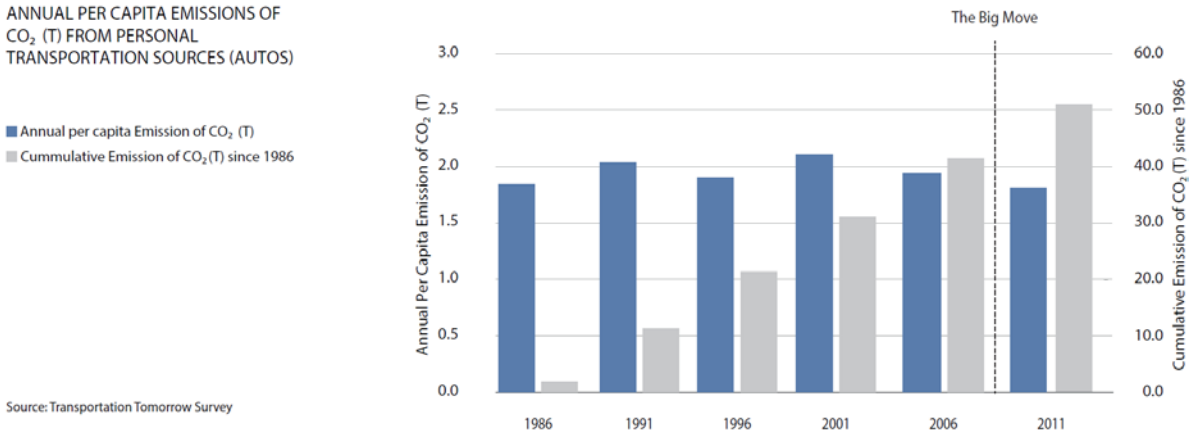
Nonetheless, transportation continues to play a key role in air quality and it is monitored alongside a complementary KPI, greenhouse gas emissions, to understand the impact of the regional transportation network on the environment.

Key Performance Indicator: Emissions

Greenhouse gas emissions are directly linked to worldwide climate change[iv], and reducing the amount of greenhouse gases from transportation is a goal of The Big Move.

Over the decades, no apparent trend in carbon emissions has emerged with relation to personal transportation sources.

Figure 14: Annual per capita emissions of CO_2 (T) from personal transportation sources (autos)



On a per capita basis, the most recent information available shows a decline in greenhouse gas emissions from 2001 to 2011, although this might not reflect solely a shift toward sustainable transportation. The average distance of an automobile trip declined slightly in the same period, leading to fewer greenhouse gases per capita.

The accumulation of greenhouse gas emissions contributes to climate change. Reducing annual per capita emissions will slow the accumulation of greenhouse gas emissions. From 1991 to 2011, approximately 51 tonnes per person have been emitted by personal transportation.

Achieving a decline in greenhouse gas emissions from transportation is important. A decline in greenhouse gas emissions per capita may result from a combination of shorter auto-based trips, a reduction in the number of auto trips, improved fuel efficiency, and an increase in electric vehicles.

Are we better connected across the Greater Toronto and Hamilton Area?

Investments in the transportation system enable people to travel for work, education, healthcare, retail, and leisure. Investments also enable goods to move around the GTHA.

Here, we look at how well the GTHA is connected by transit, how well the principal road and highway network is functioning, and how people are choosing to travel to airports, our national and international gateways.

About this indicator group: The Big Move proposes a regional transportation system to connect Urban Growth Centres and other major regional destinations. Monitoring how well the regional transportation system connects these centres is important for understanding not only the connectivity between centres, but also the ease of different transportation options, particularly as they change over time. The performance of the regional transportation network and its access to the GTHA's national and international gateways tells us how well the transportation system is supporting our economic competitiveness as a region.

Three KPIs are used. The first addresses transit connections between urban centres, and the second addresses travel on 400-Series highways. The third examines access to Toronto Pearson International Airport, the GTHA's major international gateway.

Transit between urban centres

- Number of urban centres reachable within 45 minutes by transit (2012)

Highway travel

- Average bi-directional vehicle speed on key highways in the morning peak period

Pearson Airport access

- Transportation mode share for air passengers arriving at Toronto Pearson International Airport

Goals in The Big Move addressed by this indicator group: Transportation choice, comfort and convenience, prosperity and competitiveness, and interconnectedness

Why these KPIs were selected: The indicator group addresses the goal of The Big Move of Interconnectedness. The KPIs were selected based on available data and information, and the likelihood of this data to continue to be collected in the future.

Limitations: The indicator group focuses on connectivity with respect to the transit and highway networks.

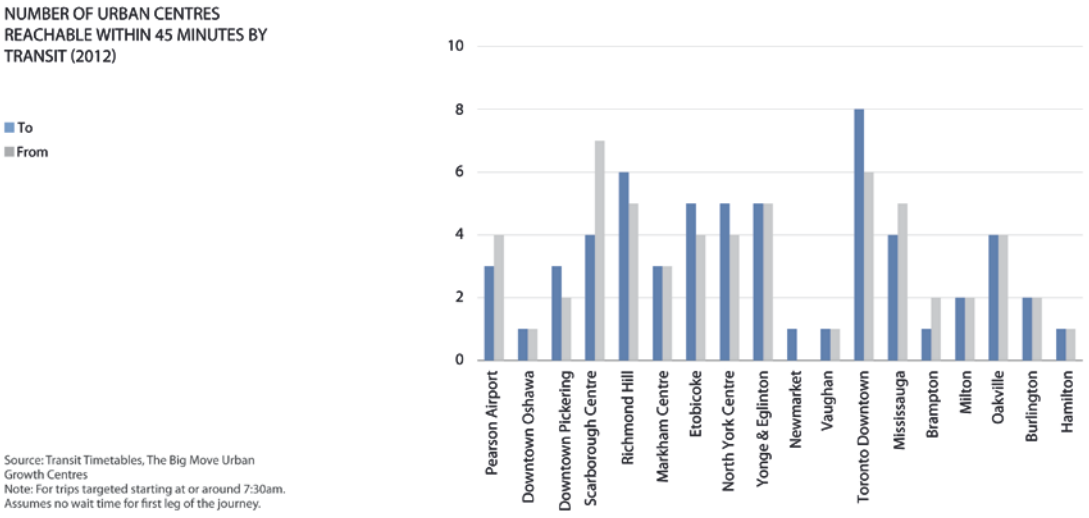
Key Performance Indicator: Transit Between Urban Centres

Travel between urban centres should be time-efficient, to support our regional economy and enhance our quality of life.

Connectivity addresses the ability to travel to other places in a reasonable amount of time. This KPI considers connectivity between urban centres, which are nodes in the regional transportation network with existing or planned intensification and development (see Schedule 2 of The Big Move). In 2006, only 1% of all trips (and 1.7% of transit trips) in the GTHA were between urban centres[v]. However, this may change over time as new and improved connections are made.

We can monitor one aspect of connectivity by looking at how many centres in the GTHA we can travel to within a reasonable period of time, and more importantly, whether this changes over time. In other words, are we able to access more of the GTHA by transit within a given period?

Figure 15: Number of urban centres reachable within 45 minutes by transit during morning peak period



This KPI looks at the number of urban centres reachable within 45 minutes by regional and local transit. Extending into the medium- to long-term, the KPI also shows change in the number of centres reachable within 45 minutes. In a

polycentric region such as the GTHA, some journeys could become more common if the connections between them were made easier.

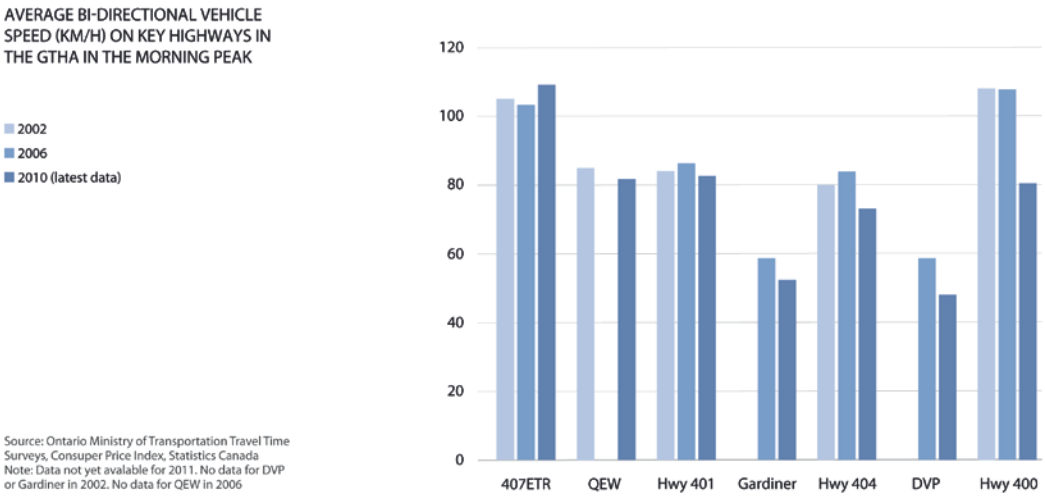
Looking at this indicator, Downtown Toronto, Richmond Hill, and Scarborough Centre are relatively well connected to other urban centres in the GTHA, which makes sense given their central locations.

Historical data is incomplete, however, so it is difficult to say how connected the urban centres were five, ten, or 20 years ago. As the regional rapid transit network grows, an increase in the number of centres reachable within 45 minutes travelling by transit is expected.

Key Performance Indicator: Highway Travel

Travel speeds on the regional highway network are important for moving freight, and for providing regional connections where transit is not a realistic option. Congestion and incidents (such as traffic accidents) on highways contribute to travel delay and can affect the economic vitality of the GTHA. Monitoring average travel speed is one way of tracking the performance of the regional highway network.

Figure 16: Average bi-directional vehicle speed on key highways in the GTHA in the morning peak period



Between 2002 and 2010, the average speed on four of these eight highway corridors declined. Travel speed on Highways 404 and 400 declined by 9% and 26%, respectively. There was a modest increase in travel speed on Highway 407 ETR.

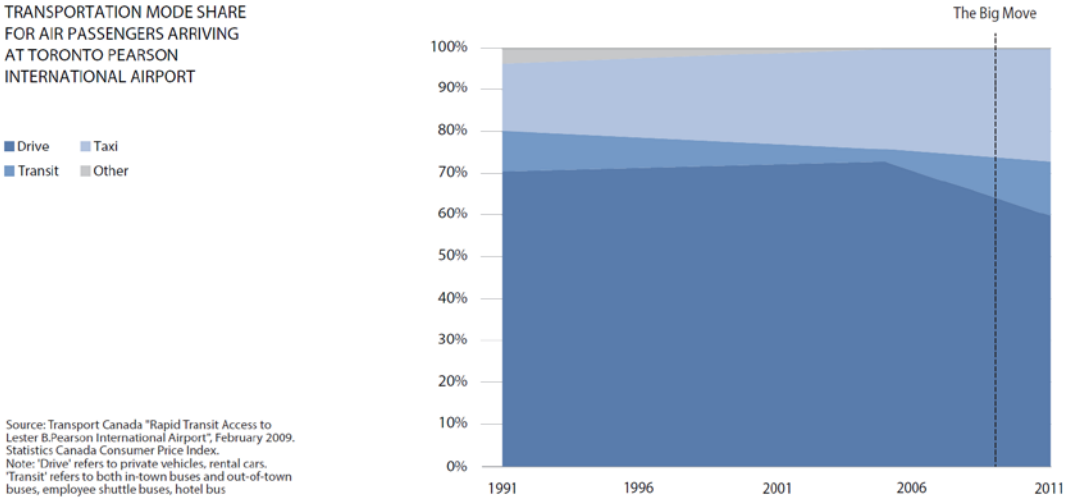
Reduced travel speeds are likely due to an increase in the number of drivers on the highways, and an increase in the occurrence of congestion and road incidents. Travel speeds on the regional highway network can be improved by optimizing the existing capacity of the network, and by providing comparable travel choices.

Key Performance Indicator: Pearson Airport Access

A successful and thriving region should have good access to other regions, through well-connected gateways.

One facet of transportation choice can be measured by considering mode of travel to airports, our national and international gateways. This indicator considers travel patterns to Toronto Pearson International Airport, the largest international gateway within the GTHA with 33 million annual passengers. It is also a significant area of employment.

Figure 17: Transportation mode share for air passengers arriving at Toronto Pearson International Airport



Since 2005, the proportion of people accessing the airport by automobile declined, while the proportion of people arriving by taxi and transit appear to have gone up. The data for this KPI was based on three separate studies from 1991, 2005, and 2011. Continued monitoring will determine whether there is a trend in the way people access Toronto Pearson International Airport.

Is transit provision in the Greater Toronto and Hamilton Area becoming more fiscally sustainable?

It is vital that the transit network operates efficiently and in a financially sustainable manner. Here, the operating and improvement costs and funding for transit are considered. Both local and regional transit systems are incorporated into the KPIs.

Ideally, this indicator group would take a holistic view of the multi-modal transportation network and include consideration of funding for all modes, including maintaining a state of good repair for the transit system, as well as funding for construction and maintenance of the road network.

About this indicator group: One of the goals in The Big Move is to optimize the use of resources and provide better value to households, businesses, and governments. An efficient transportation system focuses on moving people and goods in a cost-effective way.

Transit efficiency

Goals in The Big Move addressed by this indicator: Efficiency and effectiveness, fiscal sustainability.

Why this indicator was selected: The focus for this indicator is on transit funding and expenditure. Transit has the capacity to deliver the efficient movement of people with a relatively low cost to households, businesses, and governments.

Limitations: The efficiency of transit operations is difficult to report in isolation from the wider benefits of greater transit use. Greater cost can result in greater benefits, both in terms of operating costs and capital investment. This issue has often been considered political, based on whether a transit subsidy is deemed a cost or an investment, leading to debates on how to minimize unnecessary costs through the streamlining of operations.

Presently, funding sources are limited to fare box revenue, subsidies, and other minor sources, which are neither reliable nor predictable. In the future, the number of sources is planned to grow, based on the Investment Strategy. The aim will be greater reliability and predictability.

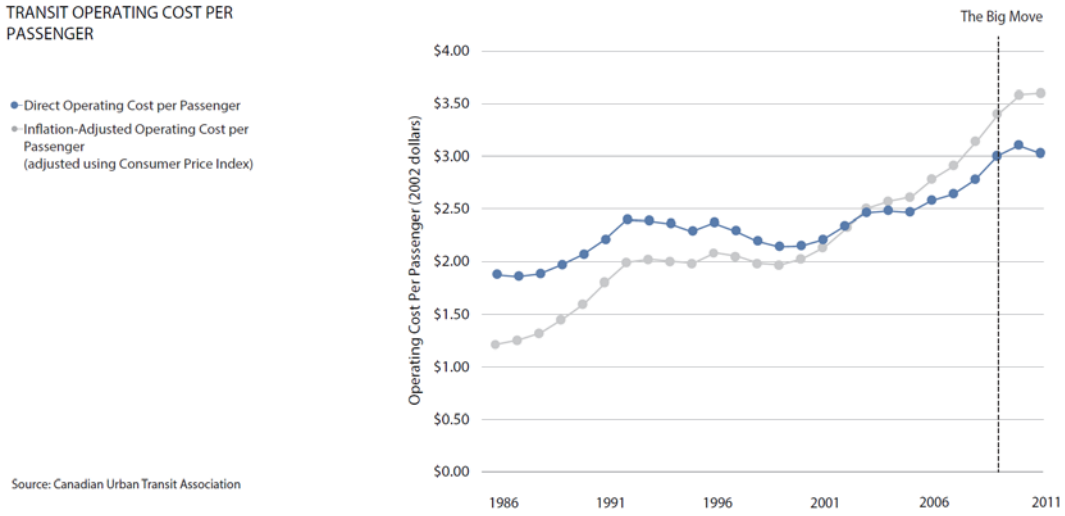
As the Investment Strategy recommends tools to raise revenue dedicated to transportation, it is anticipated that these will be incorporated into this KPI.

Key Performance Indicator: Transit Efficiency

One of the goals of The Big Move is an efficient and effective transportation system. This includes all forms of transportation: walking, cycling, transit, roads, and freight. This indicator focuses on one part of the system: the efficiency of transit service delivery.

Delivering transit efficiently, which means minimizing the cost of carrying each passenger, can be achieved by controlling operating costs and carrying more passengers.

Figure 18: Operating cost per passenger



Over the past decade, the cost of each passenger trip has been going up, even after inflation. More transit trips are taken today than in previous years, but the cost of operation has gone up substantially more. This trend is not unique to transit and can be seen in education, construction, and healthcare, where operating costs have increased at a rate above inflation.

This could be related to the rising costs of fuel and labour, but it could also mean that transit agencies are focusing on goals unrelated to short-term efficiency such as extending coverage to new, low-ridership areas. The introduction of low-floor vehicles, for example, improves the transit system but also limits the number of passengers that a bus can carry, so more vehicles and labour are required to maintain service levels, resulting in a higher cost per passenger.

There are challenges in drawing conclusions regarding the transportation system efficiency as a whole. Rising costs per passenger could be a sign of system inefficiencies, but could also be a sign of transit network expansion and improvements. Reduced efficiency in transit delivery may still increase efficiency of the transportation system, by reducing the need for investments in road expansion.

A trend showing a decreasing operating cost per passenger would be positive, achieved by transit systems attracting new riders through improved services. These investments usually require several years for ridership to respond and the cost per passenger (in constant dollars) should be expected to level off in future years, depending on the rate of expansion.

Key Performance Indicator Details and Data sources

How are we moving around the Greater Toronto and Hamilton Area?

Key Performance Indicator: mode of transportation

Key Performance Indicator	**Mode of transportation** Transportation Mode Share for all trips in the GTHA 6-9am Transportation Mode Share for all trips in the GTHA outside Toronto 6-9am Transportation Mode Share for all trips in Toronto 6-9am
Data Source(s)	Transportation Tomorrow Survey
Reporting Frequency	Every 5 years
When data collection began	1986
Time lag for release of data	Two years (2011 data released in 2013)
Notes	The morning peak period (6:00 to 9:00 AM) is used because this is typically the busiest travel period in the day and pressure on the transportation network is at its highest. In other words, the performance of the transportation network is best evaluated during the time when demand for travel is greatest. City of Toronto data is shown separately for comparative purposes. With a longer history of transit use and typically greater land use intensity, travel behaviour within Toronto is expected to differ from other municipalities in the GTHA. Limitation: There is a two-year turnaround for release of data from the Transportation Tomorrow Survey, so most recent information is at least two years old. Note: Data is extracted from the TTS using the time parameters of 0600-0859 (i.e. 6am-8:59am). This is typically done for capturing morning peak period travel data from the TTS, as survey respondents tend to approximate their journey start times and so there is a 'spike' in trips if 9:00am is included.
Disaggregation of data	Available. See Appendix.

Key Performance Indicator: transit ridership

Key Performance Indicator	**Transit ridership** Annual transit passenger trips (million) in the GTHA & annual transit trips per capita in the GTHA
Data Source(s)	Canadian Urban Transit Association (annual passenger trips) Statistics Canada (population)
Reporting Frequency	Annually
When data collection began	Prior to 1986 (Canadian Urban Transit Association: annual passenger trips) Prior to 1986 (population)
Time lag for release of data	One year (CUTA) One year (Statistics Canada Census Population)
Notes	Passenger trips refer to a full one-way trip made by an individual, regardless of the number of transfers made or the types of transportation used. Population data is not available on an annual basis, but is interpolated; therefore, accurate per capita reporting is only possible in years when population data is available.
Disaggregation of data	Not available for publication

Is there more choice in how we travel?

Key Performance Indicator: transit service per capita

Key Performance Indicator	**Transit service per capita** Annual total transit vehicles hours (excluding GO Transit) (millions) Annual total transit vehicle hours (excluding GO Transit) per capita
Data Source(s)	Canadian Urban Transit Association (Annual total transit vehicle hours) Statistics Canada (population)
Reporting Frequency	Annually (CUTA) Every 5 years (Statistics Canada)
When data collection began	Prior to 1986 (CUTA, Statistics Canada)
Time lag for release of data	One year (CUTA, Statistics Canada)
Notes	For rapid transit services, vehicle hours are calculated per vehicle and not per train. Thus, a single hour of operation for a 6-car train is 6 vehicle hours. GO Transit has been excluded from this analysis because the data is in a different format, and future work is required to align the datasets. Data for GO services is available from 2004, but requires calculations based on old timetables. The data from 2004 has not been added to the CUTA data (which goes back to 1986) to avoid a jump in the data series shown on the graph. GO data could be included in future monitoring reports. Over time, it might make sense to merge and migrate to the use of a combined CUTA and GO dataset. Statistics Canada population data has been interpolated between census years to provide a more consistent means of calculating per capita transit vehicle hours vis-à-vis the CUTA data.
Disaggregation of data	Not available for publication

Key Performance Indicator: length of regional rapid transit

Key Performance Indicator	**Length of regional rapid transit** Cumulative total route kilometres of regional rapid transit in the GTHA (from 1951 to present)
Data Source(s)	Manually calculated
Reporting Frequency	Available on as-needed basis
When data collection began	Data available from 1954 to present
Time lag for release of data	None
Notes	The regional rapid transit network refers to different technologies: bus rapid transit, light rail transit, subway, express rail, and regional rail, as defined by Schedule 2 of The Big Move. Route length is equal to the amount added to the existing transit network, so as not to double count from year to year. Every kilometre of rapid transit added to the regional network is given equal weight, except in the case of BRT-light. BRT-light refers to transit service that has been introduced containing elements of BRT, but do not qualify as BRT. In these cases, a weighting of 0.5 has been applied. Determination of BRT-light is based on the "BRT Standard Scorecard version 1.0", developed by the Institute for Transportation and Development Policy to assess the extent to which service can be described as bus rapid transit. Points are awarded for a range of elements, including service planning (including fare collection and frequency), infrastructure, station design, branding, passenger information, and integration and access. The scorecard assigns a bronze rating for full BRT systems with a score over 50, silver for over 70, and gold for over 85. A threshold of 30 points was set to determine if a system qualified as BRT-light.
Disaggregation of data	Available. See Appendix A.

Do more people live and work close to fast and reliable transit?

Key Performance Indicator: living close to rapid transit

Key Performance Indicator	**Living close to rapid transit** Percent of GTHA population living within 2 km of regional rapid transit
Data Source(s)	Transportation Tomorrow Survey
Reporting Frequency	Every 5 years (Transportation Tomorrow Survey)
When data collection began	1986 (Transportation Tomorrow Survey)
Time lag for release of data	Two years (Transportation Tomorrow Survey)
Notes	The Transportation Tomorrow Survey provides historical information using traffic analysis zones. The regional rapid transit network refers to different technologies: bus rapid transit, light rail transit, subway, express rail, and regional rail, as defined by Schedule 2 of The Big Move. For each year of analysis, the rapid transit network was determined by what existed in that year. Estimates were calculated using geographic information systems (GIS). It is assumed that population and jobs are evenly distributed spatially throughout each traffic analysis zone. Where a traffic analysis zone is partially within a 2 km buffer of the rapid transit network, adjusted numbers were used based on the areal proportion of the traffic analysis zone area with the 2 km buffer. For example, if 40% of a traffic analysis zone area was within the 2 km buffer, then the adjusted population or jobs number was factored by 0.4. Application of buffers: 2 km buffers were applied to rapid transit stations (for GO Rail network) and to rapid transit routes (such as BRT-light and subway). Stations on BRT/subway routes are typically less than 3.5km apart, so the difference between buffering around stations and buffering around routes is negligible. The 2km buffers were applied to all rapid transit routes as defined by Schedule 2 of The Big Move, and includes 'BRT Light' routes, such as Brampton Zum, VIVA Orange, and 196 York U Rocket. (For details of the determination of 'BRT Light, please refer to KPI 'Length of Regional Transit Network)
Disaggregation of data	None

Key Performance Indicator: working close to rapid transit

Key Performance Indicator	**Working close to rapid transit** Percent of GTHA working population working within 2km of regional rapid transit
Data Source(s)	Transportation Tomorrow Survey
Reporting Frequency	Every 5 years (Transportation Tomorrow Survey)
When data collection began	1986 (Transportation Tomorrow Survey)
Time lag for release of data	Two years (Transportation Tomorrow Survey)
Notes	1986 data not available. The Transportation Tomorrow Survey provides historical information using traffic analysis zones. Statistics Canada data should continue to be collected alongside TTS data. Discrepancies between Statistics Canada (i.e. National Household Survey) and TTS data should be explored to understand data issues. The suitability of data sources should be revisited when a longer historical baseline of Statistics Canada data is available. (Note: Statistics Canada data for 1996, 2001 and 1996 may or may not be comparable to data from 2011 onwards due to the change from the mandatory long-form census to voluntary survey. It is expected that TTS will serve as the primary data source for this indicator, although NHS data may serve as a cross-reference.) The regional rapid transit network refers to different technologies: bus rapid transit, light rail transit, subway, express rail, and regional rail, as defined by Schedule 2 of The Big Move. For each year of analysis, the rapid transit network was determined by what existed at the time. For this analysis, the regional rapid transit network was further limited to transit routes where two-way, all-day service is provided. It was considered that one-way peak-direction service did not constitute access to jobs. If a work location was located in Aurora, for example, it would be impossible to travel northbound in the morning peak period using the regional rapid transit network because service on that line is currently one-way. Estimates were calculated using geographic information systems (GIS). It is assumed that population and jobs are evenly distributed spatially throughout each traffic analysis zone. Where a traffic analysis zone is partially within a 2 km buffer of the rapid transit network, adjusted numbers were used based on the proportion of the traffic analysis zone area with the 2km buffer. For example, if 40% of a traffic analysis zone area was within the 2 km buffer, then the adjusted population or jobs number was factored by 0.4. Application of Buffers: 2 km buffers were applied to rapid transit stations (for GO Rail network) and to rapid transit routes (such as BRT-light and subway). Stations on the BRT/subway routes are typically less than 3.5 km, so that the difference between buffering around stations and buffering around routes is

	negligible. The 2km buffers were applied to all rapid transit routes as defined by Schedule 2 of The Big Move, and includes 'BRT Light' routes, such as Brampton Zum, VIVA Orange, and 196 York U Rocket. (For details of the determination of 'BRT Light, please refer to KPI 'Length of Regional Transit Network)
Disaggregation of data	None

Are we providing transportation alternatives for those who need them the most?

Key Performance Indicator: transportation choice for individuals in low-income households

Key Performance Indicator	**Transportation choice for individuals in low-income households** Transportation mode share for the commute to work of working individuals over 15 years of age residing in a low-income household
Data Source(s)	Statistics Canada Custom Tabulation, for census years 1996, 2001, 2006, and 2011
Reporting Frequency	Available every 5 years
When data collection began	1996 (for mode of transportation commute to work)
Time lag for release of data	Two years
Notes	The study area includes Toronto, Hamilton, and Durham, Halton, Peel, and York Regions. Please refer to the supporting materials accompanying this Monitoring Handbook for specific details about Statistics Canada census division and census subdivision identification numbers). Data Suppression: Data has been limited to individuals who both live and work in the GTHA and individuals who are over 15 years of age and have a usual place of work outside of the home. Please see supporting materials for this Monitoring Handbook. Note that the wording in the census description for an individual residing in a low-income household changes between 2001 and 2006. This does not impact the compatibility or comparability of data between years: Member of low income economic family or low income unattached individual 15 years of age and over (for 1996 and 2001) Member of low income economic family or low income person not in economic family 15 years of age and over (for 2006) In 2011, the mandatory long-form census was replaced by voluntary National Household Survey (NHS). The 'taxicab' response category was eliminated in 2011, and is included in the category 'Other method'.
Disaggregation of data	Currently disaggregated by Toronto and regional municipalities.

Key Performance Indicator: accessibility of transit

Key Performance Indicator	**Accessibility of transit** Proportion of GTHA transit fleet vehicles that are accessible
Data Source(s)	Canadian Urban Transit Association
Reporting Frequency	Annual
When data collection began	2002
Time lag for release of data	One year
Notes	CUTA began requesting this information from transit agencies in 2002, so no information is available prior to that time. The proportion of the GTHA transit vehicle fleet that is accessible is an interim KPI. The overall accessibility of the transit network (beyond accessible transit vehicles) has not been addressed. Data shows that transit vehicles are becoming more accessible over time (low floor buses with flip-out ramps, in particular). However, the infrastructure of the transit network has yet to be inventoried. CUTA is preparing to survey transit accessibility in transit facilities (e.g. stations, terminals). A new KPI will be developed using the CUTA asset inventory of transit facility accessibility.
Disaggregation of data	Not available for publication

Key Performance Indicator: transportation choice for children

Key Performance Indicator	**Transportation choice for children** Transportation Mode share for all children aged 12-16 for the trip to school
Data Source(s)	Transportation Tomorrow Survey
Reporting Frequency	Every 5 years
When data collection began	1986
Time lag for release of data	Two years
Notes	Please refer to the Baseline Monitoring Handbook Spreadsheet for more details.
Disaggregation of data	Available. See table below.

Key Performance Indicator: transportation choice for seniors

Key Performance Indicator	**Transportation choice for seniors** Transportation mode share for all seniors aged 65+
Data Source(s)	Transportation Tomorrow Survey
Reporting Frequency	Every 5 years
When data collection began	1986
Time lag for release of data	Two years
Notes	Contextual data is needed to interpret this KPI. It is useful to examine where seniors in the GTHA are residing, and whether this has been changing. The TTS database only captures seniors' trips if the destination is either place of work or school (i.e. shopping, recreation or leisure trips are excluded). Please refer to the Baseline Monitoring Handbook Spreadsheet for more details.
Disaggregation of data	Available. See Appendix A.

Are we safer as we travel?

Key Performance Indicator: road safety

Key Performance Indicator	**Road safety** Annual road-based accident fatalities in the GTHA & road-based accident injuries in the GTHA
Data Source(s)	Ontario Road Safety Annual Reports: <http://www.mto.gov.on.ca/english/safety/orsar/>
Reporting Frequency	Annually
When data collection began	Available for 1993 onwards
Time lag for release of data	2 years
Notes	The per capita rate is calculated using the total GTHA population for that year, based on Statistics Canada population data.
Disaggregation of data	Available for most years.

Are we reducing the impact of transportation on the environment?

Key Performance Indicator: air quality

Key Performance Indicator	**Air quality** Average number of smog advisory days issued across the GTHA (annual)
Data Source(s)	Ontario Ministry of the Environment <http://airqualityontario.com/press/publications.php>
Reporting Frequency	Annually
When data collection began	1989 (assumed)
Time lag for release of data	Two years
Notes	For 1989 to 1997, information is available only for the Greater Toronto Area. Data was summarized in a published report from 1998 (See Figure 5.3 in this report: <http://www.ene.gov.on.ca/stdprodconsume/groups/lr/@ene/@resources/documents/resource/std01_079076.pdf> For 1999, data for Downtown Toronto and Downtown Hamilton is available. An average was taken for the number of smog days between the two stations. For 1998 and 2000 to 2010, data has been extracted from published reports. An air quality report is published for each year. The data is located in tables which list, for various locations around Ontario, the number of days for which the air quality index (AQI) was equal or greater than 49 for at least one hour in a 24-hour period. For 2003 to 2011, the Ministry of the Environment provides downloadable Excel datasets for the number of smog advisories and smog days. As of June 2012, 2011 data has been extracted from the downloadable data sets. Note that the data set provides data for most of the GTHA, but excludes Newmarket. When the air quality report for 2011 is available, it is recommended that data for 2011 be extracted from the detailed table to be consistent with previous years. Note that for some years, both GTA, Downtown Toronto, and Downtown Hamilton data is available. In these cases, GTA data was used because it appears to be more comprehensive. The number of smog days reported for the GTA was typically greater than the number of smog days recorded for either Toronto or Hamilton. **Data recorded here refers to the number of smog days, not just the number of smog advisories. Smog day refers to a day in which the AQI is 49 or above for at least one hour. More information about AQI can be found here: <http://www.airqualityontario.com/press/faq.php>.

	Limitation: The impact of transportation on the number of smog advisory days can, and is likely, to be determined by trends in the electricity generation sector, specifically, coal-fired power plants.
Disaggregation of data	Available for most years

Key Performance Indicator: emissions

Key Performance Indicator	**Emissions** • Annual per capita emissions of CO_2 (T) from personal transportation sources (i.e. automobiles) • Total cumulative CO_2 emissions from personal transportation since 1986
Data Source(s)	Transportation Tomorrow Survey <http://www.dmg.utoronto.ca> (Login details required) Transport Canada's Urban Transportation Emissions Calculator <http://www.apps.tc.gc.ca/prog/2/UTEC-CETU/menu.aspx?lang=eng> Statistics Canada census data, multiple years, for census divisions (Toronto, Hamilton, York, Peel, Durham, Halton)
Reporting Frequency	Every 5 years (Transportation Tomorrow Survey) <http://www.dmg.utoronto.ca> (Login details required) Updated in 5 year increments (Transport Canada's Urban Transportation Emissions Calculator) Every 5 years (Statistics Canada census data)
When data collection began	Available from 1986 onwards (Transportation Tomorrow Survey) Available for years 2006 onwards (Transport Canada's Urban Transportation Emissions Calculator) Prior to 1986 (Statistics Canada census)
Time lag for release of data	Two years (Transportation Tomorrow Survey) Unknown (Transport Canada's Urban Transportation Emissions Calculator) One year (Statistics Canada census)
Notes	Total vehicle kilometres travelled (VKT) is estimated for the GTHA using the Transportation Tomorrow Survey. A sum of total straight-line distance trips by automobile has been estimated for an average day. The straight-line distance trip was converted to a Manhattan distance by a conversion factor of 1.29. The assumptions that were used in estimating carbon emissions are the default ones provided by Transport Canada's Urban Transportation Emissions Calculator. For example, it is assumed that 75% of all VKT involve city driving while 25% includes highway driving. Assumptions (based on default provided by UTEC): Enter vehicle km travelled (Column E, Manhattan distance) Time period for vehicle kilometres data: Daily Expansion factors: 1 peak hour to daily 1 daily to annual Percentage of km: 75% city driving, 25% highway driving Fleet: 70% cars, 30% light trucks Fleet technology: 98.3% Gasoline, 1.7% diesel In the future, it may be possible to incorporate a formula to calculate

	emissions and changes in technology that reduce or eliminate vehicle emissions. Limitation: Greenhouse gas emissions are not directly measured but are estimated based on a series of assumptions. The estimation considers only greenhouse gas emissions from private automobiles, and for practical reasons, excludes emissions from freight or transit vehicles.
Disaggregation of data	Not available

Are we better connected across the Greater Toronto and Hamilton Area?

Key Performance Indicator: transit between urban centres

Key Performance Indicator	**Transit between urban centres** Number of urban centres reachable within 45 minutes by transit
Data Source(s)	Transit schedules for each of the transit agencies in the GTHA
Reporting Frequency	Not available
When data collection began	2012
Time lag for release of data	None
Notes	This KPI uses timetable data to calculate journey times between major centres in the Greater Toronto and Hamilton Area. Direct suburb-to-suburb trips will never be easily served by transit, but centre-to-centre trips can be. Although centre-to-centre trips make up a minority of overall trips, the overall aim of The Big Move is to develop a hub and spoke network, with local connections as the focus of local delivery agencies. At a regional level, this indicator will assess if the GTHA is becoming better connected over time and indicate the extent to which parts are able to function as a single economic entity with a shared labour pool. The nodes were taken from the maps in the back of The Big Move, which includes 17 urban growth centres plus Toronto Pearson International Airport. The information was collected from published timetables during February 2012 and checked against published timetables during March and April 2012. Timetable information was sourced online and from the 31 December 2011 edition of the GO timetable. Judgement was used to gauge the best route from centre to centre: normally the shortest journey time is used, but on occasions, frequency and perceived reliability of service was considered. This judgement was double-checked by the Arup-led consultant team and by the Metrolinx/GO client team. Each centre-to-centre trip is assumed to begin around 7:30 AM (or thereabouts, from 7:20 to 7:40). No wait time is assumed for the first segment of the journey. Journey times include wait time between transfers (if any) and walk time between transfer points (if any). No weightings have been applied at any stage of the journeys, so the total minutes is the actual travel time. Trips that begin and end within the same urban centre are not counted in this analysis. Limitations: Transit connectivity is challenging to define in measurable terms. Limitations include:

	Catchment areas at urban centres are excluded. If people travel to an urban centre, they typically travel to an area nearby. The analysis excludes the first mile/last mile trips that are an important component of transit connectivity. The analysis does not distinguish between trips that require one or more transfers and those that require none. The time it takes to transfer is experienced differently than the time it takes to travel. Two different trips could both take 45 minutes, but if one requires three transfers and the other requires none, the latter is more convenient and preferable than the former. This KPI looks at transit travel time in the morning peak period, but does not capture the availability of transit services throughout the day. For example, a GO Train may operate only four or five times a day, whereas a subway provides service approximately every five minutes. It provides no indication of the transit connectivity in the off-peak period (or in cases that require use of GO Rail, it does not include counter-flow travel)
Disaggregation of data	By centre

Key Performance Indicator: highway travel

Key Performance Indicator	**Highway travel** Average bi-directional vehicle speed on key highways in the GTHA in the morning peak period
Data Source(s)	Ministry of Transportation Travel Time Surveys
Reporting Frequency	Every 2 years
When data collection began	Data is available from 2000 and onwards (although the early surveys did not incorporate some key highways such as the Don Valley Parkway or the Gardiner Expressway). 2002 is the base year because full data is available from 2002 and onward.
Time lag for release of data	At least 1 year
Notes	This data reflects instances where data was collected between the same points on the network. This was often not the case because survey locations changed frequently between years. The morning peak considers journeys that begin at 7:30 AM (or as close as the survey data allows). The data does not measure speeds between urban centres, so the data cannot be directly compared to the transit data. Simple, non-weighted, bi-directional, space-mean speeds were calculated for the available links. Limitations: To be directly comparable with transit connectivity, it would be useful to compare travel time by car from centre to centre. Because the data is not available (some data is available for arterial roads, however, the data is inconsistent, and so travel times are not directly calculable), average bi-directional speed on highway corridors is used instead. Trips between some urban centres are unlikely to be made by automobile, so it

	would be useful to consider average speed on highway corridors. Slower speeds suggest more congestion and delay on that corridor.
Disaggregation of data	Available on a corridor by corridor basis

Key Performance Indicator: Toronto Pearson International Airport access

Key Performance Indicator	**Pearson Airport access** Transportation mode share for air passengers arriving at Toronto Pearson International Airport
Data Source(s)	Various: Transport Canada "Rapid Transit Access to Lester B. Pearson International Airport", February 1999 <http://www.gotransit.com/gts/en/resources/archive/publications/Air_Rai_Link_IBI_Report_to%20Transport%20Canada%20May_1999.pdf> 2005 data: Table 7.1 2005 Ground Transportation Survey (Would need to request 2005 Ground Transportation Survey from GTAA. Not currently available online.) GTAA 2011 Groundside Survey – Groundside Survey Mode Split to Arup March 29 2012 (see supporting materials)
Reporting Frequency	Sporadic
When data collection began	Data available for 1991, 2005, and 2011
Time lag for release of data	Unknown
Notes	Data for years between surveys have been interpolated assuming a linear change. Transportation mode categories: For 1991, drive includes auto, rental cars, parking bus, and truck/other. Transit includes subways, express bus, public bus, regional bus, employee bus, and hotel bus. For 2005, drive includes private vehicles, rental cars, and courtesy vehicles. Transit includes in-town buses and out-of-town buses. For 2011, the GTAA provided a table (in Excel format) detailing travel information. Drive includes private vehicle and rental cars. Transit includes local public transit, downtown express bus, motor coach, and hotel shuttle. Limitations: Ideally, data would be available for all national and international gateways in the GTHA.
Disaggregation of data	n/a

Is transit service in the Greater Toronto and Hamilton Area becoming more fiscally sustainable?

Key Performance Indicator: transit efficiency

Key Performance Indicator	**Transit efficiency** Inflation-adjusted operating cost per passenger ($, adjusted using Consumer Price Index, 2002 base)
Data Source(s)	Canadian Urban Transit Association Statistics Canada Consumer Price Index For 1972 to 1991: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ46b-eng.htm> For 1992 to 2011: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ46a-eng.htm>
Reporting Frequency	Annually
When data collection began	Available from 1986 onwards
Time lag for release of data	Two years
Notes	Per capita numbers were calculated by dividing the total direct operating expenses by the total number of passenger trips. Total direct operating expenses include all expenses directly related to transit operation, including drivers, dispatchers, supervisors, fleet and plant maintenance, and administration. They do not include the depreciation of assets, debt servicing, or costs for auxiliary services (e.g. charters, services to adjacent municipalities provided under contract). Passenger trips are full one-way trips, which include transfers and often include changes of mode (e.g. feeder bus to rapid transit). This operating cost data includes GO Transit; the vehicle hours data does not include GO Transit so there is a need to be careful when making direct comparisons.
Disaggregation of data	Not available for publication.

Key Performance Indicators for future development

The progress of The Big Move should be reported at regular intervals, using the above KPIs as an initial framework. We anticipate ongoing work to evolve the framework and the KPIs as new sources of data become available. This flexibility will allow Metrolinx to better link new data sources and future performance indicators with Progress Reporting on The Big Move, as the region continues its progress in transforming the regional transportation system. A set of future indicators, for which there is currently insufficient data available, have been identified for further development:

- *Is transit funding becoming more fiscally sustainable?*
  The transit network can be planned, prioritized, and expanded through reliable and predictable funding. Funding is reliable and sustainable if it can be expected at regular intervals over the long-term. The Investment Strategy addresses the question of how resources could be fairly and effectively raised to provide reliable and sustainable funding, and has been provided by Metrolinx to the government for consideration. Feedback from stakeholders suggests that there is also further work to develop an indicator to measure sustainability of funding for transportation as whole over time.

- *Is the transit system accessible to those with mobility difficulties?*
  While the travel habits of children, seniors, and persons with low income have been looked at in the Progress Report, the overall accessibility of the transit network has not been addressed. Data shows that transit vehicles have been steadily becoming more accessible (kneeling buses, for example). However, there is currently no inventory for infrastructure of the transit network, including stations and stops. CUTA is preparing to undertake a survey of transit accessibility in the GTHA so this data may be available in the future for a new indicator. In parallel to further work to more broadly inventory the accessibility of the transit network, Metrolinx has developed a multi-year accessibility plan, and conducted public outreach in spring 2013 to get input on how its operating divisions could have improved accessibility.

- *Do we feel safer as we travel?*
  Data on road-based accidents is available and totals have been presented as part of this Progress Report. This data omits, however, other facets of travel safety such as perception of risk, instances of crime on the transit network, trips and falls due to poor infrastructure conditions and other factors. Further work is needed to develop a more complete indicator to more completely address the goal of safety and security

- *Fairness and transparency: do residents have an opportunity to engage meaningfully in the transportation decision-making process?*
  Transportation issues have always been at the forefront of public policy discourse and the ongoing improvement of the transit network is no exception. The need for public input and agency accountability is critical and it is important to establish good public engagement and for transportation agencies in the GTHA to be transparent and accountable in its implementation of The Big Move. While transit agencies, including

Metrolinx, engage in public consultation and track its engagement through meetings, number of participants, and feedback forms, there is a subjective dimension to *meaningful engagement* that is a challenge to measure. Advisory panels, such as the Let GO Know customer service panel, may help to fill this gap over the long term.

- *Is freight moving efficiently?*
  The indicators presented in the Progress Report focus on moving people, but a large proportion of vehicles are moving goods. At present, the region is lacking in reliable data to support an indicator that could monitor progress in moving freight more effectively. Further study on availability and quality of data for goods movement will continue, as one of the strategic directions identified in Metrolinx's GTHA Urban Freight Study (2011).

Contextual Data

Contextual data show the trends that affect the performance and outcomes of *The Big Move*. These trends may go beyond the scope or control of The Big Move, but affect the way we travel.

Data sources vary for the contextual indicators, depending on the studies done and the information available. Contextual indicators can be a mix of data from periodically updated data collections and a snapshot reports and studies.

The first Baseline Monitoring Report included Statistics Canada data, which provided information on:

- Median household income;
- Proportion of the population whose first language is neither English nor French;
- Proportion of the population working from home;
- Proportion of people working within the same city or regional municipality;
- Proportion of the population over 65 years;
- Population growth, by regional municipality; and
- Proportion of the population residing in a low-income household.

Statistics Canada data is included in the Appendix Data Tables.

Since 1995, the Transportation Association of Canada has collected and published data every three to five years. The *Urban Transportation Indicators Survey* can be used to identify trends and generate contextual indicators for:

- Proportion of jobs with the central business district;
- Population and employment growth within existing built-up areas; and
- Population and employment growth elsewhere in the census metropolitan area.

Ongoing progress reporting

The progress of The Big Move should be reported at regular intervals over the medium- to long-term.

For many KPIs, change takes place over the long-term. For monitoring to be meaningful, it should take place over the long-term as well. Travel behaviour or the amount of carbon emitted from private vehicles, for example, are indicators for which there may be only incremental change.

A baseline was established for each of the KPIs in the Baseline Monitoring Report to provide an indication of the range and pace of change since late 2008 when The Big Move was published. Without a baseline, it can be difficult to evaluate whether the regional transportation plan is progressing.

To establish a trend, a number of data points need to be collected over time. For KPIs that rely on Statistics Canada or Transportation Tomorrow Survey, both of which are collected every five years, a trend can only be established over a 15-year (or longer) timeframe.

Appendix: Data Tables

Data tables: Contextual Data

Table 1: Contextual Indicator – Median Household Income

Municipality	2006 Median Household Income	2001 – 2006 Percentage Change in Household Income
Ajax	$81,940	-1.3%
Aurora	$89,177	-6.1%
Brampton	$72,402	-7.3%
Brock	$59,608	6.0%
Burlington	$74,969	-2.2%
Caledon	$89,275	-5.7%
Clarington	$77,627	1.1%
East Gwillimbury	$87,913	3.0%
Georgina	$65,645	4.3%
Halton Hills	$85,520	1.7%
Hamilton	$55,312	3.1%
King	$91,762	-0.2%
Markham	$79,924	-7.7%
Milton	$86,604	3.9%
Mississauga	$71,393	-5.8%
Newmarket	$81,640	-3.9%
Oakville	$92,394	-1.9%
Oshawa	$61,514	1.5%
Pickering	$84,595	-6.0%
Richmond Hill	$78,976	-2.8%
Scugog	$74,737	2.6%
Toronto	$52,833	-4.5%
Uxbridge	$80,455	3.5%
Vaughan	$86,616	-3.8%
Whitby	$84,219	-2.1%
Whitchurch-Stouffville	$86,364	1.7%
GTHA	**$78,208**	**-3.6%**[1]

[1] Percentage change in income for GTHA represents a weighted average based on municipal population

Source: Statistics Canada

Table 2: Contextual Indicator - Percentage Population Working from Home (2001-2006)

Municipality	2006 Percentage Worked from Home	2001 – 2006 Change in Percentage Working from Home
Ajax	5.3%	-0.3%
Aurora	9.3%	0.8%
Brampton	4.1%	0.1%
Brock	12.4%	-3.3%
Burlington	7.7%	-0.2%
Caledon	9.5%	-0.1%
Clarington	6.1%	-0.3%
East Gwillimbury	9.3%	-0.7%
Georgina	5.9%	-0.3%
Halton Hills	7.6%	-0.2%
Hamilton	5.5%	0.2%
King	13.2%	-1.4%
Markham	7.9%	0.0%
Milton	7.7%	-0.4%
Mississauga	5.9%	0.3%
Newmarket	7.2%	1.2%
Oakville	9.8%	1.2%
Oshawa	4.7%	0.7%
Pickering	6.3%	0.6%
Richmond Hill	9.0%	0.3%
Scugog	10.6%	-1.2%
Toronto	6.9%	0.8%
Uxbridge	12.8%	-0.8%
Vaughan	6.4%	0.7%
Whitby	6.4%	0.2%
Whitchurch-Stouffville	11.1%	1.0%
GTHA	**6.7%**	**0.5%**

Source: Statistics Canada

Table 3: Contextual Indicator - Change in Percentage of Population 65+ (2001-2006)

Municipality	2006 Percentage population age 65+	2001 – 2006 Change in percentage of population aged 65+
Ajax	7.8%	0.5%
Aurora	8.9%	0.4%
Brampton	7.8%	0.8%
Brock	16.8%	0.4%
Burlington	15.4%	1.3%
Caledon	9.0%	1.1%
Clarington	10.4%	0.7%
East Gwillimbury	10.2%	1.4%
Georgina	11.1%	0.5%
Halton Hills	10.2%	0.9%
Hamilton	14.9%	0.6%
King	12.8%	0.7%
Markham	10.7%	1.2%
Milton	8.3%	-2.2%
Mississauga	9.8%	1.3%
Newmarket	9.5%	1.3%
Oakville	11.7%	0.8%
Oshawa	13.5%	1.5%
Pickering	9.4%	1.8%
Richmond Hill	10.1%	1.0%
Scugog	14.7%	1.6%
Toronto	14.1%	0.5%
Uxbridge	13.4%	1.1%
Vaughan	9.7%	1.5%
Whitby	8.8%	0.3%
Whitchurch-Stouffville	15.1%	2.9%
GTHA	**12.2%**	**0.6%**

Source: Statistics Canada

Table 4: Contextual Indicator - Change in Percentage of Population Whose Mother-Tongue is a Non-Official Language

Municipality	2006 Percentage Non-Official Language	2001 – 2006 Change in percentage of population with Non-Official Language
Ajax	18.0%	5.0%
Aurora	19.0%	6.2%
Brampton	42.0%	9.8%
Brock	4.7%	0.5%
Burlington	15.4%	2.8%
Caledon	21.4%	3.3%
Clarington	7.0%	0.3%
East Gwillimbury	9.6%	2.2%
Georgina	8.8%	2.1%
Halton Hills	10.6%	1.5%
Hamilton	24.5%	1.2%
King	21.1%	0.5%
Markham	56.3%	7.5%
Milton	19.4%	10.7%
Mississauga	47.7%	5.9%
Newmarket	17.9%	4.3%
Oakville	24.0%	3.8%
Oshawa	10.9%	0.6%
Pickering	18.2%	3.3%
Richmond Hill	53.2%	5.2%
Scugog	5.6%	0.6%
Toronto	46.9%	2.0%
Uxbridge	5.9%	-1.0%
Vaughan	51.3%	3.6%
Whitby	13.1%	1.9%
Whitchurch-Stouffville	13.4%	2.4%
GTHA	**38.9%**	**3.2%**

Source: Statistics Canada

Table 5: Contextual Indicator - Car Ownership

Cars	2001 Households	2001 Total Cars	2006 Households	2006 Total Cars
0	307,632	0	337,444	0
1	799,660	799,660	872,687	872687
2	678,302	1,356,604	747,510	1495020
3	146,600	439,800	156,773	470319
4	34,423	137,692	35,957	143828
5	6,282	31,410	6,621	33105
6	1,255	7,530	1,420	8520
Total	1,974,154	2,772,696	1,820,968	3,023,479
Average car/household		**1.40**		**1.66**

Source: Transportation Tomorrow Survey

Table 6: Contextual Indicator - Cost of Regular Unleaded Gasoline at Self-Service Filling Stations

Toronto, ON	Cents per litre	**Cont…**	**Cont..**	**Cont…**	**Cont..**
Jan-06	95.8	Sep-07	97.2	Jun-09	98.8
Feb-06	85.5	Oct-07	94.4	Jul-09	93.9
Mar-06	91.1	Nov-07	99.9	Aug-09	98.3
Apr-06	103	Dec-07	100.6	Sep-09	95.3
May-06	97.9	Jan-08	102.5	Oct-09	95.6
Jun-06	101.6	Feb-08	102.8	Nov-09	98.1
Jul-06	105.7	Mar-08	106.1	Dec-09	94.4
Aug-06	103.3	Apr-08	114	Jan-10	98.9
Sep-06	83.3	May-08	124.6	Feb-10	97.7
Oct-06	83.5	Jun-08	130.6	Mar-10	100.6
Nov-06	83.1	Jul-08	132	Apr-10	100.7
Dec-06	87.5	Sep-08	123.7	May-10	98.2
Jan-07	80.1	Oct-08	105.9	Jun-10	95.5
Feb-07	89.3	Nov-08	82.7	Jul-10	103.3
Mar-07	101.1	Dec-08	74.2	Aug-10	102
Apr-07	101.1	Jan-09	78.9	Sep-10	101
May-07	105.5	Feb-09	81.6	Oct-10	106.2
Jun-07	102.3	Mar-09	84.7	Nov-10	108.5
Jul-07	101	Apr-09	85.2	Dec-10	110.1
Aug-07	95.8	May-09	94.4	Jan-11	113.6

Source: Statistics Canada

Table 7: Contextual Indicator - The Relative Cost of Modes: Transit Throughout the GTHA

		2012				
		Adult	Student	Senior	Child < 12	Child < 5
York Region	Cost per Trip	$3.50	$3.50	$3.50	$3.50	Free with a paying passenger
	Monthly Pass	$115.00	$85.00	$50.00	$85.00	
Oakville	Cost per Trip	$3.25	$3.25	$3.25	$3.25	
	Monthly Pass	$94.00	$60.00	$50.00	$60.00	
Mississauga	Cost per Trip	$2.60	$2.25	$1.75	$1.65	
	Monthly Pass	$120.00	$101.00	$47.00	N/A	
Brampton	Cost per Trip	$3.25	$2.45	$1.50	$2.45	
	Monthly Pass	$107.00	$100.00	$47.00	$100.00	
Burlington	Cost per Trip	$3.00	$3.00	$3.00	$1.75	
	Monthly Pass	$88.00	$64.00	$54.00	N/A	
Hamilton	Cost per Trip	$2.55	$2.55	$2.55	$2.55	
	Monthly Pass	$87.00	$71.00	$87.00	$71.00	
Durham	Cost per Trip	$2.90	$2.90	$1.90	$1.90	
	Monthly Pass	$97.00	$81.50	$39.00	$57.65	
Toronto	Cost per Trip	$3.00	$2.00	$2.00	$0.75	Free for child <24 months
	Monthly Pass	$126.00	$104.00	$104.00	N/A	
GTHA Average	**Cost per Trip**	**$3.01**				
	Monthly Pass	**$104.25**				

Source: Transit agency websites, 2012

Table 8: Contextual Indicator - The Relative Cost of Modes: Auto Ownership

	2012 AVERAGE OPERATING COSTS (based on an average 18km/year use)		
	Cruze 1LT	Grand Caravan	Toyota Prius
Fuel	$1,818.00	$2,604.60	$853.20
Maintenance	$437.40	$536.40	$491.40
Tires	$390.60	$396.00	$311.40
Insurance	$1,913.00	$1,807.00	$1,963.00
License and Registration	$112.00	$115.00	$114.00
Depreciation	$3,515.00	$5,509.00	$4,702.00
Finance Expense (Car Loan)	$699.00	$998.00	$1,061.00
Annual Total	$8,885.00	$11,966.00	$9,496.00
Monthly Total	**$740.42**	**$997.17**	**$791.33**

Source: Canadian Automobile Association, Driving Costs Brochure 2010

Table 9: Contextual Indicator - Economics: Gross Domestic Product

Year of expenditure-based estimates	Gross domestic product (GDP) at market prices ($CAD)
1996	$913,364
1997	$951,962
1998	$990,968
1999	$1,045,786
2000	$1,100,515
2001	$1,120,146
2002	$1,152,905
2003	$1,174,592
2004	$1,211,239
2005	$1,247,807
2006	$1,283,033
2007	$1,311,260
2008	$1,320,291
2009	$1,283,722
2010	$1,324,992
2011	$1,357,581

Source: Statistics Canada

Table 10: Contextual Indicator - Tourism and Visitors: Annual Airport Throughput

	Toronto Pearson	Hamilton International	Billy Bishop Toronto City
2005	29.91 million	437,403	28,519
2006	30.97 million	599,608	22,321
2007	31.5 million	662,855	262,254
2008	32.3 million	545,800	508,574
2009	30.4 million	431,257	770,000
2010	31.8 million	387,831	1.2 million

Source: Statistics Canada, Air Carrier Traffic at Canadian Airports (various years)

Table 11: Contextual Indicator - Cold Weather Alerts in Toronto

Winter (Nov 15th to Apr 15th)	Total Days	Dates
2011-12	7	Jan: 2,3,13,14 Feb: 10, 11 Mar: 4
2010-11	10	Dec: 8,13 Jan: 15, 16, 21, 22, 23, 30 Feb: 9, 10
2009-10	7	Dec: 28 Jan: 2, 8, 9, 28, 29, 30
2008-09	27	Dec: 7, 19, 20, 21, 22, 31 Jan: 3, 10, 13, 14, 15, 16, 19, 20, 23, 24, 25, 26, 30 Feb: 3, 4, 23, 27, 28 Mar: 1, 2, 3
2007-08	13	Nov: 22 Dec: 16 Jan: 1, 2, 19, 30 Feb: 10, 11, 20, 27, 28 Mar: 8, 22
2006-07	18	Jan: 15, 16, 24, 25, 28 Feb: 3, 4, 5, 6, 7, 12, 13, 14, 15, 18, 23 Mar: 5, 6
2005-06	9	Dec: 11, 12, Jan: 15 Feb: 17, 18, 19, 25, 26, 27
2004-05	23	Dec: 19, 20, 26 Jan: 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 Feb: 23, 24, 26 Mar: 2, 3, 8, 9, 13

Source: City of Toronto Housing & Homelessness Services, Statistics on Extreme Cold Weather Alerts in Toronto

Table 12: Contextual Indicator - Hot Weather Alerts in Toronto

Summer (May 15th to Sep 30)	Total Days	Dates
2011	12	May: 31 Jun: 8 Jul: 16, 17, 19, 20, 21, 22, 23, 24 Aug: 1 Sep: 3
2010	16	May: 24, 25, 26, 27, 30, 31 Jul: 4, 5, 6, 7, 8 Aug: 29, 30, 31 Sep: 1, 2
2009	3	Jun: 24, 25 Aug: 17
2008	9	Jun: 8, 9 Jul: 2, 7, 8, 16, 17, 18 Aug: 23
2007	15	May: 24, 31 Jun: 1, 12, 13, 25, 26, 27 Jul: 8, 9, 31 Aug: 1, 2, 3, 6

Source: City of Toronto Public Health, Alert Statistics – Heat Alert and Extreme Heat Alert

Table 13: Contextual Indicator - Commuting Flows in the GTHA (2001)

	2001					
	Toronto	Durham	York	Peel	Halton	Hamilton
Toronto	35.1%	0.4%	4.5%	3.3%	0.3%	0.0%
Durham	3.1%	4.6%	0.9%	0.2%	0.0%	0.0%
York	6.6%	0.2%	6.5%	1.0%	0.1%	0.0%
Peel	5.8%	0.0%	1.0%	11.2%	0.8%	0.1%
Halton	1.5%	0.0%	0.1%	1.7%	3.0%	0.4%
Hamilton	0.3%	0.0%	0.0%	0.3%	1.3%	5.4%

Source: Transportation Tomorrow Survey

Table 14: Contextual Indicator - Commuting Flows in the GTHA (2006)

	2006					
	Toronto	Durham	York	Peel	Halton	Hamilton
Toronto	32.3%	0.5%	4.2%	3.2%	0.3%	0.1%
Durham	3.1%	4.8%	1.0%	0.1%	0.0%	0.0%
York	7.2%	0.2%	7.3%	1.1%	0.1%	0.0%
Peel	5.8%	0.1%	1.1%	12.0%	1.0%	0.1%
Halton	1.5%	0.0%	0.2%	2.2%	3.4%	0.4%
Hamilton	0.2%	0.0%	0.0%	0.3%	1.3%	4.8%

Source: Transportation Tomorrow Survey

Data tables: Key Performance Indicators

Table 15: Transportation Mode Share for all trips in the GTHA between 6-9am, by geography

1986	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	57.0%	75.7%	74.8%	74.2%	79.1%	72.7%	65.0%
Transit	31.5%	7.5%	9.1%	10.4%	7.2%	12.0%	21.3%
Walk + Cycle	10.1%	10.5%	7.9%	10.1%	8.9%	11.7%	10.1%
Other	1.5%	6.3%	8.2%	5.3%	4.8%	3.7%	3.6%
1991	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	60.5%	78.7%	77.4%	76.5%	77.3%	73.4%	68.4%
Transit	28.8%	7.7%	8.7%	10.3%	8.2%	10.5%	18.7%
Walk + Cycle	9.6%	6.7%	7.5%	8.3%	8.5%	11.6%	9.2%
Other	1.1%	6.9%	6.4%	4.9%	6.1%	4.4%	3.7%
1996	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	59.9%	77.8%	79.0%	78.4%	81.0%	76.0%	69.5%
Transit	27.7%	7.4%	7.9%	8.9%	5.9%	7.4%	16.9%
Walk + Cycle	11.1%	9.8%	7.3%	8.2%	7.8%	11.6%	10.0%
Other	1.3%	5.0%	5.8%	4.5%	5.2%	5.1%	3.6%
2001	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	60.9%	78.6%	80.6%	79.0%	81.6%	77.1%	71.2%
Transit	26.9%	7.1%	7.6%	9.0%	6.8%	6.9%	15.9%
Walk + Cycle	10.9%	9.1%	6.0%	7.7%	7.0%	10.7%	9.3%
Other	1.3%	5.1%	5.7%	4.3%	4.6%	5.3%	3.6%
2006	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	59.9%	79.5%	79.7%	78.6%	82.2%	75.8%	71.3%
Transit	27.8%	7.7%	9.2%	9.4%	6.6%	8.4%	16.1%
Walk + Cycle	10.8%	8.1%	6.2%	7.4%	6.8%	10.0%	8.9%
Other	1.4%	4.6%	4.9%	4.5%	4.4%	5.7%	3.7%
2011	Toronto	Durham	York	Peel	Halton	Hamilton	GTHA
Drive + Passenger	58.0%	79.0%	79.3%	77.9%	80.6%	77.2%	71.0%
Transit	29.3%	9.5%	11.3%	10.9%	8.9%	8.8%	17.4%
Walk + Cycle	10.9%	6.9%	5.6%	6.9%	6.1%	8.2%	8.2%
Other	1.8%	4.6%	3.9%	4.3%	4.4%	5.8%	3.4%

Table 16: Annual Transit Passenger Trips (million) in the GTHA & Annual Transit Trips per Capita in the GTHA

Year	Annual Passenger Trips	Transit Passenger Trips per capita
1986	524,189,613	126.11
1987	548,471,878	128.67
1988	558,230,886	127.78
1989	554,199,802	123.84
1990	564,523,174	123.23
1991	528,162,950	112.68
1992	504,026,002	105.68
1993	490,703,102	101.15
1994	484,013,275	98.12
1995	483,608,081	96.44
1996	467,690,138	91.76
1997	480,855,821	92.62
1998	486,656,119	92.05
1999	495,879,281	92.14
2000	519,717,374	94.89
2001	533,284,059	95.71
2002	530,473,786	93.56
2003	523,191,521	90.71
2004	541,583,268	92.34
2005	562,138,335	94.27
2006	581,386,338	95.93
2007	603,117,112	97.86
2008	617,824,211	98.60
2009	620,165,520	97.38
2010	633,362,054	97.87
2011	667,904,971	101.60

Table 17: Annual Vehicle Hours travelled per capita in the GTHA & Annual Transit Trips per Capita in the GTHA

Year	Total Vehicle Hours	Total Vehicle Hours per capita
1986	10,021,819	2.4
1987	10,462,134	2.5
1988	10,692,244	2.4
1989	10,712,453	2.4
1990	11,053,606	2.4
1991	10,879,732	2.3
1992	10,653,078	2.2
1993	10,426,234	2.1
1994	10,283,201	2.1
1995	10,308,663	2.1
1996	9,941,593	2.0
1997	9,992,905	1.9
1998	10,128,639	1.9
1999	10,239,291	1.9
2000	10,635,523	1.9
2001	10,910,324	2.0
2002	11,262,810	2.0
2003	11,539,611	2.0
2004	11,738,596	2.0
2005	11,860,489	2.0
2006	12,409,148	2.0
2007	12,698,574	2.1
2008	12,760,100	2.0
2009	13,464,029	2.1
2010	13,663,217	2.1
2011	13,798,989	2.1

Table 18: Total route km of regional rapid transit in the GTHA (from 1951 to present), by mode and year

Opening Year	Line	Mode	Start	Terminus	Route Length (km)*	Weighting **	Weighted Route Length (km)
1967	Lakeshore West	GO Rail	Toronto	Hamilton	63.3	1.0	63.3
1967	Lakeshore East	GO Rail	Toronto	Pickering	34.1	1.0	34.1
1974	Georgetown	GO Rail	Toronto	Georgetown	47.0	1.0	47.0
1978	Richmond Hill	GO Rail	Toronto	Richmond Hill	33.8	1.0	33.8
1981	Milton	GO Rail	Toronto	Milton	50.2	1.0	50.2
1982	Bradford	GO Rail	Toronto	Holland River	66.0	1.0	66.0
1982	Stouffville	GO Rail	Toronto	Stouffville	46.6	1.0	46.6
1988	Lakeshore East	GO Rail	Pickering	Whitby	12.7	1.0	12.7
1990	Georgetown	GO Rail	Georgetown	No.32 Side Road (Halton)	14.2	1.0	14.2
1990	Lakeshore East	GO Rail	Whitby	Oshawa	4.3	1.0	4.3
1993	Georgetown	GO Rail	Toronto	Georgetown	-14.2	1.0	-14.2
1996	Lakeshore West	GO Rail	Hamilton Jct	Hamilton (North)	-3.2	1.0	-3.2
1996	Lakeshore West	GO Rail	Hamilton Jct	Hamilton (TH&B)	4.7	1.0	4.7
2008	Stouffville	GO Rail	Stouffville	Lincolnville	2.7	1.0	2.7
2011	Kitchener	GO Rail	Georgetown	No.32 Side Road (Halton Reg. bdy)	14.2	1.0	14.2
Subtotal: Regional Rail					376.4		376.4
1954	Yonge	Subway	Union	Eglinton	7.1	1.0	7.1
1963	University	Subway	Union	St. George	3.5	1.0	3.5
1966	Bloor-Danforth	Subway	Keele	Woodbine	12.5	1.0	12.5
1968	Bloor	Subway	Keele	Islington	5.5	1.0	5.5
1968	Danforth	Subway	Woodbine	Warden	4.5	1.0	4.5
1973	Yonge	Subway	Eglinton	York Mills	4.2	1.0	4.2
1974	Yonge	Subway	York Mills	Finch	4.1	1.0	4.1
1978	Spadina	Subway	St. George	Wilson	9.3	1.0	9.3
1980	Danforth	Subway	Warden	Kennedy	2.6	1.0	2.6
1980	Bloor	Subway	Islington	Kipling	1.3	1.0	1.3

1987	Yonge	Subway	North York	N/A			0.0
1996	Spadina	Subway	Wilson	Downsview	2.0	1.0	2.0
2002	Sheppard	Subway	Yonge	Don Mills	5.4	1.0	5.4
Subtotal: Subway					61.9	-	61.9
1985	Scarborough	RT	Kennedy	McCowan	6.5	-	6.5
Subtotal: Other Rapid Transit (LRT/BRT/AGT)					6.5	-	6.5
2005	Viva Blue	BRT Light	Finch	Newmarket	31.3	0.5	15.6
2005	Viva Purple West	BRT Light	York University	McCowan	26.6	0.5	13.3
2006	Viva Pink	BRT Light	Finch	Unionville	0	0.5	0
2008	Viva Purple East	BRT Light	McCowan	Markham-Stouffville Hospital	5.1	0.5	2.5
2009	196 York University Rocket	BRT Light	Downsview	York University	5.9	0.5	3.0
2009	VIVA Orange	BRT Light	Martin Grove	York University	11.3	0.5	5.6
2010	Brampton Züm	BRT Light	Brampton	York University	16.5	0.5	8.3
Subtotal: BRT Light					96.6		48.3
TOTAL					541.4		493.1

Table 19: Percent of GTHA population living within 2km of regional rapid transit

Year	1986	1991	1996	2001	2006	2011
GTHA Population	4,062,948	4,569,606	4,926,368	5,386,138	5,871,883	6,577,180
Living with 2 km of stations	1,841,794	2,000,181	2,181,944	2,294,222	2,763,847	3,223,356
% of residents living within 2 km	45%	44%	44%	43%	47%	49%

Table 20: Percent of GTHA working population working within 2km of regional rapid transit

Year	1986	1991	1996	2001	2006	2011
GTHA Workers		2,323,182	2,394,203	2,683,768	2,860,903	3,143,058
Working within 2 km of stations		873,250	859,770	1,005,924	1,295,632	1,576,910
% of workers working within 2 km		38%	36%	37%	45%	50%

Table 21: Transportation mode share for the commute to work of working individuals over 15 years of age residing in a low-income household, 1996-2006

Transportation mode share for the commute to work of working individuals over 15 years of age residing in a low-income household									
		Car, truck, van as driver	Car, truck, van as passenger	Public transit	Walked to work	Bicycle	Motor cycle	Taxi cab	Other method
1996	GTHA	47.5%	7.4%	33.8%	9.0%	1.3%	0.1%	0.2%	0.8%
	Toronto	37.1%	5.5%	45.0%	9.7%	1.6%	0.1%	0.2%	0.8%
	GTHA (excluding Toronto)	64.0%	10.3%	15.7%	7.9%	0.8%	0.1%	0.3%	1.0%
2001	GTHA	45.7%	6.5%	35.6%	9.5%	1.4%	0.0%	0.3%	0.9%
	Toronto	34.8%	4.7%	47.3%	10.4%	1.7%	0.0%	0.3%	0.8%
	GTHA (excluding Toronto)	62.9%	9.3%	17.3%	8.1%	0.9%	0.0%	0.4%	1.1%
2006	GTHA	45.9%	7.9%	33.1%	9.7%	1.6%	0.1%	0.4%	1.3%
	Toronto	34.0%	5.9%	44.9%	11.4%	2.2%	0.1%	0.3%	1.3%
	GTHA (excluding Toronto)	61.5%	10.4%	17.8%	7.6%	0.9%	0.0%	0.4%	1.3%
2011	GTHA	-	-	-	-	-	-	-	-
	Toronto	-	-	-	-	-	-	-	-
	GTHA (excluding Toronto)	-	-	-	-	-	-	-	-

Table 22: Transportation mode share for the commute to work of working individuals over 15 years of age residing in a low-income household, 1996-2006, by geography

	Region	Car, truck, van as driver	Car, truck, van as passenger	Public transit	Walked to work	Bicycle	Motor cycle	Taxi cab	Other method
1996	GTHA	47.4%	7.4%	33.7%	9.0%	1.3%	0.1%	0.2%	0.8%
	Durham	67.7%	12.2%	8.8%	9.2%	0.7%	0.1%	0.4%	0.9%
	York	71.4%	10.2%	11.7%	5.0%	0.4%	0.0%	0.2%	1.1%
	Toronto	37.1%	5.5%	45.0%	9.7%	1.6%	0.1%	0.2%	0.8%
	Peel	64.4%	10.1%	19.2%	4.7%	0.4%	0.1%	0.3%	0.9%
	Halton	66.2%	10.3%	10.7%	9.9%	1.2%	0.0%	0.6%	1.2%
	Hamilton	53.6%	9.8%	19.4%	14.2%	1.6%	0.1%	0.4%	0.8%
2001	GTHA	45.7%	6.5%	35.6%	9.5%	1.4%	0.0%	0.3%	0.9%
	Durham	65.0%	10.2%	11.1%	10.7%	1.3%	0.0%	0.6%	1.0%
	York	70.7%	9.6%	12.6%	5.0%	0.5%	0.1%	0.5%	1.0%
	Toronto	34.8%	4.7%	47.3%	10.4%	1.7%	0.0%	0.3%	0.8%
	Peel	62.0%	9.5%	21.6%	5.0%	0.6%	0.0%	0.4%	1.0%
	Halton	63.9%	10.9%	11.6%	11.1%	1.1%	0.0%	0.4%	1.0%
	Hamilton	55.7%	7.5%	19.7%	13.8%	1.7%	0.0%	0.2%	1.4%
2006	GTHA	45.9%	7.9%	33.1%	9.7%	1.6%	0.1%	0.4%	1.3%
	Durham	63.0%	11.7%	13.6%	8.5%	1.0%	0.0%	0.9%	1.3%
	York	66.7%	10.9%	14.4%	5.7%	0.6%	0.0%	0.4%	1.2%
	Toronto	34.0%	5.9%	44.9%	11.4%	2.2%	0.1%	0.3%	1.3%
	Peel	61.4%	10.7%	20.9%	4.8%	0.5%	0.1%	0.3%	1.4%
	Halton	66.9%	8.6%	10.4%	10.2%	1.6%	0.0%	0.7%	1.7%
	Hamilton	50.8%	9.0%	22.4%	14.3%	1.8%	0.0%	0.5%	1.1%

Table 23: Proportion of GTHA transit fleet vehicles that are accessible

Year	Total Active Vehicles (GTHA)	Total Accessible Vehicles	Percentage Accessible
1986	-	-	-
1987	-	-	-
1988	-	-	-
1989	-	-	-
1990	-	-	-
1991	-	-	-
1992	-	-	-
1993	-	-	-
1994	-	-	-
1995	-	-	-
1996	-	-	-
1997	-	-	-
1998	-	-	-
1999	-	-	-
2000	-	-	-
2001	-	-	-
2002	3,477	1,080	31%
2003	3,601	1,362	38%
2004	3,621	1,550	43%
2005	3,809	2,079	55%
2006	3,903	2,364	61%
2007	3,964	2,649	67%
2008	4,238	3,532	83%
2009	4,441	3,825	86%
2010	4,441	4,036	91%

Table 24: Transportation mode share of children (aged 12-16 years) travelling to school

	Passenger + Drive	Transit + Walk + Cycle	School Bus	Total
1986	10.8%	64%	18.4%	100%
1991	16.5%	61%	20.2%	100%
1996	20.0%	57%	17.1%	100%
2001	23.0%	53%	19.0%	100%
2006	24.7%	52%	18.7%	100%
2011	26.8%	55%	18.4%	100%

Table 25: Transportation mode share of children (aged 12-16 years) travelling to school, by geography

All Trips		Drive + Passenger	Transit	Walk + Cycle	Schoolbus
1986	Toronto	9.1%	37.7%	47.6%	5.6%
	Durham	12.1%	9.0%	48.3%	30.4%
	York	16.0%	7.4%	34.7%	41.9%
	Peel	12.2%	7.8%	54.5%	25.4%
	Halton	12.4%	8.0%	51.0%	28.4%
	Hamilton	8.8%	18.0%	51.1%	22.1%
	GTHA	10.8%	22.6%	48.1%	18.4%
1991	Toronto	15.2%	36.2%	42.8%	5.8%
	Durham	13.8%	8.8%	37.3%	39.9%
	York	17.5%	11.2%	37.6%	33.3%
	Peel	19.2%	9.2%	47.8%	23.7%
	Halton	16.5%	6.3%	45.7%	31.5%
	Hamilton	17.2%	14.8%	44.4%	23.6%
	GTHA	16.5%	20.4%	42.9%	20.2%
1996	Toronto	16.2%	35.7%	43.1%	4.9%
	Durham	18.0%	12.3%	46.0%	23.5%
	York	26.7%	7.9%	36.9%	28.1%
	Peel	23.0%	9.5%	43.4%	23.9%
	Halton	26.7%	3.1%	42.6%	27.3%
	Hamilton	17.0%	10.3%	47.2%	25.5%
	GTHA	20.0%	19.8%	42.9%	17.1%
2001	Toronto	18.7%	32.2%	43.5%	5.5%
	Durham	21.7%	8.6%	43.5%	26.0%
	York	29.7%	5.6%	33.2%	31.5%
	Peel	25.0%	8.6%	42.7%	23.5%
	Halton	29.9%	3.4%	39.3%	27.3%
	Hamilton	20.2%	10.6%	41.5%	27.7%
	GTHA	23.0%	16.7%	41.2%	19.0%
2006	Toronto	20.4%	31.5%	42.0%	6.0%
	Durham	24.1%	8.7%	43.8%	23.4%
	York	30.1%	6.2%	36.2%	27.4%
	Peel	28.3%	7.3%	40.6%	23.5%
	Halton	28.7%	4.0%	41.6%	25.5%
	Hamilton	18.7%	11.8%	40.2%	29.2%
	GTHA	24.7%	15.8%	40.7%	18.7%
2011	Toronto	21.5%	31.6%	39.3%	7.5%
	Durham	26.8%	8.1%	39.8%	25.1%
	York	33.8%	9.1%	34.8%	22.1%
	Peel	31.4%	8.5%	38.2%	22.0%
	Halton	29.1%	4.6%	38.1%	28.0%
	Hamilton	19.9%	11.3%	36.3%	32.5%
	GTHA	26.8%	16.7%	38.0%	18.4%

Table 26: Transportation mode share of seniors (age 65+)

	Drive + Passenger	Transit	Walk + Cycle + Other	Total
1986	82.0%	17.2%	0.9%	100%
1991	83.4%	14.1%	2.5%	100%
1996	87.3%	11.0%	1.7%	100%
2001	90.2%	8.5%	1.3%	100%
2006	89.7%	8.8%	1.5%	100%
2011	90.9%	7.6%	1.6%	100%

Table 27: Transportation mode share of seniors (age 65+), by geography

All Trips		Drive + Passenger	Transit	Walk + Cycle + Other
1986	Toronto	75.9%	23.3%	0.9%
	Durham	95.0%	4.5%	0.5%
	York	93.5%	5.0%	1.6%
	Peel	89.9%	9.5%	0.6%
	Halton	94.0%	5.3%	1.2%
	Hamilton	85.2%	14.2%	0.7%
	GTHA	82.0%	17.2%	0.9%
1991	Toronto	77.2%	19.6%	3.3%
	Durham	96.5%	3.1%	0.4%
	York	90.2%	8.1%	1.6%
	Peel	92.8%	6.2%	1.0%
	Halton	94.5%	4.0%	1.5%
	Hamilton	83.5%	13.8%	2.9%
	GTHA	83.4%	14.1%	2.5%
1996	Toronto	81.7%	16.1%	2.1%
	Durham	97.3%	1.7%	1.0%
	York	95.2%	3.7%	1.1%
	Peel	92.8%	6.5%	0.7%
	Halton	96.3%	2.9%	0.9%
	Hamilton	88.3%	9.6%	2.1%
	GTHA	87.3%	11.0%	1.7%
2001	Toronto	84.8%	13.5%	1.8%
	Durham	96.4%	2.9%	0.7%
	York	95.8%	3.3%	0.9%
	Peel	94.0%	5.3%	0.8%
	Halton	97.3%	1.8%	0.9%
	Hamilton	92.3%	6.6%	1.1%
	GTHA	90.2%	8.5%	1.3%
2006	Toronto	83.2%	14.6%	2.2%
	Durham	97.1%	2.2%	0.7%
	York	95.5%	3.7%	0.8%
	Peel	93.8%	5.2%	1.0%
	Halton	96.7%	2.4%	0.9%
	Hamilton	93.4%	5.7%	0.9%
	GTHA	89.7%	8.8%	1.5%
2011	Toronto	83.5%	13.9%	2.7%
	Durham	97.4%	1.9%	0.6%
	York	96.6%	2.8%	0.6%
	Peel	95.1%	4.3%	0.5%
	Halton	97.4%	1.6%	0.9%
	Hamilton	93.5%	5.1%	1.4%
	GTHA	90.9%	7.6%	1.6%

Table 28: Annual road-based accident fatalities in the GTHA & road-based accident injuries in the GTHA

	Durham		Halton		Hamilton		Peel		Toronto		York		GTHA			
Year	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities per capita	Injuries per capita
1986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1993	36	3,128	21	2,259	31	4,255	61	5,364	79	21,474	57	3,606	285	40,086	0.06	8.26
1994	31	3,155	27	2,312	23	4,035	60	5,189	80	22,380	33	3,738	254	40,809	0.05	8.27
1995	36	3,119	27	2,196	34	3,777	45	4,910	88	26,131	51	3,529	281	43,662	0.06	8.71
1996	38	3,200	26	2,113	28	3,769	50	4,762	80	28,414	37	3,527	259	45,785	0.05	8.98
1997	27	3,020	19	2,263	30	3,706	39	4,580	88	26,943	47	3,275	250	43,787	0.05	8.43
1998	43	2,834	22	2,121	24	3,426	46	4,235	85	26,938	37	3,149	257	42,703	0.05	8.08
1999	37	3,126	27	2,044	18	3,471	50	4,105	92	26,660	48	3,604	272	43,010	0.05	7.99
2000	45	2,937	22	2,212	24	3,533	52	4,222	69	27,091	36	3,709	248	43,704	0.05	7.98
2001	41	3,000	18	1,752	20	3,558	50	4,382	56	25,720	40	3,841	225	42,253	0.04	7.58
2002	24	2,829	12	2,137	16	3,767	43	4,508	98	26,623	45	3,823	238	43,687	0.04	7.71
2003	36	2,580	25	2,256	23	3,101	52	3,873	89	24,471	28	3,604	253	39,885	0.04	6.92
2004	35	2,801	21	2,466	27	3,109	44	4,091	76	20,007	44	3,688	247	36,162	0.04	6.17
2005	36	2,620	17	2,473	26	2,973	53	4,064	72	19,264	40	3,744	244	35,138	0.04	5.89
2006	29	2,438	17	2,254	29	2,879	47	4,067	64	19,201	38	3,411	224	34,250	0.04	5.65
2007	35	2,370	21	2,428	38	2,985	43	4,120	58	18,103	28	3,370	223	33,376	0.04	5.42
2008	24	2,070	18	2,093	16	2,823	40	4,007	64	17,136	34	3,381	196	31,510	0.03	5.03
2009	18	1,873	14	2,039	21	2,741	35	4,460	53	18,154	19	3,560	160	32,827	0.03	5.15
2010	28	2127	14	1887	24	2345	46	4,961	43	18249	19	4308	174	33,877	0.03	5.23
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 29: Average number of smog advisory days issued across the GTHA (per year)

Average number of smog advisory days issued across the GTHA (per year)															
	Downtown Hamilton	Hamilton Mountain	Hamilton West	Downtown Toronto	Toronto East	Toronto North	Toronto West	Burlington	Oakville	Oshawa	Brampton	Mississauga	Newmarket	GTA	GTHA
1986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-
1990	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-
1991	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-
1992	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
1993	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-
1994	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-
1995	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-
1996	1	-	-	0	-	-	-	-	-	-	-	-	-	7	-
1997	5	-	-	2	-	-	-	-	-	-	-	-	-	8	-
1998[1]	7	-	-	6	15*	11+	16^	5	10	9	-	14	-	11	10.8
1999	7	-	-	8	-	-	-	-	-	-	-	-	-	-	7.5
2000	5	-	-	4	3	2	4	2	5	2	-	4	-	-	3.4
2001	10	-	-	13	16	13	13	13	7	11	14	19	16	-	13.2
2002	21**	-	10	24	22	23	22	30	18	24	16	22	26	-	21.5
2003	22	19	17	12	12	11	15	11	22	10	13	13	10	-	14.38
2004	12	12	12	6	8	10	10	6	8	9	7	8	6	-	8.77
2005	20	24	15	20	22	20	25	16	20	19	24	24	21	-	20.77
2006	5	9	5	9	9	5	6	7	4	9	7	8	8	-	7
2007	17	-	11	13	17	15	15	13	13	14	11	9	16	-	13.67
2008	4	4	3	5	4	1	5	2	2	2	5	2	2	-	3.15
2009	1	2	0	1	3	2	2	1	2	2	2	2	3	-	1.77
2010	4	4	2	8	2	2	3	4	4	5	0	2	2	-	3.23
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25

[1]York – 14, Etobicoke West - 12 *Scarborough Reading, + North York Reading, ^ Etobicoke South Reading, **City of Hamilton Reading

Table 30: Per Capita CO_2 Emissions since 1986

Year	Auto Trips	Total KM (straight line distance)	Total KM (adjusted to Manhattan distance)	Population	Kt/Day	Kt/yr	T/yr/ capita
1986	4,743,893	54,988,169	70,934,738	4,156,458	23.93	7657.6	1.84
1991	6,169,148	68,597,275	88,490,485	4,687,421	29.85	9552	2.04
1996	6,283,277	69,500,787	89,656,015	5,096,682	30.25	9680	1.90
2001	7,369,792	84,451,430	108,942,345	5,572,104	36.76	11763.2	2.11
2006	7,656,241	84,443,665	108,932,328	6,060,471	36.75	11760	1.94
2011	8,421,512	92,086,871	118,792,063.59	6,574,140	37.20	11904-	14.1

Table 31: Cumulative CO_2 Emissions Per Capita since 1986

To Year:	Cumulative GHG (T/person)
1986	1.84 (Base year)
1991	11.25
1996	21.30
2001	31.01
2006	41.39
2011	50.97
2016	Not yet available

Table 32: Number of urban centres reachable within 45 minutes by transit

Urban Centre	From	To
Hamilton	1	1
Burlington	2	2
Oakville	4	4
Milton	2	2
Brampton	2	1
Mississauga	5	4
Toronto Downtown	6	8
Vaughan	1	1
Newmarket	0	1
Yonge & Eglinton	5	5
North York Centre	4	5
Etobicoke	4	5
Markham Centre	3	3
Richmond Hill	5	6
Scarborough Centre	7	4
Downtown Pickering	2	3
Downtown Oshawa	1	1
Pearson Airport	4	3

Table 33: Scheduled transit travel time to urban centres (for centres within 45 minutes travel time of each other)

From>>To	Hamilton	Burlington	Oakville	Milton	Brampton	Mississauga	Toronto Downtown	Vaughan	Newmarket	Yonge & Eglinton	North York Centre	Etobicoke	Markham Centre	Richmond Hill	Scarborough Centre	Downtown Pickering	Downtown Oshawa	Pearson	COUNT
Hamilton	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burlington	34	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Oakville	-	18	-	40	-	30	30	-	-	-	-	-	-	-	-	-	-	-	4
Milton	-	-	-	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	1
Brampton	-	-	-	-	-	39	39	-	-	-	-	-	-	-	-	-	-	-	2
Mississauga	-	-	33	32	37	-	-	-	-	-	-	30	-	-	-	-	-	43	5
Toronto Downtown	-	-	42	-	-	-	-	-	-	16	27	38	-	-	43	38	-	-	6
Vaughan	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	1
Newmarket	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Yonge & Eglinton	-	-	-	-	-	-	19	-	-	-	11	40	-	37	28	-	-	-	5
North York Centre	-	-	-	-	-	-	27	-	-	10	-	-	-	29	24	-	-	-	4
Etobicoke	-	-	-	-	-	38	25	-	-	41	-	-	-	-	-	-	-	21	4
Markham Centre	-	-	-	-	-	-	-	-	-	-	40	-	-	12	37	-	-	-	3
Richmond Hill	-	-	-	-	-	-	42	38	-	-	37	-	11	-	-	-	-	20	5
Scarborough Centre	-	-	-	-	-	-	35	-	35	44	33	-	44	32	-	43	-	-	7
Downtown Pickering	-	-	-	-	-	-	29	-	-	-	-	-	-	-	-	-	20	-	2
Downtown Oshawa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	1
Pearson Airport	-	-	-	-	-	36	-	-	-	-	-	24	43	20	-	-	-	-	4
COUNT	1	2	3	2	1	4	8	1	1	4	5	4	3	6	4	3	1	3	-

Table 34: Average bi-directional vehicle speed (km/h) on key highways in the GTHA in the morning peak period

Average bi-directional speed	407 ETR	QEW	Hwy 401	Gardiner	Hwy 404	DVP	Hwy 400
1986	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-
2002 base	105	85	84	-	80	-	108
2004	-	-	-	-	-	-	-
2006 base	103	-	86	59	84	59	108
2008	97	73	85	-	72	54	91
2010 latest data	109	82	83	52	73	47	80
2012	-	-	-	-	-	-	-

Table 35: Operating cost ($) per passenger for GTHA

Year	Direct Operating Cost per Passenger	Consumer Price Index	Inflation Adjusted Operating Cost per Passenger (adjusted using Consumer Price Index)
1986	$1.22	$65.60	$1.86
1987	$1.26	$68.50	$1.84
1988	$1.33	$71.20	$1.86
1989	$1.46	$74.80	$1.95
1990	$1.61	$78.40	$2.05
1991	$1.81	$82.80	$2.19
1992	$2.00	$84.00	$2.38
1993	$2.03	$85.60	$2.37
1994	$2.01	$85.70	$2.34
1995	$1.99	$87.60	$2.27
1996	$2.09	$88.90	$2.35
1997	$2.06	$90.40	$2.27
1998	$1.99	$91.30	$2.18
1999	$1.97	$92.90	$2.12
2000	$2.03	$95.40	$2.13
2001	$2.14	$97.80	$2.19
2002	$2.32	$100.00	$2.32
2003	$2.51	$102.80	$2.44
2004	$2.58	$104.70	$2.46
2005	$2.62	$107.00	$2.45
2006	$2.79	$109.10	$2.56
2007	$2.92	$111.50	$2.62
2008	$3.15	$114.10	$2.76
2009	$3.41	$114.40	$2.98
2010	$3.59	$116.50	$3.08
2011		$119.90	
2012		$121.70	

End Notes

[i] This includes BRT Light. Without BRT Light, the total length of the rapid transit network is 445km.
[ii] Interchange stations (Spadina, St. George, Bloor-Yonge, Sheppard-Yonge, and Kennedy) are counted as two stations each.
[iii] Research indicates that roads and streets become safer for pedestrians and cyclists when there are greater numbers of pedestrians and cyclists. See: Jacobsen, P. L. (2003). "Safety in numbers: more walkers and bicyclists, safer walking and bicycling". *Injury Prevention* **9** (3): 205–209. doi:10.1136/ip.9.3.205. PMC 1731007. PMID 12966006. <http://ip.bmjjournals.com/cgi/content/full/9/3/205>. "A motorist is less likely to collide with a person walking and bicycling if more people walk or bicycle."
[iv] Ontario Ministry of the Environment: <http://www.ene.gov.on.ca/environment/en/category/climate_change/index.htm>
[v] For the purposes of this analysis, an urban centre is narrowly defined as an 800m walking distance to the central transit stop/station in an urban centre. As the indicator analysis looked at urban centre to urban centre trips, without consideration of any local transit connections.

THE BIG MOVE BASELINE MONITORING REPORT

APPENDIX B: INVENTORY OF INITIATIVES

September 2013

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Introduction

This Inventory of Initiatives accompanies The Big Move Baseline Monitoring Report, providing a detailed record of information received from delivery partners about work underway in support of implementing The Big Move.

The Big Move sets out ten strategies with 92 Priority Actions and Supporting Policies to achieve its vision, goals, and objectives. Are we making progress towards each of the Priority Actions? Are we implementing the Supporting Policies?

The Big Move sets out an action plan to guide us in transforming the transportation system in the GTHA. It is comprised of ten strategies:

- Build a Comprehensive Regional Rapid Transit Network
- Enhance and Expand Active Transportation
- Improve the Efficiency of the Road and Highway Network
- Create an Ambitious Transportation Demand Management Program
- Create a Customer-First Transportation System
- Implement an Integrated Transit Fare System
- Build Communities that are Pedestrian, Cycling and Transit-Supportive
- Plan for Universal Access
- Improve Goods Movement Within the GTHA and With Adjacent Regions
- Commit to Continuous Improvement.

Together, these key strategies provide a long-term vision with the flexibility for nimble action as commuting needs and technologies change. Each strategy contains both *Priority Actions* and *Supporting Policies.* In total, the Big Move identifies 92 Priority Actions and Supporting Policies.

- Priority Actions are specific and concrete action, or a ”to-do list”, for implementing each strategy. They are broad in scope and include legislation, policies, programs, planning and funding. Timescales for the delivery of each Priority Action varies widely.

- Supporting Policies are intended to guide day-to-day decision-making in support of each strategy. Regional policies can be adopted by agencies and jurisdictions beyond municipal governments and transit agencies. School boards and health boards, for example, can be critical players in delivering The Big Move.

Work has started on more than half of the Priority Actions and Supporting Policies, as detailed under each of The Big Move's 10 Strategies. There is significant progress and construction on the First Wave of regional rapid transit projects, and the Next Wave have been confirmed as the subsequent transit projects to be implemented.

Purpose of This Appendix

The Inventory of Initiatives was developed to support on-going monitoring of the Priority Actions and Supporting Policies of The Big Move, by creating a record of the responses received from municipal, transit agency, and provincial partners when surveyed in Spring 2012 on work underway in support of The Big Move.

Strategy #1: Build a Comprehensive Regional Rapid Transit Network

The majority of the Priority Actions and Supporting Policies under Strategy #1 are underway.

From the 1960s to the 1980s, 135 kilometres of rapid transit services were introduced per decade. This included both the TTC subway and the commuter rail operated by GO Transit. During the 1990s, this expansion all but ground to a halt. Despite significant investment and momentum over the past 10 years, the transit and transportation system has not caught up.

Beyond building rapid transit infrastructure across the GTHA, the Priority Actions in Strategy #1 set out to strengthen transportation connections between municipal boundaries in the GTHA, and establish protocols and best practices to enhance existing transit while providing for tomorrow's transit needs. These Priority Actions also focus on coordinating across the region to promote inter-operability between transit systems.

Strategy #1: Build a Comprehensive Regional Rapid Transit Network			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
1.1	Build the regional rapid transit network identified in Schedules 1 and 2, to bring fast, frequent, all-day, two-way express rail service and expanded regional rapid transit service to every region of the GTHA and to within two kilometres of 80 per cent of GTHA residents (see Section 5.0 for more detail).	In Progress	Please refer to Chapter 4: Building the Rapid Transit Network
1.2	Establish high-order transit connectivity to the Pearson Airport district from all directions, including a multi-purpose, fast transit link to downtown Toronto (see Section 5.0 for more detail).	In Progress	Transit services and links to improve transit connectivity to the Pearson Airport district that have been recently implemented or planned include: • Airport Rail Link (ARL), • The Mississauga BRT (formerly Hwy 403 Transitway Service) • Route 107 Airport Express to Mississauga City Centre and Malton • Route 115 Brampton Transit AIRPORT EXPRESS Airport Rail Link The Provincial government has committed to building the Airport Rail Link (ARL) (through Metrolinx). ARL is an operating division of Metrolinx and is in the early phases of organization, construction, design, building, branding and communications. Initial construction has begun and vehicle design is currently underway. The ARL is a 25-kilometre rail route, sharing the upgraded GO Transit rail corridor along the Kitchener line (formerly Georgetown line). A new three-kilometre rail spur will be constructed to connect the Kitchener line to Toronto Pearson Terminal 1. Trains will depart Union Station and Toronto Pearson every 15 minutes and will make stops at Bloor and Weston GO Stations. The ARL will provide a 25-minute journey between Union Station and Toronto Pearson Terminal 1. The ARL will be fully accessible, and is expected to feature onboard refreshments, Wi-Fi, luggage facilities, screens with flight information and self-service airline check-in machines. Construction of the ARL is expected to remove 1.2 million car trips annually while offering a critical transit alternative for quick and easy access to Toronto's downtown core and Toronto Pearson. In 2010, the Ontario Government asked Metrolinx to build, own and operate the ARL. In 2011, construction began on the ARL began on the Kitchener corridor, Tier-4 diesel multiple units were purchased and the

			construction contract for the ARL spur to Toronto Pearson Terminal 1 was awarded. Construction on the rail spur and passenger station at Toronto Pearson Terminal 1 is expected to begin in 2012. In Hamilton, a new Weekday Peak Periods bus service has been introduced, connecting the Hamilton City Centre with John C. Munro Hamilton International Airport.
1.3	The City of Toronto is proceeding with the revitalization of Union Station to provide new passenger concourse areas, accommodate GO Transit rail expansion, improve pedestrian access to and through the building, and expand customer amenities and retail areas. Metrolinx will work with the City of Toronto, GO Transit, and stakeholders on a long-range strategy that builds on the work already underway, to ensure that all existing and future initiatives to improve Union Station and its surrounding precinct are coordinated to implement the RTP. Union Station will become a customer-focused facility that provides seamless connections between all modes of transportation and the surrounding downtown Toronto area. Union Station should be developed in a way that maximizes not only the value of the station itself, including its cultural heritage value, but also the immediate precinct and broader region that it serves directly. It will also meet the needs of the passenger throughput that will result from the implementation of the RTP. The following will be clearly addressed: • upgrading of facilities to accommodate services proposed in the RTP, and required phasing	In Progress	The revitalization of Union Station has commenced. Construction began in February 2011 to improve the quality and capacity of pedestrian movement in and around the station; to restore heritage elements; and to transform Union Station into a major destination for shopping, dining and visiting. The improvements are anticipated to facilitate easier passenger transfer between the platform and concourse areas. Union Station's revitalization will result in many benefits to commuters, including bigger, brighter transit concourses, more exits and entrances to the station, new PATH connections and the introduction of an exciting and revitalized retail presence. Key aspects of the revitalization include: • Restoration and preservation of many of Union Station's heritage elements. • Creation of a new pedestrian retail concourse below the station. • Expansion of the GO concourses by threefold to accommodate the expected doubling of passengers at Union Station by 2031. • Restoration of the VIA Rail concourse. • Creation of a new PATH system connecting the northwest corner of Union Station to Wellington Street. • Expansion and increase in the number of station entrances, including the addition of a new PATH connection and tunnel to Union Plaza, Air Canada Centre and Maple Leaf Square. • Renovation of space in the west wing for Metrolinx's head office. • Incorporation of advanced environmental designs, such as deep-lake water cooling, district heating and energy-efficient technology Funding: Union Station's revitalization is an initiative supported by investments of $164 million from the Government of Canada, $172 million from the Government of Ontario, and $340 million from the City of Toronto.Project Schedule: Substantial project completion is expected in 2015, with final completion in 2016. Additional Planning work: In partnership with the City of Toronto and Arup, Metrolinx is currently updating pedestrian modelling analysis of Union Station with planned service level increases to understand the impact on pedestrian flows

	to allow for the timely delivery of services; and • identification of necessary investment and potential revenue streams to meet the above objectives.		
1.4	Integrate the Toronto bus terminal with Union Station to provide more seamless connections between regional rail and bus services.	In Progress	Metrolinx is currently undertaking a study to examine the feasibility of relocating the Toronto Coach Terminal at Union Station. The study will review operational considerations, capital and operating costs, integration benefits, among other considerations. Through consultation with stakeholders, the study will set out options and a recommendation.
1.5	Establish regional rapid transit connections outside the GTHA in a manner that supports the urban structure objectives of the Growth Plan for the Greater Golden Horseshoe and Greenbelt Plan. The conceptual network in Appendix C shows possible connections of the GTHA's transit network to municipalities surrounding the GTHA and other destinations outside of the region with both public and private transit services.	In Progress	Improving regional rapid transit connections can include improvements to existing services, feasibility and benefits case analyses, and introduction of new service routes. Recent studies and improved services for regional rapid transit connections beyond the GTHA include: Toronto-Peterborough Rail Connection In March 2008, the Federal and Provincial governments agreed to undertake a joint study for the potential reinstatement of passenger rail service between Toronto and Peterborough. The purpose of the study was to provide an assessment of the market potential and ridership demand, vehicle technology options, potential station locations, required infrastructure improvements, as well as to develop rough order of magnitude capital and operating cost estimates for feasible route alternatives and an implementation plan for the proposed service. Further advancement of the line has not been recommended to date. Kitchener / Waterloo A Benefits Case Analysis has been completed. Rail service between Kitchener and Waterloo has commenced, with two trains each way every weekday commencing December 2011, along with additional bus service between Kitchener and Bramalea GO (Route 30). GO Transit introduced a Waterloo bus service (Route #25) in 2009, with 10-14 buses per day providing service between Square One Terminal (Mississauga) and the University of Waterloo campus. This route now offers up to 30 trips per day. Barrie-Allandale Train service to Allandale Waterfront GO Station on the southern shore of Lake Simcoe commenced in January 2012. Peterborough

			In 2009, GO Transit started providing bus service between Trent University and Oshawa GO Station, with 10-13 buses per day Guelph Previously served by regional bus, rail service to and from Guelph was introduced in 2011. GO Transit introduced a new bus route, providing service between Guelph and Bramalea GO Station (Route 39). Niagara 2009, GO Transit introduced bus service between Burlington GO Station and Niagara Falls (Route 12). This new route also serves Stoney Creek.
1.6	In collaboration with the federal government, Québec and other provinces, private sector passenger transportation operators and other key stakeholders, identify concrete opportunities to align regional and national transportation objectives, including linking regional networks to national and international networks such as VIA Rail.	In Progress	This priority action involves two overlapping objectives: (a) identifying opportunities to align regional and national transportation objectives (b) identifying opportunities to link regional networks to national and international networks such as VIA Rail. Identifying opportunities to align regional and national transportation objectives The MTO works closely with Transport Canada in two ways: • The Strategic Initiatives & Federal, Provincial Relations Office, within the Policy and Planning Division, has a mandate to advance Ontario's transportation priorities and interests through development of strong federal and provincial working relationships. The office develops policy and strategic initiatives with respect to Ontario's transportation and transit agenda with the Federal government and other provinces, including strategic business planning, federal and provincial relations, and development of new emerging strategic policy initiatives. • MTO's Transit Policy Branch holds bi-weekly meetings with colleagues at Transport Canada to manage ongoing joint projects and initiatives. Identifying opportunities to link regional networks to national and international networks such as VIA Rail The Government of Canada, Government of Ontario and Government of Quebec completed a high-speed rail study for the Quebec City - Windsor Corridor in November 2011. The study evaluated the feasibility of high-speed passenger rail service through the Québec City-Windsor corridor. The joint study assessed available high speed train technologies, routing options, ridership estimates and financial and economic impacts, and found that high speed rail is feasible in the corridor. The three governments are carefully considering next steps and will work closely moving forward.

1.7	Remove barriers to the creation of Bus Bypass Shoulders on controlled-access expressways. Where feasible, create Bus Bypass Shoulders to allow transit vehicles to bypass congested areas.	In Progress	Bus Bypass shoulders on expressways facilitate improved transit journey times and reliability of transit service by allowing transit vehicles to bypass congested areas. Barriers to creating bus bypass lanes include legislative, geometric, operational and safety considerations. Opportunities to implement bus bypass lanes are pursued on a case by case basis. Bus vehicles are permitted to operate on paved shoulders on Highway 403 between Erin Mills Parkway and Mavis Road. The Ministry of Transportation (MTO) recently implemented Bus "Pass Through" treatments at Highway 401 interchanges in Durham which allow buses to use the exit ramp and pass through to the on-ramp, to facilitate by-passing a segment of freeway congestion. GO Transit has been working with the City of Toronto to implement Bus Bypass Lanes (BBL) on the Don Valley Parkway. A section of BBL is open in both directions between York Mills Road and Lawrence Avenue. An Environmental Project Report (EPR) study was completed in Spring 2012 for the implementation of BBL, along a 2.0 km section between north of Pottery Road to south of Don Mills Road, and, a 2.1 km section from north of Taylor Creek to south of St. Dennis Drive. Additionally, GO Transit and the City are looking to implement BBL between Eglinton Avenue and the CPR overpass.
1.8	Establish protocols within the provincial government to facilitate the use of provincially owned lands for transportation facilities.	Not Started	To date, the use of provincially owned lands, such as hydro corridors, highway corridors or rails yards, has been negotiated on a case-by-case basis. Existing protocols relate to procedures and related to disposal or sale of provincially-owned lands. Additional protocols may be established to facilitate the leasing or concession of provincially-owned lands to accommodate transportation facilities. The York University Busway is an example of a transportation facility making use of provincially-owned lands. In the City of Toronto, a 2.1 km dedicated busway was successfully implemented along the Finch Hydro Corridor. An easement agreement between Hydro One Networks Inc (Hydro One), Ontario Realty Corporation (ORC), Toronto Transit Commission (TTC) and the City of Toronto was negotiated to allow for the implementation of the dedicated busway.
1.9	Provide municipalities with tools and best practices to leverage funding for local transit and active transportation infrastructure from new development, such as: • amending the Development Charges Act to allow	In Progress	This priority action includes development of a best practices guide, amendments to the Development Charges Act, and the use of tools or strategies to leverage the implementation of local transit and active transportation infrastructure from new development. <u>Supporting work</u> that falls under the category of this priority action include: • Through the site plan approval process, York Region now requires that development applications

	municipalities to recover the full, growth-related costs of transit infrastructure, and to base cost recovery on a level of transit service above historical levels; • re-directing development charge levies collected within the broader transportation envelope to a variety of modes, including Transportation Demand Management and active transportation, so as to support the goals and objectives of the RTP, rather than extend past patterns into the future; • facilitating value-capture related to transit by expanding the use of special-area ratings of benefiting areas or developments; and/or • negotiating accelerated transit infrastructure investment in exchange for voluntary contributions from benefiting property owners.		provide resources for active transportation and transit, such as indoor and outdoor bike racks, secure bike storage, changing and shower facilities, complete pedestrian and cycling connections from the development site to the surrounding transportation network, and pre-loaded PRESTO cards of various amounts, depending on the site's anticipated level of transit service. • York Region has included Active Transportation and Transportation Demand Management programs in the Regional Development Charges Bylaw
1.10	Work with the region's public and private transportation providers, municipalities and large 24-hour trip generators to coordinate existing after-hours services and work towards the establishment of a region-wide 24-hour base transit network that serves entertainment districts, shift employers, and other areas of high demand in evening off-peak hours.	In Progress	There is still work to be done in developing a region-wide 24-hour base transit network. Implementation of after-hours transit service has seen varied progress across the region. Brampton Transit has begun offering extended-hours transit service on designated 'Primary Corridor Routes', with services starting between 4:00- 5:00 am and continuing until 1:00 am on weekdays. Hamilton Street Railway extended their Glanbrook TransCab service hours to match Hamilton Street Railway Service hours to provide transit service for Canada Bread shift workers. Transit agencies report that the primary challenge in implementing 24-hour transit service is funding. Inter-regional services between Toronto, Mississauga and York Region, for example, have had to be cut due to funding constraints.
1.11	Identify, prioritize and resolve gaps and bottlenecks in the transit network,	In Progress	Gaps and bottlenecks in the transit network can exist at the local and regional scale. On a regional scale resolutions for gaps and bottlenecks in the transit network across municipal boundaries are in various

	particularly where they cross municipal boundaries.		stages of planning and implementation. Bottlenecks Bottlenecks in the transit system include Bloor-Yonge Station and Union Station. Metrolinx is leading a study of Union Station to examine passenger volume and growth over the period to 2031, identifying the facility requirements to accommodate the current and future volume of passengers at the station. The study shows that operational improvements at Yonge-Bloor Station may be able to delay the need for more costly capital improvements. As of writing, the TTC is undertaking more detailed study to determine the specific operational and infrastructure improvements, triggers for implementation and capital costs as part of a long-term strategy for improving capacity at Bloor-Yonge Station. Gaps Regional rail transit services currently provide peak direction service in the morning and afternoon peak periods only. Introducing two-way, all-day service will fill a gap in the regional transit network. Gaps noted include: (1) The proposed Kipling Terminal redevelopment near the Mississauga/Toronto border remains a high priority gap that needs to be addressed. By operating to Islington subway instead of Kipling subway, Mississauga Miway is incurring additional operating expenses/service hours which could be deployed to improving service for customers elsewhere in Mississauga. (2) Gap of integrated service between Pickering (Durham Region) and Toronto TTC services - there is currently minimal service by the #109 Rouge Hill Shuttle, which operates only during peak hours from Monday to Friday. Efforts to minimize this gap have been made through the introduction of the #923 Bayly bus to the University of Toronto Scarborough in July 2012, which operates regular 20-minute extended peak hour service. The launch of BRT in mixed traffic to the University of Toronto Scarborough in July 2013 has brought further integration of services. The new service operates with a headway of 7.5 minutes during the peak. Supporting work The Toronto-York Spadina Subway Extension The Toronto-York Spadina Subway Extension extends the existing subway line from its current terminus at Downsview station north to Vaughan Metropolitan Centre Station. Service on the new extension is planned to start in late 2015, with trains running to York University Station.

			Hurontario/Main Street Rapid Transit Line Planning work for the Hurontario/Main Street rapid transit line commenced in late 2011. When implemented, the rapid transit line will provide enhanced transit service between the City of Mississauga and the City of Brampton. Inter-regional Coordination Inter-regional coordination and integration between Brampton Transit (Züm), Mississauga Transit (MiWay), York Region Transit (VIVA) as well as the TTC's surface transit and subway network are being planned to improve rapid transit linkages across the York Region-Toronto-Peel Region area. Mississauga and Brampton have planned to expand their express networks (MiExpress and Züm) through provision of increased transit frequency and new links to Humber College. Georgetown South Project Providing infrastructure improvements to meet existing GO Transit ridership demand and future growth, the Georgetown South Project will also accommodate existing and future VIA Rail and the new Air Rail Link (ARL) between Union Station and Pearson International Airport. Infrastructure improvements on this corridor set the foundation for future introduction of two-way, all-day service between City of Toronto and Highway 427 in the Region of Peel. Richmond Hill Rail Service Extension An Environmental Study Report (approved in September 2009) identified recommendations for the Richmond Hill rail corridor, from south of Major Mackenzie Drive in Richmond Hill to north of Aurora Road in Whitchurch-Stouffville. The study's recommendations included new service to be offered between Richmond Hill GO Station and Bloomington Road. This project is currently in the detailed design phase. Improvements will be implemented in two phases. Funding has been approved for Phase 1 of this project, expanding service to a new Gormley Station at Stouffville Road. Niagara Rail Service Extension Metrolinx/GO has completed an EA for the extension of GO rail service to St. Catharines and Niagara Falls. GO Transit is working to begin rail service on a section of this line between Aldershot and Stoney Creek by 2015. Extensions into Niagara Region will follow sometime after. Bowmanville Rail Service Extension Metrolinx/GO has completed an EA for the extension of GO rail service to Bowmanville in Clarington. The new service would have stations in central Oshawa, Courtice, and central Bowmanville. No timelines for this extension have been developed.

			Two-way, All-day Rail Service Two-way, all-day service on regional rail corridors is a long-term aspiration that will involve technical feasibility studies, infrastructure improvements, and funding. Metrolinx/GO is currently undertaking a study to identify and prioritize the introduction of two-way, all-day service on regional rail corridors. The study is anticipated to be finalized in early 2013.
1.12	Road-based transit shall make optimum use of existing road infrastructure, and minimize the need for road extensions, widenings and new roads.	In Progress	Road-based transit includes local bus service and bus rapid transit (BRT). Light Rail Transit (LRT) can also be built within existing road rights-of-way. Municipalities have reported that the challenge in building transit within existing rights-of way relates to the challenge of accommodating various infrastructure and signaling system requirements within a compact urban form. It can often be more costly to build in an existing right-of-way than on a greenfield or suburban corridor. Across the GTHA, there are BRT and LRT projects at different stages of planning and implementation. In most cases, there have been efforts to accommodate new transit lanes within existing rights-of-way. In many cases, this is not always possible, and road widenings are sometimes needed at intersections to accommodate both transit priority (such as a queue jumper lane) and traffic turning lanes. Some examples of successful use of existing road infrastructure for road-based transit include: • Brampton Transit ZÜM Brampton Transit ZÜM introduced BRT-light service on Queen Street from downtown Brampton to York University in 2010, and on Main Street from Downtown Brampton to Mississauga in 2011, where widenings have been limited to intersection improvements that include transit signal priority, queue bypass lanes, as well as improved shelters and passenger information on next vehicle arrival. Additional BRT-light services have been introduced on Main Street. Additional BRT services are planned along Steeles Avenue from Shoppers World to Humber College in Fall 2012. • York Region VIVA Similarly, York Region's VIVA phase 1 along Highway 7 and Yonge Street have rapid transit elements within the corridors. • Dundas Street and Trafalgar Road BRT Dundas Street BRT (between Brant Street to Trafalgar Road) and Trafalgar Road BRT (from Cornwall Road to 407 ETR) in Halton Region are two road-based transit projects that are currently in the planning stages of development. Halton Region is also studying the alignment of the Dundas Street BRT within Burlington and connections to Burlington GO and Appleby GO Stations. • City of Hamilton Rapid Transit In the City of Hamilton, rapid transit is being planned to operate on various corridors. Detailed planning for the 'B-Line', with service between McMaster University and Eastgate Square, is currently underway. Although the design is not yet completed, the final design will see two to three lanes of road space reallocated to the rapid transit line. In the short term, Hamilton is investigating Transit Priority Measures

			which may include a pilot transit-only lane, such as along the current B-Line route on King Street, from the CBD to Highway 403. In addition, a station amenity enhancement plan for the B Line route, and possibly A-Line route, is presently in the initial planning stages. • City of Toronto LRTs In the City of Toronto, the right-of-ways for St Clair Avenue and Roncesvalles Avenue were recently reconfigured to optimize transit without the need for road widening or extension. When implemented, future LRT on Transit City routes, such as Queens Quay and Finch Avenue, have been planned or will be planned to be implemented within the existing right-of-way, avoiding the need for road widening.
1.13	To the maximum extent possible, new transit infrastructure, including transit vehicles and technologies, should be compatible across the region and utilize common international standards. This would allow for better integration of transit services, inter-operability across the region, and cost-effective procurement.	In Progress	Metrolinx's Transit Procurement Initiative (TPI) works strategically with Ontario transit systems to achieve best value for money by facilitating joint procurements for buses and the goods and services that support transit bus operations. As of 2011, 24 municipalities in the province have procured close to 500 conventional and specialized transit buses through TPI, saving close to $9 million. In the GTHA, six out of the nine municipal transit systems have participated in TPI and have procured commonly specified buses. Building on this common fleet, TPI and its partners have developed a single supply chain solution for transit bus parts to pull inventory buying power of GTHA and Southern Ontario transit systems. The Transit Inventory Management Services (TIMS) program was rolled out in 2012 and preliminary results show savings of up to 20%. At the same time, rail-based transit projects in the GTHA are being planned on a case-by-case basis. Decisions about technologies and standards are being made to suit individual project needs. In some cases, for example, adopting 'standard gauge', the designated regional standard for LRT projects, would mean incompatibility with local existing rail-based transit, limiting the integration and inter-operability of transit vehicles within a single transit agency. This has resulted in incompatibilities between rail projects across the region. In Toronto, for example, the decision to use TTC standards instead of adopting the regional 'standard gauge' was made so as to maintain inter-operability and compatibility with the existing streetcar vehicles and infrastructure. The decision favors compatibility with the existing system over compatibility with other new LRT lines being planned in the region, such as Hamilton LRT or the Hurontario Street / Main Street LRT. The TTC, for example, replaced two current vehicle types (CLRV and ALRV) with a single type of vehicle.
1.14	Official Plans, secondary plans and municipal Transportation Master Plans should identify transit priority zones where transit priority measures will be put in place and where transit agencies could be allowed to enforce traffic and parking operations to ensure the optimal function of transit operations.	In Progress	Official Plans and Transportation Master Plans that have recently been updated or developed typically identify transit corridors, but may not necessarily specify transit priority zones or transit priority measures. Two Official Plans that identify transit priority zones include those for the City of Brampton and York Region. In Halton Region, the Transportation Master Plan included the development of a Conceptual 2031 Higher Order Transit Corridor Network which identified potential semi-exclusive and exclusive transit right-of-ways. Schedule 6 of the City of Mississauga's New Official Plan identifies transit priority corridors.

			The Official Plan and Transportation Master Plan for the City of Hamilton identify transit priority measures, although they do not specify transit priority 'zones'. The City of Burlington is commencing its Official Plan review and will be potentially reviewing its mobility hubs and nodes and corridors. Major transit station areas are identified in the current Official Plan. The Official Plan review will be conducted in parallel with the City of Burlington's Transportation Master Plan update. In many cases, the current Official Plan or Transportation Master Plan for a municipality was developed prior to publication of The Big Move in late 2008, and there has not yet been opportunity to align the OP or TMP with The Big Move.

Strategy #2: Enhance and Expand Active Transportation

The majority of the Priority Actions and Supporting Policies under Strategy #2 are underway.

The active transportation network is a vital part of an integrated transportation system, and is the focus of Strategy #2. Active transportation choices provide healthy, inexpensive, and environmentally friendly means of travel. These choices are suited for short and medium-distance trips, and for supplementing transit or automobile use.

Priority Actions to improve the active transportation network range from pilot studies to new active transportation connections over major roadways.

Strategy #2: Enhance and Expand Active Transportation			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
2.1	Plan and implement complete, integrated walking and cycling networks for the GTHA, including Toronto's PATH system, that address key barriers such as bridges over 400-series highways, rail corridors and major rivers, and missing sidewalks on major roads. The cycling networks will bring every GTHA urban resident to within a maximum of one kilometre of a dedicated bicycling facility. This will be supported by a provincial funding commitment increased over time to at least $20 million per year for municipalities to complete the walking and cycling networks.	In Progress	Regional and local municipalities have continued to develop the walking and cycling network. In some cases, such as the City of Toronto, walking and cycling facilities are integrated into new roads as part of the normal course of planning and the Official Plan is being updated to reflect the inclusion and expansion of pedestrian and cycle links. Specific examples of new or planned pedestrian and cycling links over 400-series highways, rail corridors and major rivers are listed below. This list of new pedestrian links is not intended to be exhaustive; rather, the list includes the new or planned active transportation connections that have been reported during the development of this progress report. Underground PATH system improvements and additions: As part of the revitalization of Union Station in the City of Toronto, a new pedestrian connection will connect Union Station to the existing PATH system in the Wellington Street area. The Environmental Assessment of the new northwest PATH connection is complete and construction began in 2012 New or completed bridges and paths over 400-series highways, rail corridors and major rivers, or those that are currently under construction: Durham Region: • In Pickering, the Waterfront Trail pedestrian bridge along east bank of Rouge River and south of CN Rail corridor (completed in 2008) • In Oshawa, two pedestrian crossings over Oshawa Creek and one pedestrian/bike crossing in Waterfront Trail East. In Hamilton: • Multi-use trail bridge crossing over QEW near Red Hill Valley Parkway • Pedestrian bridge crossing (Bruce Trail) over Hwy 403 east of Lincoln Alexander Parkway • Bike lane across Highway 403 on-ramp at York Boulevard • Pedestrian crossing over Highway 401 in the Liverpool area of Pickering (currently under construction) In the City of Toronto: • Construction has begun on a new pedestrian connection between Billy Bishop Toronto City Airport and the Toronto downtown 'mainland' (at Eireann Quay / Bathurst Street). In Halton Region:

			• QEW/ Fairview Street Interchange where an on-road and off-road bicycle paths were provided on Fairview Street under the QEW • Jug-Handle crossing at on-ramps at the following QEW interchanges – Walkers Lines, Appleby Lines and Burloak Drive. In Mississauga: • New Confederation Parkway bridge over Hwy 403 included bicycle lanes and barrier-protected sidewalks. Constructed in 2008. • New McLaughlin Road bridge over Hwy 401 included bicycle lanes and sidewalks. Constructed in 2009. • Retrofit of Burnhamthorpe Road bridges over Credit River and Mullet Creek included barrier-protected sidewalk on south side and barrier-protected multi use trail on north side. Constructed in 2010. • Multi-use trail tunnel under the CN Tracks / GO Lakeshore Line at Mississauga Road. Constructed in 2010. • Multi-use trail tunnel under the QEW at Hurontario Street. Constructed in 2010. • New Ridgeway Drive bridge over Hwy 403 included bicycle lanes and sidewalks. Constructed in 2010. • Etobicoke Creek Trail crossing under Hwy 401. Constructed in 2010. In York Region: • Richmond Hill Centre - pedestrian bridge crossing GO rail line (Opened in March 2008) • Multi-use trail bridges along Nokiidaa Trail* and Tom Taylor Trail (Completed between 2008-2011); • Bridge connections along Nokiidaa Trail in Newmarket/Aurora and the Town of East Gwillimbury along Holland River (Completed between 2008 and 2011) through Rogers Reservoir. **The construction of Nokiidaa Trail/Tom Taylor Trail was partially funded through York Region's Pedestrian and Cycling Municipal Partnership Program. The Partnership Program is mainly focused on on-street bicycle facilities. Pedestrian facilities fall under local municipal jurisdiction. York Region provides up to 50% of the construction cost to local municipal active transportation projects (maximum $500,000 a year).* Planned bridges and paths over 400-series highways, rail corridors and major rivers: • Mississauga and Peel are working together to implement a pedestrian/cycling crossings of the Credit River between the Queensway and Lake Ontario • Oakville Bronte Creek in Bronte Provincial Park, plus several other active transportation

crossings and active transportation crossing facilities over major roads

- York Region will fund up to one-third share of the capital cost to construct mid-block collector road crossings of 400 series highways which will include sidewalks and cycling facilities. York Region's Transportation Master Plan has identified 12 new crossings of Hwy 400, 404, and 407 within the Region.
- Reconstruction of Highway 400 and King Road Interchange in York Region, new bridge accommodates cyclists on shoulder.
- In the City of Toronto, a new pedestrian bridge over the rail corridor connecting Douro Street and the west end of Western Battery Road (in the Liberty Village area). This new bridge is in the planning stage.
- In the city of Toronto, a new pedestrian bridge in the Fort York area has been planned and is currently under review.

Some municipalities have also reported that they have an allocated budget dedicated to implementing sidewalks on roads. For example, the City of Mississauga's 2011 Budget included $2.244 million for new sidewalk construction, directed at implementing missing sidewalks on major roads, whereas a smaller municipality, such as the Town of Richmond Hill, has a budget of approximately $400,000 each year to repair and implement sidewalks. In Durham Region, a $2.5M allocation was dedicated in 2010 budget to hard surfacing at bus stop locations.

There is still work to be done in completing the walking and cycling network across the GTHA. In one municipality, for example, an estimated $20 million is needed to implement all missing sidewalks on major roads.

One of the challenges to implementing bridges over rail corridors and highways is the coordination and multiple-source funding that is often required between local and provincial, and in some cases federal, governments.

Reporting Municipality	Reported bike-km	Date Collected	Comment
City of Toronto	No information available		
City of Hamilton	130 km	2010 2006	
Durham Region	No information available		The Regional Cycling Plan was approved in October 2008 and is currently under review. We have not

						undertaken regular asset inventories, but will be looking at this matter through our review.
			City of Oshawa	22 km 18 km 10 km 5 km	2011 2006 2001 1995	
			City of Pickering	25 km	2012	We do not have any program that undertakes asset inventories of bicycle-lane kilometres. As of today, there are approximately 24.822 lane-kms
			Halton Region	126 km (Total) • Dedicated Bike Lanes: 21 km (1.5m wide) • Shared Travel Lane: 33kms (4.2m wide curb lane) • Paved Shoulder: 72kms (2.5m partially paved – 1m paved, 1.5m granular) Total length of bicycle-lanes in 2006 = 7 km • Dedicated Bike Lanes: 7 km	2012 2006	Halton Region annually updates our asset inventories for bicycle related infrastructure. Note that these figures represent only Halton Regional Roads and do not include and local municipal facilities

			Town of Oakville	85 km (off-road multi-use trails, and on-road dedicated facilities)		Total length at the end of 2011 is approximately 85 kilometres (off-road multi-use trails,and on-road dedicated facilities). Active Transportation Master Plan (ATMP) was approved in late 2009. Prior year's data is not easily attainable. http://www.oakville.ca/townhall/active-transportation-master-plan.html
			Peel Region	No information available (As part of the recently completed Active Transportation Plan, approximately 310 km of multi-use trails have been identified in Peel Region)		
			City of Brampton	2.1 km 0.4 km	2012 2006	
			City of Mississauga	260 km 200 km 120 km Note, the above totals include multi-use trails, on-road bicycle lanes/sharrows and signed bicycle routes. The totals do not include	2011 (end) 2006 2011	Asset inventories undertaken annually

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<tr><td></td><td>pathways within parks, which total approximately 165 km.</td><td></td><td></td></tr>
<tr><td>York Region</td><td>778 km</td><td>2012</td><td>No asset inventory specifically for cycling facilities. To date, the total length of all bicycle facilities throughout the Region including total municipal facilities is approximately 778 km</td></tr>
<tr><td>City of Vaughan</td><td>0 km</td><td></td><td></td></tr>
<tr><td>Town of Richmond Hill</td><td>160 km (on-road cycling)
17 km (multi-use trails)</td><td></td><td></td></tr>
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<tr><td>2.2</td><td>Create pilot bike-sharing programs in major urban centres.</td><td>In Progress</td><td>The BIXI program in the City of Toronto, launched in May 2010, opened with 1,000 bicycles at 80 stations. Since opening, a handful of BIXI stations have been moved to broaden the geographic area with BIXI access. Use of BIXI bikes varies by season. In the peak summer period, approximately 1,500 trips are taken each day by BIXI.

Other urban centres have either recommended a bike-sharing program, or recommended a feasibility or pilot study to explore the potential of implementing such a program. These include the following:
• City of Brampton is about to undertake a bike share pilot study with City employees.
• Town of Oakville - a recommendation in the Active Transportation Master Plan to explore the feasibility of implementing a bike sharing program.
• The Region of Peel Active Transportation Plan recommends studying the feasibility of a bike sharing program
• City of Mississauga Cycling Master Plan includes an action to develop a business case assessment for public bike share program by 2015.
• City of Hamilton is considering a bike share program.</td></tr>
<tr><td>2.3</td><td>Research, standardize and promote best practices to integrate walking and cycling in road design, such as scramble intersections, bike boxes, and signal prioritization.</td><td>In Progress</td><td>This priority action refers primarily to the development of regionally-coordinated research and a best practices review in order to establish standards for integrating walking and cycling in road design. The document would act as a guide that municipalities and the MTO could refer to in designing the way that walking and cycling are integrated with the design of roads, streets and intersections across the GTHA.</td></tr>
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			A researched set of guidelines and best practices has not yet been developed. As a result, there has not been any standardized approach to integrating walking and cycling in road design across the GTHA. There have been some initiatives to examine best practices in particular locations. Examples include: • The Peel Region Active Transportation Plan which includes an active transportation facilities reference guide that provides guidance on design elements to support sustainable transportation • Halton Region's Right-of-Way (ROW) Guidelines, developed as part of the Transportation Master Plan update to 2031, which protects for Active Transportation facilities. In addition, Halton Region has initiated a Region-wide Active Transportation Master Plan. • The York Region Pedestrian and Cycling Master Plan (2008) which includes Planning and Design Guidelines to assist the Region and its partners in coordination and implementation of the cycling facilities. The Ministry of Transportation is undertaking a Best Practices Study of implementing bike facilities at MTO interchanges and a monitoring study of pilot cycling projects. These pilot projects include: • QEW/Fairview Street Interchange with on-road and off-road bicycle paths, jug-handle crossing at on-ramps, blue bike lanes at conflict areas, zebra pavement markings at off-ramp terminals and reduced lane widths; • Highway 400/Duckworth St - bike lanes and reduced lane widths with sidewalks being provided through the interchange bridge; monitoring is required since this is a pilot project for the bike lanes and a monitoring plan is in the development stages. • Highway 404/7 - Reduced lane widths on Hwy 7 to accommodate Viva BRT, bike lanes and sidewalk; monitoring plan will be developed and implemented. Several municipalities have reported adopting 'best practices' to integrate walking and cycling in road design and report having implemented various features. These include: • Audible countdown pedestrian signal (Halton, Oshawa) • Bump outs to reduce walking distance (Oshawa) • First standard bike lane in Oshawa (Oshawa)\ • Floating bike lane (Oshawa) • Pedestrian and cycling friendly mini-roundabouts (Oshawa) • Pedestrian scramble (Brampton near Bramalea GO Station, City of Toronto) • Bicycle detection at traffic signals (Mississauga, Halton – one location)

			• Increased pedestrian crossing times (Mississauga) • Zebra striped crosswalks (Mississauga, Halton) • Flush (i.e. curb-less) street designs (Mississauga) • Bike boxes (City of Toronto) The City of Mississauga is piloting two programs in an effort to integrate walking and cycling into road design. The Crossride Pilot Project includes the installation of 'crossrides' (a crosswalk for cyclists and pedestrians) on Sheridan Park Drive (at Homelands Drive) and Fifth Line. The crossride allows cyclists to ride their bikes across selected crosswalks. This is the first time this type of crossing has been implemented and piloted in Ontario. More crossrides are being planned to be implemented in 2012. The City of Mississauga is also piloting Green Pavement Marking for cyclists, with the aim of increasing driver awareness of the presence of cyclists and to make the roads safer for cycling. The green pavement marking is being piloted at the intersection of Dundas Street West and Mississauga Road.
2.4	Install bike racks on all buses and Light Rail Vehicles (LRVs) and amend both the Highway Traffic Act (Section 109) and the Public Vehicles Act (Sections 23 and 24) so that transit vehicles with bike racks do not require special permits.	In Progress	There have been no amendments to the Public Vehicles Act (PVA) related to bike racks. As an interim measure, the Ministry of Transportation is currently utilizing the provisions in Section 23 of the PVA to allow the transportation of bikes on a bike rack affixed to the front of a public vehicle. The Ministry is currently reviewing the regulatory regime governing the inter-city bus industry which may entail consideration of this item. Eight transit agencies have reported that 100% of their bus fleet has bike racks. The TTC reports that all of their bus vehicles will have bike racks by the end of 2012. York Region Transit reports that 335 out of 474 bus vehicles have bike racks (71%), and includes bus vehicles that are currently in daily service as well as older vehicles used on a reserved or as-needed basis.
2.5	Establish a coordinated, region-wide bicycle registry with the ability to report and search for stolen bikes.	Not Started	A single registry across the GTHA has not been developed. Bicycle registries are currently handled by municipal and regional police services. Further investigation is required to determine the feasibility of establishing a region-wide or province-wide bicycle registry through the Ontario Provincial Police Service (OPP). If it is not feasible, a secondary option could be the development of an externally-coordinated portal or live database that is linked to municipal and regional police service bike registries and frequently updated. The most appropriate and feasible route to establishing a region-wide bicycle registry for stolen bikes needs to be determined.
2.6	Consider changes to the Highway Traffic Act that implement the 1998 recommendations of the Regional Coroner for Toronto to provide greater clarity with	In Progress	After reviewing the recommendations from the Regional Corner's Report, the Ministry of Transportation (MTO) determined there was no need to update or revise the existing legislation under the Highway Traffic Act. The Chief Coroner of Ontario initiated a study in Fall 2011 to review cycling deaths across the province.

	respect to the relationship between motorists and cyclists in areas such as safety equipment, lane positioning and passing procedures.		The MTO has focused instead on actively working to promote cycling safety across the province. It has developed two public education products to promote cycling safety. The first is its Young Cyclist's Guide which promotes safe cycling practices to young riders. The second is Cycling Skills; a guide for teenaged and adult cyclists that includes information on safety equipment requirements, lane positioning requirements and passing procedures. Both these publications are posted on the MTO website along with additional general cycling safety information. MTO's Regional Planners work closely with approximately 150 road safety partners across the province to promote cycling safety though presentations, development and distribution of public education materials and participating in community events. The Ministry also provides funding to assist its road safety partners with the development and implementation of a variety of road safety initiatives, including those that promote cycling safety. The Ministry's Road Safety Education Resources provides elementary and secondary school teachers with lesson plans and resources to assist them in promoting cycling safety in the classroom. Each school in Ontario has received a copy of this resource, and it's available on the internet at www.ontarioroadsafety.ca. The Ministry of Transportation's Road Safety Challenge encourages community groups across the province to develop and implement road safety activities each May. Cycling safety has been a priority theme of this campaign for the last three years.
2.7	Implement or expand safe cycling training programs, similar to the Commuter Cycling Skills Course offered in the Vancouver area, or the CAN-BIKE courses offered by municipalities across Canada.	In Progress	The implementation of safe cycling training programs, such as the CAN-BIKE courses, varies across the GTHA. In some municipalities, such as the Town of Oakville, are exploring the potential for offering cyclist commuter training courses and is a formal part of the Active Transportation Plan. In other municipalities, such as the City of Brampton, CAN-BIKE courses are already offered with two sessions offered in three seasons (Spring, Summer and Fall). Administered by the Ontario Cycling Association, CAN-BIKE courses are also offered in the Region of York, City of Toronto and Town of Markham. The Town of Richmond Hill offers a 'Roads and Ropes' course, which teaches bicycle safety.
2.8	Undertake Active Transportation Master Plans and incorporate them into municipal Transportation Master Plans.	In Progress	Active Transportation Master Plans can be developed as either a sister document to the Transportation Master Plan or incorporated as a section within it. Across the region, municipalities have reported either working on an Active Transportation Master Plan or an intention to develop one in the future, particularly when it comes time to update their Transportation Master Plan. Completed: • York Region Pedestrian and Cycling Master Plan (completed in 2008, to be updated in 2012) • Peel Region (completed 2012)

			• Town of Oakville • City of Brampton Bicycle Facilities Implementation Plan • City of Brampton Pathways Master Plan (completed in 2002, updated in 2006) • Durham Region: The Regional Cycling Plan was approved in October 2008 and is currently under review. (Area municipal plans have been developed in Pickering, Ajax, Whitby and Oshawa. • Town of Richmond Hill Pedestrian and Cycling Plan (completed in 2009) • York Region's Pedestrian and Cycling Master Plan (completed in 2008) • City of Mississauga Cycling Master Plan (published as a complementary document to the TMP) Currently being developed: • City of Oshawa • Halton Region Other developments: • City of Pickering is planning to update the Bikeway and Trails Master Plan (1996) next year.
2.9	Opportunities for promoting active transportation and connecting key destinations, including mobility hubs and major transit station areas, shall be identified and implemented when designing greenways strategies and park systems.	In Progress	Promotion of active transportation through the use of greenways and park system planning has been taking place within some organizations in the GTHA. Typically, a trails strategy or parks strategy is developed to promote active transportation and to provide links to local and regional trail systems. In the City of Mississauga, there have been efforts to improve connectivity between neighbourhoods and destinations. The Credit River Parks Strategy, for example, includes an objective to "enhance connectivity to neighbourhood destinations and nearby parks and open spaces to promote walking and cycling". The strategy is currently being developed, but will likely see the development and completion of active transportation trails that link destinations that are in proximity to the park system along the Port Credit River. These destinations include the University of Toronto Mississauga Campus and the Streetsville GO Station. The Mississauga Water Parks Strategy, completed in 2008, also included focus on connectivity throughout the waterfront park system and to key destinations nearby. Similarly, York Region is currently developing a Greenlands (Natural Heritage) Trails Strategy with the objective of providing spaces for active and passive recreation, and promotion of active transportation, which lays the foundation for identifying opportunities to improve active transportation connections between destinations through the parks system. The Ministry of Transportation (MTO) has initiated a project to inventory major municipal and regional cycling routes throughout the province. With the objective of identifying tourism-oriented, long-distance cycling routes, the MTO has consulted with a range of subject matter experts and other stakeholders.

			The cycling route inventory will include information about route length, location, surface type and other variables. Subject matter experts from jurisdictions around the world have been consulted with regarding best practices in planning, designing, marketing and operating networks of long-distance cycling routes. Ontario-based stakeholders are also being consulted with to determine levels of support for creating a network of long-distance cycling routes and to explore the potential for partnerships in this regard. The project is expected to be complete in Spring 2012. How the cycling route inventory will be used remains to be determined, as are decisions about implementation and funding.
2.10	Enabling Official Plan policies to support active transportation shall be adopted. Where appropriate, the bonusing provisions under the Planning Act should be used to require that any application for major commercial, employment or multiple residential development, particularly in a mobility hub, provides appropriate facilities for cyclists and pedestrians such as secure bike storage, showers and change rooms.	In Progress	Typically in the GTHA, developers are encouraged to consider the provision of TDM facilities as part of their development applications but without a specific requirement to include them. In some municipalities, such as York Region, development applications are required to submit a Transportation Demand Management plan (including a plan to implement walking/cycling facilities such as bike parking/storage and other amenities) for all major development applications. The Town of Richmond Hill reports that the 2010 Official Plan requires that all future developments shall incorporate pedestrian and cycling facilities. As part of the recently completed Halton Region Transportation Master Plan (2031) – The Road to Change it was recommended that the Region develop TDM Policies and strategies for major development applications with its local municipalities. It is anticipated that these policies and guidelines will be completed in 2013.
2.11	School catchment areas shall be defined, and school campuses shall be designed, to maximize walking and cycling as the primary means of school travel.	In Progress	School catchment boundaries are typically identified through consideration of several factors, such as school capacity, municipal, community or neighbourhood boundaries, and projected development and population growth. Further development and implementation of this policy can be achieved through a collaborative effort between Metrolinx, School Boards, and supporting partners, such as municipalities. A multi-stakeholder committee consisting of the Halton District School Board, Halton Catholic District School Board, Halton Region and the municipalities developed guidelines to assist in the siting decisions and the design of elementary schools and high schools and adjacent lands. The guidelines – released in May 2011 "were developed for the purpose of encouraging and supporting children and their families to choose Active Transportation to and from school"
2.12	Sidewalks should be required on all new regional and new local roads inside	In Progress	Municipalities report that sidewalks are generally required for new regional and local roads. Depending on the road classification, sidewalks may be required on one or both sides of the road. In some cases,

	settlement areas.		there is flexibility with respect to the timing of implementation. While the requirement for sidewalks on new roads is in place among the responding municipalities, flexibility in the application of this requirement is such that new roads may not have sidewalk facility for an indefinite period of time. In some municipalities, new developments on existing roads may trigger the implementation of sidewalk space on a site by site basis, leading to a discontinuous sidewalk in areas with no new development. In Halton Region, however, all regional roads protect for a 3.0m active transportation facility on either side of the road, which would be composed of either a sidewalk and/or a multi-use path. Halton Region recently completed Regional Right-of-Way Guidelines for major arterials, setting specific guidance for accommodating all modes, including pedestrians and cyclists.

Strategy #3: Improve the Efficiency of the Road and Highway Network

There is work underway towards all Priority Actions and Supporting Policies under Strategy #3.

Road and highway trips currently make up the majority of trips within and across the GTHA. The road and highway network plays a crucial role in the movement of freight and options for across the GTHA.

An efficient road network is a key component of the integrated, multi-modal transportation system envisioned by The Big Move. Strategy #3 focuses on optimizing the capacity of the existing road and highway infrastructure and providing additional capacity and linkages.

<table>
<tr><th colspan="4">Strategy #3: Improve the Efficiency of the Road and Highway Network</th></tr>
<tr><th>#</th><th>Priority Action/ Supporting Policy</th><th>Status</th><th>Initiatives Underway</th></tr>
<tr><td>3.1</td><td>Implement the regional highway network identified in Schedules 1 and 2, and complete studies and obtain federal and provincial environmental approvals for the proposed transportation corridors.</td><td>In Progress</td><td>The Big Move identifies corridors of the regional highway network and new corridors to be improved. Improvements include new highway extensions, widenings and improvements to existing controlled-access expressways, as well as the creation of High Occupancy Vehicle (HOV) lanes.

Improvements to the regional highway network are prioritized in The Big Move as part of the 15-year plan or the 25-year plan.

<table>
<tr><th>Corridor</th><th>Planning Horizon</th><th>Status</th></tr>
<tr><td>Highway 407</td><td>15-year plan</td><td>The Highway 407 corridor is being planned and implemented in phases. When it is complete, Highway 407 will be extended east to Highway 35/115.

Phase 1: Extend Highway 407 from Brock Road to Harmony Road. This 22 km extension is proceeding under Infrastructure Ontario’s design, build, finance and maintain (DBFM) procurement model. Construction for Phase 1 began late 2012, and is expected to open to traffic in late 2015.

Phase 2: Extending the Highway 407 corridor to Highway 35/115. The procurement process for the design, build, and finance of this portion of the corridor is anticipated to start in late 2012.

The full corridor extension is expected to be complete in 2020.</td></tr>
<tr><td>Highway 410 extension</td><td>15-year plan</td><td>The Highway 410 extension, from Bovaird Drive East to Highway 10, is an 8.2 km extension and was opened to traffic in November 2009.</td></tr>
<tr><td>Highway 427 extension</td><td>15-year plan</td><td>The Environmental Assessment for the extension of Highway 427 from Highway 7 to Major MacKenzie Drive was approved in November 2010. The timeline for implementation of the extension remains to be determined.</td></tr>
<tr><td>GTA West</td><td>25-year plan</td><td>The GTA West project is a multi-modal transportation</td></tr>
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						development strategy to improve transportation capacity between urban centres in the west of the GTA – Brampton, Guelph, Vaughan, and Milton. The strategy examines opportunities for improvements to transit, rail, existing highways, highway widening and new highways. The project is being completed as an individual Environmental Assessment (EA). The first stage of the study is currently underway and will identify the transportation needs and potential planning solutions for the GTA West corridor. Representing nearly four years of work, the first stage of the study concluded in 2012 The next steps will include the implementation of optimization strategies, undertaking Class Environmental Assessments for highway expansion and continuing the individual EA process for any new highway connections. Route planning for any new highway will take approximately 5 to 7 years to complete. More information is available at www.gta-west.com	
				Niagara-GTA	25-year plan	The Niagara-GTA project is a multi-modal transportation development strategy to improve transportation capacity through the Niagara Peninsula into the Greater Toronto Area. The strategy examines opportunities for improvements to transit, rail, existing highways, highway widening and new highways. The project is being completed as an individual Environmental Assessment (EA). The first stage of the study is currently underway and is expected to be complete by the end of 2013. The next steps will include the implementation of optimization strategies, undertaking Class Environmental Assessments for highway expansion and continuing the individual EA for any new highway connections. Route planning for any new highway will take approximately 5 to 7 years to complete. More information is available at www.niagara-gta.com	

			Highway 404 extension	15-year plan	The Highway 404 Extension from Green Lane to Ravenshoe Road is a 13.5 km corridor. Currently under construction, the extension is anticipated to be completed in the Summer 2014. The extension of Highway 404 includes provisions for the future addition of two High Occupancy Vehicle (HOV) lanes and three carpool parking facilities. These carpool facilities will be located at the interchanges of Queensville Sideroad and Highway 404, Woodbine Avenue and Highway 404, and Green Lane and Highway 404. Two of the carpool parking facilities will be located at GO Transit facilities.

Other supporting work to improve the regional highway network includes:

Completed (in the last five years)

- QEW within Halton Region has been widened to provide an HOV lane in both directions from Guelph Line in City of Burlington to Trafalgar Road in Oakville.
- QEW within St. Catharines has been widened from four to six lanes.
- Highway 401 Eastbound collector, 1 lane was added between Avenue Rd. and Bayview Ave.
- Highway 410 Extension Phase 2 and Phase 3 from Bovaird Drive to Highway 10.
- QEW/Hurontario Street interchange reconstruction from a cloverleaf interchange to a diamond interchange to the north and a partial cloverleaf on the south side of the QEW.
- Highway 10 Widening from 1.0 km south of Charleston Sideroad northerly to Highway 9 with the addition of 1 lane in each direction and a continuous centre left turn lane.

Significant Improvement Underway or Planned

Peel Region

- Highway 401 core/collector expansion including HOV lanes from Highway 410 to west of Hurontario Street (in construction).
- Highway 410 widening from south of Highway 401 to Queen Street addition of one HOV and one general purpose lane in each direction. Potential introduction of Carpool Lot at the Courtney Park and Clark interchanges (in design).
- Highway 401 core/collector expansion including HOV lanes between Hurontario Street and the Credit River (in design).

			York Region • Highway 404 Extension, Green Lane to Ravenshoe Road (13.5 km), 4 lanes with provisions for future addition of 2 HOV lanes, 3 carpool lots (2 of which have GO Transit facilities), currently under construction and planned to open by Summer 2014.. • Highway 400 Widening for HOV lanes, Major Mackenzie Drive to King Road (10 km), detail design nearing completion. • Highway 400 Widening, King Road to South Canal Bridges (12 km), detail design underway. • Highway 427 widening for HOV lanes and transitway, Hwy 407 to Hwy 7, planning study and EA underway. • Highway 404 widening for HOV lanes, Highway 7 to Green Lane, Preliminary Design Study and TESR underway. City of Toronto • Highway 427 between Highway 409 and Highway 407, addition of HOV lanes in each direction (design completed). • Highway 401 rehabilitation of the eastbound collector from Jane Street to Avenue Road and the addition of one lane between Allen Rd. and Avenue Rd. (in detail design). • Highway 401 widening of the Westbound Collector by an additional lane from Highway 400 to Kipling Ave. (in construction) Durham Region • Highway 7 within Durham Region is currently being widened from Brock Road to Highway 12. • Highway 407 within Durham Region is currently being extended from Brock Road to Highway 35/115.
3.2	Identify, prioritize and resolve gaps and bottlenecks in the road network, particularly where they cross municipal boundaries.	In Progress	On a regional scale, optimizing the use of existing road infrastructure can be an effective way to resolve bottlenecks in the road network. The current best practice approach for regional roads or highways is to implement High-Occupancy Vehicle lanes (HOV) first before consideration of widening the right-of-way to accommodate additional traffic lanes. In December 2005, the Government of Ontario opened the first freeway HOV lanes in the province on portions of Highways 403 and 404. In November 2010, over 16 kilometres of new HOV lanes on the QEW from Oakville to Burlington were opened to traffic. The province will continue the roll-out of the long-term HOV strategy, which calls for more than 450 kilometres of lanes along the 400-series highways in the Greater Golden Horseshoe. On a more local scale, municipalities have reported working on gaps and bottlenecks, particularly where

			they cross municipal boundaries. Some of these initiatives include: Halton-Peel Boundary Area Transportation Study (HP BATS): The study was initiated in 2007 and completed in 2010 with the purpose of *identifying a long-term (2021 and 2031) transportation network required to support provincial and inter-municipal planning goals, and to serve future transportation demands.* The study report identifies opportunities for transportation mode choice, opportunities for optimizing the existing road network and identifying connections and improvements needed to support current and future municipal planning objectives. Participating municipalities include Region of Peel, the City of Brampton, the Town of Caledon, Halton Region and the Town of Halton Hills. North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek Class Environmental Assessment: The new North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek Class Environmental Assessment was completed in March 2010. The newly planned and approved 4-lane major arterial east-west corridor from Ninth Line (Region Road 13) to Bronte Road (Regional Road 25) will be integrated with new developments planned in North Oakville. Town of Milton new corridor: The Halton Region Transportation Master Plan to 2031 identifies the need for a new north-south corridor between Fifth Line and Sixth Line extending from Steeles Avenue to Britannia Road, with a new interchange at Highway 401. A connection linking the Town of Milton via James Snow Parkway to Neyagawa Boulevard in the Town of Oakville was also identified in the Region's Transportation Master Plan. York Region and Simcoe County have initiated a Boundary Area Study to look at the long term network requirements to support planned growth in north York Region and Simcoe County.
3.3	Assess and implement an inter-connected regional network of multi-purpose reserved lanes that builds on existing plans for high occupancy vehicle (HOV) lanes to improve the efficiency of highways and arterial roads for transit and multi-occupant vehicles, with	In Progress	In the buildup to The Big Move, the MTO published a strategic plan for HOV lanes in 2007, called *Ontario's High Occupancy Vehicle Lane Network Plan for the 400-Series Highways in the Greater Golden Horseshoe.* In December 2005, the Government of Ontario opened the first freeway HOV lanes in the province on portions of Highways 403 and 404. In November 2010, over 16 kilometres of new HOV lanes on the QEW from Oakville to Burlington were opened to traffic. The province will continue the roll-out of the

	potential for high occupancy toll (HOT) lanes. The use of both existing and new lane capacity as well as shoulders will be explored, with an emphasis on interconnectivity and more efficient use of available capacity.		long-term HOV strategy, which calls for more than 450 kilometres of lanes along the 400-series highways in the Greater Golden Horseshoe.
3.4	Building on highly successful programs such as the Ontario Ministry of Transportation's COMPASS freeway traffic management system and the City of Toronto's RESCU traffic management system, create an Intelligent Transportation System strategy for the GTHA, with policies and programs to: • reduce traffic congestion and delays by implementing or expanding road and highway video and computer-aided monitoring for faster incident detection, management and emergency vehicle or tow truck dispatching; • implement a coordinated, region-wide system of ramp metering signals at entry ramps to major highways, coordinated with signals on adjacent arterial roads, that monitor cumulative traffic conditions and optimizes traffic flows to reduce congestion; • improve and coordinate signal controls for more efficient traffic flows, including across municipal boundaries and in response to major incidents on highways; • provide real-time road and highway traffic information and travel-related weather information directly to travellers; and	In Progress	Intelligent Transportation System (ITS) refers to the use of real-time computer/communications/ information technology for advanced, traffic-responsive, area-wide traffic control and to provide information which allows transportation providers to optimize transportation system operations and enable travellers to use the system more efficiently and effectively, while also increasing their convenience and ease of travelling. This priority action encompasses two key initiatives: (1) Development of an Intelligent Transportation System strategy for the GTHA (2) Build upon and expand the existing traffic management systems (such as COMPASS and RESCU) Development of an Intelligent Transportation System strategy for the GTHA A Traveller Information Services Framework is being led by the Province of Ontario, with the support of Metrolinx and municipalities. The Traveller Information Service Framework has five objectives: • Enhance customer focus, and provide users with the travel information they want, when they want it, and the way that they want in order to maximize usage • Encourage modal shift • Manage congestion • Improve safety • Reduce Pollution Build upon and expand the existing traffic management systems (such as COMPASS and RESCU) COMPASS is a high-tech Freeway Traffic Management System developed by the Ontario Ministry of Transportation (MTO) to respond to traffic congestion problems on urban freeways. COMPASS helps reduce traffic congestion and increase safety by: • allowing for the prompt detection and removal of freeway incidents and vehicle breakdowns; • providing accurate and timely freeway incident and delay information to motorists; and,

	• integrate regional traffic management for all 400-series expressways, urban expressways and regional roads with centralized monitoring of traffic flows and patterns, and control over signalization and other traffic management measures.		• effectively managing peak rush hour traffic flow through innovative traffic control devices. The MTO has a short and long range COMPASS expansion strategy in place. COMPASS expansion projects in the GTHA include Hwy. 401 east upgrade and expansion from Hwy. 2 to Salem Road to support the 407 East extension and Hwy. 404 north expansion from Hwy. 401 to 16th Avenue. Traffic Operations Centres (TOCs) for the COMPASS System on QEW (Mississauga), QEW (Burlington), and Highway 401 have merged since the system originally opened. Design is currently underway to centralize all TOC functions within the GTHA into one centre by late 2014 in preparation for the Pan Am games in 2015. RESCU is a traffic management system used in the City of Toronto to detect disruptions to traffic flow along the Don Valley Parkway, Gardiner Expressway and Lake Shore Boulevard. Once a disruption is detected, RESCU operators notify the appropriate emergency service providers as well as road users of any necessary actions. The COMPASS System shares information with the City of Toronto RESCU System and work is underway to increase the level of traveller information being shared among all traffic and transit agencies within the GTHA. Supporting the Implementation of ITS policies, programs, infrastructure and services Supporting work contributing to an Intelligent Transportation System in the GTHA include the following: • MTO is investigating the feasibility of using mobile devices and cellular networks for transportation information and transportation management. • The City of Hamilton reports that early planning stages for Lincoln Alexander Parkway and Red Hill Parkway ITS are underway. • Region of Peel plans to provide real-time travel time in construction zones, as well as CCTV cameras to monitor traffic conditions and incidents/accidents in the road network. • The City of Mississauga is moving towards creating a state-of-the-art Traffic Control Centre with an Advanced Traffic Management System (ATMS). An ATMS is a system where Traffic Operators continuously monitor video images from traffic monitoring cameras and other ITS devices and adjust the traffic signal timing and phasing to reduce travel times and congestion. Problems detected by the system or reported by the public are either directly resolved by operators or immediately dispatched to maintenance crews. Live traffic reports can be relayed to the media in order to inform

			the public of traffic conditions. • Metrolinx provided a grant to municipal traffic departments through Durham Region's traffic department to support installing time-coordination between all municipal traffic control systems. This is a pre-requisite for coordination of signal timings across municipal boundaries.
3.5	Continue to support the Smart Commute CarpoolZone online ride-matching service, and identify and eliminate legal and liability barriers to ride-sharing.	In Progress	The Smart Commute Carpool Zone online ride-matching service continues to be fully supported by Metrolinx. Metrolinx is currently developing a multi-modal service to replace CarpoolZone within the next year. There have not been any direct efforts to identify and eliminate legal and liability barriers to ride-sharing; however, the Ministry of Transportation has initiated a review of the Public Vehicles Act that may address outstanding concerns about liability and carpooling.
3.6	Amend the Ontario Public Vehicles Act to allow third-parties such as non-governmental organizations to provide vanpools to service major trip generators such as employers, postsecondary institutions and tourism destinations, and to augment public transit service in low density or dispersed employment areas.	In Progress	The Ministry of Transportation is currently reviewing the regulatory regime governing the inter-city bus industry and will be consulting with Metrolinx and stakeholders in 2012. Vanpooling may be considered within the context of this review.
3.7	Continue to develop and expand the provincial carpool lot network to include additional lots in strategic locations, aligned with High Occupancy Vehicle (HOV), rapid transit and interregional bus networks, particularly at the periphery of the GTHA.	In Progress	The Ministry of Transportation of Ontario provides free carpool parking facilities at highway interchanges throughout Ontario. The carpool facilities are free and no registration or permit is required at these unsupervised facilities*. Selected lots are also served by public transit. Commercial vehicles are not allowed. Carpool facilities are located on major highways and interchanges throughout the GTHA, and include: • On Hwy 10: 1 carpool lot • On Hwy 400: 4 carpool lots • On Hwy 401: 8 carpool lots • On Hwy 403: 2 carpool lots • On Hwy 404: 2 carpool lots • On Hwy 407: 4 carpool lots • On Hwy 410: 1 carpool lot • On Hwy 35/115: 4 carpool lots • On QEW (at Guelph line, Bronte Road and Winston Churchill Boulevard): 1 carpool lot

			There are a total of 3,056 parking spaces in 27 parking lots. Thirteen of these lots have transit access. Some of the carpool lots have other facilities, such as lights (at 15 lots) and telephones (at 10). Carpool Lots Recently Implemented or Expanded • Carpool lot on the Northeast Quadrant of the Highway 410/Williams Pkwy interchange. • Carpool lot and GO bus park-and-ride at QEW/Casablanca, and at QEW/Ontario Street in Beamsville. • In 2009, an existing carpool lot located on Highway 35/115 and old Highway 35 was widened and expanded to accommodate GO bus usage with the addition of a second entrance. • Reconstruction of the Highway 400/King Road Interchange. Construction completed in the fall 2010 with the relocation and expansion of the carpool lot. • Highway 400/Essa Road - New carpool lot completed in 2008. • Highway 11/Hwy 93 - Expanded carpool lot; construction completed in 2009. • Highway 404/Aurora Road - Expanded carpool lot with GO Transit facilities; designed and tendered by GO Transit with MTO cost sharing; completed in 2008. Carpool Lots Underway or Planned • Northwest Quadrant of the QEW/Erin Mills interchange. • Highway 401/Hurontario Street Commuter Parking Lots in the new interchange. • 150 spaces at Highway 406/Woodlawn Rd interchange. • Construction is underway for a 150 spaces carpool lot located on Highway 2 and Highway 35/115. • Construction of 3 carpool lots (2 of which have GO Transit facilities) on the Highway 404 Extension from Green Lane to Ravenshoe Road (13.5 km). • Highway 26/CR 27 - New carpool lot under construction; planned completion by summer 2012 • Highway 404/Davis Drive - Expanded carpool lot to be cost shared with YRRTC and GO Transit (GO is taking the lead on project).
3.8	Develop road capacity enhancement pilot projects, such as tidal flow operations, contraflow lanes, dynamic lanes, continuous flow intersections, diverging diamond interchanges, shoulder bus lanes,	In Progress	Across the GTHA, municipalities have reported a number of road capacity enhancement projects that have either been piloted or implemented. These include:

	roundabouts, reversible lanes, and moveable barriers.		• Roundabouts (in City of Hamilton, Town of Milton, City of Mississauga, Halton Region) • Bus bypass lanes (City of Toronto) • Reversible Lanes for Transit (York Region) • Signal timing coordination pilot study (City of Hamilton)
3.9	Support driver education programs which encourage more efficient driving practices to reduce fuel consumption and decrease emissions.	In Progress	The Ministry of Transportation has Beginner Driver Education (BDE) course providers that offer the BDE program. The curriculum standards require that the curriculum for driving schools include the following to enable newly licensed G1 drivers to exhibit environmentally conscious and efficient driving behaviour: • fuel efficiency (how to purchase a fuel efficient vehicle, keeping tires properly inflated, effects of speed on fuel consumption) • information regarding mandatory emissions testing • proper disposal of cars, fluids, batteries, and tires • avoidance of littering • avoiding unnecessary idling • economic benefits of driving efficiently The driving schools teach students in the classroom and during in-car training sessions, and test their knowledge and skills prior to allowing students to graduate from the BDE Program. Their skills are further tested when the student completes a ministry road test. Smart Commute Durham has partnered with local not for profit organizations to deliver Eco-Driver courses to its various member company employees.
3.10	Any new additions or major improvements to the provincial, regional or local road network in the GTHA, shall be considered within the context of the transportation hierarchy in Policy 5.11, and shall contribute to meeting the goals and objectives of the RTP.	In Progress	The transportation hierarchy provides a framework for planning and designing right-of-ways. Applying the transportation hierarchy means that consideration is given first toward trip reduction or trip shortening in planning and designing a new or expanded road. When trip reduction or trip reduction has been considered, the needs of active transportation users shall be considered next. Only when the needs of pedestrians, cyclists, transit users, ride-share participants and taxis have been accommodated is consideration given to meeting the needs of single-occupant vehicles. The transportation hierarchy is: (i) Trip reduction, shortening or avoidance (ii) Active transportation (iii) Transit (iv) Ride-sharing and taxis

			(v) Single-occupant vehicles The application of the transportation hierarchy toward the design of new additions or improvements to the provincial, regional or local network is challenging to assess. The Environmental Assessment (EA) Act of Ontario typically applies to the planning and design of new or expanded roads. In an EA study, planning alternatives are required to be considered, however, in the planning of a new or expanded road, first consideration is given to a 'do nothing' approach and *trip reduction or trip shortening* are not necessarily prioritized or even considered. Adherence to the transportation hierarchy is on a case-by-case basis. Whether the transportation hierarchy has been applied or not, or whether it has been applied adequately, is subject to interpretation. One notable example is the Right-of-Way Guidelines for Halton Region. In 2011, Halton Region developed Right-of-Way Guidelines which are intended to be followed in the planning and design of any new roads or road widening. The guidelines focus on all users of the street or road. In addition to recognizing different categories of roads, the guidelines also recognize the importance and needs of *nodes* as part of the transportation network. Nodes are defined as "compact, transit-oriented, pedestrian-friendly and mixed-use/residential neighbourhood centres that are areas of more intensive urban uses within a community."
3.11	New or expanded roads or highways should not undermine the viability of existing or planned regional rapid transit services in the same area, particularly when the transit service operates within the same corridor.		In the planning of new or expanded roads or highways, municipalities typically either co-plan, co-coordinate, consult or liaise with transit operators and organizations responsible for implementing transit. There have been no reports from transit agencies of new or expanded roads or highways negatively impacting existing or planned regional rapid transit services or operations.
3.12	Planning for new or expanded roads or highways shall consider opportunities to support or improve existing or planned regional rapid transit services or operations.	In Progress	In planning for new or expanded roads or highways, opportunities to support or improve existing or planned regional rapid transit services may be considered, but not necessarily implemented or safeguarded. New or Expanded Roads or Highway where improvements to existing or planned regional rapid transit services or operations have been implemented: • In a partnership between the City of Mississauga, the Ministry of Transportation and Metrolinx, improvements to Highway 403 ramps at Cawthra Road/Eastgate Parkway interchange, Mavis Road interchange, Erin Mills Parkway interchange are underway to accommodate the future Mississauga Bus Rapid Transitway.

			• Highway 401/Hurontario St. structure interchanges for future Mississauga Light Rail Transit. • 407 Transitway from Highway 427 to Kennedy Rd. in Markham (planned for 2023). The remainder of the corridor from Kennedy Road to Highway 35/115 is planned for implementation in 25 years. Two approved Highway 407/401 connecting links in Durham Region are planned and protected for future implementation. Grade separated rapid transit facilities on Highway 427 (from Highway 407 to Highway 7) and (Highway 7 to Mayfield) are also planned and protected. • Roadway widening on Highway 50, Bovaird Drive, Mississauga Road and Steeles Avenue has included the implementation of far-side bus stops and queue jump lanes for transit.
3.13	Whenever parking is provided at mobility hubs, major transit station areas or major commercial or employment areas, priority spaces shall be provided for carpool and carshare vehicles. Operators of non-residential parking lots should provide easily visible information on carpooling opportunities.	In Progress	This priority action is a supporting policy, and should be included in relevant policy and plans and guidelines, such as Mobility Hub Master Plans, Transit Station master plans, and Secondary Plans. Including this policy in Official Plans will set the framework for including priority spaces for carpool and carshare vehicles in more detailed planning of mobility hubs, transit stations and major commercial or employment areas. Priority parking for carpool users is already included in the following: • The Mobility Hub Guidelines includes approaches to recommend preferred parking provisions for fuel-efficient, carpool and small vehicles, primarily through preferred pricing. • Provision of priority parking spaces for carpool and carsharing vehicles is part of the LEED certification in building and site design. Provision of priority parking spaces for carpool users has been reported in some areas: • Adoption of this policy as part of the regional transportation plan has seen preliminary work being undertaken to determine the feasibility of priority spaces at four GO Transit rail stations. GO Transit is currently piloting a project that sees 45 priority parking spaces for carpool users at Oakville, East Gwillimbury, Burlington and Whitby GO Rail Stations. To use the priority spaces, individuals register their name and vehicle with the program. To date, 140 individuals have registered to use the priority carpool spaces. Outcomes and recommendations of the pilot study are expected in 2012. • Priority spaces for carpool users have been reported in one or more development sites in municipalities: City of Hamilton — City of Pickering Peel Region — City of Oshawa Halton Region (through Smart Commute Halton Business members) — Town of Richmond Hill Town of Markham

Strategy #4 Create an Ambitious Transportation Demand Management Program

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #4.

Transportation Demand Management, or TDM, is about using existing transportation infrastructure and services efficiently and sustainably. TDM policies and strategies aim to support different commute choices, such as carpooling, walking and cycling, and transit, and to provide reasonable alternatives for commuting. As TDM can shift travel choices, and complements transit and active transportation initiatives, it is a key component of The Big Move.

Strategy #4 includes policies, strategies, guidelines, and tools that support several goals in The Big Move, including transportation choice, reduced emissions, and active and healthy lifestyles.

Strategy #4: Create an Ambitious Transportation Demand Management Program			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
4.1	Develop a Transportation Demand Management (TDM) policy and strategy for provincial ministries and agencies such as school boards, hospitals and universities that include actions, timelines and targets	In Progress	The development of Transportation Demand Management policies and strategies is typically the responsibility of individual provincial ministries, school boards, hospitals and universities. For workplaces including universities and colleges, TDM policy and planning may be supported by a Smart Commute office. The TDM Coordinating Committee is an additional forum for exchange and advancement of regional best practices and standards. For schools, support is provided by a combination of municipal, school board and not-for-profit organization staff as no formal supportive body or structure is in place. There is no overarching policy that guides TDM planning at each site, and as such, TDM policies and strategies vary greatly from site to site. The following list provides examples of institutions that are members of Smart Commute and engage in workplace TDM planning (Note: This is not an exhaustive list): • McMaster University, • York University, • University of Toronto - Mississauga, • University of Toronto - Scarborough, • University of Ontario Institute of Technology-Durham, • Hamilton Health Sciences, • Humber River Regional Hospital, • Markham Stouffville Hospital, • North York General Hospital, • Southlake Regional Health Centre, • St. Joseph's Healthcare Hamilton, • University Health Network and • York Central Hospital • Ontario Public Service • Provincial agencies School Boards and Schools • The Canadian School Travel Planning framework and toolkit has been piloted in schools in York Region, Durham Region, Peel Region, the City of Toronto, and the City of Hamilton. School Travel Plans include a range of engineering, enforcement, education, and encouragement mechanics – for example, Walking School Buses, and dedicated walking days, newsletters and media, prize incentives to encourage the use of active transportation modes, physical improvements to bike racks and bike rack locations, and walking school route signage.

			• In Halton Region, the Halton District School Board and Halton Catholic District School Board undertook an Active and Safe Routes to School project (September 2009 to June 2010) with 25 elementary schools. The project was led from within the Halton District School Board and remained a program of the board following the end of the project. • The Stepping It Up pilot project (April 2009 to December 2011) was a school travel planning pilot project with 30 elementary schools in Peel Region and Hamilton. The pilot project was led by Metrolinx in partnership with the Region of Peel, the City of Hamilton, Green Communities Canada, and the University of Toronto, with funding from Transport Canada's ecoMOBILITY program. The pilot included two regional workshops which engaged over 200 stakeholders to discuss the barriers and opportunities related to active and sustainable school transportation.
4.2	Establish guidelines and model policies to help municipalities develop and implement TDM policies in their Official Plans and Transportation Master Plans.	In Progress	Regional guidance on the development of Transportation Demand Management policies has not (yet) been developed. Municipalities have reported that TDM policies are either currently incorporated within Official Plans and Transportation Master Plans, or will be incorporated in future plans. Without regionally-established guidelines, it is difficult to assess how well TDM policies have been included within Official Plans and Transportation Master Plans. TDM policies are included within the Transportation Master Plan and/or Official Plan: • Durham Region • Halton Region • Peel Region • York Region • City of Pickering • Town of Oakville • Town of Richmond Hill • City of Hamilton TDM will be included within the Transportation Master Plan, currently under development: • City of Oshawa • Town of Richmond Hill TDM will be included in future Transportation Master Plans: • City of Brampton • City of Mississauga

			The Regions of York and Peel are developing their own regional TDM plans.
4.3	Encourage private sector employers to implement TDM programs.	In Progress	Across the GTHA, 219 employers have signed up as members of Smart Commute. Typically, this is the first step for private sector employers to implement a TDM program. There may be more who have developed TDM plans independent of Smart Commute. Example: Enbridge A member of Smart Commute-North Toronto, Vaughan (NTV) Enbridge recognized it could help a group of its employees make the 180 km round-trip commute from Barrie to Enbridge's Consumers Road location in north-eastern Toronto by supporting a corporate vanpool program. In making this investment, Enbridge helped bring its employees' commuting more into sync with its business and environmental objectives. For Enbridge, using a natural gas-powered vehicle was an obvious choice, and because it has its own fleet of vehicles, maintenance can be carried out on-site. The costs of the vehicle lease, maintenance, fuel, and administration are divided among the driver and 8 passengers and paid on a monthly basis. Driver training is paid for by Enbridge's human resources department to ensure maximum safety and enable driving to be shared among many members of the vanpool. Enbridge backs-up its vanpool program with a Guaranteed Ride Home - vanpool members who experience a family emergency or must work unexpected overtime have access to a free taxi chit or a fleet vehicle to ensure they can still get home on a day that they vanpool. First launched in fall of 2005, the Barrie vanpool was such a success that a second vanpool was launched in late 2006 that runs the approximately 75km round-trip from Whitby, Ajax and Pickering, east of Toronto, to the Consumers Road headquarters. Each van carries up to 9 people, each of whom have signed a Rider Agreement with Enbridge that covers waiver of liability, expectations of service, and recovery of costs. The solution is practical, relating to both Enbridge's desire to retain a productive workforce and the company's environmental commitments. In total, 18 conventionally-fuelled, single-occupant vehicles have been removed from inter-regional highways and replaced by only 2 natural gas vans. Sixteen parking spaces have been saved, helping Enbridge avoid just over $19,000 per year in the cost of leasing parking space for employees. The vehicles provide Enbridge with a promotional opportunity on the road, as the vehicles display Enbridge's logo and indicate they are natural gas-fuelled vehicles. They are also beginning to generate external advertising revenue that will help off-set the costs to riders. For a company that prides itself on long-term investment and leadership, the Enbridge vanpools are a transportation solution that is purely efficient.

			Benefits to Employees: • Stress reduction • Easier commute • Improved job satisfaction • Decreased commuting costs Benefits to the Environment: • Reduced greenhouse gas emissions • Decreased pollutants that cause smog • Fewer cars on the road Benefits to Enbridge: • Improved productivity • Employee retention and decreased recruitment costs • Mobile advertising • Better use of parking spaces Example: Regional Municipality of Durham As an employer, Regional Municipality of Durham, including Durham Region Transit, participates in the Work Trip Reduction program administered through Smart Commute Durham. Through this program the Region provides a variety of services to encourage staff participation in the program: • Access to a ride matching website, carpoolzone.ca. • 14 preferential parking spaces for registered carpools. • An Emergency Ride Home program which assists pre-registered staff who have not driven to work on the day of the emergency, by providing partial reimbursement for taxi. • Bike racks located at the main entrances (two at the west entrance and one at the south entrance). • Access to showers and change rooms at the neighboring recreation facility for active commuters (nominal annual fee) • Transit awareness and promotion (e.g. PRESTO card campaign) • Alternative work arrangements are permitted on a case by case basis • Events throughout the year that focus on providing information and support to promote alternate modes (e.g. Carpool Week, Bike to Work Day, Clean Air Commute and Smart Commute Week) To date there have been 41 carpools formed at the Region of Durham and in 2011 and the program has

			made the following impacts*: • 120,066 vehicle kilometre trips reduced • 3,829 single occupant vehicle trips eliminated • $74,171 in savings for commuters • 26 metric tonnes of greenhouse gas emissions reduced **Results compiled from www.carpoolzone.ca representing survey responses January - December, 2011.* Example: Smart Commute Halton Program The Smart Commute Halton program launched at the Halton Regional Centre in 2006 and was expanded to include the Local Municipal offices in 2007 In 2010, Smart Commute Halton began reaching out to private employers and now as of December 2011 the program supports 15 businesses with over 12000 employees. Smart Commute Halton encourages active and sustainable transportation by offering services and tools designed to make commuting easier for the employees of local organizations. Smart Commute Halton provides the following: • Free program membership • Site Evaluation • Baseline Commuter Survey • Customized Commute Plan • Exclusive Carpool Zone Sub-group • Emergency Ride Home Program • Participation in all Smart Commute Regional events Smart Commute Halton currently has 62 carpools in Halton Region and the program has made the following impacts*: • 288, 779 vehicle kilometre trips reduced • 5,262 single occupant vehicle trips eliminated • $186,362 in savings for commuters • 62702.59 kg emissions avoided from entering our air (62.7 metric tonnes) **Results compiled from www.carpoolzone.ca representing survey responses January - December, 2011*.

4.4	Encourage employers who currently offer their employees free or subsidized parking a choice between the parking or a cash equivalent that can be used for other means of transportation.	Not Started	There have been no reports of cash equivalents for other means of transportation being offered to employees, however, there are a several cases of programs that come close. The City of Mississauga, for example, has a TDM program for its staff that includes discounted transit fares and travel reimbursement for cycling (on business-related trips). Region of Peel has an Employee Trip Reduction program for its staff that includes discounted transit passes, preferential parking spaces and a discounted parking charge for carpool vehicles.
4.5	Incorporate objectives and goals related to TDM as part of any revenue or financial tools that are recommended as part of the Metrolinx Investment Strategy.	In Progress	Metrolinx has developed an investment strategy to examine options for financing and funding transportation options in the GTHA. The strategy includes a possible funding allocation for TDM benefits.
4.6	Official Plans shall require a TDM strategy as part of planning applications for any major commercial, employment or institutional development.	In Progress	Official Plans typically encourage consideration of TDM as part of planning applications. In Mississauga, the City has discretion to require TDM strategy as part of a planning application. The decision for requirement is made on case-by-case basis. In York Region, the adopted Official Plan (2010) includes a policy that requires new institutional, commercial and industrial development applications to include a Transportation Demand Management strategy that considers preferential carpool parking, bicycle facilities, employee transit passes, and alternative work arrangements, and commits the Region to work with existing employers to undertake such TDM strategies. As part of the recently completed Halton Region Transportation Master Plan (2031) – The Road to Change it was recommended that the Region develop with the Local Municipalities, TDM Policies and strategies for major development applications. It is anticipated that this policy and guidelines will be completed in 2013.

Strategy #5: Create a Customer-First Transportation System

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #5.

A customer-first transportation system provides easily accessible information about travel options, transportation conditions, and route planning.

Priority Actions in Strategy #5 focus on provision of information at major transit stations and online, including real-time travel information for both the transit and road networks. The strategy also addresses customer service standards.

Strategy #5: Create a Customer-First Transportation System			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
5.1	Create a regional transportation information portal that is accessible online and by telephone, e-mail or smart phone that provides all users of the transportation system with comprehensive, easily accessible and standardized information on the full-range of transportation alternatives and optimal routings available to them, as well as the status of all of the elements of the transportation network.	In Progress	A regional transportation information portal that provides accessible and standardized information transportation options for travel within and across the GTHA requires coordination among multiple jurisdictions, including ten transit agencies, the MTO, Metrolinx, and developers of the technology platform upon which information is collated and communicated to users. The power of a 'one-stop shop' for transportation information is that it is one of the first steps toward a single, integrated network, where users can make travel decisions that suit their individual needs. The Ministry of Transportation (MTO) is leading a team with Metrolinx, municipalities and other stakeholders across the province in the development of the Traveller Information Services Framework. An Ontario TIS Advisory Committee has been created to review and coordinate activity in the province, co-chaired by MTO and Metrolinx. Metrolinx is developing a transit TIS strategy with a Steering Committee including representatives from all GTHA transit agencies, MTO and CUTA. The strategy will include a transit trip planner, real-time next departure information, real-time service alerts and schedule information. The strategy is being coordinated so as to develop a consolidated database of travel information, setting the foundation for third party development of apps so that easy-to-use real-time travel information will be accessible by smartphone, tablet, and online. The work is substantially complete and the draft report is being revised. The MTO, Metrolinx, City of Toronto and York Region are also developing a Construction, Major Incident and Planned Events Advisory Service, which will provide integrated road and lane closure information to the public. This service is expected on-line in 2012 and will expand to include other municipalities in Ontario. The service is expected to replace the service provided through the Travellers Road Information Portal (TRIP) and 511 telephone information services by road travel information about major roads and arterials, and provide consolidated data for access by a variety of channels: for example, mobile devices and kiosks at freeway information areas. Supporting Work • MTO: The variable message signs (VMS) continue to be part of the ministry's short and long range expansion plans. Currently there are over 75 VMS in Ontario and in various stages of their service life. • Trip-planning: TTC, Mississauga MiWay Transit, Oakville Transit (Google-based), Brampton Transit, York Region Transit, Hamilton Street Railway

			• Real-time Travel information: GO Transit, Mississauga Transit, Hamilton Street Railway, TTC, Brampton Züm BRT, and York Region Transit are capable of providing real-time travel information on some routes, at selected stops and stations. Durham Region Transit is exploring options for real-time travel information for Highway 2 BRT.
5.2	Establish region-wide standards and public reporting requirements for all transit services in the GTHA that are appropriate to the local context, and that address customer service issues such as minimum service frequency, crowding, safety, service reliability including on-time performance and cancellations, cleanliness, responsiveness and customer satisfaction.	In Progress	Currently, there is no requirement for transit agencies to report on customer service issues such as minimum frequency, crowding, safety, service reliability, cancellations, cleanliness or customer satisfaction. Region-wide standards for customer service issues have not been established. GO Transit undertakes a quarterly customer satisfaction survey that includes questions about reliability, crowding, safety, on-time performance and changes to GO service. GO Transit prepares a monthly customer service report that reviews cleanliness, safety and crowding of its facilities. Adequate monitoring of customer service issues requires funding and resources. Within a context of operational and funding constraints, transit agencies may be faced with the 'choice' of providing additional transit service or diverting resources to address customer service issues. Shorter-term transit needs tend to be prioritized over the longer-term potential of a transit network. By building a customer-focused transit network that is comfortable, easy to use and navigate, transit service can be the transportation choice of travel. By attracting new riders, transit systems can improve revenue streams and improve the service offered to its customer base. The Peer Benchmarking Group was established in 2011 and consists of 14 Transit Agencies from across North America. The intent of the group is to have an open dialogue on the wide range of best practices in Customer Service across the Transit agencies and share solutions underway or already developed. The group meets on a quarterly basis.
5.3	Coordinate schedules among transit service providers, including demand-responsive services for persons with disabilities. Establish best practices that ensure GO Transit and local transit agencies provide each other with a minimum 90-days' notice before implementing any changes in service, to allow time for agencies	In Progress	Coordination of schedules and demand-responsive services between neighbouring municipalities is part of developing a seamless transit network across the GTHA. As a first step, establishing best practices and protocols for coordination between neighbouring transit agencies establishes a framework to ensure coordination takes place. Best practices could include regularly scheduled meetings, communication protocols, and strategies for aligning transit planning objectives for cross-boundary services and demand-responsive transit and identifying opportunities for cross-boundary service routes. GO has established a standard to provide at least 90-days' notice of any service changes. However,

	to adjust and coordinate their schedules.		communication and coordination of schedules among local transit agencies typically happens on an ad hoc basis. York Region Transit holds an annual transit partners meeting to discuss service initiatives with neighbouring agencies, providing insight to future transit plans and help to coordinate services across boundaries. Other agencies provide information on annual service plans or major service changes as they arise. Brampton Transit holds annual service planning meetings to discuss integration of services with York Region Transit and MiWay Transit .
5.4	Establish customer service centres at all mobility hubs where travellers can obtain information on schedules, connecting trips, fares and other information for any transportation provider in the region.	Not Started	A 'customer service centre' at a mobility hub, providing information on schedules, connecting trips, fares and other information can range from posted scheduling information, to a customer service representative providing travel information, to an interactive display board featuring travel information in multiple languages. A first step in achieving customer service centres at mobility hubs is to establish standards for information services at anchor hubs, gateway hubs and major transit stations, and to develop and coordinate a strategy for delivery. At existing mobility hubs, transit information is provided by the local transit service provider through either posted schedule and fare information, personnel working in the fare booths, or both. • In the City of Hamilton, real-time travel and departure information is being implemented in the MacNab Transit Terminal in 2013. • York Region Transit dispatches CIR's (Customer Information Representatives). The CIRs roam the system providing trip plan information to customers. During rush hours, the CIR's are dispatched to the most utilized terminals. • The City Centre Transit Terminal in the City of Mississauga has a customer service booth where information about local transit and GO Transit bus is provided by staff capable of communicating in several languages. • The Downtown Brampton Transit Terminal provides real time travel and departure information.
5.5	Equip all mobility hubs, and key transit stations and stops with real-time information displays that tell transit riders the arrival time of the next transit vehicle, and what alternatives are available in the event of a service disruption.	In Progress	Metrolinx/GO is implementing a Station Service Status System (S4) at GO Rail stations in 2012. The S4 system will provide GO customers with real-time, station-specific, rail service status information through electronic signs. A Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) for GO buses will provide real-time information accessible through smart phones, online and through electronic signage at stations and bus stops. Roll out is expected in 2015.

			Real-time information displays have been implemented and are being planned for existing and future BRT routes, LRT routes and subway stations. Real-time information is provided at selected stops and stations in the transit systems of the TTC, Brampton Transit Züm, Mississauga Transit and York Region Transit. Metrolinx has funded a Ryerson University-developed traveller information applications on mobile devices. The GO Mobile app is compatible for iPhone, Blackberry and Android smartphones, and provides real-time travel information for the GO Rail and Bus network, and has been downloaded by over 120 thousand users (as of April 23).
5.6	Phase out the restrictions that currently prevent transit agencies from picking up passengers while passing through neighbouring jurisdictions.	In Progress	Phasing out restrictions that prevent transit agencies from picking up passengers while passing through neighbouring jurisdictions typically involves individual agreements between neighbouring transit agencies. Such arrangements are negotiated on a case by case basis, and in some cases, carry a provision for a revenue neutral arrangement (i.e. a transit agency does not incur any net losses in fare revenue). An example includes the longstanding agreement between Oakville Transit, MiWay (Mississauga) and Burlington Transit that allows cross-boundary travel with reciprocal agreements on fares and transfers. Many cross-boundary agreements are currently in place. In some cases, cross-boundary agreements were negotiated prior to publication of The Big Move. Some examples of cross-boundary agreements include: • Hamilton Street Railway & Burlington Transit • Brampton Transit, York Region Transit and MiWay Transit • TTC and York Region Transit /VIVA services
5.7	Encourage developers to provide information about transportation alternatives, including local transit routes and schedules, and active transportation networks, to new home buyers.	In Progress	Encouraging developers to provide information about transportation alternatives to new home buyers could include any notifications, incentives, or requirements as part of the site development application process. Examples of municipalities encouraging developers to provide travel information to new home buyers include the following: • In the City of Oshawa, development applications that seek a reduction in minimum parking spaces are required to provide transit information to new tenants as a condition of approval from the Committee of Adjustments. • The City of Pickering is working on an incentive program to recognize developers who go above and beyond the minimum development requirements. Providing information about transit and transportation alternatives to home owners is proposed to be recognized under this incentive program. • In York Region, the new Regional Official Plan, approved by the Ministry of Municipal Affairs and Housing in September 2010, includes a policy to work with developers to provide all new-home buyers with information on available pedestrian, cycling and transit facilities and carpooling options within the community, including local transit routes and schedules.

5.8	Undertake individualized social marketing campaigns directed at the household level to reach every household near rapid transit approximately every three years with information about transportation alternatives, including local transit routes and schedules.	In Progress	York Region conducted a pilot for individualized social marketing campaign directed at households in 2010 and 2011 in two communities. A total of 403 households requested and received information about transportation alternatives. One community showed a reduction in Single Occupant Vehicle (SOV) trips as a result of the pilot study. York Region is considering expansion of the program. Some municipalities, such as City of Pickering and City of Oshawa, communicate information about transportation alternatives through its websites. Information about Durham Region Transit is distributed through regional property tax pamphlets, Municipal Parks and Recreation Community brochures, local newspapers, and welcome packages at events. Brampton Transit mails a Rider Guide, with transit information and maps, targeted to households and businesses on Queen Street for the launch of Züm BRT service. Peel Region plans to undertake an individualized social marketing campaign as part of its Active Transportation Master Plan.
5.9	Develop a consistent set of procedures, visual and audio cues, and wayfinding measures that make the transit system easier to use and navigate, including consistent numbering and naming of transit stations and stops, consistent schedules, and common transit signage standards.	Not Started	Developing a consistent set of wayfinding measures involves coordination and collaboration between transit agencies, municipalities, and other stakeholders involved in mobility hub and major transit station development. A regionally-coordinated best practices guide could be developed to establish a standardized set of procedures, visual and audio cues and other wayfinding measures that make the transit system easier to use. Metrolinx/GO collaborates with local transit agencies to coordinate visual cues and wayfinding at shared facilities. New facilities for the Highway 403 BRT line, for example, will have consistent wayfinding features. On Hamilton Street Railway vehicles, a "next stop" announcement system presently provides automated audio and LED screen displays of each bus stop location being approached by each bus. Visual cues and other wayfinding measures are often embedded within the branding standards of individual transit agencies and BRT services.
5.10	Expand the availability of overhead display boards on roads and highways that show the estimated time to key destinations and notify travellers of delays and alternative routes.	In Progress	The MTO operates over 75 variable message signs (VMS) in Ontario which provide information about travel delays and estimated times to key destinations on provincially-maintained highways. Pending funding arrangements, the program may be expanded to include Highway 401 East from Morningside Avenue to Brock Road.
5.11	All relevant decision-making, such as planning, designing, financing	-	This supporting policy provides a framework for decision-making. In practice, application of the policy is subject to interpretation. Adequately evaluating how well the policy has been adopted or implemented would require a

	and operating the transportation system, locating major trip generators, and designing communities and individual buildings, should promote a shift in travel behaviours to the maximum extent that is feasible, based on the following passenger transportation hierarchy: i. Trip reduction, shortening or avoidance ii. Active transportation iii. Transit iv. Ride-sharing and taxis v. Single-occupant vehicles		multi-stakeholder review panel or wider consultation. Please refer to action 3.10 for more information.
5.12	The needs of all travellers, including transit users, cyclists and pedestrians, shall be considered as part of all planning decisions by: • obtaining the input of transit agencies and public health departments on all major planning and transportation matters; and • requiring, as part of planning applications, a comprehensive transportation impact study that is integerated with the applicable municipal Transportation Master Plan and considers the impacts of the new development on all forms of transportation as well as the impacts of induced traffic.	In Progress	Across the region, transit agencies and public health departments are typically consulted as part of planning decisions, with a few exceptions. Transportation impact studies are also a typical requirement as part of planning applications submitted to municipalities across the GTHA. Where there has been the completion of a Transportation Master Plan (TMP) or one that is currently under development, there has been an effort to align and integrate Transportation Impact Studies (TIS) with TMPs. For example, the Town of Oakville is currently working on integrating the TIS and TMP, while in Halton Region and Peel Region, these are already aligned.

Strategy #6: Implement an Integrated Transit Fare System

All Priority Actions and Supporting Policies for Strategy #6 have work underway.

There are 10 transit agencies in the GTHA, and each has a different fare structure. This means travelers crossing the region have had to pay multiple fares for a single trip. An integrated transit fare system enables travellers to cross municipal boundaries or transfer between transit modes or operators without fare duplication.

Strategy #6: Implement an Integrated Transit Fare System			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
6.1	Implement a region-wide integrated transit fare system by 2012 that allows users to pay a seamless, integrated fare for all transit systems across the region.	In Progress	PRESTO is a new e-fare collection system that has been implemented across the GTHA as a region-wide integrated transit fare payment system. The PRESTO system is an enabler of fare integration and the first key step in moving towards regional fare integration. Fare integration will potentially require a the development of a new funding model and hence further consultation with the municipalities and their respective transit service providers as this falls under their jurisdiction, not the province or Metrolinx. PRESTO began a phased rollout on May 1st, 2010 with GO Transit, Oakville, Burlington, and TTC (Union Station). PRESTO is now available on Hamilton Street Railway, Brampton Transit (including Züm BRT), Mississauga MiWay, York Region Transit, Durham Region Transit, GO Transit, Oakville, Burlington and 14 TTC subway station. PRESTO is scheduled to be available in Ottawa for OC Transpo in the Summer of 2012 and planning is underway to implement PRESTO across all of TTC's service area. Uptake The soft launch of PRESTO has delivered a small percentage adoption as no transit service provider has retired their legacy fare system. When the legacy fare systems begin to retire, PRESTO expects a rapid uptake and adoption. The introduction of 200 000 free PRESTO cards in Ottawa and the implementation of the Toronto Transit Commission, the retirement of the 2-10 ride GO passes and planned marketing campaigns over the next 24 months will have a major impact on card uptake and the use of PRESTO. As of April 4, 201, 151 000 PRESTO cards were issued, or 21 million fare payments valued at $90.5 million. A total value of $97 million was loaded on card e-purse.
6.2	Over time, leverage the PRESTO fare smart card technology to offer new fare products and integrate fares throughout the region. Pursue partnerships with financial institutions, local businesses, tourism destinations, transit agencies and public sector agencies to expand the scope of the PRESTO fare smart card to function as a debit card, library card, parking pass, bike share card or to offer discounts and	In Progress	PRESTO is leveraging the base technology platform to implement new payment technologies and new products. PRESTO will be implementing Proof of Concept trials in 2012 for the acceptance of credit cards at payment devices and for mobile payments on smart phones. These new payment options are targeted for introduction to the general public in 2013, the goal being customer choice in the payment option they wish to choose. PRESTO has been exploring potential commercialization opportunities for new payment products and integration with educational institutions, local businesses, PayPal, Google, credit/debit/acquirers/TELCO's and financial institutions. PRESTO will continue exploring these opportunities as part of the PRESTO strategic plan. PRESTO is focused primarily on transportation for the foreseeable future and providing operational excellence to the service providers it services. Also, PRESTO will continue to ensure that both Ottawa and Toronto implementations are successful.

	reward points.		
6.3	Expand GO Transit's local transit subsidy program for riders who are travelling to GO stations using local transit.	In Progress	GO Transit's local transit subsidy program allows riders who use local transit to pay a discounted fare to use GO Transit service. Typically, a co-fare agreement between GO Transit and the local transit agency is established so that users purchase a discounted local transit fare for a journey that requires both local transit and GO Transit. By removing the need to pay for two full transit fares for those users who take local transit to access a GO stop or station, the subsidy program encourages transit use for the journey to the GO station. Historically, co-fare arrangements were applicable for local transit access to GO Transit rail stations only. The program has been expanded to include GO Transit bus under the PRESTO fare payment system (paper tickets are not eligible for co-fares at GO Bus stops. Co-fare agreements are currently in place between GO Transit and all local transit agencies within the GTHA with the exception of the TTC. GO Transit has also implemented co-fare agreements with Barrie Transit and Grand River Transit (GRT).
6.4	Provide financial incentives to encourage greater transit use, such as: • expanding the use of U-PASS programs currently offered by many transit providers; • making employer-provided or employer-subsidized transit passes tax-exempt; and, • offering bulk discounts on transit pass sales to employers and major trip generators.	In Progress	Financial incentives to encourage greater transit use may be offered in a variety of ways, including U-Pass programs, bulk discounts and through tax exemptions. Financial incentives can be enabled through transit agencies, typically with support from other organizations, such as funding partners, post-secondary institutions, municipalities, provincial and federal governments (for tax-exemption of employer-provided transit passes). This priority action identifies three specific financial incentives: 1) Expanding the use of U-PASS programs currently offered by many transit providers 2) Making employer-provided or employer-subsidized transit passes tax-exempt; 3) Offering bulk discounts on transit pass sales to employers and major trip generators. Expanding the use of U-PASS programs currently offered by many transit providers; U-Pass programs that are currently in place include: • Durham Region: Durham College, UOIT and Trent University (Oshawa) • Hamilton Street Railway: McMaster University, Columbia International College, and Redeemer University/College . • MiWay Transit: University of Toronto-Mississauga Pilot studies and discussions to expand the U-Pass program include: • A pilot study to expand the U-Pass program to Summer students and Part-time students at University of Toronto-Mississauga

			• Discussions currently taking place to pilot or introduce a U-Pass Program at Sheridan College Making employer-provided or employer-subsidized transit passes tax-exempt; No progress has been reported. The Canada Revenue Agency (CRA) allows monthly transit passes to be used to reduce taxable income for personal income tax purposes. The CRA does not currently consider employer-provided or subsidized transit passes a tax-exempt benefit. Offering bulk discounts on transit pass sales to employers and major trip generators. Bulk transit discounts are typically coordinated through the Smart Commute offices. Bulk discounts are usually 10-15% off the regular price of a transit pass, and may or may not be matched with a contribution from an employer. • Durham Region Transit provides discounts to School Boards for student transit passes. • The Liberty-Village Business Improvement Association is one example of a successful partnership, where a number of smaller businesses have access to the bulk metropass purchase program through the Liberty Village BIA.

Strategy #7: Build Communities that are Pedestrian, Cycling and Transit-Supportive

Over three quarters of Priority Actions and Supporting Policies are underway for Strategy #7.

The land use in our communities and neighbourhoods plays a significant role in how we choose to travel. Research continues to show that when we live in higher density neighbourhoods with a variety of stores and services nearby, we are much more likely to walk, bike and use transit.

Providing realistic transportation choices such as walking, cycling, and transit relies critically on efficient and sustainable land uses. Building on the province's Growth Plan for the Greater Golden Horseshoe, The Big Move envisions a system of interconnected mobility hubs across the GTHA to strengthen the link between transportation and land use planning. Actions in Strategy #7 relate to policies, programs, guidance documents, and tools to cultivate mobility hubs and land uses that support transit and active transportation.

Strategy #7: Build Communities that are Pedestrian, Cycling and Transit-Supportive			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
7.1	Create a system of connected mobility hubs, including Anchor Hubs and Gateway Hubs, at key intersections in the regional rapid transit network that provide travellers with access to the system, support high density development, and demonstrate excellence in customer service.	In Progress	Mobility Hubs are places of connectivity where different modes of transportation – from walking to riding transit – come together seamlessly and where there is an intensive concentration of working, living, shopping and/or playing. As part of the work to develop The Big Move, the Mobility Hubs Backgrounder set out a working definition and established the minimum criteria to be used in identifying a Mobility Hub. The minimum criteria include, for example, planned density, forecast number of people accessing transit at the hub, and number of intersecting rapid transit routes. Mobility hubs which currently meet this criteria for density and ridership include: • Dundas West/Bloor • Kennedy • Kipling • Main-Danforth • St George • Union • Yonge-Bloor • Yonge-Sheppard In addition, a number of mobility hub studies have been initiated. Mobility hub studies and supporting work can include, for example, precinct plans, secondary plans, or local plans to improve transportation connections. Mobility Hub studies and supporting work has commenced for 11 mobility hubs in the GTHA: • Bramalea • Cooksville • Eglinton-Mt. Dennis • Dundas West/Bloor • Kennedy • Kipling • Markham Centre • Midtown Oakville • Port Credit • Richmond Hill/Langstaff Gateway • Mississauga City Centre Downtown21 Master Plan
7.2	As the regional rapid transit system is implemented, detailed	In Progress	The network of Mobility Hubs, as set out in the Mobility Hub Backgrounder and in The Big Move, has not changed.

	planning is undertaken for specific corridors, and municipal growth planning exercises unfold, Metrolinx may, in consultation with municipalities and transit agencies, refine the list of mobility hubs based on the definitions and criteria of the RTP.		
7.3	Develop a financial program to facilitate mobility hub capital improvements that increases over time to $50 million annually. This program would fund or leverage transit-related improvements such as converting surface parking to structured parking, strategic land acquisitions, station improvements, and local road re-alignments to facilitate integration of transportation modes, with a focus on those mobility hubs that: • have the greatest potential to improve the performance of the overall transit system and generate a return on the transit investment; • demonstrate an ambitious and practical development plan for achieving or exceeding the land use and transportation objectives of the RTP and the minimum requirements of the Growth Plan for the Greater Golden Horseshoe; • have prepared a viable business plan that outlines	Not Started	To date, financial investment in the Mobility Hub development has been in the form of funding for studies, strategies and plans, including the following: • Metrolinx is undertaking a study to examine the potential to use public-private partnerships for mobility hub development, and its practical application. This could be used for a wider variety of major transit station area improvements, including non-mobility hub stations where a new station design or site master plan is required. • Metrolinx is investing at GO stations and mobility hubs to move from surface parking to structured parking. To date, approximately $337 has been invested, including 5 parking structures that are currently under construction. While this can help make room for more development, it presents its own challenges in reducing the proportion of people who drive to stations. Municipalities and transit agencies have also supported the work of mobility hub development through studies, planning work, restructuring of transit service routes, and strategic initiatives. • York Region has made significant investments in rapid transit station planning and rapid transit routes, supporting the development of mobility hubs in York Region. • The City of Mississauga has invested substantially in the City Centre/Downtown area.

	the public and private financing techniques for achievement of the intended development; • have strong support from the municipality; • have high levels of existing or planned local transit service; and, • demonstrate best practices in the design and function of the mobility hub.		
7.4	Establish a special purpose, transit-related urban development capability to lead or facilitate development for those mobility hubs where it is determined that jurisdictional issues, land ownership patterns or other issues present particular challenges that would otherwise inhibit their successful, integrated development. Such capability would be structured appropriately to respond to the issues identified and could be vested with authority to manage publicly owned lands and to acquire or assemble lands needed to realize the strategic development objectives of the mobility hub.	In Progress	A Report on Metrolinx Land Use Planning Authority at Mobility Hubs & GO Stations submitted to the Metrolinx Board of Directors in November 2011 made recommendations for Metrolinx to increase its influence at Mobility Hubs and GO stations to affect transit-supportive land use and densities. The report highlighted that Metrolinx already has considerable authority at Mobility Hubs and GO Stations and identified the following recommended next steps to take full advantage of this influence and authority to affect land use at stations: 1. The Metrolinx CEO to communicate this report to the Minister of Transportation and Deputy Minister of Transportation for consideration, with specific regard for the TPPS provisions. 2. Staff to develop a Metrolinx Joint Development Policy to establish criteria by which Metrolinx engages in joint developments, and how the sale of land and land acquisition can support the implementation of the Mobility Hub objectives and Metrolinx's objectives for non-fare revenue generation. 3. Through Mobility Hub and station planning and design work, staff identify strategic investments that would catalyze development at Mobility Hubs and GO stations to achieve objectives of the Mobility Hub Guidelines for inclusion in capital budgets. 4. Metrolinx General Counsel investigate and report back on how formal funding agreements for rapid transit expansion or programs could explicitly integrate the Mobility Hub Guidelines. 5. Investigate joining the One-Window provincial planning service. 6. Continue to expand Mobility Hub Guidelines outreach plan to Metrolinx staff, municipalities and other stakeholders, including the possibility of an annual Mobility Hubs symposium.\ 7. Monitor implementation of the Mobility Hub Guidelines at all Mobility Hubs and report every two years on their implementation. 8. Continue to lead and comment on Mobility Hub studies and station plans using the Mobility Hub guidelines, in line with the priority stations identified in this report. 9. Metrolinx staff to report back annually on these recommended next steps.

7.5	Take advantage of the full range of financial and development tools available as part of a mobility hub development strategy and establish guidelines for their appropriate use. These tools may include tax increment financing, community improvement plans, area development charges, as well as value capture strategies, public-private partnerships and the possible use, as necessary, of statutory expropriation powers.	In Progress	The Mobility Hub Guidelines, published in September 2011, provide a brief introduction to the types of financing and development tools that could be used to develop Mobility Hubs. A more detailed guidance and best practices guide could assist municipalities in identifying appropriate tools and articulating effective strategies for individual mobility hubs. Metrolinx is currently investigating the potential to leverage investments and benefit from joint ventures. Metrolinx recently undertook a study to identify mobility hubs that have the most potential development revenue. Municipalities have expressed interest in using financial and development tools to develop mobility hubs. The mobility hub studies are currently being developed. Discussion of financial tools will be essential to achieving full build-out of mobility hubs. Municipalities have already started to consider funding and financing options for mobility hub development. In addition to grants and gas taxes, some of the financial tools that are currently in place or are being considered include: • City of Hamilton Downtown Multi-residential Property Investment Program • City of Hamilton: Development is further encouraged at mobility hubs through waiving development charges in the downtown area • York Region: Transit Oriented Development strategies, value-capture and valuation studies • The City of Mississauga Strategic Plan includes the following action items: "Use development revenues from density bonusing to support higher-order transit" and "Use special development levies to support higher-order transit.
7.6	With the guidance of a multi-stakeholder roundtable, undertake a comprehensive parking study to identify best practices and guidelines with respect to: • optimum parking standards, practices and pricing policies for non-residential parking, particularly in mobility hubs; • design of parking facilities to ensure they do not act as barriers to transit or active transportation; • transitioning from free to paid	In Progress	Two studies have addressed parking. The Mobility Hub Guidelines contain guidance on strategic parking management at mobility hubs. The guidelines set out high-level approaches to parking management, addressing pricing, policies and design standards. The GO Rail Parking Strategy is currently underway and will be completed in Fall 2012. It will address the design of parking facilities to ensure they do not act as barriers to transit or active transportation. With guidance from multiple stakeholders, the study sets out a strategy for transitioning from free parking to paid parking, and separating transit fares from parking charges to encourage access to stations by sustainable modes of transportation. Station-specific issues are also being addressed in the study, which is anticipated to be published in 2013. Supporting work for local parking studies have been undertaken in some municipalities. Above and beyond municipal parking strategies that examine supply, demand and set out zoning standards, one notable example of a local comprehensive parking strategy has been developed in the City of Mississauga. City of Mississauga: A parking strategy for Mississauga City Centre was developed in 2009, addressing management, policies, regulatory initiatives, transportation demand management, new infrastructure

	parking to encourage transit and active transportation use; • separating parking costs from transit fares at mobility hubs, in order to encourage travellers to access the station by walking, cycling or local transit; and • implementation mechanisms such as municipal parking authorities.		investment, and a financial strategy.
7.7	Update the province's Transit Supportive Land Use Guidelines.	Completed	The 2012 Transit-Supportive Guidelines have been publicly released and are now available online*. The Guidelines bring together in one document the most current thinking on transit-supportive land-use planning and delivery and operations of customer-focused transit service. It is a comprehensive resource containing 230 pages of text and illustrations, with over 500 separate strategies on such topics as Coordination of Transit and Land-use, Transit Network Design and Planning, Designing Transit for Universal Access and Transit Performance Planning and Monitoring. The Guidelines are designed to be complementary to the concepts and recommendations contained in the Metrolinx Mobility Hub Guidelines (2011). Staff from both projects have worked together to ensure content is consistent in both publications. The Mobility Hub Guidelines are referenced in the Major Transit Stations guideline and elsewhere. While the Mobility Hub Guidelines focus on developing transportation hubs within the GTHA, the Transit-Supportive Guidelines take a province-wide view with a broader exploration of transit planning and services beyond transfer points. Its collection of tools, best practices and implementation strategies can be applied to Ontario communities of various sizes and forms, from large metropolitan areas to medium-sized cities to rural communities. These Guidelines help support provincial priorities to increase transit ridership, encourage more livable communities, and develop sustainable, multi-modal transportation networks. Many of the Big Move's goals and policies are reflected in the Transit-Supportive Guidelines, such as strategies related to building a regional transit network, to building communities that are pedestrian, cycling and transit-supportive and to planning transit for universal access. The Transit-Supportive Guidelines can serve as a tool to help implement the Big Move's goals and priorities. The Guidelines includes references, case studies and examples of successful implementation of transit planning, measures to increase cycling and regional transit service in the GTHA and southern Ontario: • Oakville's successful transformation of its radial transit network to a grid network system is highlighted in a case study. The new service network provides riders more direct travel and is more aligned to Oakville's evolution to a city of nodes and corridors. Local community routes are

			maintained to serve dispersed neighbourhoods and to feed line-haul routes along busy corridors that form the grid. Oakville's new transit network is a good example of adapting a transit network to changing land-use patterns. • Toronto's implementation of a Bike Station at Union Station is another case study that emphasizes the need to integrate cycling amenities with transit facilities to encourage commuters to combine active transportation with their transit trips. The bike station provides 24-hour secure indoor storage and offers a range of services such as showers and change rooms, vending machines and staff attendance throughout the day. • Innovative ways to promote public transit are documented in the Guidelines in such examples as Hamilton's Totally Transit Program, a hands-on transit education course that teaches Hamilton elementary school students how to take transit and the connections between transportation choices, the environment and human health. Another example is Durham Region Transit's partnership with eight local libraries in the region to allow children with library cards to take transit for free to their local library as part of a summer reading program. * The Transit-supportive guidelines are available online: http://www.mto.gov.on.ca/english/transit/supportive-guideline/index.shtml
7.8	The transportation system shall be planned, designed, built and operated to create pedestrian-, cycling-, and transit-friendly communities, and to ensure connectivity between places and along corridors that support the urban structure and intensification objectives of the Growth Plan for the Greater Golden Horseshoe.	-	Not measurable.
7.9	The transportation system shall be planned, designed, built and operated in a manner that directs growth to approved settlement areas, particularly already built-up areas, and away from areas where development is discouraged by provincial policy, such as natural areas and	-	

	agricultural lands.		
7.10	The regional rapid transit and highway network in Schedules 1 and 2 shall be incorporated into all municipal Official Plans, and these planned transit services shall be used as the basis for determining appropriate land uses and densities in conformity with the Growth Plan for the Greater Golden Horseshoe.	In Progress	Incorporating the rapid transit and highway network (identified in Schedules 1 and 2 of The Big Move) takes time, as Official Plans are expected to be updated every five years. In the next progress report for The Big Move, it is anticipated that the majority of Official Plans will incorporate and reflect the regional rapid transit and highway network. Two regional Official Plans and three municipal Official Plans have incorporated and reflected the regional rapid transit and highway network. At this point in time, progress on this priority action is a reflection of where municipalities and regions are in their Official Plan review and update cycle.
7.11	In new residential, commercial and employment developments in municipalities where transit service is planned or available, all homes and businesses shall be within walking distance of a transit stop with frequent service. Transit stop signage shall be erected as soon as roads are constructed so that prospective businesses and homeowners are aware of where transit service will be provided.	Not Started	Many municipalities do not have the capability to readily collect information on the proportion of development within walking distance of a transit stop providing frequent service. In many cases, transit access may be determined by the availability of transit stop, without consideration of the frequency of transit service. Once resources permit analysis of development within walking distance of transit, there will be a need for regional consultation to establish formal definitions of 'walking distance' and 'frequent transit'. Land-use planning faces the challenge of developers who prefer sites without established transit service, as these sites can be cheaper. For transit agencies, it can be challenging to introduce new service routes in new developed areas where there has not been an established demand for transit service. While the importance of introducing transit service early in the development of new residential, commercial and employment developments is known, the operational and budget constraints of an un-tested route can compete with other areas of the transit network where there may be evidence of more pressing demand for service. At Hamilton Street Railway, a new bus service was introduced to a new isolated commercial development, on a pilot basis, with net cost financing provided through a developer contribution and a City reserve fund.
7.12	New institutions such as elementary, secondary and post-secondary schools, regional hospitals, large sporting venues and cultural centres should demonstrate excellence in transit-oriented and pedestrian-friendly design and should choose locations that maximize access by transit and active transportation. This shall be supported by	In Progress	This supporting policy refers to the location and design decisions of new institutions such as schools, hospitals, sporting venues and cultural centres. Demonstrating excellence in transit-oriented and pedestrian-friendly design is a worthy aspiration, however, it is difficult to assess without specific criteria for the terms 'transit-oriented' and 'pedestrian-friendly'. Adoption and implementation of this policy is not only required in municipal plans, but in policy and planning work by school boards, health boards, and on a case by case basis as sporting venues or cultural centres are planned and designed. Effective adoption of this supporting policy requires guidance and advice from multiple stakeholders: municipalities, school boards, health boards, design panels, and so on. Municipalities and school boards were consulted on this supporting policy. Typically, access to transit is a

	municipal Official Plan policies.		consideration in the location decisions for new schools. The challenge in locating schools to maximize walking opportunities relates to the negotiations and decisions with developers about how to use 'central sites'. The location of a school may not be as accessible by walking to the maximum extent possible, particularly in new, large-scale developments. Example: a workshop hosted by Vaughan in winter 2011 to discuss school site design and access, with a view to potentially achieving a more economical footprint and pedestrian-friendly environment. This workshop was attended by representatives from Vaughan, as well as other GTHA municipalities and Metrolinx. In an effort to foster closer collaboration with the school board on active and sustainable school transportation and for all stakeholders to better understand roles and responsibilities around school siting and site design, the City of Hamilton is hosting a workshop in May 2012 on the topic of school site and site design and how this could be more supportive of active transportation and health objectives. For more detail on initiatives undertaken by municipalities and school boards on siting and design, please see action 2.11.
7.13	Municipal parking and zoning by-laws shall be updated to: • establish maximum parking requirements; • decrease minimum parking requirements where appropriate; • permit off-site, on-street and shared-parking capacity to be counted towards meeting parking requirements; • provide priority parking for car-sharing; and • give landowners and developers the option of providing alternatives to free on-site parking, such as transit passes, car-sharing memberships, carpooling services, and/or financial	In Progress	Municipalities have reported mixed levels of action on updating municipal bylaws with respect to parking. The Town of Oakville and the City of Toronto have incorporated elements of this priority action within their respective zoning by-laws. In the City of Mississauga, developed a comprehensive parking strategy, which takes a comprehensive approach to managing parking demand through the implementation of policy and regulatory measures, Transportation Demand Management, and a financial strategy for the provision of new parking infrastructure. Progress on specific parking requirements are summarized below: Maximum Parking Requirements: Across the region, municipalities have not typically set parking maximum requirements. The Town of Oakville and the City of Toronto are exceptions, in which their respective zoning bylaws do restrict parking in some areas. The Town of Richmond Hill is considering the establishment of parking maximums. Decreasing minimum parking requirements where appropriate: The City of Pickering, for example, has reduced parking requirements for developments that are close to GO Stations and future BRT corridors. Permitting off-site, on-street and shared-parking capacity to be counted towards meeting parking requirements The City of Hamilton is currently studying the feasibility of permitting this as part of the proposed new Zoning Bylaw. In the City of Toronto, shared parking is permitted to be counted towards meeting parking requirements

	contributions towards transit or active transportation infrastructure.		on a site-by-site basis, determined through the site development application process. Providing priority parking for car-sharing: There have been no reports from municipalities indicating that parking and zoning bylaws have been updated to provide priority parking for carpool users or car-sharing. As part of the Zoning By-law Project, the City of Toronto undertook a car sharing study to examine the feasibility of implementing priority parking for shared automobiles. One of the recommendations of this study was to include wording in the zoning by-law that "car share parking spaces [must] be designed in a manner that will make them accessible to non-resident subscribers from outside the building as well as building residents" Giving landowners and developers the option of providing alternatives to free on-site parking, such as transit passes, car-sharing memberships, carpooling services or financial contributions toward transit or active transportation: There have been no reports from municipalities of developers being given these options. The Town of Richmond Hill encourages developers to provide transit passes. The Town of Oakville is currently updating the zoning bylaws (anticipated to be finalized by 2014), and may indicate options be provided to developers.
7.14	Gateway hubs and anchor hubs identified in Schedules 1 and 2 of the RTP shall be identified and incorporated into municipal Official Plans and Transportation Master Plans. Official Plans and Transportation Master Plans should also identify unique destinations that are important regional activity centres and/or major trip generators, such as universities, regional shopping centres, hospitals, and cultural facilities.	In Progress	Incorporating gateway hubs and anchor hubs (identified in Schedules 1 and 2 of The Big Move) takes time, as Official Plans are expected to be updated every five years. In the next progress report for The Big Move, it is anticipated that the majority of Official Plans will incorporate and reflect gateway hubs and anchor hubs. At this point in time, progress on this priority action is a reflection of where municipalities and regions are in their Official Plan review and update cycle. Mobility Hubs are identified in the Official Plans for: Halton Region Official Plan York Region Official Plan City of Brampton Official Plan Richmond Hill Official Plan City of Mississauga Official Plan Official Plans currently being developed or updated, and will include identification of mobility hubs include: Peel Region Official Plan Mobility Hubs will be identified in future Official Plans, including: Durham Region Official Plan

			City of Oshawa Official Plan
7.15	Municipalities, in consultation with transit agencies, landowners, major stakeholders, and public agencies and institutions, shall prepare detailed master plans for each mobility hub. Where appropriate, master plans should also be prepared for major transit station areas and unique destinations that have been identified in accordance with Policy 7.14. At minimum, master plans will: • set out policies and an anticipated schedule for their achievement, to conform with and implement the Growth Plan for the Greater Golden Horseshoe's policies for major transit station areas and, where applicable, urban growth centres; • establish minimum density targets that conform to the Growth Plan for the Greater Golden Horseshoe and are based on the planned transit service levels of the RTP; • optimize transit-oriented development potential, and identify and implement incentives to promote transit-oriented development, such as streamlined planning and building approvals and reduced development application fees; provide for a range of amenities for travellers	In Progress	Planning for a mobility hub can include mobility hub studies, secondary plans, or master plans. Mobility hub master plans may be led by municipalities, transit agencies, or Metrolinx. Mobility Hub studies and master plans completed: Bramalea Gateway Hub Richmond Hill Centre/Langstaff Gateway Anchor Hub Port Credit Cooksville Mobility Hub studies and master plans currently under development include: Downtown Brampton Oakville Anchor Hub Markham Centre Anchor Hub Downtown Brampton Anchor Hub Shoppers World Terminal Other planning work for or around mobility hubs include: Downtown Pickering Intensification Study (underway) Seaton Gateway Hub initial planning work (underway) Downtown Oshawa Anchor Hub development study Newmarket 'Urban Centres Secondary Plan' (underway) Vaughan Metropolitan Centre - Transportation Study for the Secondary Plan City of Mississauga City Centre Downtown21 Master Plan

	such as retail uses, restrooms, community spaces and tourism information, where appropriate; • optimize the trip-generation benefit of the mobility hub; • set target modal splits for transit usage, single occupancy vehicle trips and active transportation for each mobility hub, and an anticipated schedule for their achievement; • establish a surface parking reduction strategy in consultation with transit agencies, that is based on site-specific redevelopment opportunities and the existing or planned availability of alternative modes of access to the mobility hub, and that includes a scheduled transition from free surface parking to a limited supply of fairly priced, structured parking, and policies to set aside reserved parking spaces for carpool and carsharing vehicles; • include design policies that help achieve environmental sustainability objectives, such as LEED Gold or equivalent standards, for any new transit-related buildings; • improve the travelling experience through the use of public art, landscaping and architectural excellence; • minimize distances between transit stations and between		

	transit stations and key destinations within the mobility hub; • give priority to transit, pedestrian and bicycle access over all other modes, and identify a zone around mobility hubs that provides priority measures for these modes on access roads; • establish a pedestrian-focused internal movement plan that integrates public and private spaces through well-designed, human-scaled spaces; • provide secure, conveniently located, weather-protected bicycle storage facilities and integrate bike-sharing where available; and • address issues related to the comfort and convenience of transit users, including policies that provide for customer service amenities, such as a plentiful supply of clean, safe, comfortable, weather-protected waiting areas, way-finding, and access for users with special needs.		
7.16	Municipalities may identify areas in Official Plans and Transportation Master Plans that have the potential to meet the mobility hub definitions and criteria of the RTP in the future, and plan for their potential future role as mobility hubs. This may include the preparation of detailed master plans for these areas as	In Progress	A visioning and master plan study is currently under development for the former Lakeview Generating Station lands (south of Lakeshore Rd. East, west of Dixie Rd), where there are interchange opportunities between the proposed Waterfront LRT and proposed Lakeshore Express Rail. The study will assess the feasibility as a future mobility hub. The City of Hamilton is initiating a planning strategy study around the James North future GO station. Funding for the Mount Pleasant Village ($30.2 m) in the City of Brampton has been achieved through a combination of Federal and Provincial Infrastructure Stimulus Grants, Development Charges and Developer Contributions, and Cash In Lieu of Parkland.

	described in Policy 7.15.		
7.17	All transit corridors in the regional rapid transportation network shall be assessed for their potential for higher density mixed-use development and for their suitability as intensification corridors as defined in the Growth Plan for the Greater Golden Horseshoe. Generally, all regional rapid transit corridors that are not on controlled-access expressways or outside of settlement areas should be identified as intensification corridors, except where this would conflict with other provincial policy.	In Progress	Intensification corridors have typically been included in Official Plans across the GTHA. Municipalities typically undertake intensification studies to conform to the Growth Plan for the Greater Golden Horseshoe. A sample of these intensification studies are summarized below: The Town of Oakville has identified three intensification corridors, and studies were undertaken as part of the development of the Official Plan to examine density, height and land uses to intensify these corridors. Of particular note, Kerr Village was successful in including density bonuses that are based on transit improvements and priorities. In the Town of Richmond Hill, intensification studies were undertaken for Yonge Street and Highway 7 as rapid transit corridors, and Major MacKenzie Drive as a longer-term transit corridor. In the City of Hamilton, a Nodes and Corridors Planning study was completed for the "B-Line" Corridor (on Main Street, King Street and Queenston Road) to identify areas for growth and intensification and to determine a development strategy. The Region of Durham, comprising the City of Pickering, City of Oshawa, Clarington, Whitby, Ajax, Brock, Scugog and Uxbridge, completed a Transit Oriented Development Strategy to identify 37 areas across the Region which had the greatest development potential to support transit. This study will provide input into a future transportation-related amendment to the Regional Official Plan. The City of Toronto, many of the transit corridors have some existing degree of intensification. The City of Toronto developed the Avenues and Mid-Rise Buildings Study, setting out guidelines for encouraging future intensification along Toronto's Avenues. The study addresses best practices, and establishes a set of performance standards for new mid-rise buildings, categorizing the Avenues based on historic, cultural and built form characteristics. Through the development of Secondary Plans and Avenue studies, the appropriate level of intensification is typically identified on an area-by-area basis. The City of Mississauga Downtown21 Master Plan provides a framework for development and intensification to support the Hurontario St/Main St rapid transit corridor. Other municipalities have reported the identification of intensification corridors, including municipalities in Halton Region and Peel Region.
7.18	For those transit corridors that are	In Progress	This supporting policy sets out a framework for land use and transit planning on intensification corridors

	identified as intensification corridors in accordance with Policy 7.17, municipalities, in consultation with transit agencies, landowners, major stakeholders, and public agencies and institutions, shall set out policies in their Official Plans and Transportation Master Plans that: • conform with and implement the Growth Plan for the Greater Golden Horseshoe's policies for intensification corridors; • establish minimum density targets based on the planned transit service levels of the RTP; • facilitate a mix of modes, including active transportation; • give priority to transit vehicles over private vehicles, and maximize the value of the transit investment • discourage free parking, minimize street-facing surface parking lots, accommodate appropriate streetside parking and minimize the impacts of parking on other forms of transportation such as walking and cycling; and • provide for desirable maximum and minimum heights, and maintain site		identified in Supporting Policy #7.17. Official Plans that conform to the Growth Plan Typically across the GTHA, municipalities have reported that Official Plans and Transportation master Plans either currently conform to the Growth Plan or are in the process of being updated with a view to integrating and aligning with the Growth Plan. There has been one reported case of conformity with the Growth Plan being stalled due as a result of hearings being brought forward to the Ontario Municipal Board (OMB). Minimum density targets established Reporting municipalities have indicated that minimum density targets have been established or are in the process of being established. The density targets tend to be associated with the Growth Plan rather than directly based on planned transit service levels. In York Region, the adopted Official Plan (2010) includes policies that require a minimum 2.5 (Floor Space Index [FSI]) in the Regional Centres and a minimum 3.5 FSI in and around major subway stations. Discourage free parking and minimize street-facing surface parking lots There have been mixed outcomes from efforts to include policies in Official Plans and TMPs to discourage free parking and minimize street-facing surface parking lots. Three municipalities have reported the inclusion of policies in the Official Plan or TMP or both. Establish desirable maximum and minimum heights, maintain site development standards, and create positive visual relationships among building along the street: In the City of Hamilton, a 'nodes and corridors' study was completed for the 'B-Line' corridor, a future rapid transit corridor on Main Street, King Street, and Queenston Road. In the City of Pickering, Kingston Road Corridor Urban Design and Development Guidelines provide comprehensive site development standards to the lands along entire length of Kingston Road through Pickering, based on current Official Plan policy and densities. The Official Plan for the Town of Richmond Hill identifies minimum and maximum heights. Site design standards and placemaking are also part of the Official Plan.

	development standards, to create positive visual relationships among buildings along the street, and between buildings and the street.		
7.19	Design standards and streetscape guidelines, enforceable through the site plan process, should be prepared for those transit corridors that are identified as intensification corridors. These should address landscaping, street furniture, integrating transit facilities (shelters and waiting areas), signage and lighting.	In Progress	One of the challenges to enforcing design standards and streetscape guidelines through the site planning process relates to the incremental pace of development that typically takes place as individual sites are planned and redeveloped. Other challenges include the capacity of the development market to provide amenities and landscaping. Linking streetscape guidelines and design standards to the capital works program of streetscape redevelopment may be an effective complementary approach to enforcing standards through the site planning process. The first step is to develop design standards and streetscapes design guidelines, before enforcement through the site planning process can take place. The following is a list of design standards and streetscape guidelines that have been reported: Design standards and streetscape guidelines prepared for transit corridors: • Hamilton 'B-Line' corridor Study (City of Hamilton • Kingston Road Corridor Urban Design and Development Guidelines (City of Pickering • Avenues and Mid-Rise Buildings Study (City of Toronto • Halton Region Right-of-Way Guidelines (Halton Region) Other intensification corridors with design standards: • Mayfield Road is an intensification corridor in the Region of Peel. A streetscaping toolbox is being provided, but is not enforceable (Region of Peel). Example: Old Church Road in the Region of Peel. Streetscaping was applied on both sides of the roads and a multi-use pathway on one side and a sidewalk on the other. Peel provides for transit infrastructure in coordination with the local municipality.
7.20	Stations on the regional rapid transit network shall be planned, located and designed to: • maximize transit ridership; • maximize integration of transportation services; • prioritize access by transit,	In Progress	Planning studies that align with this priority action include: • Redevelopment plans for existing stations • Location decisions and design of new rapid transit station • Rapid transit station designs can also be addressed through detailed mobility hub studies and master plans. Evaluating progress on this supporting policy and evaluating how well this policy has been applied is subject to

	walking and cycling; • optimize transit cost-effectiveness and operational considerations; • maximize integration with the surrounding neighbourhood to create a walkable environment; and • optimize development opportunities.		interpretation. The most effective means of 'Maximizing integration of transportation services', for example, might depend on who was asked. It is impossible to adequately evaluate application of this supporting policy without a consultation through a multi-stakeholder review panel. It is possible to report on stations that are currently being redeveloped or are currently being planned and/or for which construction is underway. • Union Station (City of Toronto) - redevelopment currently under construction • City of Hamilton B-Line Study - planning work for new LRT stations • Langstaff GO Station (at the Richmond Hill-Langstaff Mobility Hub) - redevelopment planning to improve pedestrian access • Erindale GO Station redevelopment (construction underway) • Clarkson GO Station redevelopment (construction underway) • Mississauga BRT Stations (construction underway) • Future Hurontario LRT Stations (planning underway) • 407 Transitway Stations (planning underway) City of Toronto, City of Vaughan New subway stations on the Toronto-York-Spadina Subway Extension have been designed to maximize integration of transportation service, prioritize access by transit, walking and cycling, and integration with the surrounding neighbourhood. New stations on TYSSE include: Sheppard West Station, Finch West Station, York University Station, Steeles West Station, Highway 407 Station, and Vaughan Metropolitan Centre Station.

Strategy #8: Plan for Universal Access

All Priority Actions and Supporting Policies for Strategy #8 have work underway.

Work is well underway to implement Strategy #8, with half of the Priority Actions complete, including creating a regional body to advise Metrolinx on matters related to universal access, and development of both region-wide and local implementation strategies for universal access.

Strategy #8: Plan for Universal Access			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
8.1	Create a regional body to advise Metrolinx on matters related to universal access.	Complete	In February 2009, the Metrolinx Board of Directors approved the establishment of an Accessibility Advisory Committee (AAC). The AAC replaced the Accessibility Advisory Working Group, which provided advice during the development of The Big Move regional transportation plan. • The focus of the Metrolinx AAC is of a regional nature related to accessibility including the implementation of The Big Move; cross-boundary service and fare coordination; implementation of the AODA; and initiatives to enhance accessible regional transportation. • The Metrolinx AAC is composed of individuals with expertise and experience related to accessible transportation, with representation from across the region. Members include both consumers and providers of specialized and accessible conventional transit services, and also include senior citizens and people with a range of disabilities. Metrolinx staff act as a resource to the AAC*. **From the Metrolinx Accessibility Plan 2011-2012, available at www.metrolinx.com*
8.2	Develop a region-wide strategy and local implementation strategies to improve specialized transit coordination and delivery, and address: • opportunities to accelerate the achievement of AODA compliance in transit facilities; • integration of eligibility criteria; • improved training for transit agencies; • coordination and standardization of trip requests through a "one-window" service, including removing transfers at municipal boundaries, particularly for vulnerable	In Progress	Work has begun towards achieving a number of the goals of an accessibility strategy set out in The Big Move. 1. Opportunities to accelerate the achievement of AODA compliance in transit facilities Progress and supporting works: The Ontario Government is developing an Accessible Built Environment Standard. A draft was submitted for public feedback in July 2009. When it is finalized, the Built Environment Standard will further assist in the achievement of completely barrier-free facilities in accordance with the AODA. 2. Integration of eligibility criteria Progress and supporting works: The AODA Integrated Accessibility Standards Regulation will provide some direction with regards to eligibility criteria. The Metrolinx Cross-Boundary Specialized Transit Study, which has been started, has flagged this as an issue to be explored later in the study. A steering committee comprised of GTHA municipal specialized transit service providers and industry associations, along with the Metrolinx AAC, will help to guide this study. The objectives of the study are to: • Address the challenges affecting cross-boundary travel on specialized transit services, beginning with a selection of the issues identified in the Status Report and in The Big Move; • Identify ways to use accessible conventional services, including GO Transit's inter-regional services, to increase options for cross-boundary and other longer trips;

	users; • expansion of traveller education programs for those who are unsure about using accessible conventional transit services; • coordination of services with transportation providers in the health care sector; and • establishing a GTHA taxi scrip or voucher program for areas where service is inadequate.		• Implement improvements that can be undertaken in the short term; and • Produce a practical plan of action and high-level budgetary estimate for those that require further work. 3. Improved training for transit agencies Progress and supporting works: Front-line staff modules, sensitivity training and customer service standards have been in place prior to the development of The Big Move. There have been some refinements since publication of The Big Move. 4. Coordination and standardization of trip requests through a "one-window" service, including removing transfers at municipal boundaries, particularly for vulnerable users. Progress and supporting works: The Metrolinx Cross-Boundary Study has also flagged this as an issue to be explored in the study. 5. Expansion of traveller education programs for those who are unsure about using accessible conventional transit services; Progress and supporting works: The Metrolinx Generic Travel Training program is being created for transit agencies in the GTHA and beyond. The program will help persons with disabilities and seniors to feel more comfortable using accessible conventional transit services independently. 6. Coordination of services with transportation providers in the health care sector Progress and supporting works: None yet 7. Establishing a GTHA taxi scrip or voucher program for areas where service is inadequate. Progress and supporting works: None yet Additional supporting work that falls under the spirit of this priority action include: • Annual Metrolinx Accessibility Plans have been published in 2010 and 2011, and made available at www.metrolinx.com. • Metrolinx achieved compliance with the Accessible Customer Service Regulation on January 1, 2010, as required by the AODA. The Accessible Customer Service Policy document (available online[1]) was developed in collaboration with the Ontario Public Transit Association (OPTA) Transit Resource Team. OPTA established the Transit Resource Team to identify and achieve common solutions with respect to AODA and associated regulation requirements. • The Integrated Accessibility Standards (IAS) Regulation was passed into law on July 1, 2011. The

[1] http://www.gotransit.com/public/en/docs/publications/Metrolinx-GO%20CSP%20Final%20-%20Aug%202011.pdf

			IAS Regulation includes three main categories: Information & Communications, Employment, and Transportation (vehicles and associated standards and services).
			• Metrolinx also continues to advance a number of additional accessibility initiatives to remove barriers for everyone, and which go beyond the specific requirements of the above AODA standards regulations:
			  • All GO buses and trains sets (i.e. fifth rail car from the locomotive) are accessible to customers with disabilities.
			  • Nearly 90% of GO train stations and almost 60% of GO bus routes are accessible. All remaining GO facilities and services are planned to be accessible by 2016/17.
			  • The next generation of PRESTO Self-Service Kiosks has been designed in close collaboration with an accessibility advisory group, and will offer enhanced accessibility features.
			  • Planning for the Air Rail Link and for Regional Rapid Transit is addressing full accessibility as an integral part of the design process.

Strategy #9: Improve Goods Movement within the GTHA and with Adjacent Regions

All of the Priority Actions for Strategy #9 are in progress.

The ability to move goods to, from, and through the region is critical to our ability to compete in a global economy. Currently, the majority of freight movements within and across the GTHA are by truck.

The Big Move specifically identified the need for a multi-pronged approach and strong partnerships with stakeholders in the goods movement industry to improve the efficiency of freight movement and to reduce the greenhouse gas emissions arising from goods movement in the GTHA.

Strategy #9: Improve Goods Movement Within the GTHA and With Adjacent Regions			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
9.1	Develop a comprehensive strategy for goods movement within the GTHA, and between the GTHA and other regions, that identifies opportunities and actions to improve efficiency, increase capacity, enhance the region's competitiveness, and reduce emissions of GHGs and other pollutants. Establish a roundtable to steer the development of the strategy with representatives from the goods movement industry, including shippers, the Ontario Chamber of Commerce, Ontario Trucking Association, Southern Ontario Gateway Council, Canadian National and Canadian Pacific Railways, logistics companies, freight forwarders, manufacturers and exporters, the agricultural community, environmental groups, municipalities, port authorities and the province. Components of this strategy will include: • mapping goods movement flows by mode, and identifying bottlenecks in the system; • accomplishing goods movement using the most environmentally sustainable	In Progress	From December 2009 to October 2010 Metrolinx led a series of meetings with two stakeholder groups to undertake the GTHA Urban Freight Study. These two stakeholder groups were the: • Technical Working Group (TWG) of inter-regional government officers that set policy and have regulatory authority over freight infrastructure; and the • Goods Movement Industry Roundtable (GMIR) which included representatives of leading GTHA private sector industries and carriers, their associations and marine port and airport authorities. The GTHA Urban Freight Study was presented and approved by the Metrolinx Board of Directors in February 2011. The study established five strategic directions and seventeen actions to increase the capacity for and efficiency of freight movement within the GTHA. It focuses primarily on road freight, but also considers inter-modal connections to rail, air and marine freight. Geographically, it focuses on trips that begin and/or end in the GTHA. It complements the ongoing Continental Gateway and Trade Corridor initiative of the federal, Ontario and Quebec governments, which deals with the GTHA as part of a broader inter-urban freight system. Metrolinx is focused on delivery the Urban Freight Action Plan from the GTHA Urban Freight Study. Key actions to date include: • Establishment of a GTHA Urban Freight Forum to focus on the implementation of these actions. The inaugural meeting of this Forum, including public and private stakeholders, was held on April 11th 2012. Meetings will be held in the Spring and Fall on an annual basis with Summer and Winter meetings of an Inter-Governmental Sub-Committee. • Metrolinx is funding a two-year project at the Centre for Urban Freight Analysis at the University of Toronto called "Developing Urban Goods Movement Data in the Greater Toronto and Hamilton Area." This work addresses the need for coordinated Urban Goods Movement (UGM) data collection and data management to support policy and planning, modeling, analysis and benchmarking for goods movement in the GTHA. The final report is due 23 January 2013. • Metrolinx is the main sponsor of a Transportation Association of Canada (TAC) study to understand the potential for truck-only lanes in urban areas. Anthony Caruso, Advisor in Strategic Policy and Systems Planning, is chairing the Steering Committee for this study. The final report is due Fall 2012. • Metrolinx provided input to the MTO Freight Supportive Guidelines study through an MTO working group. These Freight Supportive Guidelines, due for completion by end of 2012, are intended to assist engineers, planners and other stakeholders with goods movement related land use, traffic and design issues. • Metrolinx currently sits on the Peel Goods Movement Task Force and is a member of the Southern Ontario Gateway Council, groups which are working to further develop goods movement policies and

	modes and technologies, and considering modal shifts to arrive at an optimal balance; • identifying innovative approaches for urban freight movements such as urban logistics centres, centralized lock boxes for end-consumer deliveries, and shared urban freight and delivery centres (e.g., for construction sites); • identifying innovative approaches for regional freight movements such as logistics villages (e.g., next to inter-modal hubs), siting, loading and routing optimization, real-time fleet management systems, and off-peak truck delivery; • identifying infrastructure needs such as new east-west freight rail capacity, new intermodal facilities, priority measures for truck-based goods movement, and strategic bypasses to get goods around rail and highway bottlenecks; • a freight corridor optimization strategy that optimizes the use of existing rail infrastructure and the allocation of rail between freight and passenger trains; • an analysis of constraints and opportunities for marine		projects.

	transport of goods; • opportunities to promote active transportation-based and other low-impact goods movement in urban areas; • land use policies for areas around transportation facilities such as inter-modal facilities, rail yards, airports, dockyards and major highway interchanges that are compatible with, and supportive of the primary goods movement function of these facilities; • improving efficiencies of all modes; • documenting and sharing best practices; and • identifying opportunities for coordination with the Continental Gateway Strategy.		

Strategy #10 Commit to Continuous Improvement

A majority of the Priority Actions and Supporting Policies have work started under Strategy #10.

Incorporating current research and best practices that respond to changes in the region is important to keep The Big Move relevant across the GTHA.

Strategy #10 focuses on research, coordination of data, prioritization methodologies, and working with other delivery partners to align common objectives, and nurture development of new and innovative transportation solutions.

Strategy #10: Commit to Continuous Improvement			
#	Priority Action/ Supporting Policy	Status	Initiatives Underway
10.1	Establish a Centre of Excellence for Transportation in the GTHA.	In Progress	A Centre of Excellence focused specifically on transportation has not been established in the GTHA to date. Although there is no formal definition of "Centre of Excellence", such centres are generally considered to be those that foster research, innovation, and the development of best practices. The Cities Centre at the University of Toronto, a multi-disciplinary research institute established February 2007, undertakes research on transportation in urban areas, among other areas of cities-related research. The mandate of the Centre is broad: to encourage and facilitate research, both scholarly and applied, on cities and on a wide range of urban policy issues, both in Canada and abroad, and to provide a gateway for communication between the University and the broader urban community*. The Centre may be considered as a Centre of Excellence base on its activities and mandate, however, it is not formally designated. * From the Cities Centre website: www.citiescentre.utoronto.ca
10.2	Improve the coordination and standardization of transportation data collection, forecasting and modelling. This could include: • expansion of the Transportation Tomorrow Survey (TTS) to gather more detailed information on active transportation; • analysis of global and regional macro-economic forces; • development of a leading edge activity-based transportation demand model that can serve as a common base for modelling throughout the region, by all stakeholders; • analysis of socio-	In Progress	The Data Management Group (DMG), operated and managed by the University of Toronto and supported by a select group of regional and upper tier municipalities and transit agencies in the GTHA, was established in 1988. The Transportation Information Steering Committee (TISC) is a collaboration of GTHA transportation planning agencies chaired by the Ontario Ministry of Transportation. TISC oversees the Transportation Tomorrow Survey (TTS) and the GTHA Cordon Count Program. Under the guidance of TISC, the DMG develops and undertakes the Transportation Tomorrow Survey (TTS), a detailed survey of travel behaviour and travel patterns throughout the GTHA. The DMG also coordinates and administers data collected under the Greater Toronto Area Cordon Count Program, a collection of traffic counts from around the GTHA which have been undertaken by regional planning agencies in the GTHA. More recently, a Transportation Modelling Group (TMG) was established at the University of Toronto to lead the development, maintenance and upgrading over time of a common modelling software framework for GTHA travel demand modelling. The group has been established outside of GTHA planning agencies but collectively funded and supervised by participating agencies. The TMG group brings together modelling staff from across the region to discuss and resolved shared issues.

	demographic dimensions of travel behaviour, and trends; • analysis of trip assignment methodologies; • analysis of transportation-land use integration; and • analysis of effects of induced travel and congestion on emissions.		In 2011, a Network Coding Manual was published, to be used as a standard by multiple agencies across the GTHA for the development of future networks for modelling road and transit services. The 2011 Network Coding Manual will be used by the TMG and DMG to develop a 2011 network which will be used to validate the 2011 TTS data. The 2011 Network Coding Manual is an update to the previous network coding manuals published in 1996 and 2001. The Transportation Information Steering Committee (TISC) has hosted separate discussions to discuss active transportation data needs and regional coordination.
10.3	Develop a long-range land protection and/or acquisition strategy to accommodate future transportation needs. This strategy should: • identify and accommodate future needs for active transportation, transit, roads, highways and goods movement, including the requirements for corridors, stations, intermodal facilities and other elements of the network; • review all public land holdings for possible applicability to RTP projects; • establish a process to review RTP needs prior to the disposal of any publicly owned properties; and • identify provincial and municipal tools that are necessary to protect lands for future transportation needs.	In Progress	Metrolinx is developing a property acquisition, disposition and land development policy to establish criteria by which Metrolinx engages in land acquisition, disposition and development on/or adjacent to land and other infrastructure assets and how the sale of land and land acquisition can support the implementation of the Places to Grow, Big Move, Mobility Hub, station development, fare and non-fare revenue, corridor and operational objectives. A final policy is expected to be complete by the Fall 2012. A Report on Metrolinx Land Use Planning Authority at Mobility Hubs & Go Stations submitted to the Metrolinx Board of Directors, November 2011, recommended that the current provisions under the Metrolinx Act for the creation of a Provincial Transportation Planning Policy Statement (TPPS) be exercised. Although enabling the TPPS would not be considered the 'development of a long-range land protection strategy to accommodate future transportation needs', it would represent a first step in land use planning, backed by legislation, to protect and accommodate future transportation needs in the GTHA and in the rest of Ontario. With the inclusion of policies for Mobility Hubs and GO Stations in the TPPS, Metrolinx would have more influence over planning decisions at such sites, in the following ways: i. planning decisions of municipalities would have “to be consistent with” its designated policies; ii. Municipalities would be required to consult with Metrolinx in the course of the preparation of Transportation Master Plans; and iii. Municipalities would not be able to pass a by-law or undertake public works ‘that conflict’ with a TPPS. The 2005 Provincial Policy Statement (PPS), which establishes the Province’s land use planning policy framework, includes broad policies for the protection of transportation and infrastructure corridors. MTO is working with MMAH to consider options to clarify or enhance transportation policies through the ongoing review of the PPS
10.4	In collaboration with TransLink in	In Progress	This priority action encompasses two separate, but related initiatives. First, identifying a common approach

	Vancouver, the Agence Métropolitaine de Transport in Montreal, and other partners, identify common approaches to prioritizing transportation projects, including linking regional to national transportation benefits.		with TransLink and Agence Métropolitaine de Transport (AMT) on projects through the Transportation Association of Canada in the approach to prioritizing projects. Second, linking transportation infrastructure projects to national transportation benefits. With respect to the first, Metrolinx collaborates with TransLink in Vancouver and the AMT in Montreal on projects through the Transportation Association of Canada, the Urban Transportation Council and the Transportation Finance subcommittee. These projects deal with common approaches and practices in, for example transportation financing, changes in practices of data collection, planning, and operations. Recently, a freight and truck lanes study was initiated in Fall 2011 to investigate the potential for truck lanes in Canadian urban areas and to identify appropriate conditions in which they may be considered for efficient handling of truck traffic. There has not been a specific project related to aligning approaches to prioritizing transportation projects. The second aspect of this priority action, linking transportation project prioritization to national benefits, is premised on the development of a national transportation strategy to identify national transportation objectives. A national transportation plan has not yet been developed, however, CEOs and supporting executive staff from TransLink, Metrolinx and the AMT are forming a group to discuss a national transportation strategy. The first meeting for this group will be held on May 10th and 11th, 2012, in Toronto.
10.5	Consult with private and public partners, post-secondary institutions, and others to expand the body of research related to the links between transportation and public health, socioeconomic conditions, economic competitiveness and the environment, and on clean fuel technologies and green vehicles.	In Progress	Metrolinx has supported the expansion of transportation-related research primarily through the Strategic Partnership Program. The program provides research grants of approximately $1,500 to $50,000 to each individual project. The majority of research projects receive $10,000 or less. Projects are assessed based on their suitability and effectiveness in advancing one or more of Metrolinx's strategic priorities. In 2011, the Strategic Partnership Program initiated 12 partnerships with external organizations to advance the dialogue about issues relating to transit and transportation in the region. There is still work to be done in consulting with private and public partners, post-secondary institutions and others to identify other opportunities for aligning research objectives, efforts and other mutually-beneficial research opportunities.
10.6	Gather and disseminate knowledge about best practices in regional transportation planning, drawing on examples from similar organizations in comparable	In Progress	Gathering and disseminating knowledge about best practices in regional transportation planning is an ongoing effort. Recent efforts in this area include: • The Mobility Hub Guidelines, completed in September 2011. The Mobility Hub Guidelines set out best

	regions such as Agence Métropolitaine de Transport in the Montréal area, TransLink in the Vancouver region, Transport for London in England, and Verkehrsverbund Berlin-Brandenburg in Germany.		practices and lessons learned on incorporating mobility hub objectives into other planning activities (such as official plans, secondary plans, stations plans and environmental assessments. • Funding for a series called "Moving Our Region: Transportation for the Future" at the Institute for Municipal Finance and Governance (held in 2010), bringing international and national speakers to Toronto to share best practices and experiences; • Support for the Complete Streets Forum, organized by the Toronto Coalition for Active Transportation (TCAT) • Working relationships with Agence Métropolitaine de Transport (Montreal) and TransLink (Vancouver) for informal sharing of best practices
10.7	In collaboration with the province, the Transportation Association of Canada, the Institute of Transportation Engineers, municipalities and other relevant stakeholders, expand and recalibrate road design standards and practices for more compact and fuel-efficient vehicles. Over time, replace demand-driven standards with those that recognize pedestrian, cycling and transit priority, as needed, to shift dependency away from single occupancy vehicles.	Not Started	There have not been any direct initiatives to recalibrate road standards to more compact and fuel-efficient vehicles. Among organizations and jurisdictions that have prepared guidelines and standards for roads and highways, there have been a few that have been prepared or updated to include standards for walking, cycling, transit, and HOV. Guidelines and standards that have been reported to Metrolinx include: • MTO: reassessing the width of paved shoulders when they are used for cycling. • City of Mississauga: Multi-modal Road Design Guideline (anticipated to be completed in 2012). The guidelines will set out standards and guidance in the design of roads and streets to ensure that sustainable modes of transportation are accommodated and supported appropriately. • Transportation Association of Canada: Guidelines for Planning and Implementation of Transit Priority Measures in Urban Areas (expected to be completed in 2012). The guidelines set out methods of providing transit priority (primarily for buses) in urban areas, and will include a framework for selecting the most appropriate transit-priority measures. • Halton Region: Right-of-Way Guidelines. As part of the Halton Region Transportation Master Plan, right-of-way guidelines were developed and published (July 2011). The guidelines set out considerations and guidance on the design of right-of-ways to ensure a balanced transportation system to meet the needs of all users of the road, including pedestrians, cyclists, and transit users.
10.8	Metrolinx will explore options, for the Province of Ontario's consideration, to create a GTHA Green Transportation Sector Initiative in collaboration with the federal and provincial levels of government, the post-secondary education sector and others that	In Progress	Metrolinx has also initiated a few projects which contribute to improving the resource and talent pool in the GTHA. The Rob MacIsaac Innovation Fellowship was established in 2011 to provide opportunity for the development and application of research that will positively impact the region. The fellowship is open to post-secondary students in their final year of their undergraduate or Master's program. Three fellowships were awarded in 2012. More information can be found at: http://www.metrolinx.com/en/aboutus/inthecommunity/macisaac_fellowship.aspx

	would foster a made-in- the-GTHA resource and talent pool to implement the RTP.		Metrolinx provides internship opportunities to post-secondary students in undergraduate and graduate-level programs. The internships are open to students from a diverse range of academic backgrounds, from civil engineering to planning to computer programming.

THE BIG MOVE BASELINE MONITORING REPORT

APPENDIX C: BUILDING RAPID TRANSIT

September 2013

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Introduction

Building a regional rapid transit network is an essential component of transforming the region's transportation network. The Big Move identified several rapid transit projects that will link every GTHA urban growth centre to the regional transit network. When fully implemented, the rapid transit network will total 1,725 kilometres of frequent and efficient transit service across the region.

Metrolinx prioritized these projects based on how the region is expected to grow over the next 25 years. The most important projects were described as the "Top Priority Transit Projects," which is the focus of this chapter. Projects from the 15-year and 25-year plans are still in The Big Move, and will be advanced following implementation of the current priorities.

Metrolinx Priority Projects	
First Wave	• Mississauga Transitway • Union Pearson Express • Finch West LRT • Toronto-York Spadina Subway Extension • Eglinton Crosstown LRT • Scarborough RT Replacement and Extension • Sheppard East LRT • York Region VivaNext Rapidways • GO Transit Rail service expansion
Next Wave	• Hamilton LRT • Dundas Street BRT • Hurontario-Main LRT • Brampton Queen Street Rapid Transit • Relief Line • Yonge North Subway Extension • Durham-Scarborough BRT • GO Rail Expansion • Express Rail on GO Lakeshore • Electrification of GO Kitchener line and UP Express

These priority projects range in scope and are located throughout the GTHA. To date, more than $16 billion has been committed to projects that are in various stages of development and construction. For the Next Wave projects, there is still significant progress being made. These projects are in the planning phase of development, in preparation for funding commitments.

After planning work is complete, each project must obtain the necessary funding required to design and construct the service. This funding is currently based on government investment. Metrolinx has released an Investment Strategy that addresses recommendations for investment tools and for proposals to integrate transportation, growth and land use planning.

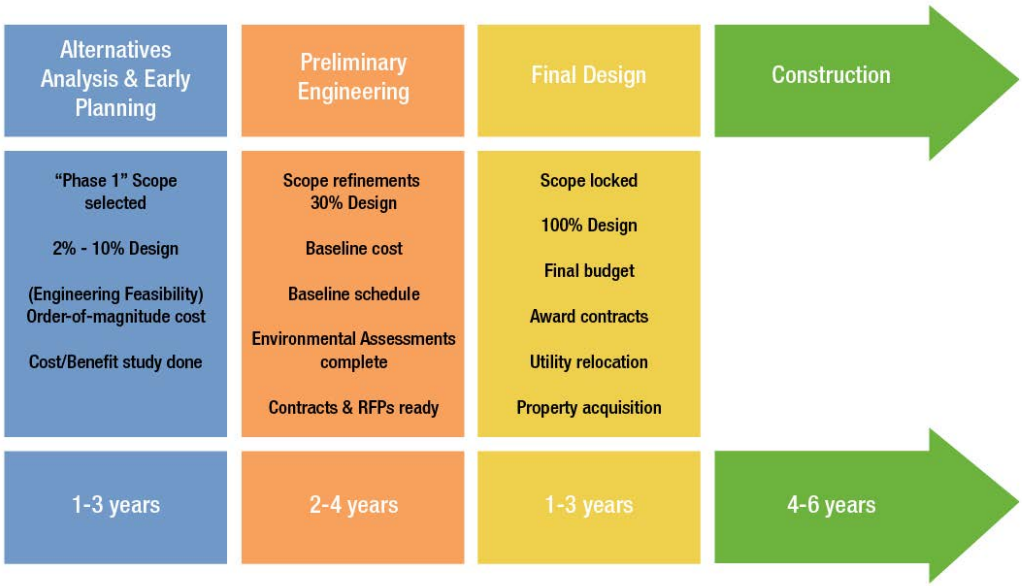
Purpose of This Appendix

The purpose of the Building Rapid Transit appendix is to provide an overview of the general process of delivering a transit project, and to document further detail on the progress in building the initial projects of the Regional Rapid Transit Network. This is a core Priority Action within The Big Move. Building Rapid Transit provides information on each of the First Wave and Next Wave projects.

The Process of Delivering each Project

The first step in delivering a rapid transit project is a series of planning studies to determine the vision, goals, location and broad concept of a corridor. These studies typically include early engineering feasibility analyses and estimating the cost of the project.

An environmental assessment (EA) is required for all large-scale infrastructure projects that have potential impacts on the environment. Certain projects that have more predictable environmental impacts or effects, and are more readily managed, can now follow a streamlined approach known as the Transit Project Assessment Process (TPAP).



General Process for Delivering Transit Projects

Once funding is committed to a project, the design and engineering phase is completed, prior to construction. The time necessary to complete the construction of a transit project varies significantly in length depending on the scope, type, and construction approach of the project. An LRT project can take 4 years to build between 10 and 15 kilometres. Subway construction can take considerably longer to complete.

The Toronto-York Spadina Subway extension, for example, was announced and funded in 2006. Construction began five years later in 2011 and service will not commence until 2016. It is therefore important to understand that projects that have not yet begun construction are still making considerable progress. Progress on each of the projects is discussed in the following pages of this report.

First Wave Projects

Today, we are in the midst of the largest transit expansion program in a generation, with $16 billion invested in the First Wave regional rapid transit projects.

Mississauga Transitway

A Highway 403 BRT project

The Mississauga Transitway will be an 18-kilometre east-west busway that runs across Mississauga. Both MiWay and GO Transit will operate buses along the busway, which will connect Winston Churchill in the west to Renforth Drive in the east. Twelve stations will serve the BRT and provide key connection points between other routes and systems.

The planning and design stages of the project are complete. The eastern part of the corridor is currently under construction and the first four stations (Central Parkway, Cawthra Road, Tomken Road and Dixie Road) will open in late 2013. Construction of the remaining segments will begin by the end of 2013. Most of the project is expected to be complete by late 2015.

The Mississauga Transitway is an investment of $259 million. The federal government contributed $83 million through the Canada Strategic Infrastructure Fund. The City of Mississauga contributed $63 million. The Province of Ontario has provided $65 million to support the project, and is contributing another $48 million in GO Transit investments.

Union Pearson Express

A rail link between Union Station and Pearson International Airport

UP Express will operate on a 25-kilometre rail route. Twenty-two kilometres of the route will share Metrolinx's upgraded Kitchener GO railway corridor, and a new rail spur, currently under construction, will connect the Kitchener line to Toronto Pearson Airport Terminal 1. Trains will depart Union Station and Toronto Pearson every 15 minutes and will make stops at Bloor and Weston GO stations.

The service will address a significant gap in airport-to-downtown travel in Toronto. Each year, more than five million cars travel between the airport and downtown, with this number expected to grow to nine million by 2020. This service is expected to remove 1.2 million car trips in its first year of operation alone.

All construction elements of the Union Pearson Express are underway, including upgrades to GO's Kitchener rail line, and the connecting rail spur into Terminal 1 at Toronto Pearson. Service will commence in 2015 in time for the Pan/Parapan American Games.

The UP Express is funded with a full commitment from the Government of Ontario. The total cost for the project is $456 million.

Finch West LRT

A light rail transit line along Finch Avenue

The Finch West LRT line is an east-west transit route in Toronto. It is an 11-kilometre surface transit line that will extend from the planned Finch West station on the Spadina subway line, located at Keele Street, to Humber College.

The Finch West LRT is part of Metrolinx's investment in rapid transit in Toronto. The LRT project will cost approximately $1 billion. As the major project funder, Metrolinx will own and be responsible for operation of the Finch West LRT.

There is currently a plan to extend the Finch West LRT to the Yonge Subway and to Pearson airport. Funding for these parts of the project has not been committed at this time.

Toronto-York Spadina Subway Extension (TYSSE)

An extension of the Spadina Subway to Vaughan Metropolitan Centre

The Toronto-York Spadina Subway Extension (TYSSE) will provide a critical 8.6-kilometre northern extension for the existing TTC subway system from Downsview Station to Vaughan Metropolitan Centre. This will be the first TTC rapid transit line to cross the City of Toronto boundary. The subway will connect to other regional rapid transit lines at Vaughan Metropolitan Centre, such as Brampton's Züm and Viva's Highway 7 Rapidway.

The 6.2-kilometre Toronto portion of the subway extension will connect Downsview Station to Steeles Avenue. The remaining 2.4-kilometre York Region portion will connect Steeles Avenue to Vaughan Metropolitan Centre. Six stations will be built along the extension and the TTC will continue to operate this line as part of its current service.

Planning and design stages of the project are now complete. The extension is currently under construction and service is expected to begin in 2016.

The TYSSE is a $2.6 billion, fully funded project, made possible through funding from three levels of government. In 2006, the Provincial government announced it would contribute $670 million, with an additional $200 million announced in 2007. The Federal government announced its $697 million commitment to the project through the Building Canada Fund in 2007. Both the City of Toronto and the Regional Municipality of York will provide the remaining funds, each contributing $526 million and $352 million, respectively.

Eglinton Crosstown LRT

A light rail transit line across Eglinton Avenue from Mount Dennis to Kennedy Station

The Eglinton Crosstown LRT is a 19-kilometre east-west rapid transit line that will run along Eglinton Avenue from Mount Dennis (Weston Road) in the west to Kennedy subway station in the east. Approximately 10 kilometres of the central portion of the transit line will be tunneled underground. The remaining portion will continue on the surface eastward in a dedicated right-of-way, separate from traffic.

The Crosstown will reduce travel time along Eglinton and will link to 54 bus routes, three interchange subway stations and GO Transit. All Crosstown stations will accept the new PRESTO payment card, and the system, stations, and vehicles will be fully accessible.

Construction on the Crosstown is currently underway. In 2010, Metrolinx purchased four tunnel-boring machines. In 2011, construction began on the west launch site at Black Creek Drive and Eglinton Avenue, where the first tunnel boring machine was launched in spring 2013.

The Eglinton Crosstown project is fully funded as part of the $8.4 billion commitment from the Province of Ontario to transit expansion in Toronto. As the sole project funder, Metrolinx will own and be responsible for operating the LRT. The Crosstown project is the largest of the four LRT projects planned in Toronto with a total cost of approximately $5.2 billion (this figure includes project costs east of Ionview Road that had previously been accounted for in the Scarborough RT budget). The next phase of this project is to connect the Eglinton Crosstown to Toronto Pearson airport. Funding for this extension has not been committed.

Scarborough Rapid Transit (RT) Replacement and Extension

An upgrade and extension of the Scarborough rapid transit line

The Scarborough Rapid Transit project involves upgrading and extending the existing Scarborough RT. The current Scarborough RT first opened in 1985, and an upgrade of the system is necessary for it to continue operating.

Preliminary work has commenced on the replacement and extension of the existing Scarborough RT as per the signed November 2012 Master Agreement. The project is currently on hold based on Toronto City Council's resolution of July 16, 2013.

Provincial funding of $1.48 billion remains available for the replacement of the Scarborough RT line.

Re-designing improvements required for Kennedy Station is being undertaken as part of the Eglinton Crosstown, and work is proceeding with this planning and design work.

In The Big Move, the replacement LRT is also planned to extend to Malvern Town Centre, approximately 1.5 kilometres north of the Sheppard East LRT. This extension is not yet funded and is not part of the scope of LRT work now on hold.

Sheppard East LRT

A light rail transit line along Sheppard Avenue

The Sheppard East LRT is a 13-kilometre transit line that will run along the surface of Sheppard Avenue from Don Mills Station to east of Morningside Avenue in Toronto. The project will include a new train yard at Conlins Road.

The Sheppard East LRT is part of Metrolinx's investment in rapid transit in Toronto. In addition to Metrolinx's contribution, the Federal government provided $333 million to the Sheppard East LRT project. The project will cost approximately $1 billion. As the major project funder, Metrolinx will own and be responsible for operation.

York Region VivaNext Rapidways

Bus rapid transit on Yonge Street and Highway 7 in York Region

York Region currently operates bus service along Highway 7 and Yonge Street in mixed traffic. Rapid transit in York Region will help shape communities and provide people with more transportation options. The new Viva 'rapidways' will be a BRT system where Viva vehicles will travel in dedicated bus lanes in the centre of the road for the majority of the route. The routes will also connect with other regional rapid transit lines, including GO Transit, Brampton's Züm service and the Toronto-York Spadina Subway Extension.

Over 35 kilometres of new bus rapid transit service will be available on three significant corridors: east-west along Highway 7 and north-south along Yonge Street, with a small east-west route along Davis Drive in Newmarket. The rapidways will connect residents to important destinations in York Region, including the Southlake Regional Health Centre in Newmarket, the Toronto-York Subway Extension at Vaughan Metropolitan Centre, and a proposed transit-pedestrian mall in Markham Centre.

Construction is underway on the first 2.5 kilometres of rapidway that runs in the center median of Highway 7. On August 18, 2013, Viva rapid transit service began using the rapidway along Highway 7 from Bayview Avenue to Highway 404. An additional 3.9 kilometres of rapidway along Highway 7 from Highway 404 to Warden Avenue will open in 2014.

Total cost of the rapidway projects is $1.4 billion. The federal and municipal governments have each contributed $85 million; the balance is funded by the Province. Metrolinx will own the rapidway infrastructure and York Region Transit will own and operate the buses that use the corridor.

GO Transit Rail Service Expansion

A number of investments to enable expansion across the whole of the GO Transit network are underway.

The Georgetown South Project is a $1.2 billion investment currently underway at the south-east end of the Kitchener line. These improvements are necessary to expand service on the Kitchener line and operate UP Express.

Additional improvements underway in the First Wave includes two-way all-day service to James Street North Station in Hamilton, and increased peak service to Gormley Station on the Richmond Hill line.

Improvements are underway at Union Station as well. The revitalization of the train shed roof, concourse improvements between GO Transit and the TTC and improvements to the TTC subway station are all necessary to address expected growth in transit ridership in the region. The first phase of construction at Union Station began in January 2010 and the entire project is expected to be substantially complete by 2015.

Next Wave Projects

The Next Wave of regional rapid transit projects represents the next set of regional rapid transit projects to be advanced. These projects would result in an estimated $110 billion to $130 billion in growth to Ontario's GDP, creating approximately 800,000 person years of construction and long term employment. Funding is needed to deliver the projects that generate these benefits. Together, the Next Wave projects would strengthen the regional network, further connecting various parts of the region.

Hamilton LRT

A light rail transit line from McMaster University to Eastgate Mall

The Hamilton LRT project is part of a long-term vision to connect key origins and destinations across Hamilton. The project will help revitalize Hamilton's downtown core and improve public transit options in the city.

The 14-kilometre LRT line will extend from McMaster University in the west to Eastgate Square in the east. The corridor will run along Main Street and King Street, on a

combination of shared and exclusive at-grade track. Today, bus service operates in mixed traffic along the route.

The project is currently in the planning phase, with an EA approved in December 2011. Significant planning, design, and engineering work, made possible through Metrolinx Quick Wins funding, was undertaken collaboratively by the City of Hamilton and Metrolinx and resulted in the “Rapid Ready” report completed in February 2013.

The current cost estimate is approximately $1 billion for construction and implementation, and will be updated as engineering work continues.

Dundas Street BRT

Bus rapid transit along Dundas Street in Halton Region, Peel Region and Toronto

Dundas Street is a major east-west corridor in the GTHA, linking Toronto, Mississauga, and Halton Region. The proposed rapid transit route will play an important role in the movement of people and goods throughout the region and will provide residents an alternative to automobile travel. This project is intended to link with new development in Halton Region north of Dundas Street and to transform the street into an attractive corridor for pedestrians and cyclists.

The proposed rapid transit line would run approximately 40 kilometres along Dundas Street from Brant Street in Burlington to Kipling Station in Toronto and will provide important connections to the Mississauga City Centre, the University of Toronto at Mississauga campus and the Oakville Uptown Core at Trafalgar Road.

The Dundas Street BRT is currently in the planning phase. Within Halton Region, Class Environmental Assessment (EA) studies are underway for Dundas Street from Brant Street to Trafalgar Road, including widening the road, improving intersections, and implementing High Occupancy Vehicle (HOV) lanes. The HOV lanes can be used by both buses and carpoolers, and will promote transit usage while optimizing the use of the road. As demand for public transit grows, the HOV lanes can be converted to dedicated BRT lanes.

In 2008 the Province committed $57.6 million for the first phase, to improve bus services in the western portion of the Dundas corridor in Halton Region. The full BRT project is does not have committed funding.

Hurontario-Main LRT

A light rail transit line along Hurontario and Main Streets

The Hurontario-Main LRT is intended to provide a catalyst for economic and residential development along these corridors through Mississauga and Brampton. When the cities developed a plan for the corridor, LRT was identified as the best technical transit option to support the vision for a vibrant, modern street, which was supported by the technical results of the Metrolinx Benefits Case Analysis in 2010. Today, Brampton Züm and Mississauga MiExpress bus services operate along the route. The LRT service will move more people, faster, through these corridors than the existing bus services.

The Hurontario-Main LRT project is currently in the planning phase. In March 2010, the cities of Mississauga and Brampton completed a master plan, which is now informing the EA phase of the project, currently underway. This work will help determine the ultimate design and cost of building the LRT. In the coming months, the cities will be undertaking further public and stakeholder consultations through the Environmental Assessment process.

The Hurontario-Main LRT project is an unfunded project. The project is estimated to cost approximately $1.6 billion.

While this project does not have committed funding, some progress on this corridor has been made. The mixed-traffic bus service in the corridor was recently improved with the addition of Züm and MiExpress service. However, as Mississauga and Brampton continue to grow, it is anticipated that the existing bus services will not have adequate capacity to accommodate increased numbers of passengers, and higher-order transit will be required to serve the cities' residents.

Brampton Queen Street Rapid Transit

Rapid transit service along Queen Street from downtown Brampton to York University

Brampton Queen Street Rapid Transit will be an enhanced dedicated-lane rapid transit service from Downtown Brampton to Airport Road, with potential to extend to York University and Vaughan Metropolitan Centre. Upgrading to a dedicated lane is a key component of Brampton's long-term vision for the city, and will build on work already implemented by Züm.

Operated by Brampton Transit, the current Züm service began service along Queen Street in September 2010 and connects Downtown Brampton to the transit hub at York University, operating as "BRT Light" service – higher-speed, higher-quality bus service operating in mixed traffic. This current service also travels to Vaughan Metropolitan Centre, which is the future terminus of the Toronto-York Spadina Subway Extension. The currently operated service was funded by the Federal, Provincial, and Municipal governments, each contributing $95 million to the project for a total project cost of $285 million. After the completion of the Züm Queen project, remaining funds were allocated to introduce Züm service to other transit corridors in Brampton, including the Main Street/Hurontario Street service initiated in 2011.

Brampton's current service on Queen Street is an excellent example of how the region has made progress on one of the top priority projects in The Big Move. Although dedicated transit lanes do not yet exist in this corridor, BRT Light is still considerably faster than regular bus service and is an important improvement to the regional transit network.

Funding to upgrade to a dedicated lane, for either BRT or LRT service, has not been committed at this time.

Relief Line

Improving Network Capacity

The Relief Line will provide relief to the Toronto transit system and provide residents with new rapid transit service into the downtown core from the surrounding inner suburbs. The line is also required to support the planned Yonge Subway extension to Richmond Hill. Many riders will shift to utilize the Relief Line, leaving room on the Yonge-University-Spadina line for those making trips from Midtown Toronto, Scarborough, North York, and York Region.

By 2031, it is projected that the Relief Line will serve up to 107 million riders. Several improvements are currently underway to improve capacity along the Yonge-University-Spadina line. In 2007, Metrolinx committed approximately $300 million to pay for the new signalling technology required to increase capacity on the Yonge-University-Spadina line. The new signalling system allows more trains to run each hour. To expand capacity even further, other changes are necessary, such as passenger-flow improvements at Bloor-Yonge station. These improvements will reduce train waiting times and improve passenger connections between the Yonge-University-Spadina and the Bloor-Danforth subway lines.

Further work is necessary to better define the scale and scope of the Relief Line, and Metrolinx is working in close collaboration with municipal partners to advance the project.

Metrolinx is currently undertaking a Relief Line Network Study that will examine several options, while considering how to leverage investment and provide net benefits to the region as a whole. The Relief Line Network Study is being coordinated with phase two of the TTC's Downtown Rapid Transit Expansion Study to evaluate potential Relief Line alignments as well as work on the City of Toronto's Official Plan review, with York Region also providing input.

The study will build on prior work completed by Metrolinx and the TTC, including phase one of the TTC's Downtown Rapid Transit Expansion Study, the Union Station 2031: Demand and Opportunities Study, and multiple Benefits Case Analysis (BCA) reports related to the Yonge North and Relief Line projects.

Specific recommendations emerging from the study would be further refined through a Benefits Case Analysis (BCA), and be subject to any applicable environmental assessments, and necessary Metrolinx and government approvals, before being finalized. This project is currently unfunded.

Yonge North Subway Extension

An extension of the Yonge subway line to Richmond Hill

The 6-kilometre Yonge subway extension and capacity improvement project is part of the region's plan to provide better transit service to its residents and connect Toronto to the Richmond Hill/Langstaff Gateway Urban Growth Centre. Located in both Toronto and York Region, the new subway extension will alleviate traffic congestion along Yonge

Street north of Finch Avenue, and is critical to support development at Richmond Hill/Langstaff Gateway. The result will be a major transit hub where transit riders will be able to make seamless and convenient connections to York VivaNext, GO and the TTC. However, the Yonge Subway line is currently near capacity. Several improvements are under way to expand capacity, and others need funding before the full extension of the line will be possible.

The Yonge subway extension does not have committed funding and the project is currently in the planning phase. An EA for the project was approved in April 2009, and additional planning work has been conducted through a Benefits Case Analysis completed in 2009 and supplemented with further analysis in 2013.

Until the subway extension is funded, BRT Light, operated by York Viva currently provides a link between Finch Station and the Richmond Hill/Langstaff Gateway Urban Growth Centre.

Durham-Scarborough BRT

Bus rapid transit along Highway 2 from downtown Oshawa to Scarborough

The proposed 36-kilometre Durham-Scarborough BRT will improve transportation by attracting more transit passengers and reducing traffic congestion on this important corridor between Scarborough and Oshawa. In addition to serving one of Durham's busiest corridors – Highway 2 – it will also provide for a regional connection with Ellesmere Road in Scarborough, and important access to both Scarborough Town Centre and the Scarborough RT.

This project is intended as an evolutionary improvement upon the Durham Region Transit (DRT) Pulse service introduced in June 2013, which currently operates between Oshawa and the University of Toronto Scarborough campus. The proposed enhancements will improve service speed and quality, and are currently in the planning phase.

In 2008, the Province provided $82.3 million to expand the region's bus fleet and pay for improvements to bus service and infrastructure in order to launch DRT Pulse. The full BRT project is anticipated to cost approximately $500 million, which is not currently committed.

GO Transit Rail Service Expansion

More Two-Way All-Day and Rush Hour Service

The GO network is the backbone of the regional rapid transit network, serving the entire region with fast and efficient regional service.

The Big Move plans to improve service on the GO network by providing two-way, all-day rail service on all of GO's rail lines, and plans to extend the Lakeshore East and West lines.

Current two-way, all-day service on the Lakeshore lines already connect the areas of Burlington, Oakville, Toronto, Pickering and Oshawa. Expanding two-way, all-day service to all GO rail lines will bring fast and reliable regional transit service in and out of

downtown Toronto through the day, in the evenings and on the weekends. Specifically, new two-way, all-day service is planned between Union Station and:

- Meadowvale Station on the Milton GO line;
- Mount Pleasant Station on the Kitchener GO line;
- East Gwillimbury Station on the Barrie GO line;
- Richmond Hill Station on the Richmond Hill GO line; and
- Mount Joy Station on the Stouffville GO line.

In addition, the Lakeshore line, which already has two-way all-day service, will be extended to Hamilton in the west and to Bowmanville in the east.

For GO Transit to provide this new level of service, additional tracks and infrastructure improvements are required. While allowing for two-way, all-day service, these infrastructure investments will also enable more peak-period or rush hour service, which will mean more frequent train service for every GO rider.

Express Rail on GO Lakeshore

Fast and efficient rail service from Hamilton to Oshawa

The GO Lakeshore Express Rail project will provide more frequent, faster, and higher capacity service on the Lakeshore West and Lakeshore East lines by upgrading its existing trains from diesel to electric propulsion. This will mean service-level increase, and include shorter travel times for passengers and lower operating costs.

The long-term goal is a transformative level of service that will operate much more frequently than service today, allowing passengers to arrive at their departing station without having to consult a schedule. Exact details of the Express Rail service concept for the Lakeshore lines will be determined following further study.

The existing Lakeshore service carries more riders than any other line in the GO rail system, with local service operating in both directions throughout the day and on weekends. The Lakeshore Express Rail project is currently in the planning stage to determine how best to provide further service enhancements and faster service.

Electrification of GO Kitchener line and UP Express

The GO Kitchener line and UP Express are proposed for conversion to electric equipment. Using electric propulsion for these lines would mean faster travel times for passengers and lower operating costs. The EA study for electrification of UP Express is currently underway.

These First and Next Wave projects have been identified as the most important transit projects in the region. Metrolinx, regional, and municipal governments are making considerable progress in the implementation of these projects. Currently, many of these projects have committed funding and are underway.

The region is also making progress on those projects that have not received funding commitments. The Yonge corridor, for example, is undergoing capacity improvements that are needed before the extension can be built. These capacity improvements represent considerable time and financial resources and are a first step in improving service in the Yonge corridor. Other projects, such as DRT Pulse, have received funding for significant improvements to existing bus services. Therefore, while the full scope of these projects remains unfunded, the effects of these upcoming improvements on transit riders should not be underestimated.

For the remainder of the projects to move forward, funding is required. On May 27th, 2013, Metrolinx delivered an Investment Strategy to the Province of Ontario, including proposals for investment tools to support funding the Next Wave regional rapid transit projects, the integration of transportation, growth and land use planning, maximizing the value of public infrastructure investment, and optimizing system and network efficiency.