

# Chapter 1 – Introduction



**407 TRANSITWAY - KENNEDY ROAD TO BROCK ROAD**

**MINISTRY OF TRANSPORTATION - CENTRAL REGION**

## 1. INTRODUCTION

The 407 Transitway from Kennedy Road to Brock Road project encompasses the planning, EA and preliminary design of a dedicated 19.3 km exclusive runningway and station facilities adjacent to the 407 ETR Corridor. As one part of the full 407 Transitway it will provide service across the greater GTA and link a variety of major urban centres and transit services. It will be implemented initially as a busway with the opportunity to convert to LRT in the future.

This Environmental Project Report (EPR) is a document whose main purpose is to provide a comprehensive summary of each step in the study, including the identification and assessment of alignment and station alternatives, the selection of the preferred alignment and station locations, an assessment of any environmental impacts of the preferred alternative and the identification of measures to mitigate or reduce any negative impacts. Consultation activities with agencies, Aboriginal communities and members of the public are also documented in this report.

### 1.1. 407 Transitway Background and Status

The planned 407 Transitway is a 150 km high-speed public transit facility on a separate ROW. It will parallel 407 ETR from the Burlington GO station (in the Region of Halton) to the Highway 35/115 interchange (in the Region of Durham), refer to **Figure 1.1**. The 407 Transitway is being designed as a BRT facility with protection for possible conversion to LRT. To meet rapidly growing transportation demands, an east-west transit facility has been identified as a key element of the future. The 407 Transitway is intended to form a northern spine

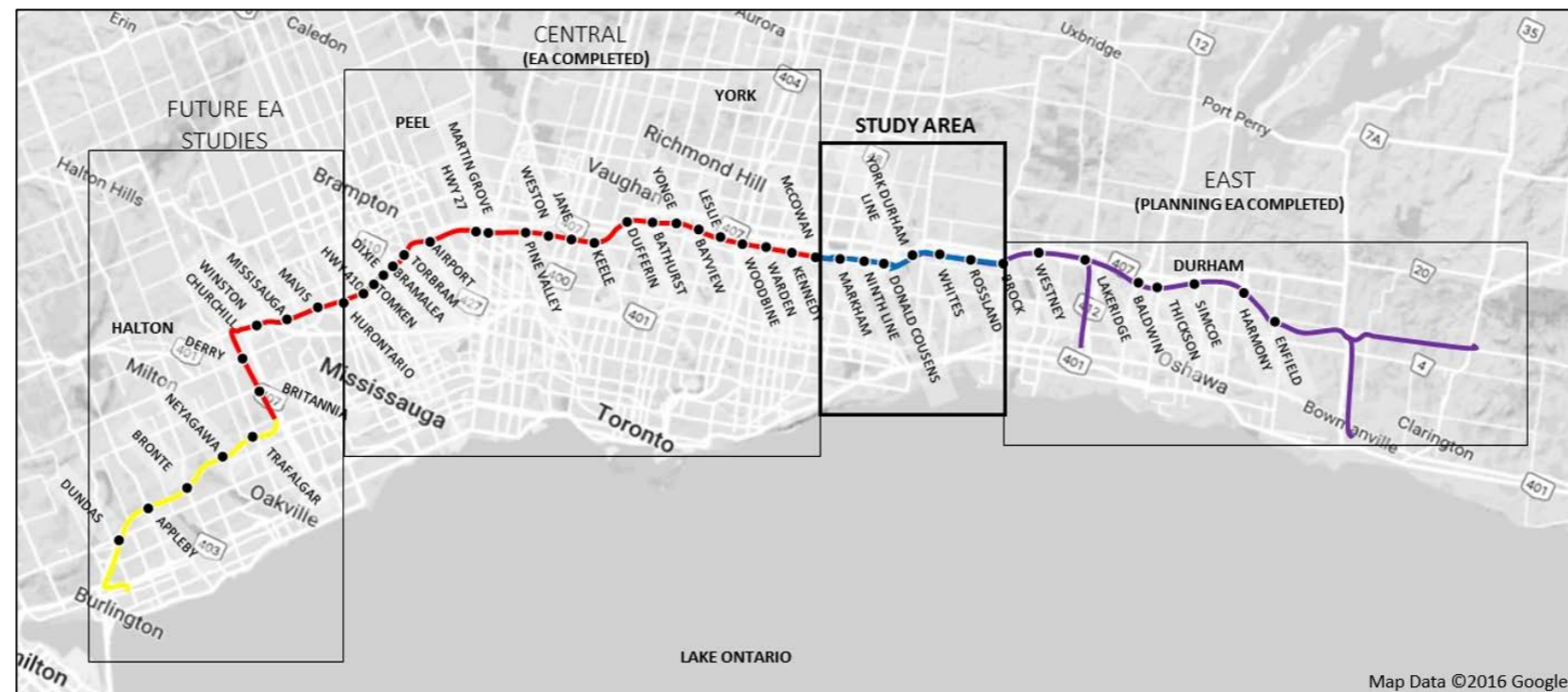
parallel to the Lakeshore GO corridor that will connect the municipalities in this corridor. The 407 Transitway will also integrate with north-south transit services by providing stations for quick and convenient transfers. The 407 Transitway is a component of the official plans of the stakeholder municipalities and is part of the Province’s Move Ontario 2020 Project and the Metrolinx Rapid Transit Plan.

The MTO is the proponent of the 407 Transitway from East of Kennedy Road to Brock Road TPAP. It is uncertain at this time who will construct, operate and maintain the 407 Transitway; however, at the present time, MTO assumes responsibility for the execution of those phases of implementation. MTO would also assume any decommissioning of the facility should it be necessary.

The MTO has been actively planning and protecting the required land for the 407 Transitway for the past 30 years. For the section between the Burlington GO station and Markham Road, the MTO has completed property protection studies, has received Planning/Preliminary Design EA approval from Highway 400 to Kennedy Road (in the City of Markham) and is currently undertaking an EA from Hurontario Street to Highway 400. For the section between Markham Road and the Highway 35/115 interchange, the MTO has received Planning EA approval (for the corridor) between Markham Road and Brock Road and Planning EA approval (for the corridor, stations and associated facilities) between Brock Road and the Highway 35/115 interchange.

This current study is seeking Planning and Preliminary Design EA approval for the 407 Transitway, stations and associated facilities between Kennedy Road (in the City of Markham) and Brock Road. The study objectives are explained below.

FIGURE 1.1: FULL 407 TRANSITWAY STUDY LIMITS



## 1.2. Study Purpose & Objectives

The primary purpose and objectives of the undertaking include the following:

- Enhance east-west cross-regional mobility and increase transit capacity to meet forecast travel demand;
- Offer a viable, cost-effective alternative way of moving people in the Highway 407 corridor ;
- Improve accessibility to existing/planned major urban centres/nodes, post-secondary educational institutions, and other nodes of high demand, such as: Vaughan City Centre, Richmond Hill Centre and Markham Centre, future Seaton Development, York University, Humber College, University of Ontario Institute of Technology, Durham College, Pearson International Airport, and potential future Pickering Airport;
- Improve integration with the regional transportation network – connection to Spadina Subway, future Yonge Subway, GO Milton, Barrie, Richmond Hill, Stouffville rail lines and future service on Havelock rail line; and, Peel, York and Durham Transit systems;
- Reduce automobile dependence and greenhouse gas emissions; and,
- Identify land protection requirements to accommodate the 407 Transitway infrastructure.

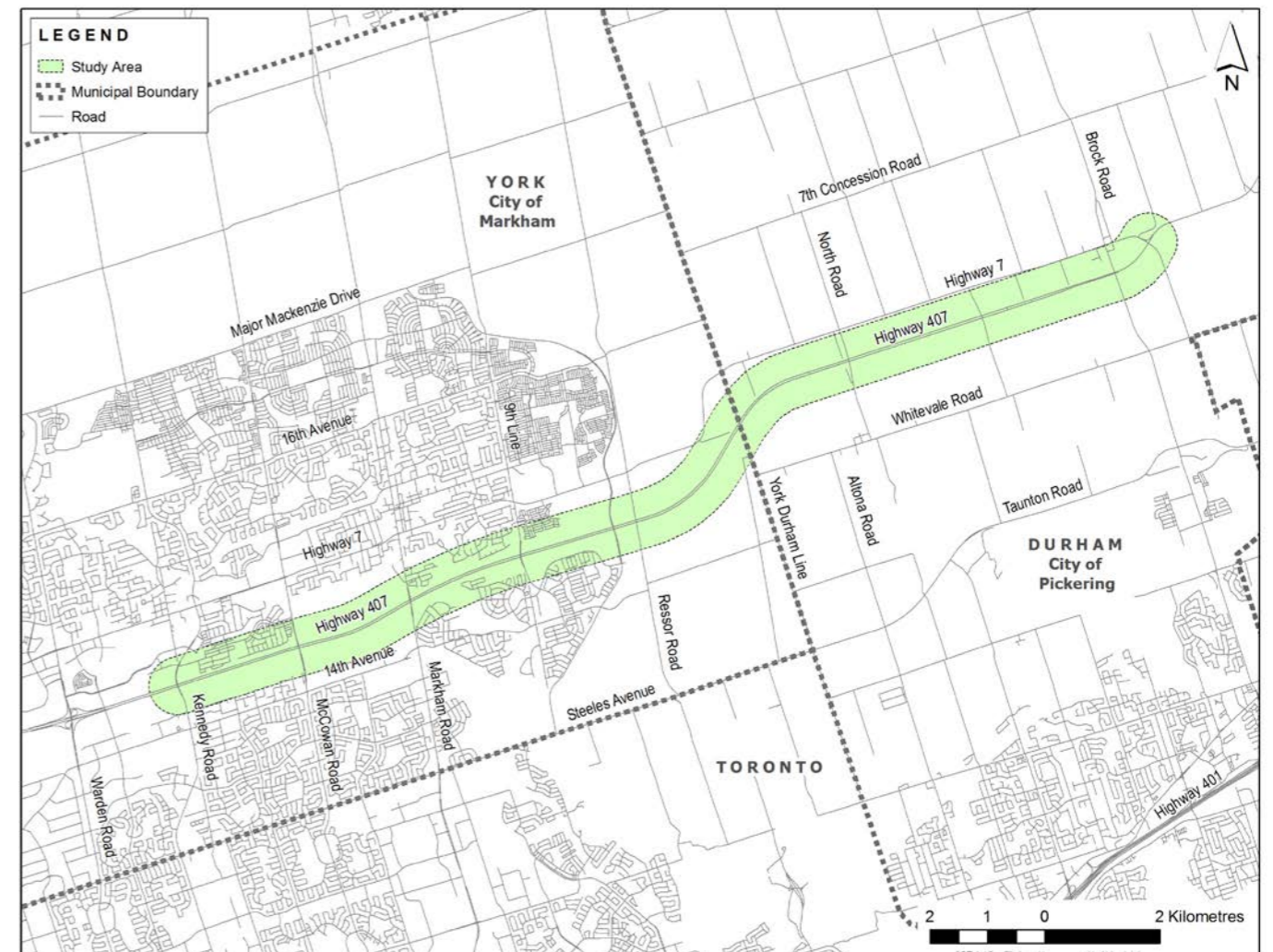
To support these objectives, the scope required that the following activities be undertaken:

- Maintain and apply the comprehensive set of approved design standards for the 407 Transitway, created and approved during the preliminary design of the Central Highway 400 to Kennedy Road section;
- Update and develop detailed ridership estimates based on a 2031 horizon year with projections to 2051;
- Gather existing conditions and future municipal plans, and identify and evaluate alignment and station alternatives, and select a preliminary preferred design;
- Conduct detailed field investigations in support of the preliminary preferred option; assess the environmental effects and develop a mitigation plan for any negative impacts generated by the preferred design;
- Deliver a cost-effective, safe, and innovative preliminary design and staging plan for this 19.3 km section of the 407 Transitway for busway technology that allows for conversion to LRT in the future, promotes transit ridership and optimizes transit operation and integration; and,
- Recommend and present a phased implementation strategy;

## 1.3. Study Area

The study area encompasses the proposed section of 407 Transitway corridor from west of Kennedy Road in the City of Markham in the Region of York to east of Brock Road in the City of Pickering in the Region of Durham. **Figure 1.2**, illustrates an area of 500 meters on each side of the alignment that was covered by the study; however, the boundaries in which the environmental effects were identified and assessed; and the reason(s) why these areas were considered sufficient, is explained below:

FIGURE 1.2: STUDY AREA



- Terrestrial:** MTO Environmental Reference For Highway Design states that for all terrestrial ecosystems field investigation, the study area be defined as within the existing and proposed ROW and adjacent lands for 120 m unless a sensitive receptor located more than a distance of 120 m is likely to be adversely affected. As the majority of the anticipated impacts are footprint impacts we feel that the study area limits adequately address any terrestrial impacts.
- Fish Habitat:** MTO Environmental Guide for Fish and Fish Habitat (2013) presents minimum requirements for area of field investigation which consists of 50 m upstream and 200 m downstream of the limits of the proposed ROW. Further, the zone of detailed field investigation conducted for this study is greater than the area prescribed by the Guide. It consisted of 50 m upstream and downstream. The prescribed area for this zone by the Guide is 20 m upstream and 50 m downstream. Please note that the upstream and downstream distance is measured from the thalweg of the stream and not the straight linear distance from the proposed ROW.
- Groundwater:** the purpose of the Secondary Source Groundwater Assessment was to identify



hydrogeological constraints to the implementation of the 407 Transitway and to assess potential impacts on existing groundwater resources. The 1 km corridor study area will identify any constraints and if any identified requirements for future study at a later phase.

- **Property Contamination and Waste, Archaeology, Cultural Heritage:** the potential impacts are footprint impacts in nature therefore the 1km wide corridor was determined to be adequate to identify any constraints for the implementation of the transitway.
- **Noise:** Noise Sensitive Areas were identified regardless of size and location. The study area limits covers the noise sensitive areas that will be potentially affected.
- **Air:** the physical boundary does not have any meaning. Impacts were assessed at a much higher regional level. A detailed description is presented in the Air Quality Report regarding the study area limits.

The assessed boundaries are within the 500m set-back on either side of the runningway named the study area in the EPR.

### 1.4. Study Process

The assignment encompasses the Planning Phase and the Preliminary Design Phase of the project and are conducted following an integrated approach as illustrated in Figure 1.3. The study comprises of three stages: the Planning Stage, the Pre-TPAP, and the TPAP stage. The EPR encompasses the background of the project, studies, analysis, functional and initial design, evaluation of alternatives, findings and recommendations of the completed stages. Consultation was carried out throughout the process.

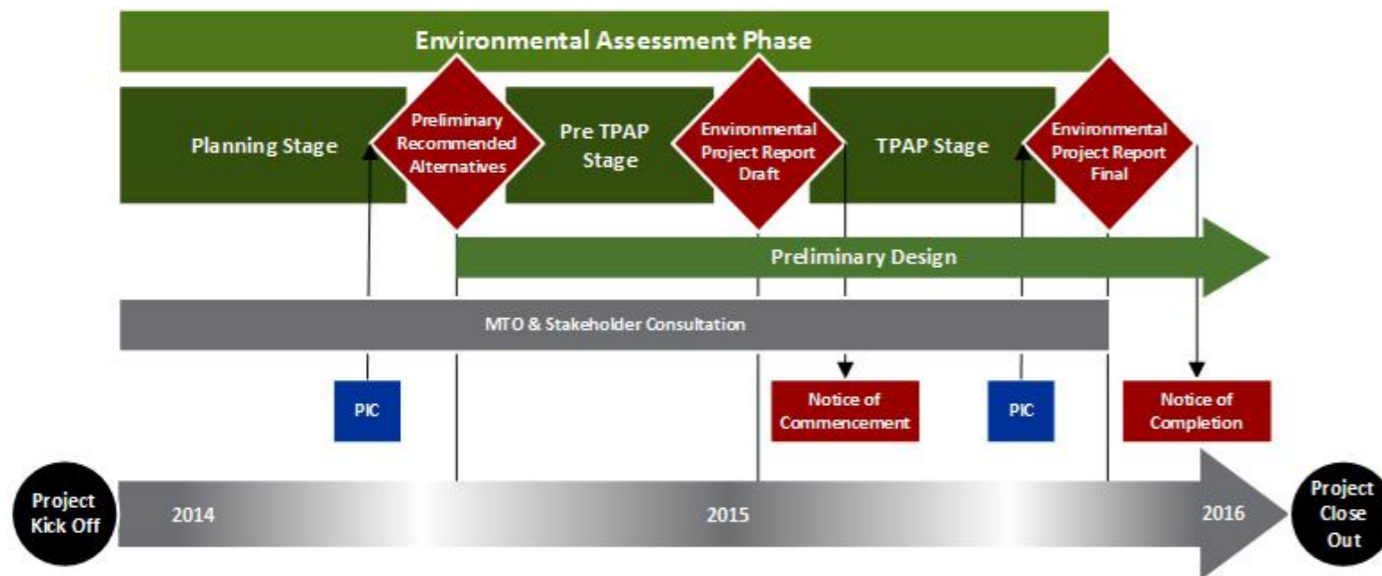
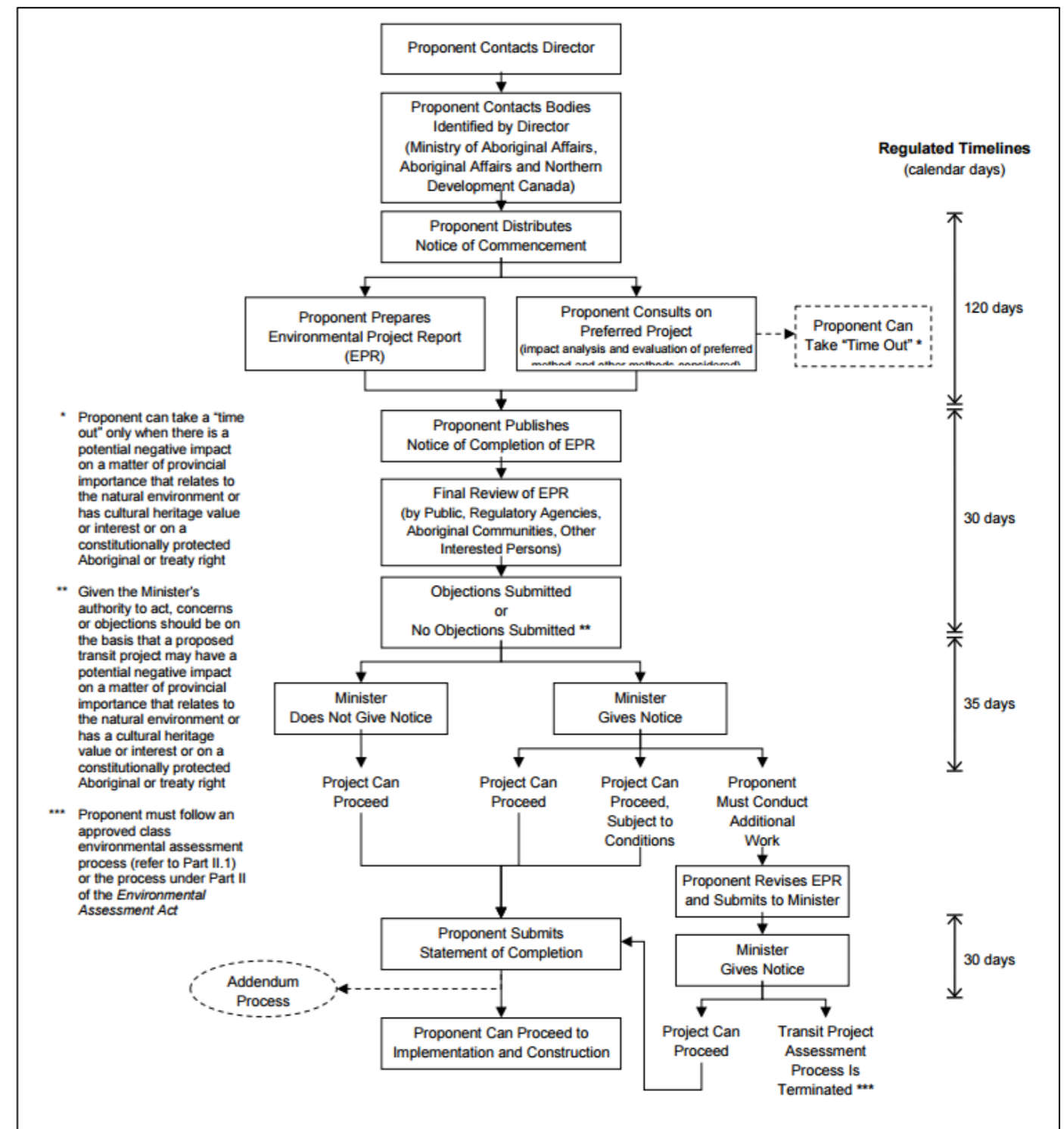


FIGURE 1.3: STUDY PROCESS

The TPAP is being followed for this study. Figure 1.4 illustrates the comprehensive process as detailed by the Ministry of Environment and Climate Change (MOECC).

FIGURE 1.4: TPAP PROCESS



## 1.5. Study Background

### 1.5.1. Statutory Requirements

#### 1.5.1.1. Provincial Legislation - Environmental Assessment Act of Ontario

This study followed the TPAP as per the *Transit Projects and Greater Toronto Transportation Authority Undertakings Regulation, Ontario Regulation 231/08*, June 2008. This process started concurrently with the publication of the “Notice of Commencement of the TPAP”.

#### 1.5.1.2. Other Provincial Legislation

The 407 Transitway is subject to, and will be carried out in accordance with all applicable provincial legislation including the *Planning Act*, the *Public Transportation and Highway Improvement Act*, the *Freedom of Information Act*, and the *Environmental Protection Act*.

#### 1.5.1.3. Federal Legislation - Canadian Environmental Assessment Act 2012

Federal EA requirements for this project were investigated early in the study process to identify and address the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)* requirements. A review of the CEAA 2012 and its regulation, the “Regulations Designating Physical Activities[gazette.gc.ca]”, determined that this project is not identified as a “designated project” that requires an EA by the CEAA, Canadian Nuclear Safety Commission or by the National Energy Board. Therefore, a federal EA process will not be required. Nevertheless, federal agencies and their interests including Fisheries and Oceans Canada (DFO), Environment Canada, Transport Canada, Parks Canada and others will be consulted throughout the study.

#### 1.5.1.4. Federal Legislation - Rouge National Urban Park Act

The Rouge National Urban Park Act, which came into force on May 15, 2015, protects and allows for the presentation of natural and cultural resources and the encouragement of sustainable farming practices within the park area. In June of 2014, a draft Management Plan was released for public review by Parks Canada. The proposed 407 Transitway and associated facilities study are not included within the Management Plan area. However, the Management Plan should be taken into account, given that the 407 Transitway would cross through the park area.”

### 1.5.2. Policy Context

Outlined below are the most relevant transportation policies documented in plans and publications by the various levels of government with influence on the planning solution for the 407 Transitway.

#### 1.5.2.1. Provincial Policy Statement 2014

The Provincial Policy Statement, 2014 (PPS 2014) is issued under Section 3 of the *Planning Act* and provides policy direction on matters of provincial interest related to land use planning and development. The policy

statement includes a range of policies related to three main themes: building strong communities; wise use and management of resources; and protecting public health and safety.

The PPS 2014 states that transportation and land use considerations must be integrated at all stages of the planning process. It provides for the planning and protection of corridors and rights-of-way for transportation, transit and infrastructure facilities to meet the current and projected areas. The PPS 2014 requires the planning of major infrastructure to support long term economic prosperity by providing for an efficient, cost effective, reliable multi-modal transportation system that is integrated with adjacent systems and those other jurisdictions and is appropriate to address expected growth. In addition, it requires that planning for transportation and infrastructure corridors must consider significant resources such as natural heritage, agriculture, and cultural heritage resources. It also promotes the coordination between municipalities and other levels of government for planning transit and infrastructure.

The PPS 2014 updates strengthened the language regarding the protection for provincially planned transportation corridors and promotion of land use compatibility for lands adjacent to planned and existing corridors. It allows for the protection of major goods movement facilities and corridors. It also permitted the planning for infrastructure/public service facilities beyond a 20 year period.

The 407 Transitway supports these policies by providing a Regional Rapid Transit facility that connects numerous municipalities across the GGH. This includes connections with other regional and local transit systems such as GO Transit, VIVA Rapid Transit, YRT, DRT and TTC. It will directly serve regional Urban Growth Centres (UGC) like the Markham Centre and the Seaton Community, while connecting to the Richmond Hill Centre, the Vaughan Metropolitan Centre and Langstaff Gateway (in the City of Markham).

#### 1.5.2.2. Places to Grow: Growth Plan for the Greater Golden Horseshoe

The Growth Plan for the Greater Golden Horseshoe (Growth Plan, 2006) under the *Places to Grow Act, 2005*, is a framework for implementing the Government of Ontario’s vision for better managing growth in this region. The Growth Plan provides a framework for development of several policies in the areas of managing growth, general intensification, growth centers, major transit station areas and intensification corridors, employment lands, designated greenfield areas, settlement area boundary expansions, and rural areas.

Population and employment forecasts presented in the plan illustrate that, after the Region of Halton, York Region is expected to experience the highest growth in population and employment at 97% and 100%, respectively, between 2001 and 2031. At such significant growth rates, the plan identifies the Highway 407 Corridor as one of the major candidates for improved higher-order transit. The three Urban Growth Centers located along the central Highway 407 Corridor, Markham Centre, Richmond Hill/ Langstaff Gateway and Vaughan Corporate Centre, are also identified here. Moreover, revitalization of these centers is identified as a major policy for accommodating additional people and jobs and promoting these locations as regional focal points.

The Growth Plan’s policy directions for intensification and compact urban form identify public transit as a first priority for transportation infrastructure planning to reduce reliance on any single mode by encouraging the most financially and environmentally appropriate mode for trip-making; multi-modal access to jobs, housing, schools, cultural and recreation opportunities, and goods and services; and provision for the safety of system

users. The proposed 407 Transitway supports these policy directives.

The level of success achieved by the 407 Transitway will be immensely affected by the degree of realization of the land use policies outlined in the Growth Plan. Achievement of the proposed high-density and mixed-used development in the Highway 407 Corridor would foster the required transit demand to support higher orders of transit. Conversely, given the mutual relationship between land use and transportation, the Growth Plan development objectives themselves will be supported by the presence of an effective transportation system including the 407 Transitway.

### **1.5.2.3. Move Ontario 2020**

In 2007, the Province of Ontario announced “Move Ontario 2020”, a provincial plan to fund 52 transit projects in the GTHA over a 12-year period starting in 2008. Its primary goal is to create a modern rapid transit system that moves people and goods quickly and efficiently by improving the transit services of Southern Ontario’s largest transit providers. The province identified the Highway 407 Corridor as one of its priorities for new rapid transit initiatives in the GTHA.

### **1.5.2.4. The Big Move: Transforming Transportation in the GTHA**

On November 28, 2008, the Metrolinx Board of Directors adopted this Regional Transportation Plan (RTP). The Big Move recommends the construction of over 1,200 km of rapid transit – more than triple of what exists now – so that over 80 per cent of residents in the region will live within two kilometers of rapid transit, with an emphasis on areas with large senior and low-income populations who rely on transit on a daily basis.

Two of the nine priority actions presented in the RTP are to develop a regional rapid transit network that operates seamlessly across the GTHA, and to create a system of connected mobility hubs at key intersections in the regional rapid transit network. These mobility hubs could provide travelers with access to the system, support high density development, and demonstrate excellence in customer service.

The RTP has identified the 407 Transitway segment from Kennedy Road to Brock Road in Phase Three of its investment plan to be completed between 2023 and 2033.

### **1.5.2.5. York Region Official Plan and Transportation Master Plan**

The main purpose of York Region’s Official Plan (December 2009) and Transportation Master Plan (TMP)(November 2009), is to define a long-term transportation vision and integrated road and transit network plan that supports the Official Plan’s policies for growth in York Region to the year 2031. A number of policies and programs discussed in the Plan have strong focus on the Highway 407 Corridor as one of the major components in meeting the Region’s future transportation needs. The proposed transit network illustrates expected GO Transit improvements as well as York Region rapid transit facilities integrated with the GO Transit and TTC systems. Proposed future rapid transit facilities include BRT and/or LRT systems within the Highway 7/407 Corridor. The approved 407 Transitway EAs in the Region, amongst several other transit studies, serves as a foundation for the development of sustainable policies and strategy recommendations as well as the transit and roadway systems proposed for the TMP Update.

### **1.5.2.6. City of Toronto Official Plan**

Adopted by the City in 2002 and by the OMB in 2006, the Highway 407 Corridor, not being located within the city limits, is not explicitly recognized in the City’s plan. However, the importance of an integrated transportation system and coordination in addressing planning issues amongst adjacent municipalities is emphasized in the policies outlined in the document. North-south, cross-boundary transit corridors shared by the City and York Region would be highly integrated and inter-dependent with the 407 Transitway.

Given the transit and land use policy directions outlined in their respective documents, the policies developed by York Region and the City of Toronto plans are consistent and aligned with the implementation of the 407 Transitway. Both recognize the various elements outlined in the provincial Growth Plan in terms of fostering development nodes, urban density, inter-modal connections, etc.

### **1.5.2.7. City of Markham Official Plan**

The City of Markham’s Official Plan (2014) sets out land use policies to guide future development and to manage growth. It provides a policy framework for Council decisions regarding the use of land, the provision of the municipal services required to support growth, and the phasing of development. One of the City of Markham’s Strategic Priorities includes improving transportation and transit. This priority is firmly integrated into intensification strategies along corridors served by existing or planned higher order transit and the support for the further application of transit investment. The Plan endorses transit-supportive land uses emphasizing walkable streets and higher density mixed use development. Rapid transit stations and passenger rail stations should no longer be viewed as isolated transfer points, but as opportunities to develop diverse activity centers that are fully integrated into the surrounding urban form with convenient connection to all travel modes.

The Official Plan presents Area and Site Specific Policies for lands located within the area bounded by the 407 Transitway ROW, Donald Cousen’s Parkway, Reesor Road, and the CPR Havelock Line. These areas are designated as Regional Gateways that require comprehensive block plans that demonstrate conceptually how development of the lands may occur in phases and how the intended transportation gateway use would not be constrained or precluded by development proceeding on the privately owned portion of the lands in advance of the development of the Regional Gateway Facility. Potential 407 Transitway station locations are also identified and specify that comprehensive block plans are required for land use development plans. Official Plan Amendments for future land use development adjacent to possible 407 Transitway stations contain guidelines for mixed residential development, commercial, and retail development as required by the Official Plan. Additional suitable land uses are provided where relevant.

### **1.5.2.8. Durham Region Official Plan**

The Durham Region Official Plan (2013) defines the intent of Regional Council in guiding growth and development in The Regional Municipality of Durham. The Plan establishes policies that support the expansion of transit within the Region by endorsing mixed use land development and community facilities, preferably adjacent to arterial roads and/or in close proximity to transit routes. The policies outlined in the Plan that endorse the creation of places that are accessible by public transit and supported by an extensive pedestrian network, would directly support the viability of 407 Transitway stations.



Regional Council supports the accelerated implementation of the extension of the 407 ETR freeway and Transitway to Highway 35/115, including two high-speed highway and 407 Transitway connections to Highway 401. The plan also recognizes the preferred technical route for the 407 East Transitway and it will be incorporated without amendment to the Official Plan. Through the plan Council shall oppose any decision, development proposal or other action which seriously compromises the ability to protect and implement 407 East and the 407 Transitway.

### **1.5.2.9. Durham Region Transportation Master Plan and Arterial Road Corridor Design Guidelines**

The TMP (2005) is a strategic planning document designed to define the policies, programs and infrastructure improvements required to address the Regional Municipality of Durham's transportation needs for the next 20 years and beyond. Developed through the Durham Mobility Study, the TMP reflects the growth and development policies outlined in the Regional Official Plan and will be an important foundation document for the review of the Official Plan, now underway. The TMP has regard for the directions of the Region's Community Strategic Plan. A key comprehensive strategy of the TMP is to provide more travel choices – this will help provide the framework for establishing a more sustainable transportation system in keeping with the directions of the Official Plan.

The Plan identifies a Transit Priority Network that will provide the foundation for a BRT system. BRT service is anticipated to evolve in the corridors that comprise the network, from buses in mixed traffic to vehicles operating in dedicated lanes. The TMP also recommends actions to support the Transit Priority Network, including: identifying ROW requirements; developing a phased service strategy for BRT; considering transit priority measures; working with GO Transit to expand commuter rail and bus services; and conducting feasibility studies to identify future routes. The major road system designated in the Official Plan is composed of a functional hierarchy of arterial roads and freeways.

The Arterial Road Corridor Design Guidelines (2007) have been developed to provide more detailed direction for implementation. The guidelines consider compatibility of adjacent land uses and all modes of travel. The hierarchy comprises Type A, B, C arterial roads and the freeway system. Arterials intersecting 407 ETR where 407 Transitway stations are recommended are designated Type A and Type B Arterial Roads. Along arterial roads designated for transit service, the priority is placed on the movement of vehicles with transit often accommodated in dedicated lanes or medians. This ROW may be within the road platform. Priority is placed on moving relatively higher numbers of transit users a significant distance with the focus placed on the design of the areas, or nodes, surrounding stations. Stations along these corridors should be closely integrated with at grade uses, such as retail. Densities at station nodes should be relatively high to provide a large number of transit users within walking distance and pedestrian connections to station areas should be direct and convenient.

### **1.5.2.10. Durham Region Transit Long Term Transit Strategy**

Durham Region Transit's (DRT), Long Term Transit Strategy (LTTS), 2010 is a comprehensive plan that identifies transportation / transit challenges and opportunities in the Regional Municipality of Durham. The plan recommends a specific strategy for achieving a transportation system that is focused on rapid transit to

provide excellent connections between the Region's municipalities and neighbouring municipalities. The purpose of the LTTS is to develop a long-term regional transit strategy that considers multi-modal transportation alternatives as they relate to, and affect, transit. This includes looking at rapid transit as a component of sustainable transportation options that will help the Region address anticipated transportation demands to 2031 and beyond. The LTTS is intended to provide specific directions regarding the role that rapid transit will take in the years to come, including the identification of specific transit corridors.

The purpose of the LTTS is to document DRT's LTTS in detail, and to present the LTTS in a format that complies with Phases 1 and 2 of the five-phase Municipal Class EA process. The strategy identifies four transit service types that are applied to five Alternative Solutions that were developed to reflect varying levels of transit service and transit investment along the Region's candidate rapid transit corridors, including Highway 407 Corridor and intersecting north-south arterials.

The land adjacent to 407 ETR is protected for future rapid transit and a schematic for future stations is provided, as well as a conceptual design for rapid transit infrastructure and major intersections.

### **1.5.2.11. City of Pickering Official Plan**

The City of Pickering Official Plan (2010), along with the Durham Regional Official Plan, guides planning decisions and actions. As a result, both plans contain similar policies to guide the development of transportation networks. The City's transportation policies encourage a well-connected network of corridors (roads, rails, sidewalks, trails and bikeways), with transportation corridors and nodes to be designed as desirable places. Policies include promoting the design of road corridors and the road system as multi-use public facilities. The plan also recognizes key corridors as transit spines, where a high level of transit service is to be encouraged – this includes 407 ETR and other arterial roads. A hierarchy level is assigned to each arterial road that identifies the type of infrastructure expected, such as dedicated transit lanes. The plan indicates arterial roads should use existing lanes rather than adding new lanes or widening road rights of way for this purpose. This plan also encourages community, amenities and facilities to locate in mixed use areas, in areas with a high degree of accessibility by public transit, and/or in locations conveniently located relative to the area they will serve.

The 407 corridor factors prominently in decisions that will be made regarding the planning of multi-use infrastructure such as bike lanes, sidewalks, and trails, providing appropriate crossings at all intersecting roads, and the planning of certain land uses and neighbourhood development.

### **1.5.2.12. Rouge National Urban Park – Draft Management Plan**

The Rouge National Urban Park Act, which came into force on May 15, 2015, protects and allows for the presentation of natural and cultural resources and the encouragement of sustainable farming practices within the park area. In June of 2014, a draft Management Plan was released for public review by Parks Canada. The proposed 407 Transitway and associated facilities study are not included within the Management Plan area. However, the Management Plan should be taken into account, given that the Transitway would cross through the park area.

### **1.5.2.13. Greenbelt Plan (2005)**

The Greenbelt Plan (2005) identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological features and functions occurring on this landscape. It builds upon the existing policy framework established in the PPS and is to be implemented through municipal official plan policies and maps. It also includes lands within, and builds upon the ecological protections provided by, the Niagara Escarpment Plan and the Oak Ridges Moraine Conservation Plan. It also complements and supports other provincial level initiatives such as the PBWP and the Rouge North Management Plan.

The 407 Transitway crosses the Greenbelt Plan east and west of the York /Durham Town Line. The 407 Transitway has already received Route Planning EA approval at this location as part of the Highway 407/Transitway Markham Road Easterly to Highway 7 East of Brock Road: Environmental Assessment Report (1997).

Under section 4.2.1 General Infrastructure Policies the following policy applies to the 407 Transitway development:

“For lands falling within the Protected Countryside, the following policies shall apply:

All existing, expanded or new infrastructure subject to and approved under the Canadian Environmental Assessment Act, the Environmental Assessment Act, the Planning Act, the Aggregate Resources Act, the Telecommunications Act or by the National or Ontario Energy Boards, or which receives a similar environmental approval, is permitted within the Protected Countryside, subject to the policies of this section and provided it meets one of the following two objectives:

It supports agriculture, recreation and tourism, rural settlement areas, resource use or the rural economic activity that exists and is permitted within the Greenbelt; or

It serves the significant growth and economic development expected in southern Ontario beyond the Greenbelt by providing for the appropriate infrastructure connections among UGCs and between these centres and Ontario’s borders.”

The 407 Transitway supports this policy in serving the proposed growth expected to occur across the GTA. The completion of an EA under the TPAP will insure that any negative environmental impacts will be addressed and mitigated.

## **1.5.3. Past Studies along the Highway 407 Corridor**

### **1.5.3.1. Background**

In 1967, the Metropolitan Toronto and Region Transportation Study predicted that, with the prevailing growth trends, various urban areas in the Metropolitan Toronto region would eventually merge into a sprawling urban mass from the City of Hamilton to the City of Oshawa and north to the Town of Richmond Hill. To control growth in the region, the study contained a Parkway Belt as a key element, conceived as a multi-link linear corridor. The Parkway Belt was defined with four major goals: community identification,

integration of two-tier system of urban areas, land reserve for future flexibility, and linked open space system.

The Parkway Belt was planned as a multi-purpose corridor to provide for: freeways, regional transit, electric power transmission lines, utilities, and public open space. Subsequently, legislation was introduced to establish the Parkway Belt West Planning Area (between Dundas and Markham) to stabilize land use in the area until a development plan was approved. The PBWP, which received Cabinet approval in July 1978, covers the area between the Town of Burlington/Town of Milton and the City of Markham and includes the provincial 407 ETR and the Inter-Urban Transit corridor within the Southern Link (then the Highway 403 corridor).

A decade later in 1989, the Highway 407 Overview study (Highway 48 to Highway 35/115) assessed the traffic demands in the GTA and surrounding municipalities. It concluded that there was a need to protect for a network including Highway 407 easterly from Markham Road to Highway 35/ 115 to address deficiencies in meeting east-west travel demands; two freeway links between Highway 401 and Highway 407 (located near the Oshawa-Clarington boundary and Pickering/Ajax/Whitby area; and, an east-west transit corridor as far east as the proposed Oshawa-Clarington link. The study also indicated an immediate need to locate and protect these transportation corridors due to the pressure for development in these areas and recommended that route location and EA studies be carried out.

Planning for development of a high-order transit facility in the Highway 407/Parkway Belt Corridor has continued over the past two decades. This section of the report summarizes this process by presenting a brief synopsis of the findings of each of the prior studies.

### **1.5.3.2. Protection for Transit in the Highway 407 Parkway Belt West Corridor (1989)**

Due to the rapid rate of development in the Highway 407 Corridor between the Cities of Mississauga and Markham, the MTO recognized the need to review the protection for transit in the corridor. This would ensure the opportunity to provide a self-contained, high-speed east-west transit service along the corridor with relatively little impact and property costs. Hence, the objectives of this study were to determine the potential for a physical fit and the property protection requirements for the 407 Transitway, to identify costs associated with the protection, to minimize the impact on current infrastructure designs and construction schedules, and to address the issue of possible joint corridor use with a proposed freight railway rationalization link at the west end of the project.

Regarding technology of the system, both subway and LRT-type vehicles were recommended, with subway being a strong candidate due to its compatibility with other subway lines in the area (i.e. TTC), and LRT having the advantage of being the cheaper alternative. The corridor adjacent to Highway 407 was recommended to provide for the majority of the property required for the 407 Transitway in order to minimize the impacts to both the hydro and utilities corridors. Descriptions of property to be protected and/or purchased and required steps for these actions were included. Furthermore, staging opportunities and the gradual introduction of a separate ROW for transit vehicles were also evaluated.



### **1.5.3.3. Need & Justification Study for the Projection of Highway 407/Parkway Belt West Transit Corridor (1992)**

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This report examined the urban structure, demand estimates, corridor location, operational requirements and alternatives to a 407 Transitway. According to the findings of the study, York and Peel regions were expected to experience considerable growth over the next forty years (from 1992) During this period, the pattern of travel was expected to change from a radial orientation from downtown City of Toronto to one of a more dispersed nature, including major movements within and between the two regions. As a result, the 407 Transitway was identified as a major transit spine to serve the need for improved transportation between York, Peel and the adjacent regions.

A number of transportation roles were identified for the 407 Transitway including service to longer-distance regional and interregional trips, service to shorter-distance trips between major activity centers in and adjacent to the corridor, network integration with radial GO Transit rail services and TTC rapid transit, and integration with the road network through the provision of park-and-ride and kiss-and-ride facilities.

According to the ridership forecasts presented in this study for the morning peak hour, the peak point, peak direction volume for the 407 Transitway was in the range of 2,900 to 5,700 passengers per hour in the year 2011 and 3,700 to 7,100 passengers per hour in the year 2031. These figures supported the development of a higher-order, separate ROW public transport system.

The study concluded that a ROW for a separate fully grade separated 407 Transitway be protected in the Highway 407 corridor. The study recognized that such a transit system would have a relatively high degree of risk because the 407 Transitway was seen not as a conventional rapid transit facility, but a suburban, circumferential facility located in a highway corridor not directly serving a major node or downtown. Therefore, in comparison to other rapid transit services in the GTA, the success of the 407 Transitway was seen as highly dependent on the realization of transit-supportive land use policies, including the fostering of activity nodes along the corridor.

Due to uncertainty about future land use in the corridor and potential demand, the study suggested a staged development approach over time in order to reduce investment capital and associated risks. Initially, a bus system was recommended that would be capable of providing incremental levels of service, starting in mixed-traffic operations, moving on to HOV lanes and, eventually, a separate ROW.

### **1.5.3.4. Highway 7/407 Transit Planning Strategy Study: A Cooperative Strategy for Transit in the 7/407 Corridor (1996)**

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This study was to achieve a common vision regarding a higher-order transit system for the Highway 7/407 corridor. It identified detailed objectives of the system and potential risks and uncertainties. Additionally, the study developed an action plan for the implementation of the system, including the identification of the roles and responsibilities of various stakeholders.

A number of objectives, similar to previous plans for the 407 Transitway, were adopted addressing ridership characteristics, property protection and connections to GO Transit and TTC transit nodes. Objectives included support for land use policies aimed at the development of major regional nodes, transforming Highway 7 into

a pedestrian-friendly urban street to accommodate local transit, implementing higher-order transit service in the Highway 407 Corridor for intermediate- to long-distance trips, providing linkages between Highway 7 and Highway 407 transit services, and providing connections to Lester B. Pearson International Airport.

The York Region HOV/Rapid Transit Study (1995) was used as the basis for transit demand forecasts. This study confirmed previous conclusions regarding the forecast growth rate and its consequences. Transit ridership forecast figures derived in this study were in the range of 10,900 to 14,800 passengers during the morning peak hour for the year 2021, considered sufficient to warrant the implementation of rapid transit in the Highway 7/407 corridor. As part of the final recommendations, undertaking a property protection study was suggested to define the property envelope within the Highway 407 Corridor including stations and access/transfer linkages.

### **1.5.3.5. Highway 407/Transitway Markham Road Easterly to Highway 7 East of Brock Road: Environmental Assessment Report (1997)**

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The need to plan for the 407 Transitway was recognized on the basis of the results of screenline analyses for 1998, 2011 and 2021. Some of the predicted major deficiencies for 2021 included extreme congestion of Markham Road between Highway 7 and 407 ETR, increased traffic through communities and capacity deficiencies on the Highway 7 corridor, followed by the Highway 401 corridor. Travel demand model results showed that, by the year 2011, travel demand was expected to increase by 50% in the peak hour over 1998 volumes. This confirmed the need for a balanced transportation plan comprised of road, transit and travel demand management strategies in order to deal with future transportation demands.

The study examined a number of planning alternatives that could be implemented to resolve the anticipated traffic problems. Final analysis indicated that an extension of Highway 407 and a 407 Transitway were needed to address identified immediate and long-term transportation problems. The report specified that the extension must go east as far as Highway 7 east of Brock Road (City of Pickering) in order to minimize traffic impacts on the local communities.

The study approved the Highway 407 extension and a 60m Transitway ROW south of and adjacent to the highway. Therefore lands within the current study area from Markham Road to Brock Road received EA approval for the implementation of the 407 Transitway.

### **1.5.3.6. Highway 407 Transitway System Plan and Station Site Plan Study (1997)**

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The purpose of this study was to identify the location and extent of land to be protected for supporting 407 Transitway facilities and amenities from Markham Road to Courtice Road. The study examined projected growth patterns and existing and proposed transportation networks while identifying required characteristics for station sites.

New ridership data collection and modelling was not undertaken for this study. The basis for the estimates was a review of previous work and some additional analysis of existing data. Potential station locations and constraints were identified on the basis of forecast ridership and travel patterns, environmental features and relationships to nodal developments. To assist in verifying the hierarchy of station functions, an analysis of

travel times to major east-west transit corridors was conducted. Station infrastructure requirements were determined on the basis of the capability and flexibility to accommodate either bus-based transit services or LRT. The final output of this study was the Highway 407 East transit system, including detailed recommendations for appropriate station types, locations and site plans for various sections of the study area.

#### ***1.5.3.7. Transitway Corridor Protection Study, Highway 407/Parkway Belt West Corridor from Highway 403 to Markham Road, 1998***

The purpose of this study was to define and protect the property required for transit in the Highway 407 corridor. Following a review of previous study findings, travel demand forecasting was carried out to provide “order-of-magnitude” 2021 and 2031 ridership forecasts for the 407 Transitway. Development activity and growth potential for population and employment were assessed and outlined along with a review of planning policies within the corridor.

The study then addressed conceptual transit operations and potential implementation strategies and technology. These formed the basis for the 407 Transitway design criteria for initial bus-based and future LRT technologies. Using the proposed criteria, the 407 Transitway alignment alternatives were investigated leading to a recommended ROW alignment. The Parkway Belt West Plan (PBWP) was amended to designate inter-urban transit in the corridor. The report documented the study process, ridership forecasts, findings of the review of the planning context, alignment and station recommendations with plates showing the property required for the 407 Transitway alignment, stations, parking and associated uses.

#### ***1.5.3.8. Transit Corridor Priorities and Phasing Technical Report: Making Progress in Removing Roadblocks (2001)***

This study developed a tool for assessing and prioritizing transit opportunities in the GTA. Short- and long-term transit alternatives in each of the GTA transit corridors were developed based on clearly-documented criteria. There was significant focus on transit opportunities for the Highway 407 corridor, specific to three sections of the corridor, those being Oakville GO Transit station to Highway 50, Highway 50 to Markham Road, and Markham Road to Oshawa GO Transit station. The second section of this breakdown is most relevant to this study.

Extensive travel demand forecasting was presented and evaluated for the various alternatives. Morning peak hour ridership for 2011 was predicted to be about 5,200 passengers per hour per direction, with 5,600 by 2021. Transit-supportive land use and travel convenience issues, ease of implementation, significant impacts and costs were also investigated.

The study resulted in the development of the GTA and Hamilton Area Transit Plan, which builds on the strength of the existing transit system. The Plan identified the Highway 407 corridor and its north-south connecting links to be of high importance.

#### ***1.5.3.9. Inter-Regional Bus Rapid Transit Service Study (2002)***

The objective of the study was to identify a feasible interregional BRT alignment and implementation strategy that would complement and support GO Transit’s existing rail and bus network and be linked to the TTC rail

network. Through examination of the Greater Toronto Transportation Authority’s (GO Transit) generic circumferential BRT Spine Line proposal, identification of feasible alignments, evaluation of TTC connecting links, assessment of infrastructure costs, and analysis of ridership forecasts, the study made final recommendations for the achievement of the most effective and efficient interregional BRT system.

The concept plan for the initial spine corridor alignment included a number of linked segments of Toronto’s major travel corridors, including the 407 Transitway between Keele Street and Markham Road. According to future ridership estimates, the 407 corridor was identified to be the third most heavily used section of the Spine Line with morning peak hour, peak direction transit volumes of 6,500 passengers by 2011, within the capabilities of a BRT operation as demonstrated by busways in operation elsewhere in the world.

#### ***1.5.3.10. Highway 7 Corridor & Vaughan North-South Link: Public Transit Improvements Environmental Assessment (2005)***

This study carried out an Individual EA of the implementation of rapid transit in the Highway 7 corridor as an element of the York Region Transit Plan (YRTP). The study included the evaluation of several rapid transit alignment alternatives within York Region and the identification of a preferred alternative in a separate ROW in (for the most part) the median of Highway 7.

Extensive data collection was conducted, including turning movement counts, intersection lane configuration, signal timings, storage lengths, access provisions and the overall operation of critical intersections. The resulting data were used for detailed analysis of existing transportation operations. The physical and operational impacts of the preferred alternative on roadway and transit capacity were evaluated as part of the study. Road network, traffic demand and intersection operations were analyzed for the 2021 horizon year. Immediate effects were also assessed on the basis of current road network and traffic volumes.

One of the objectives of this rapid transit study was to maximize inter-regional transit connectivity and provide connections to future gateways. The 407 Transitway was identified as a future inter-regional transit corridor and regarded as a positive attribute to the overall project.

#### ***1.5.3.11. 407 West Transitway Corridor Protection Study (2005)***

The purpose of this study was to examine the need and feasibility of redesigning and locating the 407 Transitway adjacent to Highway 407. The Transitway was evaluated with the capability of implementing a busway or LRT technology. The study area was the Parkway Belt West Corridor from the Highway 403/407 interchange in the City of Mississauga to the Freeman Interchange in the Town of Burlington.

The study defined the required property to be protected for the 407 Transitway including line haul alignment, station locations, parking, access to municipal roads, stormwater management ponds, and vehicle operations and maintenance facilities. The conceptual design configuration for the 407 West Transitway was intended to facilitate planning for integration of local transit services with the 407 Corridor inter-regional transit system.

The study determined:

- potential peak direction/peak hour: transit demand in 2031;
- the need to protect the 407 West corridor for an exclusive Transitway;
- conceptual transit operations; and,
- potential implementation strategies.

These formed the basis for the 407 Transitway design criteria for BRT and LRT technologies. Using the proposed criteria, the 407 Transitway alignment alternatives were investigated leading to a recommended ROW alignment, stations and supporting facilities. Future steps were identified including an amendment to the PBWP to designate this inter-regional transit facility in the corridor and a future commitment to consult with the Ministry of Public Infrastructure Renewal to ensure that transit facilities are protected within the Greenbelt Plan 2005, and finally to satisfy provincial and federal environmental legislation prior to constructing and operating the transit system. The report documented the study process, findings of the review of the planning context and alignment/station recommendations with plates showing the property required for the 407 Transitway alignment, stations, parking and associated facilities.

#### **1.5.3.12. Highway 407 Transitway Implementation Study (2006)**

This report outlined a strategy for the staged implementation of the 407 Transitway. Criteria for the evaluation and identification of alternative segments for the 407 Transitway included: direct support of one or more of the Growth Plan UGC's along the corridor; potential transit ridership; connectivity with one or more GO Rail lines; connectivity with two or more 400-series corridors; opportunity for commuter parking/carpool lots; opportunity for connection with surface transit services; and adequate length to be viable as a stand-alone entity.

Transit ridership forecasts, prepared as part of the Transit Protection on 400-Series Highway System Study, suggest that 7,200 peak period peak direction transit trips are predicted for the Highway 400/Kennedy Road segment of the 407 Transitway for 2021. Following detailed evaluation, the Highway 400 to GO Unionville (Kennedy Road) segment of the 407 Transitway was carried forward as the most suitable high priority segment. Kennedy Road to Brock Road segment was also included in the report with a decision to not carry forward as a decision for initial segment by 2008.

Potential high-priority standalone stations identified along the 407ETR included Bronte Road, Trafalgar Road, Highway 10, Airport Road, Jane Street, Keele Street and Markham Road.

#### **1.5.3.13. 407 Transitway from East of Highway 400 to Kennedy Road – Transit Project Assessment Process – Environmental Project Report (2011)**

An EPR was prepared in accordance with Ontario Regulation 231/08 (Transit Projects Regulation) for the 23 km central segment of a transitway facility along the Highway 407 corridor through York Region, from east of Highway 400 to Kennedy Road (407 Transitway). The 407 Transitway included the runningway, seven stations including Spadina Subway/Jane Station, GO Barrie (Concord) Station, Bathurst Station, Yonge/Richmond Hill Centre Station, Leslie Station, Rodick/Woodbine Station and Kennedy Station, and an

operations, maintenance and storage facility located west of Jane Street. The 407 Transitway is planned to be implemented initially as BRT with the opportunity to convert to LRT in the future.

This 23 km segment is the priority section of the 150 km long high-speed interregional facility planned to be ultimately constructed on a separate ROW that parallels Highway 407 from the Town of Burlington to Highway 35/115, with stations, parking and access connections. The study for this central segment followed the TPAP and received Minister's Notice to Proceed with Transit Project under Ontario Regulation 231/08 on February 28, 2011.

### **1.5.4. Related Provincial and Regional Transportation Studies/Project/Topics**

#### **1.5.4.1. York Rapid Transit Plan**

The YRTP (2002) is a result of recommendations made by the York Region TMP (updated 2009) identifying the need to expedite the development of a rapid transit network in the region. Four corridors were considered: Yonge Street, Highway 7, Vaughan North-South Link and Markham North-South Link.

Initially, this plan resulted in the implementation of the first phase of the rapid transit service (VIVA) with queue-jump and transit priority measures on the four corridors. Currently on-going plans and designs involve implementation of the service in separate rights-of-way and ultimately conversion to LRT if required. The effect of the close proximity of the parallel Highway 7 VIVA services is of critical importance to the potential effectiveness of this project's 407 Transitway segment.

#### **1.5.4.2. GO Transit Year 2020 Plan**

The GO Transit Year 2020 Plan (1998) presented GO Transit's roadmap for system-wide infrastructure and service improvements. It identifies increased service on the Bradford, Richmond Hill and Stouffville lines within York Region. This enhanced service may consist of up to five peak period trains combined with all day train-bus service, and the possibility of offering all-day rail service on the three corridors. Increased service on these three corridors is constrained by the fact that all three lines cross main east-west CN freight lines at grade. CN has taken the position that more service on the north-south GO Rail lines will not be permitted without grade separations of these crossings. The improvements to service and infrastructure of GO Rail lines and connectivity with the 407 Transitway have the potential to increase the effectiveness and efficiency of the inter-regional transit system in the province.

The 407 Transitway is defined within a BRT service with all-day, 2-way bus service, every 5 minutes or better during peak and every 10 minutes or better off-peak up from the Town of Oakville to Markham Road. Core service levels of all-day 2-way service every 15-20 minutes or better during peak and every 30 minutes or better during off-peak is identified for the Town of Richmond Hill and the City of Markham. Additionally, a commuter service is recommended in peak periods with peak direction rail service every 30 minutes or better with counter-peak and off-peak bus service hourly or better, intersecting 407 at the Transitway, connected in UGC's. These types of services will act as the spine of the high-speed bus network. They also include attractive passenger facilities, designed for easy connections, as well as parking and other customer conveniences where warranted.



### **1.5.4.3. York Region Transit Five-Year Service Plans**

The objective of the YRT Five-Year Service Plan (2001) was to significantly improve transit connections and the quality of transit service in order to attract new users to transit and increase the modal share of intra- and inter-regional travel.

The two general transit travel needs outlined were travel to and from major destinations within York Region and travel to and from the City of Toronto (including high-demand destinations like York University and Seneca College as well as connections with TTC and GO Transit). The most notable transit service deficiencies in York Region included infrequent service on grid routes (resulting in poor transfer connections), no off-peak service on several core routes, no continuous service on Highway 7, and a lack of integration between Yonge Street GO Transit bus services and local bus routes.

As one of the proposed strategies in dealing with current deficiencies, the plan indicated that the Highway 7/407 corridor along with the Yonge Street corridor should be designated as "super corridors". These would function as the two backbones of the regional route network and would have a high level of both local and limited-stop express services (at least during peak periods). Other strategies included the diversion of routes where necessary to serve key destinations, providing connections to higher-order transit services and designated transit focal points, using the freeway system during peak hours to provide fast express services where feasible, and providing a good level of service for all major north-south and east-west arterial corridors within the urbanized areas.

The objective of the most recent 2012-2016 Five-Year Service Plan is to guide YRT/VIVA through the transit system's realignment phase, while focusing on effective ridership management, matching levels of service to meet demand and improving on-time performance. It focuses on mitigating impacts of VIVANext construction (rapidway and Spadina Subway extension) on residents, businesses, and communities in an effort to maintain existing YRT/VIVA service levels and ridership. Another key component of the Plan is to ensure rapid transit-readiness upon completion of the rapidway and the Spadina Subway Extension.

A region-wide transit fare plan and five-year capital and operating cost projections were also introduced and discussed as a part of the overall plan.

### **1.5.4.4. Durham Region Five Year Transit Service Plan**

The DRT Five-Year Transit Service Plan (2013) is a document that outlines a program of recommended service changes between 2013 and 2018 to accommodate population, employment, and overall transit ridership growth in Durham Region. This plan covers all DRT services, including conventional transit, the new PULSE BRT service, community and rural bus services, and specialized transit. This program has been divided into two service plans, a Base Service Plan and an Enhanced Service Plan. The Base Service Plan incorporates high-priority service changes, including service increases and expansions required to serve new development areas and network restructuring to provide more direct service to PULSE, GO Transit, UOIT (Durham College), and other major trip generators. The Enhanced Service Plan incorporates additional service changes that are projected to further increase ridership and the overall attractiveness of DRT service.

The plan incorporates GO Transit's plans for service along an extended Highway 407 and the West Durham

Link, including major GO bus stations. Non-DRT transit services were assumed to continue their present patterns. The plan also assumes infrastructure road improvements will be completed in the Region including the construction of 407 ETR interchange locations will have off-street bus loops/stations at Brock Road, Baldwin Street, and Simcoe Street. The service plan also includes establishing service to Seaton and providing a connection to 407 Express GO bus service at the planned Brock and 407 bus terminal.

### **1.5.4.5. Central Pickering Development Plan**

The Central Pickering Development Plan (2006) establishes a comprehensive new vision for Central Pickering. The Plan creates fifteen compact urban neighbourhoods that provide a range of residential, mixed-use and employment uses for future residents. One of the eight goals of the plan is to support the provision of a transportation system that provides choices in transportation modes, including ensuring that the community is designed in a manner that supports public transit. This means that communities will include a range of housing types and densities to accommodate a population of up to 70,000 in a way that is transit-supportive and considers accessibility to the transit network. The transportation network is to provide direct access to destinations along the 407 corridor, Pickering GO Rail Station, major traffic generators, and a potential future airport. The network is to include a road system that is designed for transit service to integrate with all transit corridors; the protection for transit stations at key nodes to facilitate inter-regional transit as well as inter-modal transportation and transit introduction as development occurs. The Plan calls for an integrated transportation system that provides mode choice made easier by establishing facilities and corridors for public transit, walking, and bicycling.

The planning area for the Central Pickering Development Plan (CPDP) encompasses 407 ETR from Pickering Town line to 16<sup>th</sup> Sideline. The plan primarily identifies land adjacent to 407 ETR as Employment Areas and an extensive natural heritage system intersects with the Highway and is located throughout the plan area. The intersections of 407 ETR with 26 Sideline (Whites Road), 22 Sideline (Rossland Road), and 16 Sideline are designated as Proposed Freeway Interchanges and Transit Interchanges/Transitway Stations. 26 Sideline and Brock Road are designated as Type A Arterial Roads and Major Transit Corridors, which means they must include two dedicated transit lanes. 22 Sideline is designated as a Type B Arterial Road, which means it should include lanes for HOV use or transit priority.

### **1.5.4.6. Seaton Community Plan**

The Seaton Community is envisioned as a sustainable urban community integrated with a thriving agricultural community and an extensive Natural Heritage System. The designated area is generally located between the CPR Belleville rail line and Highway 7 in central Pickering. Seaton Community is to be a walkable, transit supportive community at densities that support an attractive community and an active street life, including neighborhood shops, social facilities and parks. It is planned for an ultimate population of 70,000 people with a range of housing types and densities to be provided in six neighborhoods, and 35,000 jobs. It will have access to the 407 Transitway as well as Sideline 26, Sideline 22, and Brock Roads where higher-order transit may be implemented in the future. Development of the community is underway.

#### **1.5.4.7. Durham-York-Toronto Area Transportation Study**

The objective of the Durham - York - Toronto Area Transportation Study (DTY) (2009) was to identify the key transportation infrastructure investments required to address the long term inter-regional road and transit network needs of the area. Improvements to the inter-regional road and transit network is to ensure that the land in Seaton will be serviceable and its value maximized. The goal of the study recommendations would be to form the framework for future provincial/municipal investments in transportation infrastructure in the Seaton area. The DTY Area Transportation Study was conducted in support of the Central Pickering Development Plan while having regard for the overarching policies and principles contained in the Growth Plan including optimizing the use of existing and new infrastructure to support a “transit first” policy and encourage growth in a compact and efficient form.

Past 407 Transitway plans provided context for the study along with other rapid transit projects and it is recognized as a key component of a comprehensive transit network that supports the transit first objective of the study. Stations are identified at Sideroad 26, Sideroad 22, and Brock Road Highway 407 interchange. The 407 Transitway service is also identified as a possible connection to the planned Pickering Airport site and the Havelock Rail Subdivision. Timing of the 407 Transitway implementation is suggested to be coordinated with development in the study area. The Pickering Airport connections via the 407 Transitway are recommended by 2032.

#### **1.5.4.8. Metrolinx 5-Year Strategy (2015-2020)**

The purpose of the 2015-2020 Metrolinx Five Year Strategy, is to provide a rolling five year outlook on Metrolinx’s plans and activities as it implements the RTP. Five priorities of the strategy are: to champion regional mobility, ensure a sustainable financial framework, expand the regional rapid transit network, ensure that Metrolinx is a trusted organization, and be a global leader in service delivery and in customer service excellence. The strategy reflects some of the same objectives found in regional and city growth and transit plans including extension of the rapid transit network by advancing the construction of priority projects, providing convenient transfers between transit systems, developing new or enhancing multi-modal transit terminals, and to foster transit-supportive land uses to leverage public transportation investments by coordinating and stimulating development in the vicinity of transit.

The Strategy endorses the continued development of the Highway 401 and 407 corridors with high-frequency, regional transit services, serving as the primary east-west regional transit spine for the GTHA. While the strategy does not specifically mention the Kennedy Road to Brock Road 407 Transitway expansion, the objectives and deliverables provide support for transit-oriented land use plans and the development of rapid transit stations.

#### **1.5.4.9. High-Occupancy Vehicle Lane Policies**

In May 2007, the Government of Ontario outlined a number of operating standards that are to be applied to the planning and operation of all 400-series highways. These include consideration for provisions of HOV lanes in the planning for any new highway corridors and construction of HOV lanes as new lines when feasible. The 407 ETR is currently not included in the provincial near- or long-term plans for expansion of the HOV lane network due to the fact that it is privately owned. However, in the York Region TMP, 407 ETR is considered

as a HOV freeway as part of the region’s transit priority network. This plan is built on a number of previous studies conducted by York Region, most notably the 1995 HOV/Rapid Transit study. Both policies do not explicitly consider the existence of a grade-separated Transitway and/or the operation of auto-only HOV lanes but allow for/assume the operation of transit vehicles on these lanes

It is indicated that potential impacts of such facilities on parallel and intersecting facilities should be considered and evaluated in forecasting ridership figures for the 407 Transitway. A study of previous HOV lane implementation and its impact on transit ridership and motorized vehicle trip rates is a good approach in evaluating these impacts.