

1. INTRODUCTION

The City of Toronto has undertaken a number of studies and initiatives pertaining to the expansion of transit. The objective of these studies is to provide a cost effective means of making Toronto a more liveable and environmentally sustainable city. These various studies and initiatives have been consolidated into one high-level plan for a Light Rail Transit (LRT) network in the City of Toronto, referred to as the Transit City Light Rail Plan.

This Light Rail Plan, comprising of seven new light rail transit lines shown on **Exhibit 7** on page 12, was endorsed by the Toronto Transit Commission (TTC) in March 2007, and supported by the Province of Ontario in June 2007 as part of Move Ontario 2020, a strategic transit plan for the Greater Toronto and Hamilton Area (GTHA). The lines were part of the regional transportation plan approved by Metrolinx, called the Big Move, in December 2008. The Eglinton Crosstown LRT is a 33 kilometre long corridor that would link the Pearson International Airport with the Kennedy Subway Station. The Eglinton Crosstown LRT will connect with the Spadina Subway Line, the Yonge Subway Line, the Scarborough RT and the planned Jane Street LRT, Don Mills Road LRT, Scarborough-Malvern LRT, and Mississauga Bus Rapid Transit (BRT). This study recommends that bus services along Eglinton Avenue be replaced by LRT with electrically powered light rail vehicles operating in a designated right-of-way located in subway or on reserved lanes in the centre of the street.

This chapter introduces the Eglinton Crosstown LRT, the Transit Project Assessment process that was followed, and presents the context by describing the planning policies that applied to this study. Chapter 2 of this report presents the background studies and major functional design studies conducted to support the Eglinton Crosstown LRT. Chapter 3 describes the design criteria and preferred design for the Eglinton Crosstown LRT. Chapter 4 documents the existing and future conditions within the Eglinton Crosstown LRT corridor. Chapter 5 discusses potential impacts of the Eglinton Crosstown LRT, identifies mitigation measures, and recommends monitoring activities. Chapter 6 outlines the consultation process and activities carried out throughout the Transit Project Assessment process. Chapter 7 presents the TTC's and City of Toronto's commitments to future action during the design, construction and operational phases.

1.1 Study Purpose

This study followed the new Transit Project Assessment Process approved by the Province of Ontario in June 2008, based on the new regulation named "*Transit Projects and Greater Toronto Transportation Authority Undertakings, Ontario Regulation 231/08*" for undertaking transit-related projects in the Greater Toronto Area. The purpose of this study was to obtain information on existing and future conditions and identify potential impacts, associated mitigation measures and implementation commitments for the functional design for the Eglinton Crosstown LRT.

Prior to the Transit Project Assessment Process, the Eglinton Crosstown LRT underwent a Feasibility Study to identify problems and opportunities within the study corridor, identify and evaluate alternative transit solutions, and develop and evaluate alternative preliminary design concepts.

1.2 Study Scope

This study focuses on the Eglinton Crosstown LRT alignment outside Pearson International Airport lands in the west to Kennedy Road in the east. Although the connections to Pearson International Airport and Kennedy Station are part of the Eglinton Crosstown LRT infrastructure, these areas are outside of the

scope of this study. The Eglinton Crosstown LRT westerly segment located within Pearson International Airport lands and the easterly segment connection to the Kennedy Subway Station will be under separate studies.

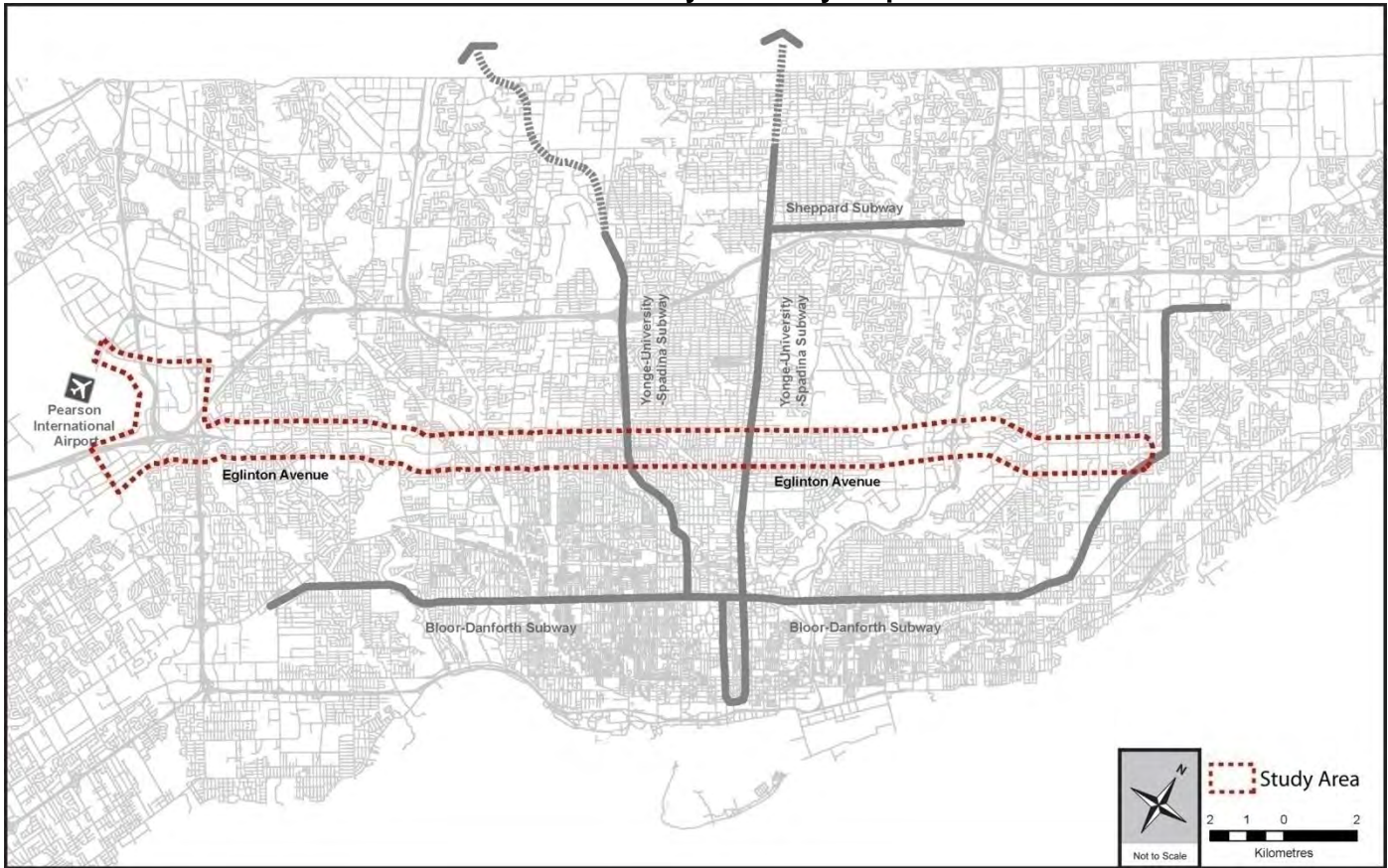
The connection of the Eglinton Crosstown LRT within Pearson International Airport lands will be determined following completion of Metrolinx's Airport Precinct Study and the Greater Toronto Airports Authority Transportation Master Plan. Subsequently, TTC and the City will comply with applicable environmental assessment regulations for the finalization of the alignment on the federally-owned airport lands. The connection of the Eglinton Crosstown LRT with Kennedy Station is being investigated as part of a separate Kennedy Station Project (TTC). The design is addressing improved integration between the existing Danforth Subway, the Scarborough Rapid Transit (SRT), the Eglinton Crosstown LRT and the Scarborough-Malvern LRT lines and buses. The connection of the Eglinton Crosstown LRT to Kennedy Station will be the subject of a Transit Project Assessment process for the SRT Conversion & Extension Project. The area of the connection in the SRT Conversion & Extension Project Transit Project Assessment will extend from Kennedy Road eastward to Kennedy Station.

Therefore, the scope of this study covers from Silver Dart Drive, 350 metres north of the intersection of Renforth Drive and Silver Dart Drive in the west to the intersection of Eglinton Avenue and Kennedy Road in the east.

1.3 Study Area

The west limits of the study area consists of a broad area bounded by Dixon Road to the north, the Pearson International Airport lands to the east, Eglinton Avenue to the south and Martin Grove Road to the east. Then the study area consists of a 500 metre band to the north and to the south of Eglinton Avenue from Renforth Drive in the west to Kennedy Road in the east of the study area. See **Exhibit 1**.

Exhibit 1: Study Area Key Map



1.3.1 Related Studies

Several related transit studies are being carried out concurrent with this Eglinton Crosstown LRT Transit Project Assessment to investigate:

- The proposed Mississauga/ GO Transit BRT terminal at Commerce Boulevard (City of Mississauga). This terminal is part of the City of Mississauga's bus-only roadway in the Highway 403/Eastgate Parkway/Eglinton Avenue corridors running east-west across the city. It includes all-station stop and extensive express bus services;
- The proposed Mississauga/ GO Transit BRT extension from Commerce Boulevard to Kipling Station via Eglinton Avenue and Highway 427 (Metrolinx, to be initiated);
- The proposed TTC Maintenance and Storage Facility located north of Eglinton Avenue west of Black Creek Drive (TTC). The preferred connection of the Eglinton Crosstown LRT with the TTC Maintenance and Storage Facility at Black Creek Drive is reflected in this Transit Project Assessment, although the TTC Maintenance and Storage Facility itself is undergoing a separate Transit Project Assessment;
- The proposed Jane Street LRT, Don Mills Road LRT, Finch West LRT, Waterfront West LRT, Sheppard East LRT, Scarborough Rapid Transit and Scarborough-Malvern LRT lines (City of Toronto and TTC);

- Improvements to the Highway 427/Highway 401 interchange (MTO). Rehabilitation works are being proposed in this area; and
- Georgetown South Corridor Service Expansion and Airport Transportation Link (GO Transit, Metrolinx). This project consists of more frequent service on the Georgetown line and a new passenger rail service from Pearson International Airport to Union Station along the Georgetown line.

1.3.2 Studies Prepared in Support of the Eglinton Crosstown LRT Transit Project Assessment Process

The following is a list of studies that were conducted in support of this Transit Project Assessment Process for the Eglinton Crosstown LRT:

- Air Quality Assessment – The Air Quality Assessment examined the potential changes in both local and regional air quality that would result from the construction and operation of the Eglinton Crosstown LRT as a replacement for diesel bus services that currently use the LRT corridor between Kennedy Road in the east and Renforth Drive in the west. The assessment focused on the impacts of the common contaminants released from vehicular traffic and construction activities. The report identified that implementation of the LRT will result in a reduction of local emissions, but these will be offset to some extent by emissions associated with the production of the electricity used to power the LRT vehicles. No point-source emissions associated with the project will exceed federal or provincial air quality objective.
- Stage 1 and 2 Archaeological Assessments – The Stage 1 archaeological assessment consisted of a background research including a comprehensive review of registered archaeological sites and listed heritage properties within and adjacent to the study area. It identified areas of high potential for the recovery of both Aboriginal and historic, Euro-Canadian archaeological remains within undisturbed locations of the study area. The Stage 2 archaeological assessment conducted a test-pit survey in all undisturbed locations, except for segments north and south of Highway 401 along Commerce Drive and Convair Drive, as well as identification of disturbed locations within the study area. No archaeological resources were encountered during the test-pit survey. The assessments concluded that the Eglinton Crosstown LRT corridor is clear of further archaeological concern with the exception of the segments along Commerce Drive and Convair Drive. A Stage 2 archaeological assessment was recommended to be conducted during the design phase on the segments that a test-pit survey was not conducted due to private property concerns.
- Cultural Heritage Assessment – The Cultural Heritage Assessment involved historical research and review of topographical, historical mapping and of the municipal heritage inventories and registers. The assessment identified built heritage resources and cultural heritage landscapes within and adjacent to the study area in excess of 40 years of age. It concluded that the Eglinton Crosstown LRT will result in displacement and disruption impacts to cultural heritage resources that will need to be mitigated during the design phase.
- Drainage and Stormwater Management Assessment – The Drainage and Stormwater Management Assessment investigated of the existing drainage and stormwater systems. Also a hydraulic assessment was conducted to assess potential watercourse related impacts of proposed road and bridge widening. It concluded that at watercourses the proposed Eglinton Crosstown LRT will have no to little impacts to the water surface elevation. It recommended that LRT operation be suspended in the event of a regional storm near Black Creek as flooding

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- will occur. Conceptual stormwater management practices (SWMPs) and best management practices (BMPs) related to erosion and sedimentation control were also identified.
 - Hydrogeological Assessment – The Hydrogeological Assessment provided an overview of the geology and hydrogeology within and adjacent to the study area and identify areas where dewatering may be required. It identified areas where the groundwater table is likely to be above the base of the tunnels excavations. Conceptual measures to control groundwater during cut-and-cover and tunnelling activities were identified.
 - Natural Heritage Assessment – The Natural Heritage Assessment describes the existing natural heritage conditions such as vegetation, wildlife, fisheries and designated natural areas within the study area. It concluded that the Eglinton Crosstown LRT will displace vegetation communities and wildlife habitat in at surface sections, particularly in the west end where road widening is required. Since no in-water work is anticipated to construct the LRT, alteration of fish habitat is not expected.
 - Geotechnical Assessments – Two geotechnical assessments were conducted, one for the area west of Martin Grove Road and a second for the Eglinton Avenue corridor from Martin Grove Road to Kennedy Road. They presented preliminary geotechnical information on the subsurface conditions along the LRT corridor. Borehole information was collected from various sources including previous geotechnical investigation conducted by the City of Toronto and TTC. The reports recommended that further investigation should be conducted to provide detailed test results to support design of excavations, foundations and embankment construction and widening.
 - Noise and Vibration Assessment – The noise and vibration analysis compared future conditions with and without the LRT and identified areas where mitigation measures will be required due to the LRT operations. The focus of the construction noise and vibration impact assessment was to develop a generic guide to be further refined and expanded when more information becomes available during the design phase.
 - Property Waste and Contamination Assessment – This study identified properties/areas with the potential for site contamination and discussed potential mitigation measures. A number of areas with known soil and groundwater contamination were also identified.
 - Structures Report – The Structures Report reviewed existing bridge structures on the Eglinton Crosstown LRT corridor to confirm the feasibility of providing a LRT right-of-way on the structures. Underpass structures were also reviewed geometrically to confirm the feasibility and constraints on the provision of the right-of-way through the structure without reconstruction. It was concluded that modifications at five structures will be required.
 - Feasibility Studies – Two conceptual design studies were conducted. The first feasibility study was conducted to address the feasibility of a surface LRT right-of-way along Eglinton Avenue between Renforth Drive and Kennedy Road. This study concluded that a LRT will be feasible. It recommended that a second feasibility study be conducted to investigate the feasibility for an underground LRT alignment from east of Black Creek Drive to just east of Brentcliffe Road. The second feasibility study was conducted to investigate alignment alternatives for the underground portion of the Eglinton Crosstown LRT and identify any major alignment constraints and any major alignment issues requiring further study. The study concluded that the final functional alignment will likely be a combination of the Deep (tunnelling) and Shallow (cut-and-cover) concepts.
 - Underground Section -Construction Methodology – This study evaluated alternate construction methodologies for the underground section including tunnelling and cut and cover, identified a preferred method of construction and discussed potential impacts and possible refinements to the preferred methodology. The study recommended the tunnelling method since its construction staging and maintenance of traffic is more favourable, construction costs are less expensive and construction can be finished within the allotted time.
 - Single vs. Twin Tunnelling – A Preliminary Study – This study presented a preliminary comparative analysis between Twin Bore and Single Bore tunnelling alternatives for the Eglinton Crosstown LRT. This study presented comparisons between the two alternatives including order of magnitude construction cost estimates, preliminary construction schedules, effects of geological conditions along the corridor, track alignments, station configurations, aspects of the fire/life system safety maintenance and protection of vehicular and pedestrian traffic among others.
 - Airport Extension Feasibility Study - The purpose of this study was to identify the best way to provide high quality transit service from Martin Grove Road to Pearson International Airport. The study was to determine if there is a logical and feasible connection. Through a detailed evaluation process, a preferred alignment was recommended that follows Eglinton Avenue to Commerce Drive, Commerce Drive to Convair Drive with a new bridge over Highway 401 and Convair Drive to Silver Dart Drive to Pearson International Airport.
 - Black Creek Maintenance and Storage Facility Connection - A study for this area was conducted to develop and assess concept alternatives for the LRT connection to the proposed Black Creek Maintenance and Storage Facility. The study recommended a surface alignment as opposed to an underground or elevated alignment.
 - Don Mills LRT Special Study Area: Detailed Assessment – This study was conducted to develop and evaluate transportation alternatives, conduct traffic analyses for the alternatives and make recommendations for the area surrounding the Eglinton Avenue and Don Mills Road intersection. The study recommended that the Eglinton Crosstown LRT be underground at the Eglinton Avenue and Don Mills Road intersection while the Don Mills LRT be at surface. A bus terminal location at the northeast quadrant of the intersection was recommended.
 - Transit Terminal at Keele Station Traffic Analysis – This study assessed the various Keele Station Bus Terminal alternatives available to efficiently progress buses quickly into and out of stop locations, and to select a preferred scenario to be used for the design phase.
 - Jane Street to Keele Street: An Evaluation of Vertical Alignment Alternatives - The study considered the implications of interfacing the Eglinton Crosstown LRT with the Jane LRT at the intersection of Eglinton Avenue and Jane Street with both operating on a surface alignment. The study confirmed the feasibility of this interface.
 - Consolidated Traffic – This study conducted a preliminary assessment of the future Light Rail Vehicle operation, and to determine impacts to traffic operations and land use. The study covered an overall traffic analysis along Eglinton Avenue, at Keele Station Bus Terminal, a feasibility study for the connection to Pearson International Airport, and U-Turn traffic analysis. The traffic analysis along Eglinton Avenue recommended the prohibition of left turns at some major intersections and to implement u-turns to re-route the prohibited left-turns. The traffic analysis at Keele Station Bus Terminal recommended an off-street bus terminal in the southeast quadrant of the intersection of Trethewey Drive and Yore Road. The feasibility study for the connection to the airport presented a preferred route from Eglinton Avenue northwards to the Airport via Commerce Boulevard, a new structure over Highway 401, Convair Drive, and Silver Dart Drive. Further refining of this segment of the LRT was recommended as a number of stakeholder's concerns remained to be addressed. The U-Turn traffic analysis consisted of a

detailed traffic-traveller analysis at ten intersections within the study area, comparing operation of traditional left turns to various left turn rerouting scenarios, with consideration to truck routing and high left turn volumes.

1.4 Transit Project Assessment Process (2008)

The Eglinton Crosstown Light Rail Transit Study is one of the TTC and City of Toronto LRT Transit Projects that is being carried out under the new Transit Project Assessment Process (TPAP). In June of 2008, Ontario Regulation 231/08, the Transit Project Regulation (*Transit Projects and Greater Toronto Transportation Authority Undertakings*), was made under the *Environmental Assessment Act* for undertaking transit-related projects in the Greater Toronto and Hamilton Area. Under this Regulation, a list of public transit projects (see Schedule 2, O. Reg. 231/08) were conditionally exempted from the requirements of the *Environmental Assessment Act* provided that the requirements outlined in O. Reg. 231/08 are successfully completed.

The Ontario's Transit Project Assessment Process Guide was developed by the Ministry of the Environment in March 2009 to highlight the key features of the new process. A summary of this new Process is provided in the following section and an outline of Transit Project Assessment process is provided in **Exhibit 2**.

1.4.1 The Transit Project Assessment Process

The Transit Project Assessment Process Regulation provides a framework for an accelerated focused consultation and objection process for completing the assessment of potential environmental impacts of a transit project, so that decision-making can be completed within six months.

In general, the key steps in the transit project assessment process, as recommended by the MOE Ontario's Transit Project Assessment Process Guide, are:

- Contact the Director of the Environmental Assessment and Approvals Branch for a list of bodies to contact and contact these bodies to help identify aboriginal communities that may be interested in the transit project e.g. Ministry of Aboriginal Affairs and Indian and Northern Affairs Canada;
- Distribute a Notice of Commencement. The Notice is to be distributed after proponent has determined the transit project with which it wants to proceed;
- Take up to 120 days to consult with interested persons, including regulatory agencies and aboriginal communities and document the process;
- Includes a "time out" provision with respect to potential negative impacts on a matter of provincial importance or on constitutionally protected aboriginal or treaty rights;
- Publish a Notice of Completion of the Environmental Project Report. The Notice will be published within 120 days of the Notice of Commencement;
- Provide 30 days for the public, regulatory agencies, aboriginal communities and other interested persons to review the Environmental Project Report. Objections may be submitted to the Minister during this period; and
- 35 days for the Minister to act.

The steps in the new transit project assessment process mirror elements of what is currently required in the environmental assessment process, including public consultation, assessment of potential effects of a proposed transit project, mitigation measures and documentation. The major features of the new Transit Project Assessment Process include:

- The proponent - in this case the Toronto Transit Commission and the City of Toronto – do not have to rationalize the need for transit or study planning alternatives (only alternative designs or plans for delivering the service) since the need for transit and the benefits to communities, the environment and the economy are clear.
- Only issues concerning matters of provincial importance and aboriginal or treaty rights will be considered by the Minister through the objection process. The following items are considered to be of provincial importance:
 - A park, conservation reserve or protected area;
 - Extirpated, endangered, threatened, or species of special concern and their habitat;
 - A wetland, woodland, habitat of wildlife or other natural heritage area (e.g. prairie);
 - An area of natural or scientific interest (earth or life science);
 - A stream, creek, river or lake containing fish and their habitats;
 - An area or region of surface water or groundwater or other important hydrological feature;
 - Areas that may be impacted by a known or suspected on- or off-site source of contamination such as a spill, a gasoline outlet, an open or closed landfill site, etc.;
 - Protected heritage property;
 - Built heritage resources;
 - Cultural heritage landscapes;
 - Archaeological resources and areas of potential archaeological interest;
 - An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the Niagara Escarpment Planning and Development Act;
 - Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act, 2001 applies; and,
 - Property within an area described as a key natural heritage feature or a key hydrologic feature in the Protected Countryside by the Greenbelt Plan under the *Greenbelt Act*, 2005.
- There is a six-month time limit on the process, as shown by the process chart in **Exhibit 2**. The timeline includes 120 days for consultation on positive or negative environmental impacts and the preparation of an Environmental Project Report (EPR); a 30-day public and agency comment period and 35 days for the Minister of the Environment to respond to any public requests for a review of the project.

One of the major differences between an Environmental Assessment process and the new Transit Project Assessment Process Regulation is that, under the Regulation, qualified transit projects are exempted from Part II of the *Environmental Assessment Act*. Following a 30-day review period for the Environmental Project Report (EPR) prepared according to the Transit Project Assessment Process, the Minister of the Environment has 35 days to issue a notice to proceed with the project, require the proponent to take further steps or allow the project to proceed with conditions.

The Regulation provides a process for the proponent to have an option of taking a “time out” before continuing with the Transit Project Assessment Process, if required. The time out provision can be used only when issues arise with a potential negative impact either on a matter of provincial importance (i.e. natural environment, or cultural heritage value or interest) or on a constitutionally protected aboriginal or treaty right. The Regulation also includes an addendum process for proponents to make changes to a transit project after the Statement of Completion for the transit project is submitted.

1.4.2 Environmental Project Report

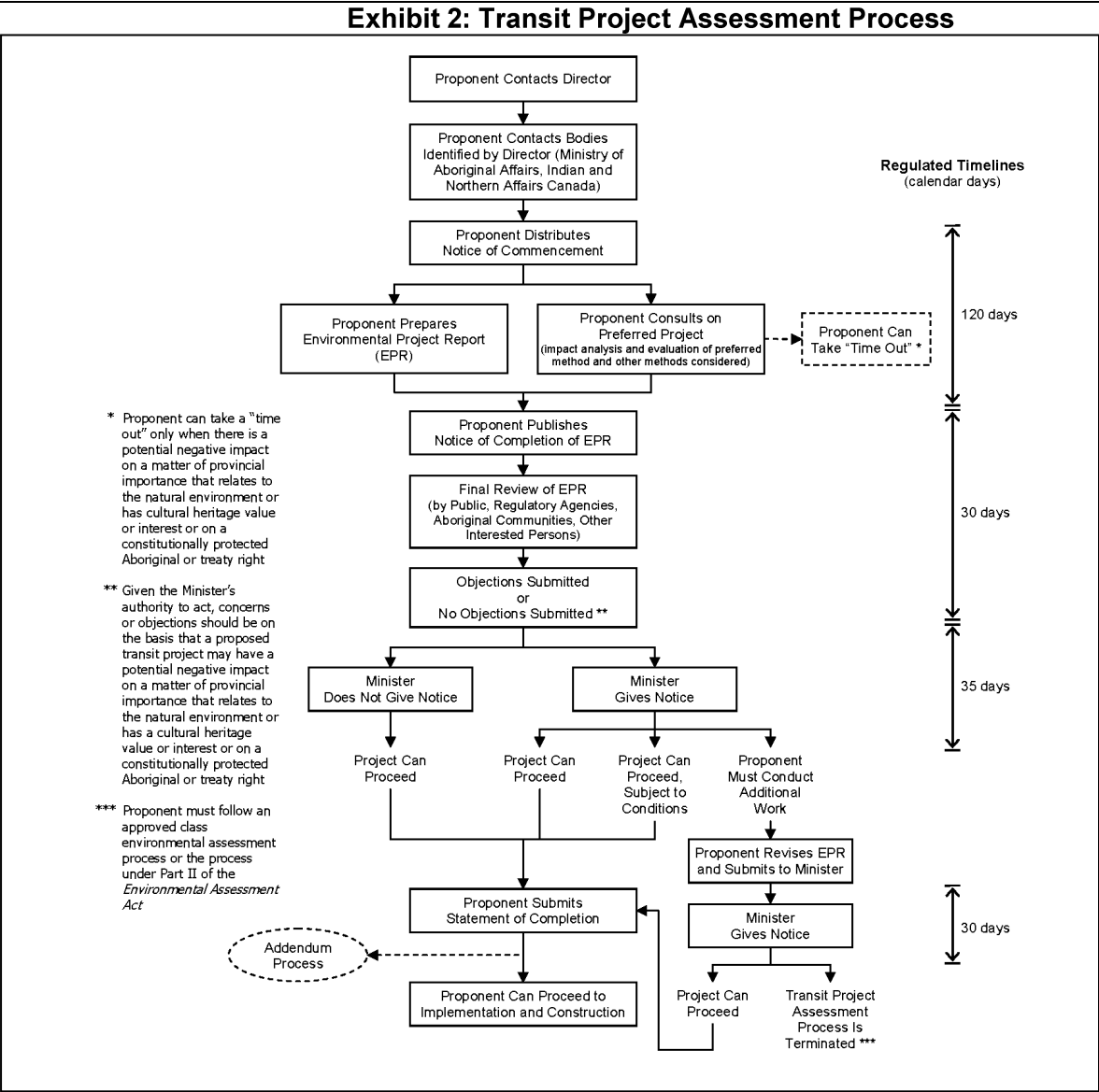
Documentation of the transit project assessment process is to be submitted to Ministry of the Environment (MOE) within 120 days of distributing the Notice of Commencement. The document, known as the Environmental Project Report (EPR), documents the transit project assessment process, the conclusions reached, the impacts, the associated mitigation measures, and the future commitments for the transit project.

According to the MOE Ontario’s Transit Project Assessment Process Guide, the Ministry expects that the Environmental Project Report will be adjusted throughout the 120 day period to reflect input from aboriginal communities, adjacent property owners, regulatory agencies and other interested persons.

This report provides a comprehensive summary of each step in the assessment study, including the reasons for recommending the LRT technology, the assessment of design alternatives, and an assessment of any impacts and ways that such impacts can be mitigated.

1.4.3 Transit Project Assessment Approval Process

If a person, including members of the public, regulatory agencies and aboriginal communities has concerns about this transit project, objections can be submitted to the Minister within 30 days of the Notice of Completion being distributed. Proponents will be given an opportunity to comment on the concerns raised in an objection before the Minister acts. After the 30-day review period has ended, the Minister has 35 days within which certain authority may be exercised. A proponent may not proceed with the transit project before the end of the 35 day period unless the Minister gives a notice allowing the proponent to proceed. Objections received after the 30 day objection period will not be considered by the Minister.



Source: Ontario, Ministry of the Environment, 2009, Guide: Ontario's Transit Project Assessment Process

Whether there is an objection or not, if the Minister acts within the 35 day period, one of three notices may be issued to the proponent:

- A notice to proceed with the transit project as planned in its Environmental Project Report;
- A notice that requires the proponent to take further steps, which may include further study or consultation; or,
- A notice allowing the proponent to proceed with the transit project subject to conditions.

If the Minister does not act within the 35 day period, the transit project may proceed as planned. The Minister may also terminate the proponent's transit project assessment process and require that either an individual environmental assessment or a class environmental assessment process be followed.

If the Minister gives notice requiring the proponent to take further steps, and within 30 days of receiving a revised EPR is of the opinion that it still does not appropriately address negative impacts, the Minister can terminate the transit project assessment process and require the proponent to comply with Part II of the *Environmental Assessment Act* or to comply with an approved class environmental assessment before proceeding with the transit project.

1.4.4 Eglinton Crosstown LRT Preliminary Planning Phase

To refine the project components, preliminary planning activities were carried out from April 2008 to December 2009, before the “Notice of Study Commencement” was issued. The activities undertaken included:

- Contacting the Ministry of the Environment to obtain initial input to this study;
- Undertaking feasibility studies for the project;
- Preparing a consultation plan to obtain public input;
- Initiating pre-notification and pre-consultation activities with aboriginal communities, adjacent property owners, general public and regulatory agencies (for example, the Toronto and Region Conservation Authority);
- Identifying potential federal environmental assessment and other federal regulatory requirements;
- Defining the project details; and
- Conducting various studies to identify the existing natural environment, social environment conditions, future transit operations (for example stop locations), the associated road improvements, property requirements, potential environmental impacts and mitigation measures.

1.4.5 Study Organization

The study is undertaken under the direction of the Toronto Transit Commission (TTC) and the City of Toronto as co-proponents. Transit City Group, a consortium of consultants led by IBI Group and AECOM Limited was retained by TTC as the prime consultant to undertake the project management and associated technical work, including geometric design, preparation of presentation material for the public meetings and preparation of the EPR. A project team was formed with the assistance from the following sub-consultants to provide the expertise required to complete the study:

- A.J. Chandler & Associates Ltd. – Air Quality;
- Archeoworks Inc. – Archaeology;
- Coffey Geotechnics – Geotechnical, Hydrogeology and Property Waste and Contamination;
- J.D. Barnes and Associates – Surveying and Digital Mapping;
- J.E. Coulter Associates Ltd. – Noise and Vibration;
- LGL Limited – Environmental Planning and Natural Heritage;
- T. Mocryski and Associates – Land Use Planning; and
- Unterman McPhail Associates - Cultural Heritage.

1.5 Background and Context

1.5.1 City of Toronto Planning Policies

1.5.1.1 Toronto Official Plan

The Toronto Official Plan Official Plan presents a vision for a more liveable City and directs growth to specific areas within the City. Generally, potential growth areas are well served by transit, the existing road network and existing infrastructure. The areas within the City that have the most potential to accommodate growth and redevelopment are Downtown Toronto, areas of high concentration of mixed land uses, the Avenues, and the areas with high concentration of offices and businesses. All these areas have the potential for reduced car dependency due to high population and employment densities – two factors that increase the viability of transit use.

The east and west portions of Eglinton Avenue are identified as Avenues in the Official Plan. Avenues are important corridors along major streets where redevelopment and growth is encouraged. Reurbanization and growth on the Avenues is intended to create new housing and job opportunities as well as improvements to the pedestrian environment, making the areas attractive to residents, workers, and visitors alike. Growth and redevelopment of the Avenues should be supported by high quality transit services combined with urban design and traffic engineering practices that promote a street that is safe, comfortable and attractive.

Centres are places with excellent transit accessibility where jobs, housing and services are concentrated in dynamic mixed use settings with different levels of activity and intensity. These places are the focal point for transit services drawing people from across the City to jobs within the *Centre* to rapid transit connections to the North York *Centre* and the *Downtown*.

The *Yonge-Eglinton Centre* is located at the intersection of two key Avenues, with a more central location in Toronto’s transit network than other *Centres*. The *Yonge-Eglinton Centre* continues to develop as both an office centre and a desirable place to live.

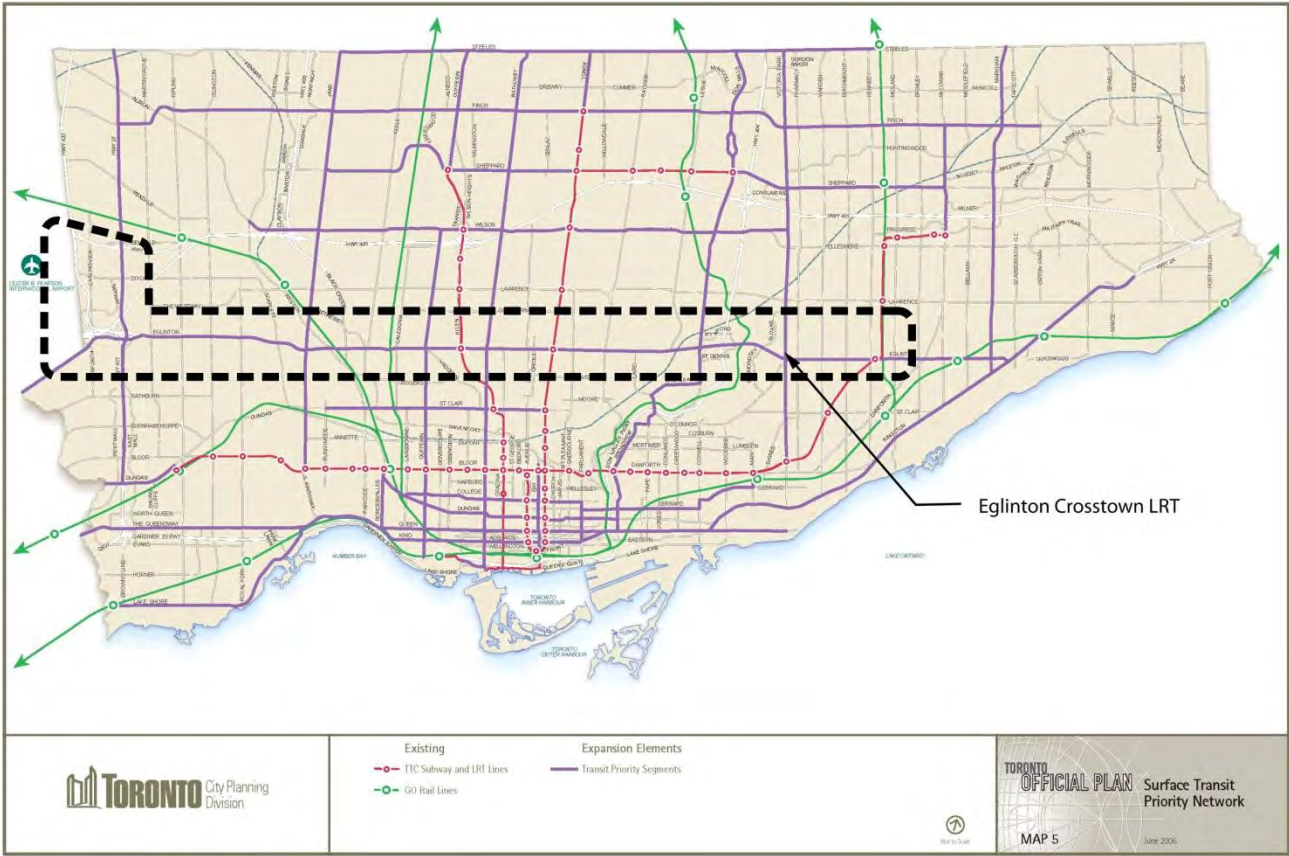
The Official Plan designates Higher Order Transit Corridors (**Exhibit 3**) and a Surface Transit Priority Network (**Exhibit 4**) to identify areas for future expansion of the transit system through higher order transit, which includes subways and LRT. Eglinton Avenue is designated both as a Higher Order Transit Corridor and as part of the Surface Transit Priority Network.

Developing the Eglinton Crosstown LRT line supports the Official Plan vision to create more liveable communities, by directing growth to areas well served by transit and which have a number of properties with redevelopment potential. The Eglinton Crosstown LRT line will improve transit service and access to the ‘Avenues’ designated in the Official Plan.

Exhibit 3: Higher Order Transit Corridors (Map 4 - Toronto Official Plan)



Exhibit 4: Surface Transit Priority Network (Map 5 - Toronto Official Plan)



Source: Tyndorf, Ted. City of Toronto Official Plan. Toronto: City Planning Division, August 2007.

Source: Tyndorf, Ted (August 2007). City of Toronto Official Plan. Toronto: City Planning Division.

Land Use Designations

Land Use Designations are one of the key implementation tools of the Official Plan for achieving the growth forecasts for the next 25 years. Each land use designation establishes the general uses that are provided for in the designation: where housing can be built, where stores, offices and industry can locate and where a mix of uses is desired. The land uses provided for in each designation are generalized, and the Zoning By-law can provide precise numerical figures and land use permissions that will reflect the tremendous variety of communities across the City. When development proposals, such as the Eglinton Crosstown LRT line, are evaluated, it is important to consider the development criteria set out for the various land use designations. Land Use Designations within the Eglinton Crosstown LRT study area are provided in **Exhibit 5**.

Neighbourhoods contain a full range of residential uses with lower scale buildings, as well as park, schools, local institutions and small- scale stores and shops serving the needs of area.

Apartment Neighbourhoods generally contain higher rise and greater scale of buildings than in *Neighbourhoods*. Sensitive infill and intensification in underutilized *Apartment Neighbourhood* areas is permitted.

Mixed Use Areas contain a broad array of residential, office, retail, service, institutional, entertainment, recreational, cultural, park and open space uses. These areas are intended to absorb most of the anticipated increase in retail, office and service employment, as well as population growth, in the coming decades.

Lands designated as mixed-use areas along the **Avenues** have the opportunity to perform a „Main Street’ function and become meeting places for neighbours and the wider community. By promoting alternative forms of travel, these areas become vibrant communities centred on the people and uses instead of automobiles. By directing growth to areas such as Avenues, the Official Plan provides greater certainty for land owners, businesses, and residents about what type of growth can be anticipated, and where growth will occur.

Employment Lands are places of business and economic activity and consist of uses such as offices and manufacturing, but also include small scale stores, restaurants and other businesses to serve the area’s residents and businesses. Development is permitted in these areas and employment uses within these areas is protected by both City of Toronto and Provincial policies.

Parks and Other Open Space Areas contain the parks, open spaces, valleys, water courses, ravines, golf courses and cemeteries that comprise part of the green open space network in Toronto.

Natural Areas contain areas that are primarily in a natural state while allowing for compatible recreational, cultural and educational uses and facilities that minimize adverse impacts on natural features and functions.

Utility Corridors are corridors for the transmission of energy, communication and the movement of people and goods. Utility Corridors mainly consist of rail and hydro rights-of-way. These linear corridors are a defining element of the landscape fabric of the City and many of these corridors also serve important local functions as parkland, sport fields, pedestrian and cycling trails and transit facilities. These corridors should be protected for future public transit routes and linear parks and trails.

1.5.1.2 City of Toronto’s Bike Plan

In July 2001, Toronto Council adopted, in principle, the recommendations of the Toronto Bike Plan – Shifting Gears. The Bike Plan is a 10-year strategy to guide the development of new policies, programs and infrastructure to create a bicycle friendly environment that encourages the future use of bicycles for everyday transportation and enjoyment. The Bike Plan promotes cycling activities within the City, as the primary goals of the Plan are to double the number of bicycle trips by 2011 and decrease the number of bicycle collisions and injuries.

The Bike Plan recommends advancing cycling in the City across six broad fronts:

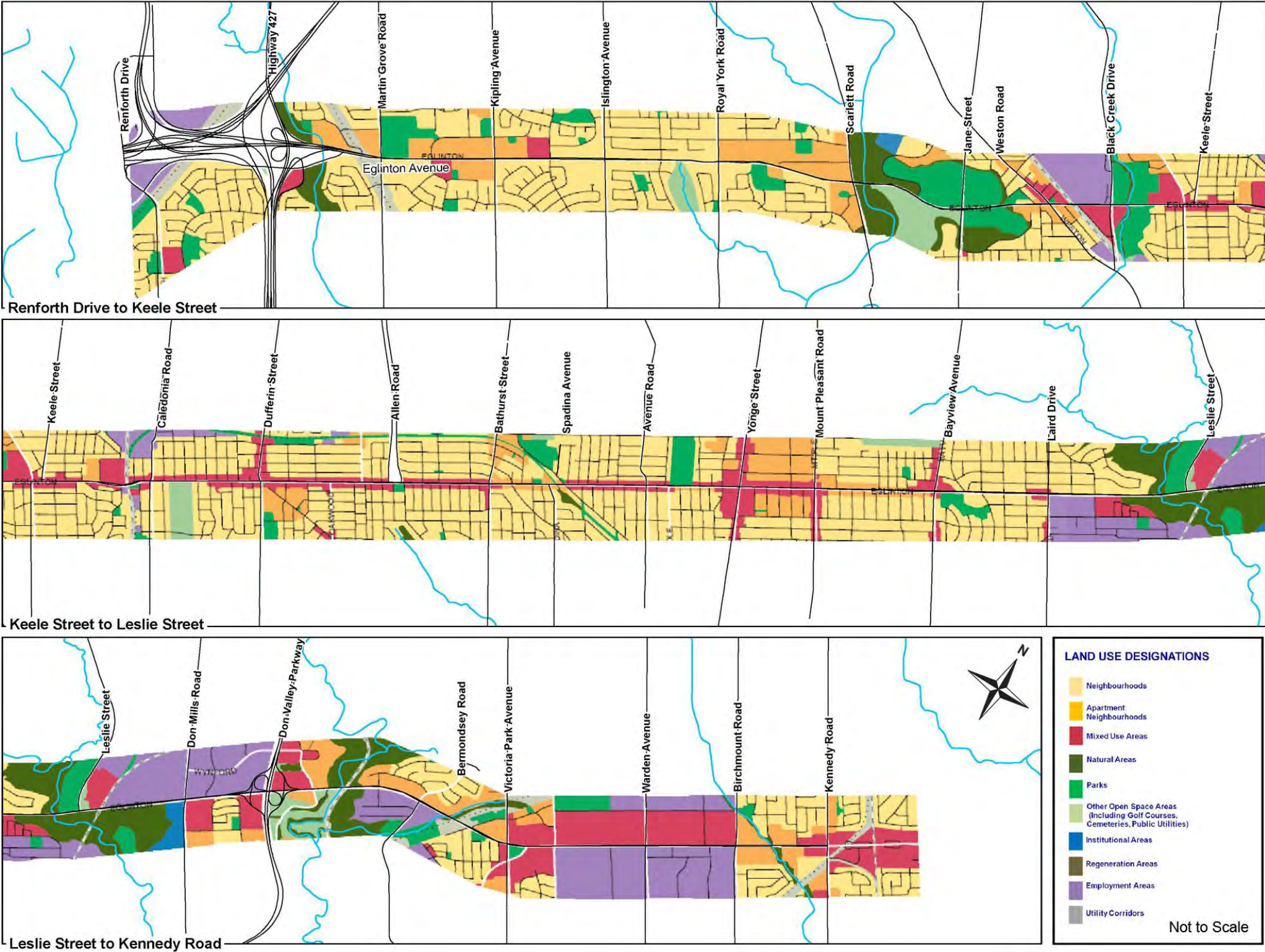
- Adopting bicycle friendly street policies that give bicycles the same consideration as vehicles on the City’s street system;
- Developing a 1000 km bikeway network of off-road trails and on-road bicycle lanes and routes (Chapter 4 of the Bike Plan establishes priority routes with a formal bikeway facility);
- Implementing enhanced safety and education programs;
- More extensive promotion of cycling for both recreational and everyday transportation purposes;
- Better links with transit services to encourage “bike and ride” trips; and
- Ensuring the provision of adequate bicycle parking facilities.

To be effective in achieving the Bike Plan’s goals, the six component points must be implemented together as part of a strategy. If implemented successfully, the Toronto Bike Plan will ensure that all Toronto residents are within a five-minute bicycle ride of the bikeway network.

Since 2001, there have been a number of new cycling-related developments in the City and new bicycle planning trends in North American Cities. In response to the past seven year experiences of the bike plan implementation and new trends, the City of Toronto is developing six new strategies to achieve the Bike Plan’s goals for the period 2009-2011 which include:

- Launching a Toronto Public Bicycle System by spring 2010;
- Expanding the downtown bicycle bikeways (including bicycle lanes, shared roadway routes and off-street trails), to support the Public Bicycle System;
- Accelerating construction of the existing bikeway network trails;
- Providing high-security bicycle parking facilities;
- Developing a comprehensive research and evaluation program; and,
- Developing a new promotion and communications strategy.

Exhibit 5: Land Use Designations within Eglinton Crosstown LRT Corridor in the City of Toronto



1.5.1.3 **Cycling and Transit Strategy - Bicycle Parking and Access To The Toronto Transit Commission**

The City’s draft Cycling and Transit Strategy: Bicycle Parking and Access to the Toronto Transit Commission (2009) provides direction on a new bicycle program for bicycle parking and access to the TTC system. The key strategies are:

- Providing safe and convenient bicycle access to all TTC stations and major transit nodes;
- Providing secured bicycle storage (pocket) at station nodes;
- Establishing a program to encourage TTC customers to access the system by bicycle;
- Providing bicycle access to Transit City Light Rail Transit (LRT) lines; and,
- Providing a coordinated “bike-and-ride” promotion strategy.

During the design of the Eglinton Crosstown LRT, the Cycling and Transit Strategy will be considered.

1.5.1.4 **Pedestrian Charter**

The Pedestrian Charter (adopted by Council in 2002) briefly outlines the need for pedestrian-friendly design. It provides six principles to ensure that walking is a safe and convenient mode of urban travel and to create an urban environment in the city that encourages and supports walking. It emphasizes reducing the conflict between pedestrians and other users of the right-of-way, improving safety for pedestrians and allowing people to avoid reliance on cars and public transport. Therefore, in order to minimize the potential conflicts between pedestrians and bicycles, on-road bicycle lanes are proposed in all Transit City LRT routes.

1.5.2 **City of Mississauga Planning Policies**

1.5.2.1 **City of Mississauga Official Plan**

The west portion of the study area for the Eglinton Crosstown LRT is located within the City of Mississauga. The following section describes the policies of the City of Mississauga Official Plan that apply to the study area.

Mississauga's Official Plan (2009), referred to as "Mississauga Plan", aims to achieve the establishment of an urban form which is compact, efficient, comfortable, and supportive of transit within a time horizon of 20 years. Mississauga Plan sets out the City's long range plans for the road system, parks, environmental policies and lands to be protected. **Exhibit 6** presents City of Mississauga land use designations within the study area.

Airport Corporate District

Mississauga is divided into Planning Districts which consist of the City Centre, Residential Districts and Employment Districts. There are some instances where the general policies and schedules do not address all circumstances particular to each District. In these instances, District Policies and the Land Use Maps specific to each District provide clarification.

According to the Schedule 2 – Urban Form Concept of the Mississauga Plan, most of the study area within Mississauga is found within the Airport Corporate District. This District, which is an employment planning district, is home to head offices of Fortune 500 companies. It is located between Highway 401 and Eglinton Avenue, east of Etobicoke Creek and west of Renforth Drive; north of Highway 401 all lands in the

study area are part of Pearson International Airport. In addition, the schedule presents Eglinton Avenue as a Major Transit Corridor. There is also a Transit Airport Connection corridor on the alignment of Renforth Drive from Eglinton Avenue in the south to Pearson International Airport in the north.

The Airport Corporate District is identified as a Node because of its existing high quality development and its visibility, access and location. According to the Mississauga Plan, this district is planned for development primarily for corporate head offices, manufacturing, research and development and accessory retail commercial.

Land Use Designations

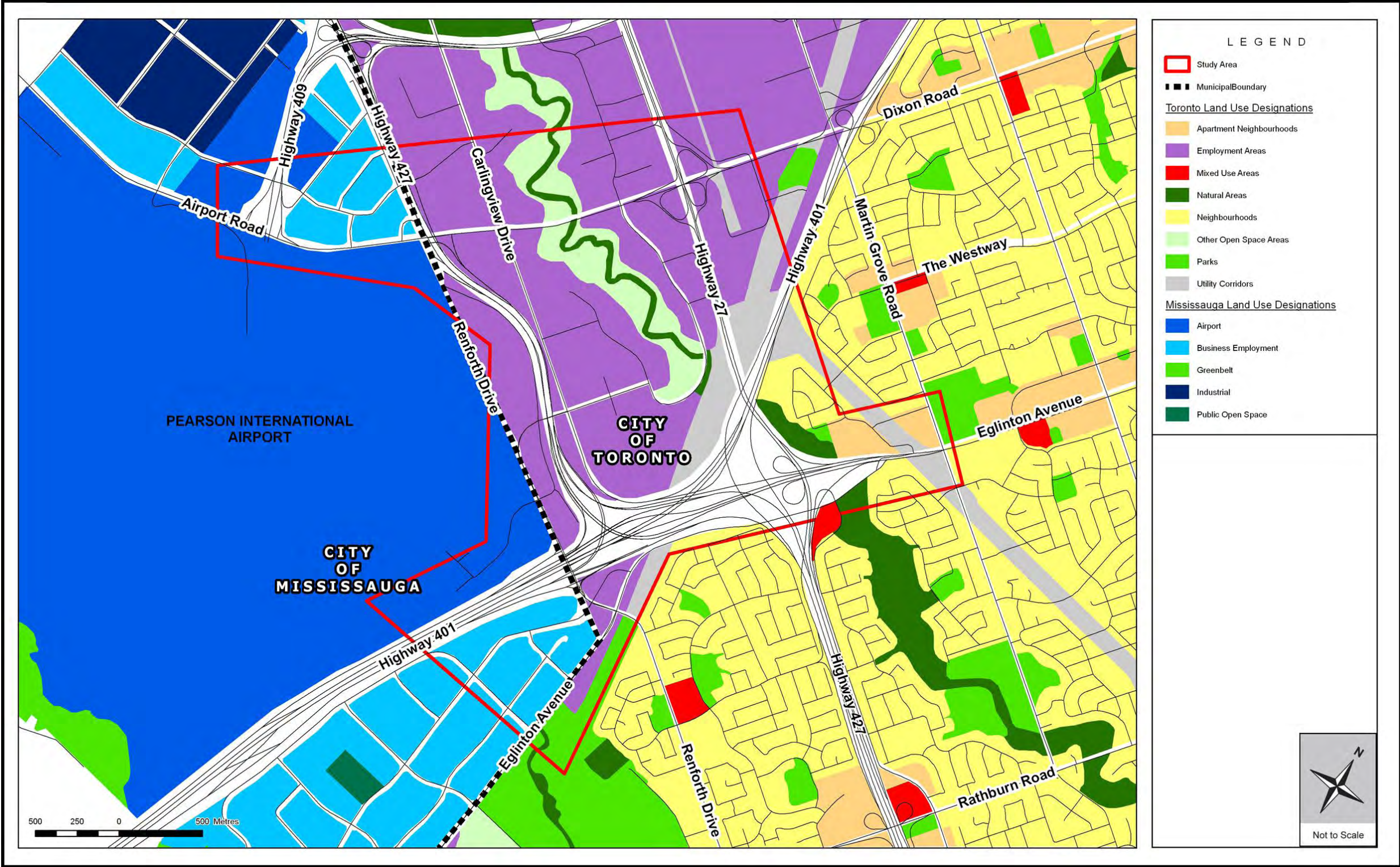
These policies set out what land uses are allowed on properties. This affects what landowners can do with properties and what types of uses could be developed in an area. A summary of Mississauga’s land use designations within the study area are presented below (see **Exhibit 6**).

Airport areas are lands directly associated with the operation of Pearson International Airport. Development within this area should be either complimentary or compatible with airport operations and allow the airport to function at maximum efficiency to achieve full economic potential. Integration with other transportation modes is promoted subject to adequate ground access facilities. Also, services to accommodate trips to and from the airport on provincial highways and inter-regional transit facilities are encouraged in this plan.

Business Employment areas contain an integrated mix of business activities that operate mainly within enclosed buildings. Outdoor storage (pocket) areas are located to limit their visibility from the City of Mississauga’s boundaries, major roads, and park, greenbelt and residential lands.

The City of Mississauga will amend its Official Plan to include a rapid transit corridor from Eglinton Avenue West and Commerce Boulevard to Pearson International Airport via Commerce Boulevard, Convair Drive and Silver Dart Drive.

Exhibit 6: Land Use Designation within the Eglinton Crosstown LRT corridor in the City of Mississauga



1.5.3 TTC Planning Policies

1.5.3.1 Ridership Growth Strategy

In support of the City's Official Plan, the TTC prepared a strategy that focuses on increasing service and improving the speed and reliability of the TTC, and identifies corridors for transit infrastructure investment. The Ridership Growth Strategy set the stage for the Toronto Transit City Light Rail Plan that recommends a widely-spaced network of electric light rail lines, each on its own right-of-way throughout the City to meet future transit demand.

1.5.3.2 Toronto Transit City Light Rail Transit Plan

Over the past decade, the City of Toronto and the TTC have undertaken a number of studies and initiatives pertaining to the cost-effective expansion of transit as a means of making Toronto a more liveable and environmentally sustainable city. These plans and initiatives include:

- Toronto Official Plan (2002);
- TTC Ridership Growth Strategy (2003);
- TTC Building a Transit City (2004); and
- Mayor Miller's "Transit City" Platform (2006).

These various studies and initiatives have been consolidated into one high-level plan for a light rail transit network in Toronto, referred to as the Toronto Transit City – Light Rail Plan, as shown in **Exhibit 7**.

The plan calls for the implementation of seven new electric light rail lines across the City of Toronto which would provide fast, reliable and environmentally-sustainable light rail transit services to all areas of Toronto, particularly to areas which do not have higher order transit services today. Fundamental to the plan is the seamless interconnection of the proposed new lines with each other and with the City's rapid transit routes. The plan also provides the basis for the creation of a seamless Greater Toronto Area network of rail and bus rapid transit services.

The major objectives of the Toronto Transit City – Light Rail Plan are to provide:

- Competitive travel times and an environmentally sustainable alternative to private cars;
- Transitservice on reserved rights-of-way to eliminate delays caused by operating in mixed traffic;
- Fully accessible design, so that people with all levels of mobility can use the service with confidence and ease;
- Direct transit links to areas that are currently far removed from higher order transit services, including the north, west, and eastern parts of Toronto;
- Connections with the existing and proposed rapid transit system, thereby adding further travel opportunities and maximizing integration of the new lines into the overall rapid transit network;
- Interconnections or connection opportunities with the regional transit network, including the City of Mississauga, York Region, and Durham Region; and;
- Interconnection opportunities with GO Transit rail and bus networks.

Exhibit 7: Toronto Transit City Light Rail Plan



The Transit City – Light Rail Plan was endorsed by the Toronto Transit Commission in March 2007, and supported by the Province of Ontario in June 2007 as a part of Move Ontario 2020, a strategic transit plan for the Greater Toronto Area and Hamilton.

1.5.4 Provincial Planning Policies

There are a number of Provincial policies which are relevant to this project which are being presented in the following subsections.

1.5.4.1 Provincial Policy Statement

The 2005 Provincial Policy Statement (PPS) is issued under section 3 of the *Ontario Planning Act*. The PPS provides policy direction on matters of provincial interest related to land use planning and development. This project is consistent with the objectives of the 2005 Provincial Policy Statement. The objectives are that transportation, transit and infrastructure facilities are to be planned to meet current and projected needs, providing for an efficient, cost-efficient and reliable multi-modal transportation system that

supports long-term economic prosperity. The PPS also states that public transit and other alternative modes of transportation are to be supported to improve energy efficiency and air quality.

1.5.4.2 Growth Plan for Greater Golden Horseshoe

The Places to Grow: Growth Plan for the Greater Golden Horseshoe was prepared under the Ontario *Places to Grow Act*, 2005. This project is consistent with the objectives of the Growth Plan for the Greater Golden Horseshoe. Some of these objectives are:

- Public transit will be the first priority for transportation and major transportation investments;
- Major transit station areas and intensification corridors will be designated in official plans;
- Major transit station area and intensification corridors will be planned to ensure the viability of existing and planned transit service levels; and,
- Major transit stations will be planned and designed to provide access from various transportation modes including pedestrians, bicycles and passenger drop-off.

1.5.4.3 MoveOntario 2020

MoveOntario 2020 is a plan approved by the Ontario government in 2007 for 902 kilometres of new or improved rapid transit designed to move people efficiently around the region. It will result in 800 million new transit trips per year, taking 300 million car trips off the Greater Toronto Area roads. This will cut smog and reduce carbon dioxide emissions by 10 megatonnes by 2020. MoveOntario 2020 includes 52 transit projects at a cost of \$17.5 billion. The Eglinton Crosstown LRT was included as a MoveOntario 2020 project and was announced by the Government of Ontario in 2007.

1.5.4.4 Regional Transportation Plan (Metrolinx)

Metrolinx developed the Regional Transportation Plan (RTP) called “The Big Move” to provide a strategic, long term vision, goals and objectives for future transportation across the Greater Toronto and Hamilton Area. The plan contains strategies, priority action and supporting policies that are needed to achieve the vision and goals. The priorities noted in the RTP include constructing a fast, frequent and expanded regional rapid transit network, providing a system of connected mobility hubs and completing walking and cycling networks with bike-sharing programs.

The Regional Transportation Plan includes the Eglinton Crosstown LRT as one of fifteen Priority Actions, and also shows eight mobility hubs along the line. In addition, bike lanes are proposed along the Eglinton Crosstown LRT, which is consistent with the RTP vision. The RTP schedules the Eglinton Crosstown LRT in the first 15 year time frame.

1.5.4.5 Transit Priority Statement

In 2008, the Government of Ontario approved the Transit Priority Statement, which discusses the need for expanded public transit infrastructure. Public Transit, especially rapid transit, is identified as a priority to relieve traffic congestion, reduce greenhouse gas emissions and support sustainable urban development. The rationale and need for creating a 6 month environmental assessment process for transit projects is described, setting the context and eventual development of Ontario Regulation 231/08 the Transit Assessment Regulation (*Transit Projects and Greater Toronto Transportation Authority Undertakings*).