

LAND USE FACTORS REPORT
407 TRANSITWAY
FROM EAST OF HIGHWAY 400 TO KENNEDY ROAD
REGIONAL MUNICIPALITY OF YORK
PLANNING AND PRELIMINARY DESIGN STUDY (W.P. 252-96-00)

for:



MINISTRY OF TRANSPORTATION
CENTRAL REGION

by:



DECEMBER 2010

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DECEMBER 2010

TA4485

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The Ontario Ministry of Transportation (MTO) is undertaking pre-planning activities for a Transit Project Assessment under the “Transit Projects and Greater Toronto Transportation Authority Undertakings” for the 407 Transitway. The 407 Transitway is a 23 km long bus rapid transit (BRT) system consisting of a two lane separate grade roadway. The BRT is being designed to allow for the possibility to convert to light rail transit (LRT) at some point in the future when substantiated by travel demand.

1.1. Study Area

A detailed map of the study area, showing the 407 ETR (dashed line) and surrounding roads. The map includes labels for various roads such as Highway 400, Highway 7, Highway 404, and several local streets like Jane Street, Keele Street, and Yonge Street. It also identifies the boundaries of the City of Vaughan, Town of Richmond Hill, and Town of Markham. A scale bar indicates distances in kilometers (0 to 2), and a north arrow is present. A legend shows the 'Study Limits' with a dashed line.

Figure 1. Study Area Key Plan

1.2. Background Data

- aerial photography;
- Statistics Canada. 2006. *Census Canada 2006*. <http://www.statcan.ca/start.html>;
- City of Vaughan. 2003. City of Vaughan Official Plan Amendment 600;

- City of Vaughan. 2007a. City of Vaughan: *Community Profile*;
- City of Vaughan. 2007b. *City of Vaughan Website*. www.city.vaughan.on.ca;
- City of Vaughan. 2010. *Vaughan Tomorrow Website*. <http://www.vaughantomorrow.ca/>;
- Metrolinx. 2008. *The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area*;
- Ministry of Municipal Affairs and Housing. 1978. *Parkway Belt West Plan*;
- Ministry of Municipal Affairs and Housing. 2005. *Provincial Policy Statement*;
- Ministry of Municipal Affairs and Housing. 2008. Parkway Belt West Plan: Office Consolidation to June 2008;
- Ministry of Public Infrastructure and Renewal. 2006. Places to Grow: Growth Plan for the Greater Golden Horseshoe;
- National Topographic System;
- Region of York. 2007a. *Planning for Tomorrow Part I: York Region Population and Employment Forecasts*. Report No. 4 of the Planning and Economic Development Committee. Regional Council meeting April 19, 2007;
- Region of York. 2007b. *York Region Official Plan*. www.york.ca;
- TEA. 2006. TEA/ERA Theme Park Attendance Report 2006. www.parkworld-online.com;
- Town of Markham. 2005. Town of Markham Official Plan Office Consolidation;
- Town of Markham. 2007. *Town of Markham Website*. www.markham.ca;
- Town of Richmond Hill. 1993. Town of Richmond Hill Official Plan Consolidation;
- Town of Richmond Hill. 2007 *Town of Richmond Hill Website*. www.richmondhill.ca;
- Town of Richmond Hill. 2010. *Draft Official Plan Website*
http://www.richmondhill.ca/subpage.asp?pageid=op_draft_new_official_plan#draftop;and;
- York University. 2007. *Facts about York U*. www.yorku.ca.

2. LAND USE PLANNING POLICIES

This chapter presents the context for land use planning applicable to the 407 Transitway.

2.1. Provincial Policy Statement 2005

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development. It sets the foundation for regulating the development and use of land. It supports land use planning and management that protects resources of provincial interest, public health and safety, and the quality of the natural environment.

One of the visions in the PPS is the development of land use patterns that promote a mix of housing, employment, parks and open spaces, and transportation choices that facilitate pedestrian mobility and other modes of travel (Part IV). Land use pattern, density and mix of uses should minimize the distance and number of vehicle trips and supporting choices for public transit and other alternative transportation modes.

The PPS 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 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 (s 1.1.3c). In addition, it requires that planning for transportation and infrastructure corridors must consider significant resources such as natural heritage, agriculture, and cultural heritage resources.

The 407 Transitway includes connections with other regional and local transit systems such as GO Transit, VIVA Rapid Transit, York Region Transit and Toronto Transit Commission. It will directly serve regional urban growth centres like the Richmond Hill Regional Centre and the Markham Centre; and indirectly the Vaughan Metropolitan Centre and Langstaff Gateway (in Markham).

2.2. *Places to Grow, Growth Plan for the Greater Golden Horseshoe 2006*

The Growth Plan for the Greater Golden Horseshoe (Growth Plan) provides a framework for implementing the Provincial vision for building stronger, prosperous communities by better managing growth in the region by 2031. The intent of the Growth Plan is to reduce urban sprawl and consumption of land while making more efficient use of existing infrastructure.

The Growth Plan states that public transit will be the first priority for transportation infrastructure planning and major transportation investment. It promotes transit-supportive densities and a healthy mix of residential and employment land uses. It supports a transportation network that links urban growth areas through an extensive multi-modal system anchored by efficient public transit together with highway systems. The three urban growth areas within the study area identified by the Growth Plan are Vaughan Metropolitan Centre, Richmond Hill Regional Centre/Langstaff Gateway, and Markham Centre.

2.3. *Regional Transportation Plan 2008*

The Regional Transportation Plan (RTP), also known as “The Big Move: Transforming in the Greater Toronto and Hamilton Area”, released by Metrolinx, provides a vision, goals and objectives for the future in which transportation within the Greater Toronto and Hamilton Area is seamless, coordinated, efficient, equitable and user-centred. It reaches out 25 years into the future to guide and direct decision-making. Some set of goals and objectives presented in the RTP to guide decision-making applicable to the 407 Transitway are:

- Increase of transportation options for accessing a range of destinations;
- Improved transportation experience and travel time reliability
- Lower average trip time for people and goods

The RTP plans for a regional rapid transit network that operates seamlessly across the region. The first component of the 407 Transitway servicing York Region with a connection to Pearson International Airport via Highway 427 was highlighted as a project for completion within the first 25 years of the RTP's adoption.

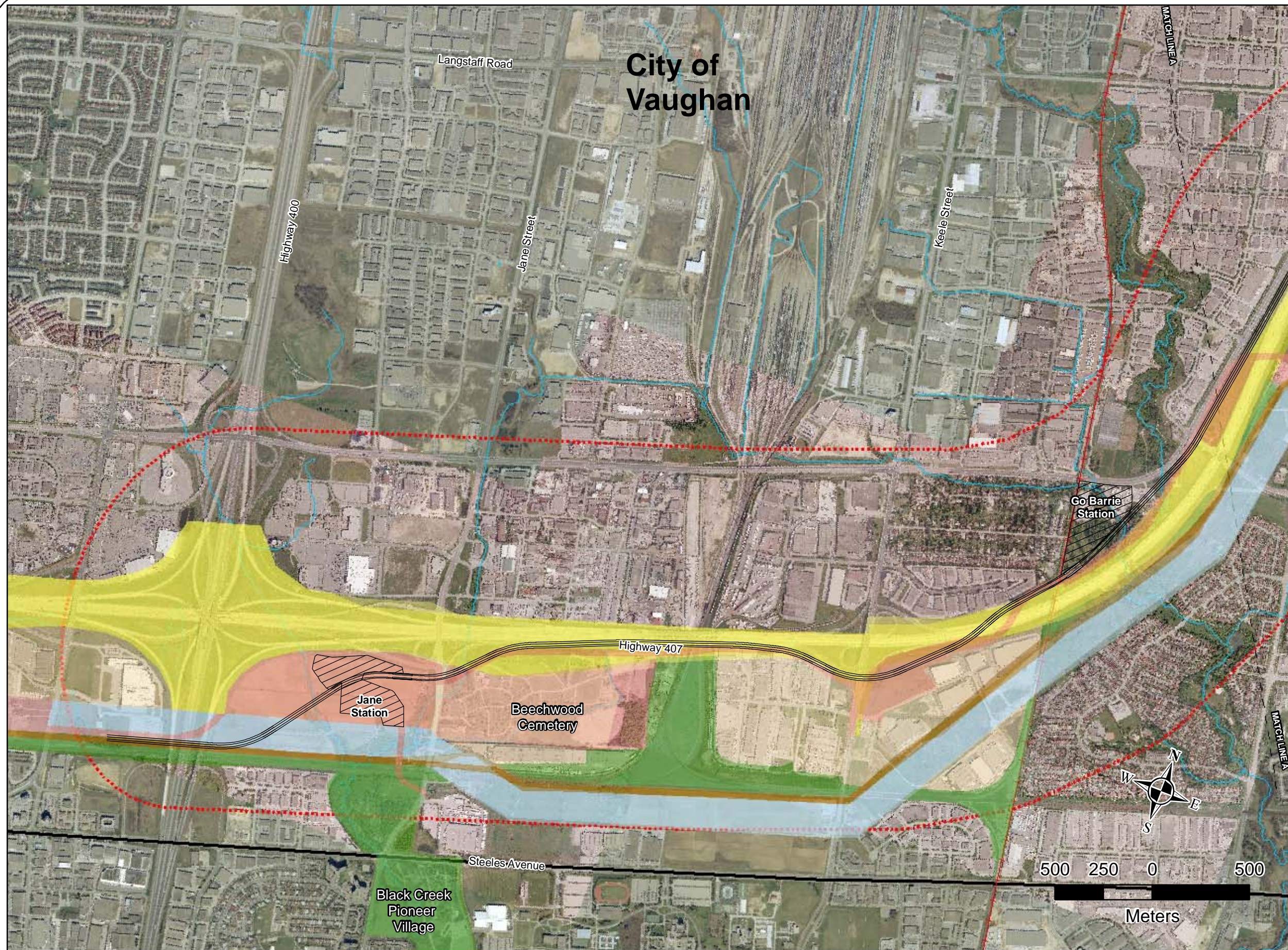
2.4. Parkway Belt West Plan 1978

The Parkway Belt West Plan (PBWP) was implemented for the purposes of creating a multi-purpose utility corridor, urban separator and linked open space system. Its purpose is to link urban areas with each other by providing space for the movement of people, goods, energy, and information, without disrupting community integrity and function. The Parkway Belt West was developed to provide a land reserve for future linear facilities and for unanticipated activities requiring sites of high accessibility and substantial land area.

The original PBWP was approved by the Lieutenant Governor in Council in 1978. Since its approval the PBWP had been subject to numerous amendments. An Office Consolidation compiling amendments to the PBWP was prepared for information purposes in June 2008. This Office Consolidation document was reviewed to obtain land use information within the Parkway Belt West of the study area.

The area covered by the Plan is divided into two general land use categories; the Public Use Area and the Complementary Use Area. Public Use Areas are defined as presently used or to be predominantly used in the future for public uses. The Public Use Areas consist of areas designated as: Public Open Space and Buffer Area, Utility, Electric Power Facility, Road and Inter-Urban Transit. Complementary Use Areas are to be predominantly used for private uses that aid in the PBWP's objective of preserving the country landscape and encouraging land uses such as agricultural, recreational and institutional pursuits that do not require intense urbanization. The Complementary Use Area consists of the General Complementary Use Area and the Special Complementary Use Area.

Several pockets of lands designated as General Complementary Use Area are located in: the southeast quadrant of Highway 407 and Jane intersection (Beechwood Cemetery); the southeast quadrant of Highway 7 and Dufferin Street crossing, northeast quadrant of Highway 407 and Bayview Avenue interchange; southeast quadrant of Highway 407 and Leslie Street crossing, southwest and southeast quadrant of Highway 407 and Woodbine Avenue interchange. There is one area designated as Special Complementary Use Area, which is located in the northwest quadrant of Highway 7 and Bathurst intersection (Baker's Wood Environmental Sensitive Area). Figure 2a-d presents the PBWP land use categories within the study area.



LEGEND

- Study Area
- Municipal Boundary (approximate)
- Waterbody
- Watercourse
- Railway

Public Use Area

- Road
- Utility
- Public Open Space and Buffer Area
- Electric Power Facility
- Inter-Urban Transit

Complementary Use Area

- General Complementary Use Area
- Special Complementary Use Area

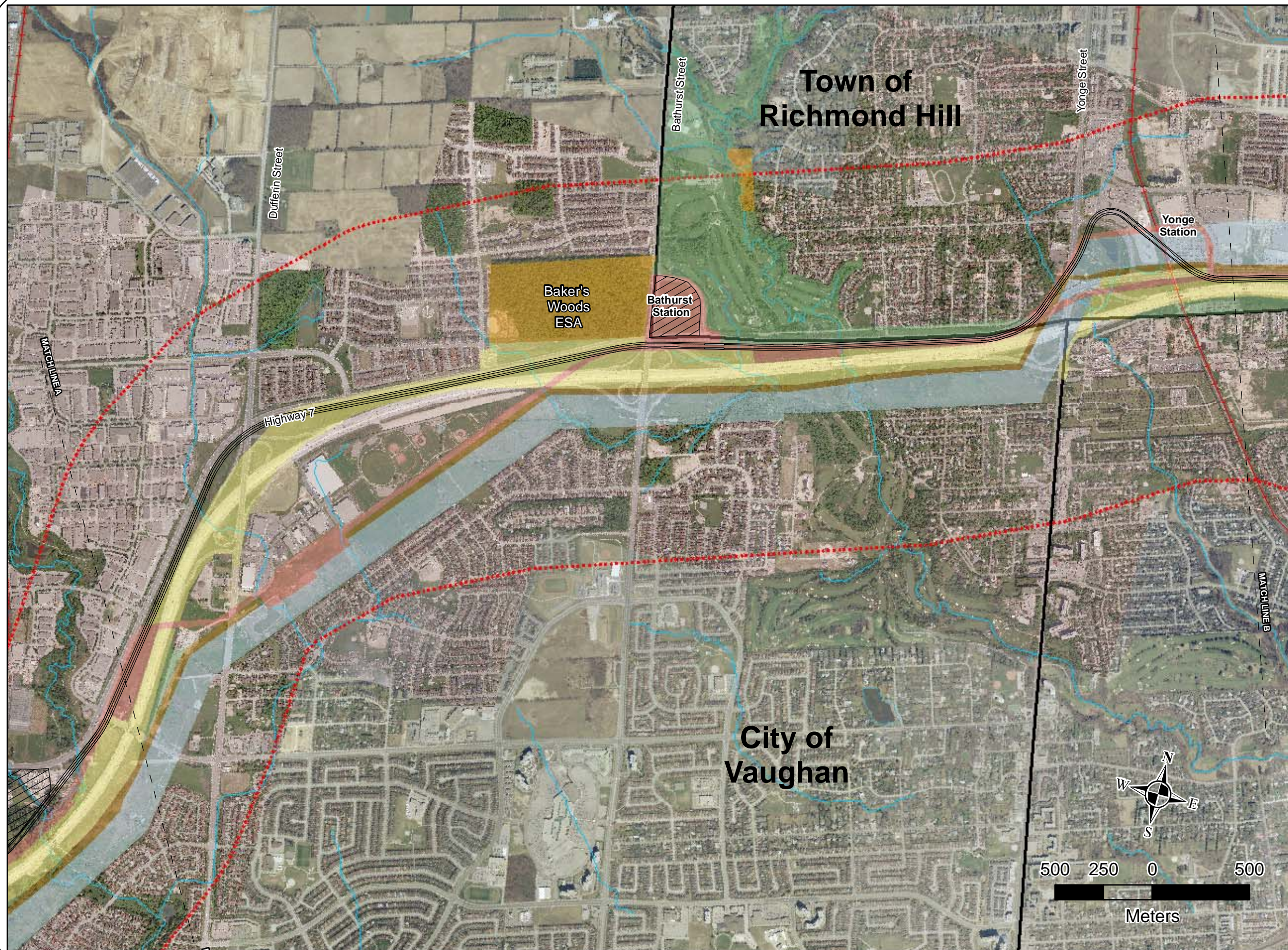
Data Source: Government of Ontario - Parkway Belt
West Plan 1978 Consolidated to June 2008

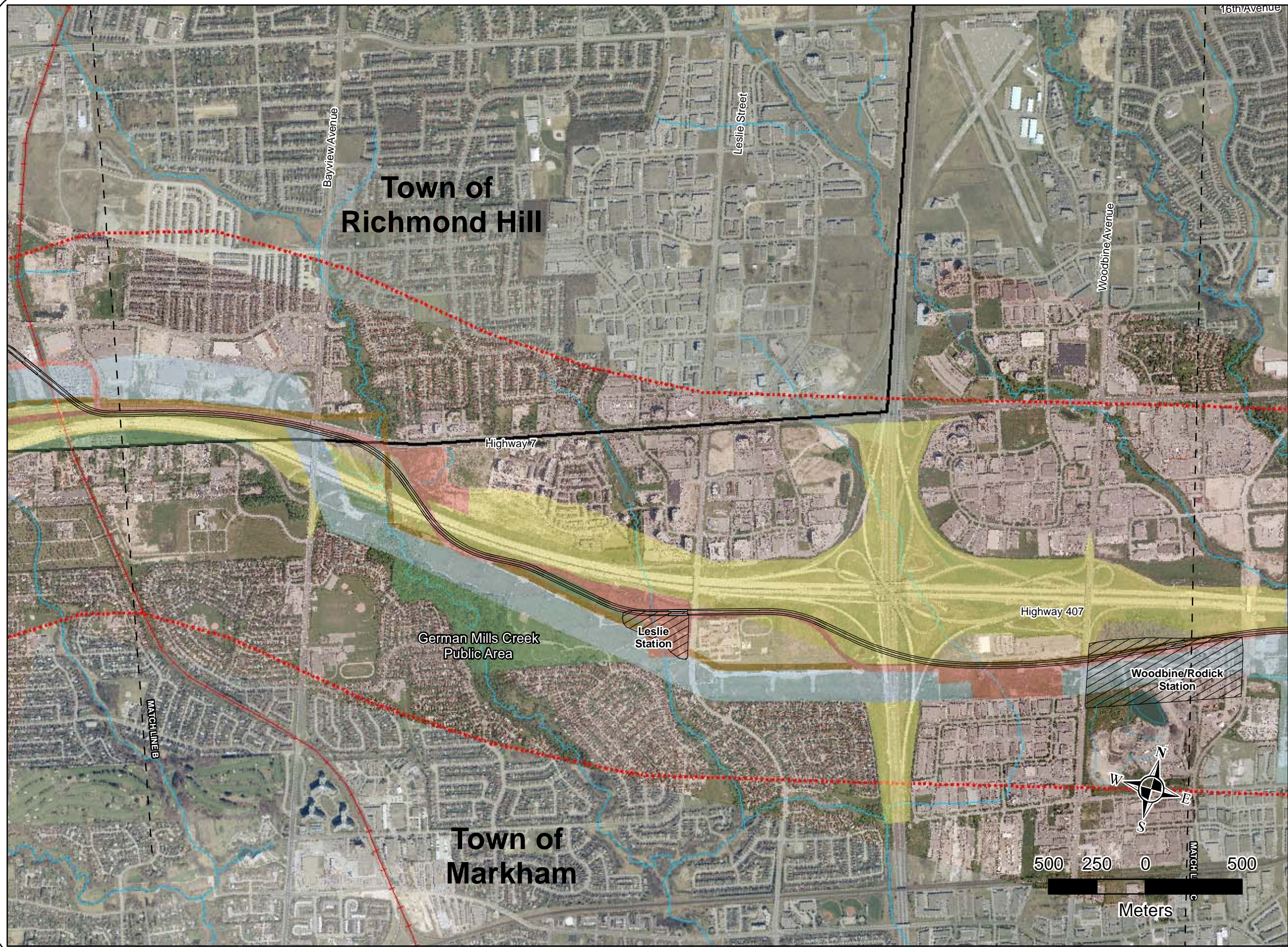
407 TRANSITWAY CORRIDOR

Parkway Belt West



Project: TA4485	Figure: A
Date: May 2010	Prepared By: KDT
Scale: 1 : 20000	Checked By: GNK





LEGEND

- Study Area
- Municipal Boundary (approximate)
- Waterbody
- Watercourse
- Railway
- Public Use Area**
 - Road
 - Utility
 - Public Open Space and Buffer Area
 - Electric Power Facility
 - Inter-Urban Transit
- Complementary Use Area**
 - General Complementary Use Area
 - Special Complementary Use Area

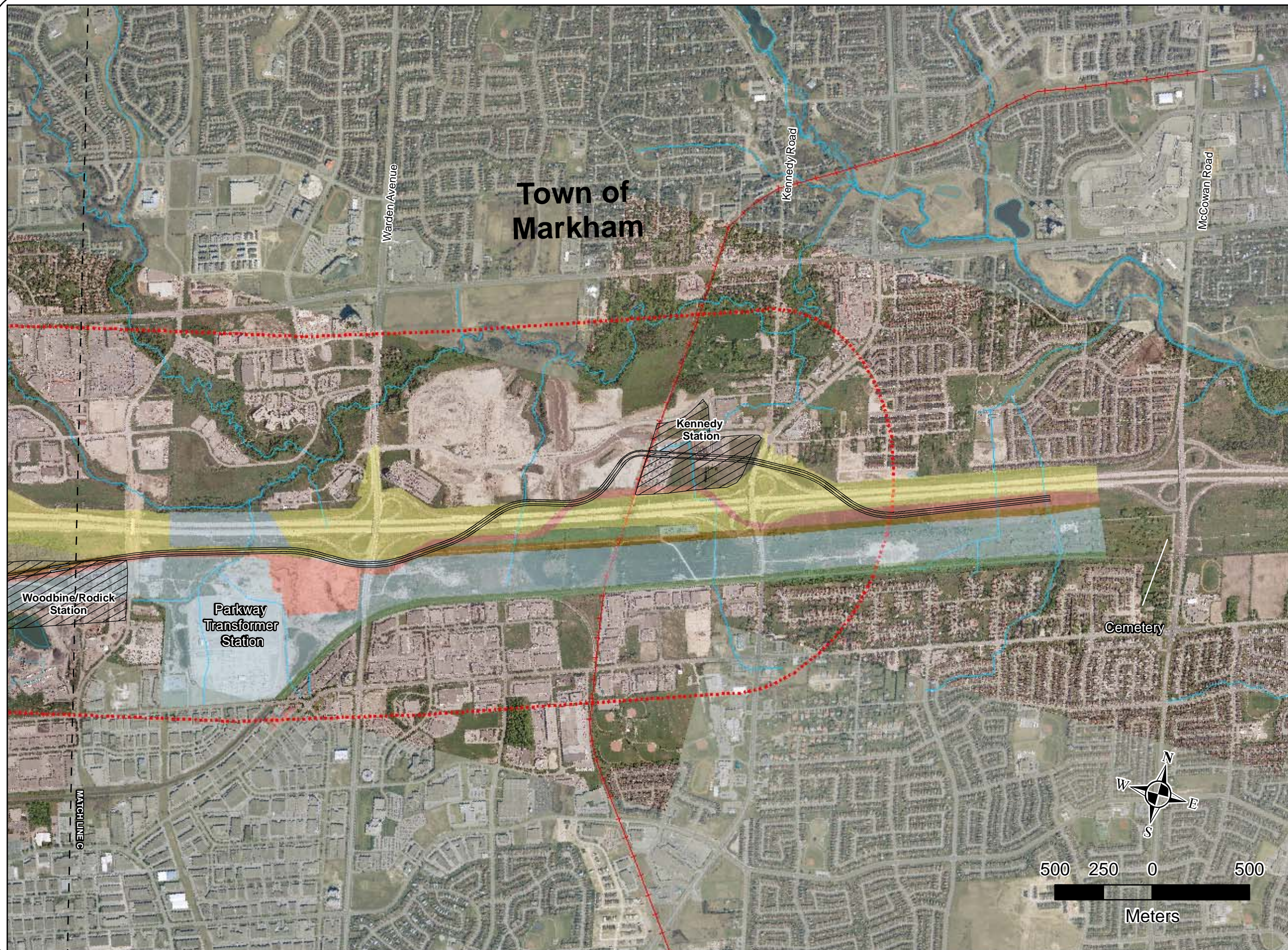
Data Source: Government of Ontario - Parkway Belt West Plan 1978 Consolidated to June 2008

407 TRANSITWAY CORRIDOR

Parkway Belt West



Project: TA4485	Figure: C
Date: May 2010	Prepared By: KDT
Scale: 1 : 20000	Checked By: GNK



LEGEND

- Study Area
- Municipal Boundary (approximate)
- Waterbody
- Watercourse
- Railway
- Public Use Area**
 - Road
 - Utility
 - Public Open Space and Buffer Area
 - Electric Power Facility
 - Electric Power Facility
- Complementary Use Area**
 - General Complementary Use Area
 - Special Complementary Use Area

Data Source: Government of Ontario - Parkway Belt
West Plan 1978 Consolidated to June 2008

407 TRANSITWAY CORRIDOR

Parkway Belt West



Project: TA4485	Figure: D
Date: May 2010	Prepared By: KDT
Scale: 1 : 20000	Checked By: GNK

2.5. York Region Official Plan

According to Census Canada (2006), York Region has a population of approximately 893,000. York Region is expected to have a population of 1.5 million and employment of 780,000 by the year 2031 (York Region 2007a).

The Region of York Official Plan (2007b) sets policies to help guide economic, environmental and community-building decisions affecting the use of land. The Official Plan identifies the Vaughan, Richmond Hill and Markham regional centres as future hubs of business, cultural, government, and social activity. These regional centres are expected to contain the highest concentration and greatest mix of uses in the Region, including range in employment and housing opportunities. Development will be compact, well-designed form that contributes to an urban fabric that is vibrant, safe, attractive, pedestrian-friendly and transit-supportive.

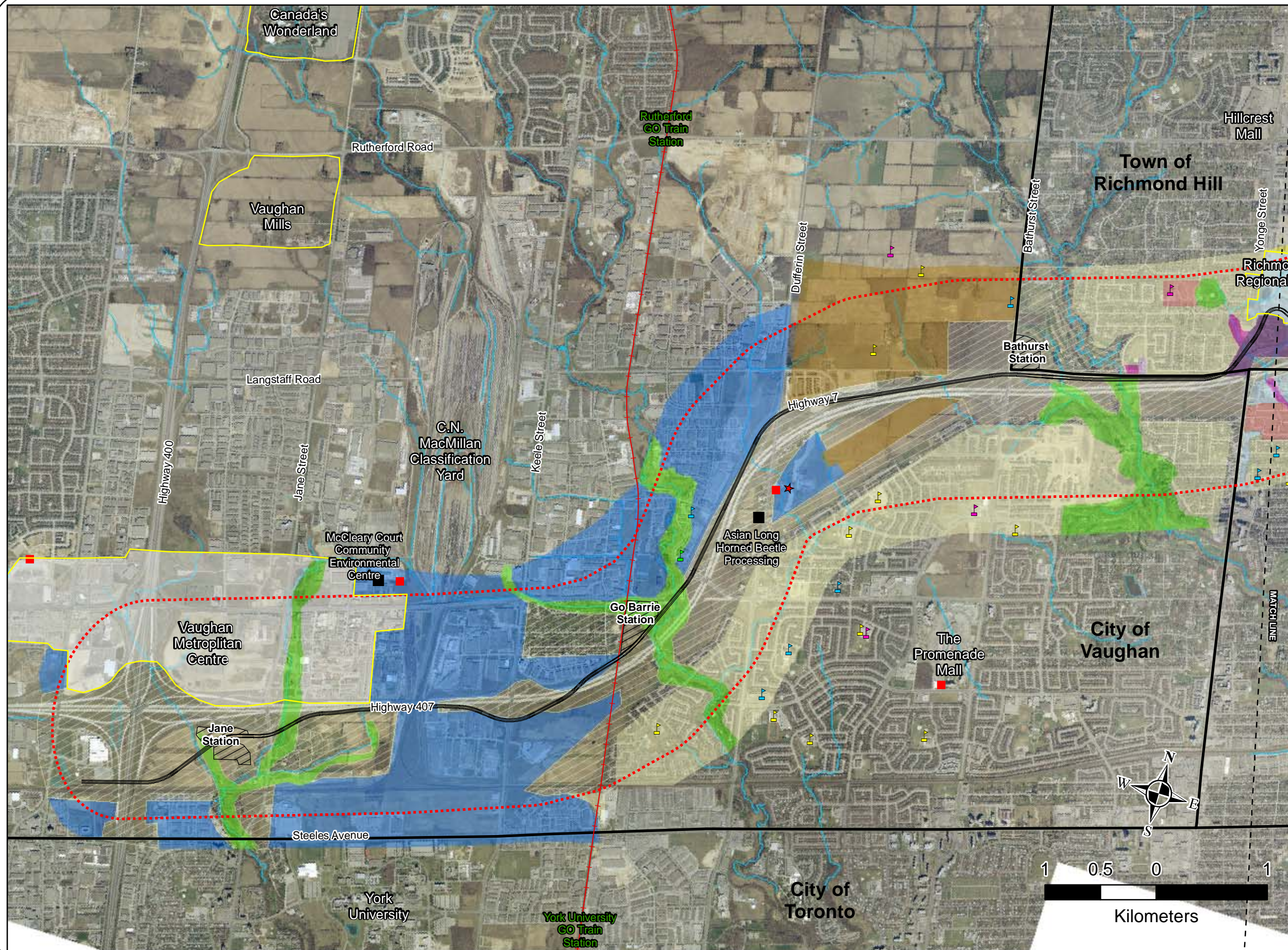
One of the Official Plan's goals is to cooperate with area municipalities, GO Transit, the Toronto Transit Commission, Ministries of the Province of Ontario and the adjacent municipalities in the planning, coordination, integration and operation of existing and new transit services and to encourage increases in transit modal splits across the Region's boundaries.

The Official Plan identifies the need to promote the implementation of a regional rapid transit network such as a transitway within the Highway 407 corridor and to encourage the development of transportation inter-modal stations at appropriate locations. It aims to develop stations that are coordinated with urban centres and to serve as both destinations and transfer facilities between different modes of travel. A transportation station would typically include facilities to allow transfers between local transit services and rapid transit, as well as providing a passenger drop-off area and an adequate commuter parking area.

In December 2009, York Region adopted the York Region Official Plan –December 2009, and has since submitted the Plan to the Ministry of Municipal Affairs and Housing for approval.

2.6. City of Vaughan

The City of Vaughan's Official Plan (OPA 600) states that the City will work with the Province and the affected utilities to provide the transit right-of-way and related facilities, such as stations, commuter parking, passenger pick-up and drop-off, pedestrian entrances and vent shafts within the PBWP area. This is to maximize the use of valuable public lands while maximizing the potential for the 407 Transitway and complementing the development of the Vaughan Corporate Centre. According to the City's Official Plan (Official Plan Amendment 600, 2003), land uses within the study area are: Employment Area, Vaughan Corporate Centre, Community Area - Thornhill-Vaughan, Major Open Space and Valley Lands. Figure 3a presents the land use designations.



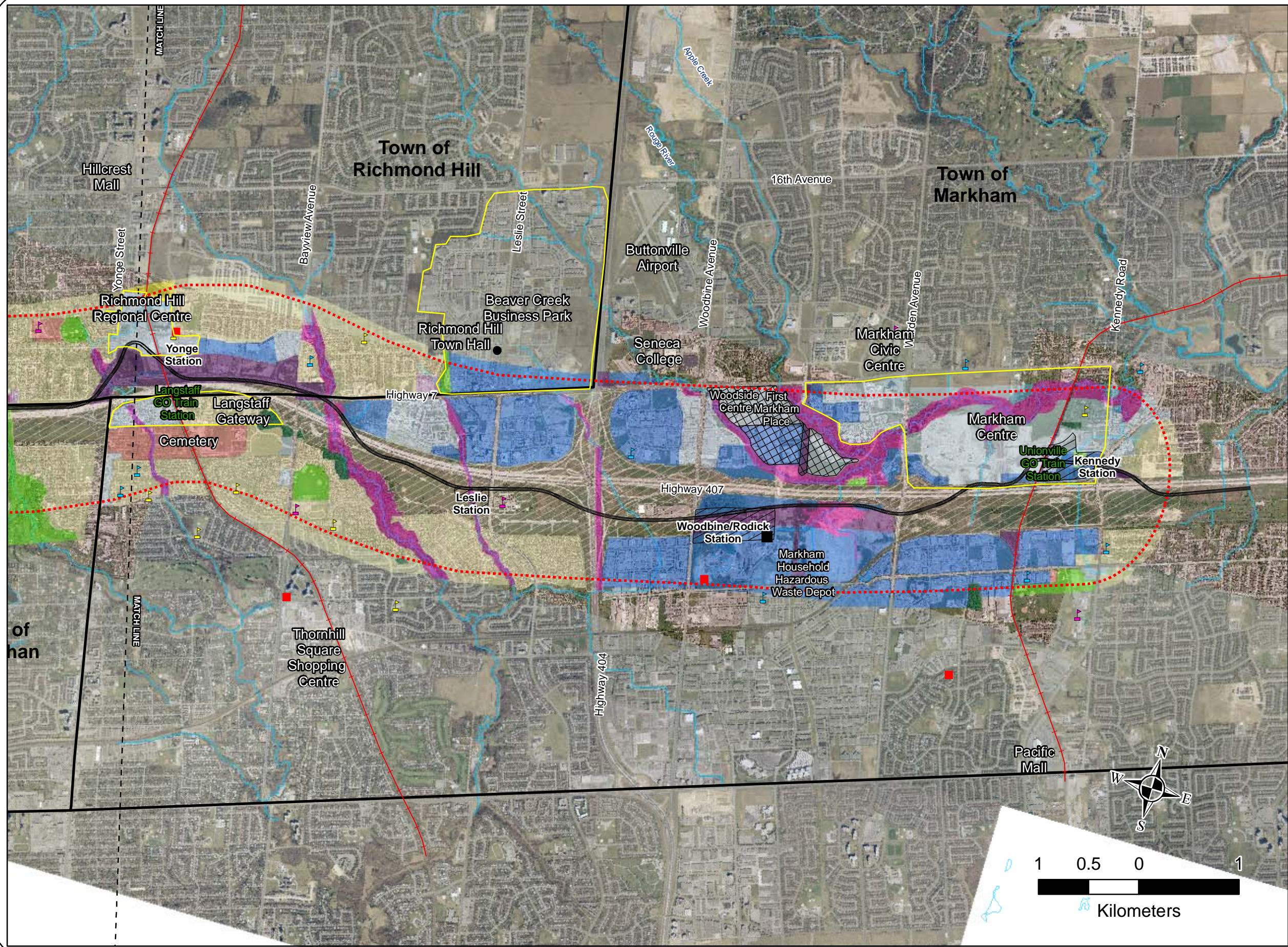
LEGEND

- Study Area
- Municipal Boundary (approximate)
- Waterbody
- Watercourse
- Railway
- Elementary School
- Secondary School
- Private School
- Alternate Education
- Fire Station
- EMS
- Waste Facility
- Land Use
 - Parkway Belt West
 - City of Vaughan
 - Vaughan Metropolitan Centre
 - Employment Areas
 - Major Open Space
 - Community Areas
 - Urban Villages
 - Town of Richmond Hill
 - Residential
 - Industrial
 - Major Institutional
 - Major Open Space
 - Mixed Residential/Commercial
 - Commercial/Community Commercial
 - Neighbourhood Commercial
 - Hazard Lands
 - Multi-Purpose Utility Corridor
 - Town of Markham
 - Urban Residential
 - Commercial
 - Industrial
 - Institutional
 - Open Space
 - Hazard Lands
 - Special Policy Area
 - Environmental Protection Area
 - Transportation and Utilities

Data Source: Ontario Ministry of Natural Resources, Town of Markham Official Plan (Office Consolidation 2005), Town of Richmond Hill Official Plan 1998, and City of Vaughan Official Plan Amendment 600 2003.



 Ontario  		
407 TRANSITWAY - GWP 252-96-00 ENVIRONMENTAL ASSESSMENT		
LAND USE (WEST)		
DWG #:	RO #	
DRAWN BY: KDT	CHECKED BY: CJA	QUALITY CONTROL CJA
SCALE: 1 : 35,000		DATE: May 2010



LEGEND

- Study Area
 - Municipal Boundary (approximate)
 - Waterbody
 - Watercourse
 - Railway
 - Elementary School
 - Secondary School
 - Private School
 - Fire Station
 - Former Waste Disposal
 - Land Use
 - Parkway Belt West
 - City of Vaughan
 - Vaughan Metropolitan Centre
 - Employment Areas
 - Major Open Space
 - Community Areas
 - Urban Villages
 - Town of Richmond Hill
 - Residential
 - Industrial
 - Major Institutional
 - Major Open Space
 - Mixed Residential/Commercial
 - Commercial/Community Commercial
 - Neighbourhood Commercial
 - Hazard Lands
 - Multi-Purpose Utility Corridor
 - Town of Markham
 - Urban Residential
 - Commercial
 - Industrial
 - Institutional
 - Open Space
 - Hazard Lands
 - Special Policy Area
 - Environmental Protection Area
 - Transportation and Utilities
- Data Source: Ontario Ministry of Natural Resources, Town of Markham Official Plan (Office Consolidation 2005), Town of Richmond Hill Official Plan 1998, and City of Vaughan Official Plan Amendment 600 2003.



Ontario **Delcan** IBI GROUP

407 TRANSITWAY - GWP 252-96-00
ENVIRONMENTAL ASSESSMENT

LAND USE (EAST)

DWG #:	RO #:	
DRAWN BY: KDT	CHECKED BY: CJA	QUALITY CONTROL: CJA
SCALE: 1 : 35,000		DATE: May 2010

Employment Area is designated for development of business and commercial uses. Permitted uses are retail and office commercial including financial institutions, hotels, convention centres, restaurants, entertainment uses and institutional uses. This area is the predominant land use within the study area.

Vaughan Corporate Centre is located in the northwest section of the study area. This area will be the focal point of business activity, and as a mixed use node with a variety of commercial, residential and institutional uses and facilities. It will be the urban centre reflecting the City's civic and corporate image. It is expected to accommodate employment for 30,000 people and 5,000 residents at full development, in predominantly medium and high density housing forms (City of Vaughan 2007).

Community Area – Thornhill-Vaughan is located in the eastern section of the study area in the City of Vaughan and south of Highway 407 corridor.

Urban Villages area is located to the north and south of the Highway 407 corridor between Dufferin Street and Bathurst Street.

Major Open Space area is lands surrounding the watercourses crossing the study area within the City of Vaughan. They have been designated to protect and preserve significant natural areas, features and corridors, and ensure that their recreational use respects their functional role as natural areas within the ecosystem.

2.7. *Town of Richmond Hill*

The Town's Official Plan includes policies regarding transit. It states that the use of public transit is encouraged and promoted. It calls for local transit routings to be integrated with and supportive of inter-regional and inter-municipal public transit systems. It has provisions for subdivision designs to facilitate local transit routings and movements to inter-regional transit, and inter-municipal public transit systems. Further, it states that adequate pedestrian access from the subdivision to public transit service operating on arterial roads shall be facilitated by providing, where needed, public walkways coordinated with the public street system, at frequent intervals along the arterial roads.

According to the Town's Official Plan (Official Plan Consolidation, 1998), land uses within the study area are: Parkway Belt West Area, Multi-Purpose Utility Corridor, Hazard Lands, Residential, Industrial, and Community Commercial Area. Figure 3a-b presents the land use designations.

Parkway Belt West Area designation shall mean that notwithstanding any other provisions of the Town of Richmond Hill's Official Plan, the development of these lands shall be governed by the provisions of the PBWP as amended from time to time.

Multi-Purpose Utility Corridor is an area located north of the Parkway Belt West Area, where the main permitted use is a corridor for various linear facilities and their associated facilities.

Major Institutional area is found north of Garden Avenue, which is north of the Highway 407 corridor. Langstaff Secondary School is located in this area. The main permitted use of land is for major public facilities including secondary school, government, health care, recreation, social welfare, religious, and cultural purposes.

Major Open Space within the study area is located immediately east of the area designated as Major Institutional. The predominant use of land is for recreation, leisure and conservation uses.

Hazard Lands are lands found to the eastern and western limits of the study area surrounding watercourses. These lands are defined as all lands which have inherent physical hazards, such as flood susceptibility, steep slopes, erosion susceptibility, wet organic soils or other physical limitations to development which are severe enough to cause property damage and/or potential loss of life if the lands were to be developed with habitable or permanent buildings or structures. The permitted uses are limited to conservation, forestry, agriculture, horticultural nurseries, wildlife management areas, public or private parks, golf courses, and other recreation uses. Buildings and structures associated with these recreational uses will be not be permitted unless they are intended for flood and erosion control and meet the requirements of the Town and the appropriate Conservation Authority.

Residential areas are lands found to the east and west of the study area limits. The main permitted uses are single-detached, semi-detached and duplex dwellings.

Mixed Residential/Commercial areas are found to the north of the Richmond Hill Regional Centre/Langstaff Gateway.

Neighbourhood Commercial areas are found in small pockets within the study area. They are primarily intended to serve the needs of one or more Planning Districts.

Industrial area is found north of the multi-purpose utility corridor designation area. The main permitted use of land is for industrial purposes such as manufacturing, processing including the processing of information, research and development, servicing, warehousing, and bulk storage of goods and wholesaling.

Commercial area is the Richmond Hill/Langstaff Gateway regional centre. The main purpose of the land is for commercial uses such as for retail and entertainment services.

Community Commercial area is found to the north of the multi-purpose utility corridor. This area is primarily intended to serve the needs of all or part of the Town of Richmond Hill. It contains a cohesive grouping of retail, office and service commercial uses generally in the form of a Shopping Centre.

2.8. Town of Markham

The Town of Markham Official Plan states that to encourage increased use of public transit and economic efficiency of the transit system, higher density development will be considered on major transit routes. In addition, all major development proposals and changes and additions to

the road network will be evaluated with respect to their impact on existing or proposed transit services. The Town will cooperate with other agencies to achieve integration of local and high speed bus services, intraregional transit and commuter rail services. According to the Town's Official Plan (2005), land uses within the study area are: Parkway Belt West, Industrial, Commercial, Transportation and Utilities, Hazard Lands, Environmental Protection Area, Special Protection Area, Cemetery, Institutional, Open Space, Urban Residential and Former Waste Disposal. Figure 3b presents the land use designations.

Parkway Belt West lands are lands used in accordance with the provisions of the Parkway Belt West Plan, July 1978. The land uses and facilities in the Parkway Belt West are grouped into two general categories, Public Use Area and Complementary Use Area.

Industrial lands are found throughout the study area within the Town of Markham limits. These are lands used primarily for manufacturing, assembly, processing, warehousing, or storage, with associated commercial uses allowed. The lands are for a pattern of industrial development and commercial uses in industrial areas that provides for a range of business activities at appropriate locations. Also, the lands were designated to encourage transit and pedestrian supportive industrial development and improved transit services for riders traveling to industrial areas. The industrial lands are further organized into categories of designation:

- **Business Corridor Area** – found north of Highway 407 corridor and east of Bayview Avenue, also found to the south of Highway 407 corridor just west of Woodbine Avenue. These are locations for a mix of high quality business activities primarily in corridors along major road frontages, adjacent to industrial areas. These locations are intended for industrial and office uses that require the exposure offered by such locations in order to accommodate, at appropriate locations, certain uses that also serve the general public. Retail uses are not intended to accommodate the needs of the general public as their primary function. A high level of urban design is required to maintain the positive business image of the industrial area.
- **Business Park Area** – found north of the Highway 407 corridor between Bayview Avenue and Highway 404. These lands apply to office/industrial business parks characterized by development displaying high design standards including corporate head offices and research facilities. The visual attractiveness and consistent image of such areas is of prime importance. Retail and service commercial activities will be strictly controlled.
- **General Industrial Area** – found south of the Highway 407 corridor between Highway 404 and Woodbine Avenue and between Warden Avenue and Kennedy Avenue. Also, it is found north of the Highway 407 corridor between Woodbine Avenue and Warden Avenue. This area is to accommodate industrial activities related to manufacturing, processing, repair and servicing, warehousing, and similar such uses. This category also provides for complementary uses to serve employees and business needs.

Commercial are lands found north of the Highway 407 corridor. They are used primarily for a full range of business establishments, including shopping facilities, personal and service commercial facilities, offices and mixed use developments. Among its goals, the Town of Markham is to encourage pedestrian-oriented, transit-supportive commercial development,

redevelopment and in particular at nodes and corridors. In addition, the mixing of compatible commercial, residential and other land uses is encouraged at appropriate locations. The commercial lands are further organized into categories of designation:

- **Retail Warehouse Area** – found to the south of the Highway 407 corridor and east of Yonge Street and north of the corridor between Woodbine Avenue and Warden Avenue. It is to accommodate medium to large format retail stores, often referred to as “retail warehouses” and large scale ‘themed’ retail development. Such development serves as a regional destination and may accommodate single or multiple purpose sites.
- **Community Amenity Area** – found north of the Highway 407 corridor between Woodbine Avenue and Kennedy Avenue. Also, it is found north of the corridor between Bayview Avenue and Leslie Street. This area is to provide for a multi-use, multi-purpose centre offering a diverse range of retail, service, community, institutional and recreational uses serving several nearby residential and/or business areas. Community Amenity Areas shall function as significant and identifiable focal points for the areas served.

Transportation and Utilities are found to the south of the Highway 407 corridor between Woodbine Avenue and Warden Avenue. They are lands used for major transportation and utility corridors and facilities including highways, railways, hydro electric transmission, gas and oil pipelines, telephone and other cabled services and airports.

Hazard Lands are lands surrounding watercourses crossing the study area. These lands have qualities that make them dangerous or unsuitable for development and include:

- lands within the Regulatory Flood as defined by the Toronto and Region Conservation Authority; and,
- areas with excessively high water table, steep slopes, erosion susceptibility or other physical limitations to development.

Hazard lands are intended primarily for preservation and conservation in their natural state. Land uses such as low intensity outdoor recreation, golf courses, nursery gardening, forestry, the conservation of soil or wildlife, public and private parks and pathways are permitted.

Environmental Protection Area is found south of the Highway 407 corridor around Bayview Avenue. These lands contain natural features set aside for conservation including woodlot management.

Special Protection Area is found at the northern limits of the study area in the Town of Markham, south of Highway 407 corridor between Warden Avenue and Kennedy Avenue. It is located within a floodplain, on which there is existing development that forms an integral part of an existing flood prone community. New development, redevelopment or extensions to and rehabilitation of buildings and structures, may be permitted on condition that the proposed development is flood protected to the level of the Regulatory Flood, as defined by regulations made under the *Conservation Authorities Act 1999*.

Institutional - Cemetery lands are found south of the Highway 407 corridor between Yonge Street and Bayview Avenue. They are lands used for cemetery purposes, or for similar uses customarily associated with the interment of the dead.

Open Space areas are found to the southern limits of the study area in the Town of Markham, east of Bayview Avenue and south of 14th Avenue. They are lands set aside for conservation, active and passive recreation, wherein farming or woodlot management may also be permitted. Garden plots, golf courses, managed woodlots, and similar compatible uses are permitted.

Urban Residential lands were found south of the Highway 407 corridor between Yonge Street and Highway 404. These lands are used primarily for housing, with limited allocations for uses that are complementary to or serve basic residential uses. Public, institutional and recreational uses which are compatible with and which serve the basic residential uses such as schools, parks, libraries, fire stations, day care centres, and places of worship may also be permitted. Neighbourhood Commercial Centres may also be permitted.

Former Waste Disposal area was recorded in the Official Plan. The area is located north of the Highway 407 corridor between Woodbine Avenue and Kennedy Road.

3. EXISTING LAND USES

This chapter highlights the existing land uses within the study area. As of 2006, the City of Vaughan has a population of 238,900 and employment of 152,700, which is expected to increase to 422,000 and 278,000 respectively by the year 2031. Vaughan is an importer of labour with a daily net in-commute of 26,300 persons. Overall, more than 93,000 people come to the city each day to work and at least 67,000 residents work outside the city. Vaughan's employment lands are primarily oriented to highway corridors such as the Highways 407 and 400. The study area is located in the southeastern part of the City of Vaughan. This part is the most intensely developed area within the City of Vaughan. Manufacturing is the primary employment sector within the study area (Figure 3a). Places of interest outside the Highway 407 corridor are Canada's Wonderland with 3,700 employees and 3 million visitors in 2006 (TEA 2006), and Vaughan Mills Shopping Centre with 250 stores. In addition, York University, located south of the study area in the City of Toronto, has a student population of approximately 50,000 students and 7,000 staff and faculty. Over 1,000 buses serve the facility making it largest transit hub in the Greater Toronto Area. Another centre for consideration is the Promenade Mall located south of the Highway 407 corridor.

The population of the Town of Richmond Hill in 2006 was 162,704 and expected to increase to 219,000 by the year 2026. Currently 53,135 persons are employed in the Town of Richmond Hill. The study area is located to the southern most point of the Town's boundaries and spans approximately from east of Bayview Avenue to west of Yonge Street. The study area's northern limit is approximately north of Langstaff Road. (Figure 3a-b) As the Highway 407 corridor crosses Highway 404, the corridor enters the Town of Markham boundary. (Figure 3b)

As of 2006, the Town of Markham has a population of 261,573. Employment figures for 2001 indicate that employment for the Town was 118,800. Forecasts for the year 2026 present that the Town of Markham's population and employment will increase to 348,000 and 212,000 respectively.

3.1. *Agriculture*

There are no lands within the study area designated as agricultural lands in the Official Plans of the City of Vaughan, Town of Richmond Hill and Town of Markham.

3.2. *Residential*

The area from Highway 400 to Dufferin Street is primarily industrial and commercial, except for the residential area within the southwest quadrant of Highway 7 and the GO Barrie line and south of the Highway 407 corridor from west of Dufferin Street to east of Bathurst Street. In addition, there is a new residential development with reverse frontage along Highway 7, which is located north of the Highway 407 corridor and west of Dufferin Street.

The remaining land north of Highway 7 between Bathurst Street and Yonge Street consists primarily of single density residential lots with a reverse frontage on Highway 7. The areas to the south of the Highway 407 corridor, between Bayview Avenue to Highway 404 are residential while the areas to the north are residential and commercial. However, the majority of the developed areas are located far from the Highway 407 corridor.

3.3. *Commercial and Industrial*

To the north of the Highway 407 corridor and east of Highway 400 is the Vaughan Metropolitan Centre. Further east between Jane Street and Keele Street is the CN MacMillan Classification Yard. The area from Highway 400 to Dufferin Street is primarily industrial and commercial, except for the residential area south of the Highway 407 corridor from west of Dufferin Street to east of Bathurst Street.

The Richmond Hill Regional Centre/Langstaff Gateway, located to the north and south of the Highway 407 corridor and east of Yonge Street, is designated as a Regional Centre by the Region of York. The northern part of this Regional Centre is a mix of office, retail and other commercial space including a Famous Players Silvercity complex. The southern part of this Regional Centre is mainly commercial and industrial. The remaining areas between Yonge Street and Bayview Avenue are predominantly industrial and commercial. The distance between Highway 7 and the Highway 407 corridor starts to increase beginning at Bayview Avenue in an easterly direction. Places of interest are the Richmond Hill Town Hall, the Beaver Creek Business Park, located on the north side of Highway, which provide 10,000 jobs, and the Thornhill Square Shopping Centre with 60 retail stores.

There are two commercial developments north of the Highway 407 corridor between Woodbine Avenue and Warden Avenue, including Woodside Centre and First Markham Place with over 180 retail stores. The land uses east of Warden Avenue to Kennedy Avenue are commercial,

industrial and vacant lands. The Markham Centre is located north of Highway 407 west of Kennedy Road. The vision for the Markham Centre is to become the Town's 'downtown' area with mixed land use and transit supportive focus.

Buttonville Airport is located north of the study area, just east of the Highway 404. It employs 300 people and houses over 300 aircrafts for local residents. Markham Centre designated as a Regional Centre by the Region of York, is expected to be a place for 25,000 residents with 10,000 residences (condominiums and townhouses) and employ 17,000 people. Further south of the study area is the Pacific Mall, which is considered the largest indoor Asian mall in North America with 400 retail stores.

3.4. *Community and Recreational Facilities*

The location of institutional and community facilities such as schools and fire stations are presented in Figure 3a-b.

Beechwood Cemetery is located to the south of the Highway 407 corridor and east of Jane Street. South of Highway 407 and east of Yonge Street, just west of Langstaff Gateway is the Holy Cross Catholic Cemetery. Bethel/Lunau Cemetery, which is listed on the Markham Register of Property of Cultural Heritage Value or Interest is located on the northwest quadrant of Highway 407 and Warden Avenue.

Entering the Town of Richmond Hill, the 407 Transitway is south of a golf course (Richmond Hill and Country Club), located at the northeast corner of Highway 7 and Bathurst Street.

Recreational Trails

Bartley Smith Greenway which runs within the Don River valley extends from Steeles Avenue to Langstaff Road. This trail crosses the study area twice between the GO Barrie Rail line and Centre Street. There is recreational adjacent to the study area. The Huntington Trail, which is located south of Highway 407, extends from Bayview Avenue to Leslie Street and crosses Beaver Creek.

Regional Transit

The Barrie GO Rail line crosses the study area between Keele Street and Dufferin Street. The York University and the Rutherford GO Train Stations are located south and north of the study area respectively. Langstaff GO Train Station is located in the vicinity where the Richmond Hill GO Rail line crosses the study area between Yonge Street and Bayview Avenue. In addition, there is a major bus terminal for the York Regional Transit buses. Seneca College is located north of Highway 407 corridor, where the student population is estimated to be 2,500. The Stouffville GO Rail line crosses the study area, west of Kennedy Avenue. Unionville GO Train station is located just north of the Highway 407 corridor.

Extension of the Spadina Subway Line to the Vaughan Metropolitan Centre and extension of the Yonge Subway Line to the Richmond Hill Regional Centre/Langstaff Gateway are also

proposed. These subway extensions will interface with the 407 Transitway at the Jane Street Station and the Yonge Street Station respectively.

3.5. *Natural Features/Natural Systems*

The study area is located within the Humber River, Don River, and Rouge River watersheds. The major watercourses crossing the corridor are Black Creek, West Don River, Westminster Creek, Pomona Mills Creek, East Don River, German Mills Creek, Beaver Creek and the Rouge River.

Baker's Woods Environmentally Sensitive Area is located west of Bathurst Street and north of Highway 7. This area is also of historical significance as it includes the Jonathan Baker Farmhouse, which is included on the Vaughan Heritage Inventory and on the Register as a Class A building. In addition, Baker's Woods is also a provincially significant Area of Natural and Scientific Interest.

3.6. *Aggregates/Mines*

There is a sand and gravel storage area (Strada Aggregates) on the northeast quadrant of Rodick Road and Yorktech Drive intersection.

4. FUTURE LAND USES

This chapter presents proposed future land uses within the study area that may interact with the 407 Transitway. Three Urban Regional Centres were identified by the Growth Plan that are within or adjacent to the study area. Secondary Plans or Master Plan for these Urban Regional Centres are currently being developed by their respective municipalities. In general, the Urban Regional Centres are planned to be centres of mixed use areas with high density development

4.1. *City of Vaughan*

The City of Vaughan is developing a new Official Plan to guide the City over the next 25 years. As a component of the new Official Plan, Vaughan Metropolitan Centre (VMC), formerly the Vaughan Corporate Centre, is proposed to become the city's "downtown". A Secondary Plan for the VMC is in development. The VMC will be of regional importance centred on the planned subway station at Highway 7 and Millway Avenue. It will be a location for the concentration of the highest densities and widest mix of uses in the City including business offices, residences, entertainment and cultural facilities, pedestrian shopping areas, and urban squares. The VMC is located north of the study area in the west. Figure 3a presents the location of the VMC. The 407 Transitway is proposed to have a connection with the Spadina Subway at Jane Street. 407 Transitway riders have opportunities to access VMC via the subway.

4.2. *Town of Richmond Hill*

A new Official Plan for the Town of Richmond Hill is under development. A draft Official Plan was released for public review in May 2010. There are no major changes to the land use designation proposed by the draft Official Plan within the study area except the change of the current “Industrial” area to “Employment” area and the defining of the boundary of the Richmond Hill Regional Centre.

The details within the Richmond Hill Regional Centre is being determined by a separate land use study. The Richmond Hill Regional Centre Design and Land Use Study – Final Recommendations was released in February 2010. This study was undertaken as a specific background study to the new Official Plan, which is now in development. It was to establish a long-term vision and growth management direction to facilitate the growth of the Richmond Hill Regional Centre as designated by the Growth Plan. The study’s recommended concept for the Centre was a transit-oriented community able to accommodate approximately 15,800 people and 15,700 jobs within differing built forms and mix of uses. This centre would be the location where transit lines integrate including the 407 Transitway, GO Rail, Yonge Subway Extension, YRT local and rapid bus network.

4.3. *Town of Markham*

Langstaff Gateway is the Markham portion of the Urban Regional Centre identified by the Growth Plan. It is located south of Highway 407 between Yonge Street and Bayview Avenue. Unlike the Richmond Hill Regional Centre, Langstaff Gateway has not been identified as the convergence spot for the level of public transit investment that the Richmond Hill Regional Centre is anticipating. The Langstaff Land Use & Build Form Master Plan and the Draft Official Plan Amendment was presented to the public in 2009. The Town of Markham is currently preparing a recommendation report on the proposed Official Plan Amendment and new Secondary Plan. Langstaff Gateway is planned for a mixed land use designation where up to 32,000 residents and 15,000 jobs are provided for and linked to transit.

5. ASSESSMENT OF IMPACTS

The 407 Transitway reinforces the land uses of the three Regional Centres: Vaughan Metropolitan Centre, Richmond Hill Regional Centre, Langstaff Gateway and Markham Centre by connecting passengers to these areas and providing opportunities for a seamless transit connection.

The proposed alignment of the 407 Transitway and its stations conform to the land use designations of the three municipal Official Plans within the study area, present and future. The majority of the Transitway’s footprint is located within the PBWP, where areas were protected to accommodate for this transit infrastructure. No direct impacts to the residential, recreational and community, commercial and industrial land uses are expected from the operation of the 407 Transitway.

Temporary impacts during construction are expected to occur such as noise, dust and traffic delays.

6. ENVIRONMENTAL PROTECTION AND MITIGATION MEASURES

Temporary impacts to residences, recreational and community, commercial and industrial facilities should be mitigated with the following measures:

- access and egress for emergency vehicles and school buses should be maintained at all times during construction;
- to prevent the emission of pollutants, including dust, to the atmosphere, provisions should be made to ensure there is no unnecessary idling of vehicles. Dust suppressants should be used to combat dust, where appropriate. Emissions during construction should not result in health effects on motorists and local residents and employees;
- construction activities should adhere to local noise by-law regulations. Noise by-law exemptions should be obtained from the municipality where construction activities will occur within the prohibited times;
- construction activities should be staged to avoid/minimize traffic delays to residents, business owners, recreational and community facility operators/users and motorists travelling within the study area to the extent possible; access to the 407 ETR, regional roads and local municipal roads should be maintained at all times, or detours should be identified;
- the local public should be kept informed of the progress of the Transitway construction and notified of any disruptions such as road closings.

7. REFERENCES

City of Vaughan. 2003. City of Vaughan Official Plan Amendment 600

City of Vaughan. 2007a. City of Vaughan: *Community Profile*

City of Vaughan. 2007b. *City of Vaughan Website*. www.city.vaughan.on.ca

City of Vaughan. 2010. *Vaughan Tomorrow Website*. <http://www.vaughantomorrow.ca/>

Metrolinx. 2008. *The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area*.

Ministry of Municipal Affairs and Housing. 2005. *Provincial Policy Statement*

Ministry of Municipal Affairs and Housing. 2007. *Parkway Belt West Plan*

Ministry of Public Infrastructure and Renewal. 2006. Places to Grow: Growth Plan for the Greater Golden Horseshoe

Region of York. 2007a. *Planning for Tomorrow Part I: York Region Population and Employment Forecasts*. Report No. 4 of the Planning and Economic Development Committee. Regional Council meeting April 19, 2007

Region of York. 2007b. *York Region Official Plan*. www.york.ca

Statistics Canada. 2006. *Census Canada 2006*. <http://www.statcan.ca/start.html>

TEA. 2006. TEA/ERA Theme Park Attendance Report 2006. www.parkworld-online.com

Town of Markham. 2006. Town of Markham Official Plan Office Consolidation

Town of Markham. 2010. *Town of Markham Website*. www.markham.ca

Town of Richmond Hill. 1993. Town of Richmond Hill Official Plan Consolidation

Town of Richmond Hill. 2007 *Town of Richmond Hill Website*. www.richmondhill.ca

Town of Richmond Hill. 2010. *Draft Official Plan Website*
http://www.richmondhill.ca/subpage.asp?pageid=op_draft_new_official_plan#draftop

York University. 2007. *Facts about York U*. www.yorku.ca.