

Vaughan Tomorrow

OUR CITY. OUR FUTURE.

URBAN
STRATEGIES
INC .

where & how to grow

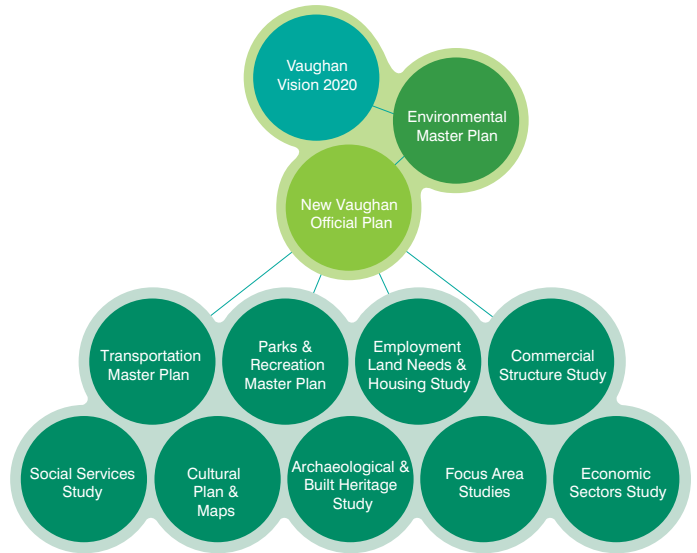
Directions on future growth in
the City of Vaughan to 2031

June 2009

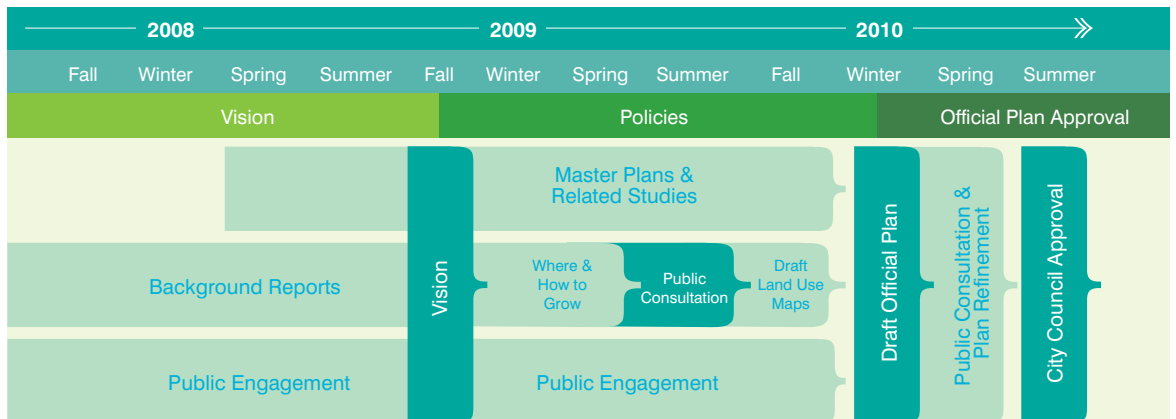


foreword

Vaughan Tomorrow is the City's growth management program. It will identify and address the ongoing challenges and opportunities that will shape the future of the City of Vaughan. The three major components of Vaughan Tomorrow include Vaughan Vision 2020, the City's new Strategic Plan; Green Directions Vaughan, the City's first Community Sustainability and Environmental Master Plan; and the new Official Plan.



The new Official Plan will address all elements of effective, sustainable and successful city-building while managing projected growth to 2031. The Official Plan will be informed by a number of other studies, as illustrated above. The project was initiated in November 2007 and a draft Official Plan is expected to be released in January 2010.



This report provides a detailed analysis of Vaughan's population and employment forecasts to 2031 and how the City can be expected to meet those forecasts given Provincial policies (notably the *Growth Plan for the Greater Golden Horseshoe*), emerging policies from the Region of York Official Plan Review and principles developed during the course of Vaughan's Official Plan review. The report lays out a number of conclusions and several choices that will need to be made prior to the preparation of draft Urban Structure and Land Use Designation Official Plan maps to be released in the Fall 2009.



contents

01	Introduction	1
02	Historic Directions	3
03	Policy Context	9
	3.1 Provincial Policies	
	3.2 Regional Policies	
04	Accommodating Growth to 2031	21
	4.1 Employment Growth	
	4.2 Residential Growth - Intensification	
	4.3 Residential Growth - Greenfield	
	4.4 Residential Growth - Whitebelt	
	4.5 Is An Urban Boundary Expansion Necessary?	
05	Next Steps	81



Gibson Square Lane

01

introduction

This paper documents the residential capacity analysis and land budget exercise associated with the preparation of Vaughan's new Official Plan. It establishes the framework and basis for a continuing discussion about Where and How to Grow in Vaughan to 2031, leading up to a new Official Plan.

The Region of York has allocated the Provincial forecasts for growth reported in *Places to Grow: the Growth Plan for the Greater Golden Horseshoe* to individual municipalities in the Region¹. It is forecast that Vaughan will grow by 113,700 new jobs, 170,000 new people and 64,850 new housing units between 2006 and 2031. The capacity of the City's land base to accommodate these forecasts was determined by looking separately at the potential supply of the already built areas, the unbuilt *designated greenfield* areas, and the whitebelt areas (rural areas excluding those lands protected through Oak Ridges Moraine and Greenbelt legislation).

The results of the capacity analysis, documented in this paper, show that Vaughan has more than sufficient land supply available to meet growth forecasts for 2031. Choices are required about where to focus growth.

With regard to employment lands, the paper concludes that, subject to final confirmation from the City's employment lands supply analysis, the existing supply of employment lands is sufficient to meet employment forecasts to 2031.

The paper also provides specific conclusions on a minimum level of intensification that should be directed to the already built area (30,000 units), a minimum level of infill housing units in the built area (2,000), and a minimum level of units to be developed in the unbuilt portions of the existing *urban area* (26,500). It then sets up opportunities to accommodate the remaining 6,350 units of the residential growth forecasts to 2031.

The choices presented in this paper will be analyzed, and the findings refined, over the coming months as other Official Plan studies progress and public input is received. Draft Urban Structure maps and Land Use Designation maps will be prepared in Fall 2009 as a follow up to this report and then incorporated into a Draft Official Plan to be released in early 2010.



Main Street, Kleinburg, Ont., Canada



Fourth Street, Maple, Ont., Canada

02

historic directions

Vaughan Yesterday...Vaughan Tomorrow...

The City of Vaughan originated from a collection of primarily rural villages. Woodbridge, Kleinburg, Maple, and Thornhill, along with other small settlements and the surrounding countryside, were incorporated in 1974 to create the Town of Vaughan. These communities dated back to 19th century settlements, and by the 1970s were still quite rural in character.

Relatively little development occurred in Vaughan in the postwar era. Urban expansion in the Toronto region had not yet reached as far north as Vaughan, and the lack of servicing infrastructure provided limited opportunity for land development. However, with the expansion of water and sewer services in the 1970s, the groundwork was laid for an explosion of growth. The population of Vaughan grew from 15,000 in 1971 to over 100,000 in 1991, when it changed its incorporation to that of a City. In the 1990s population growth continued at an incredibly fast pace and Vaughan also became a major centre of economic activity and employment growth. This pace of growth has continued into the 21st century as Vaughan is currently home to over 250,000 residents and over 160,000 jobs. Forecasts see Vaughan reaching a population of 418,800 people and 275,900 jobs by 2031.



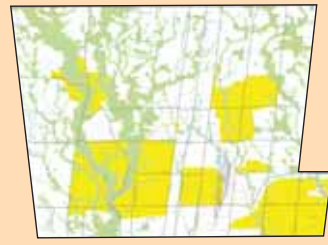
pre-war



1970's



1980's



1990's

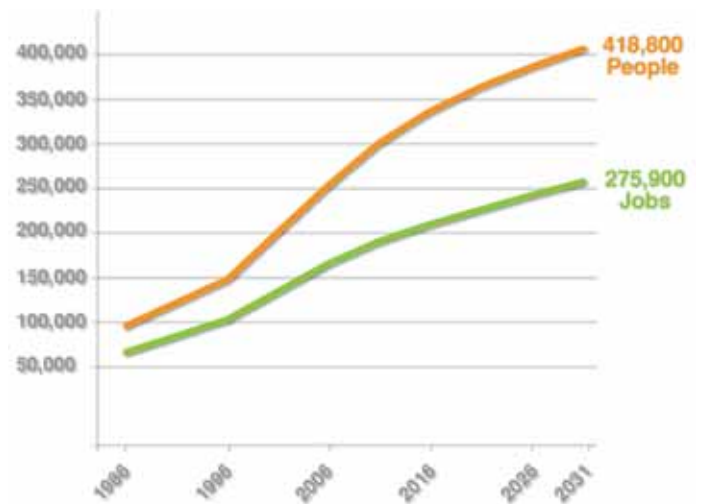


today

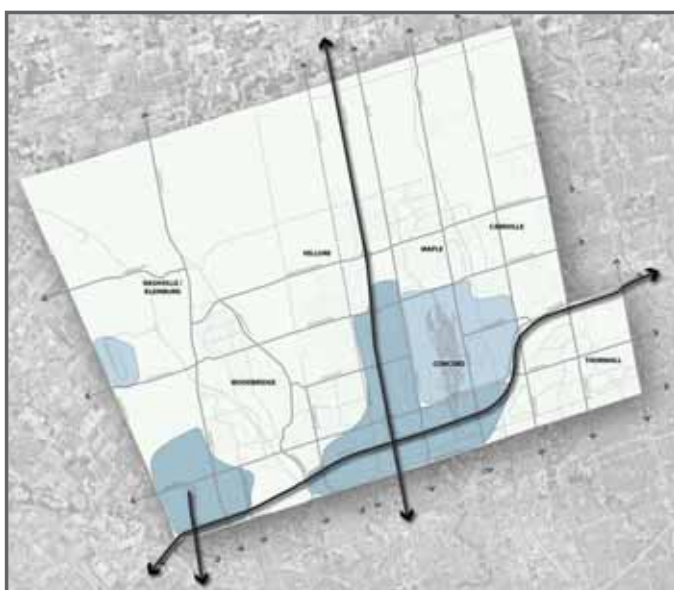
► *Figure 1:*
The historic growth of Vaughan



Since the first explosion of growth in the 1970s, Vaughan has been one of the fastest growing municipalities in Canada. Over 200,000 people and almost 150,000 jobs came to Vaughan in a very short time period of approximately 30 years. This growth has taken place in a primarily suburban form: the same style of development that was taking place all over the Greater Toronto Area and North America during the same period. Residential development in Vaughan, as elsewhere, has been characterized by single-family homes on large lots in subdivisions turned inward from the bounding arterials, with few through routes connecting one to the other.



▲ Figure 2:
 Vaughan has grown rapidly over the last 35 years and this rate of growth is expected to continue
 Source: York Region 2031 Land Budget, January 2009



As the residential areas of the City grew, employment in the City also thrived as a result of the two major intermodal rail yards, excellent highway connections, proximity to Pearson International Airport and the availability of large tracts of relatively inexpensive land. The commercial development pattern in Vaughan has been shaped by large employment areas separated from residential communities. Most commercial buildings have been built as single-storey structures within industrial parks or large stand-alone retail centres, and feature extensive surface parking.

▲ Figure 3:
Large employment areas have shaped the urban structure

The historical pattern of growth and auto-oriented urban structure has created a number of significant issues for many suburban municipalities. This is especially the case in Vaughan, which has grown rapidly. Issues that Vaughan must begin to address include:

- an increasing number of cars and trucks travelling an increasing distance has created clogged roadways, increased air pollution, contributed to climate change and increased the time spent by Vaughan residents and employees commuting to and from work;
- building and maintaining hard and soft infrastructure in low-density, sprawling development is expensive because there are fewer properties among which to share the costs;
- efficient and cost-effective public transit is difficult to provide and the ability to provide solutions to traffic congestion is therefore limited;
- continued expansion of the *urban boundary* has resulted in a significant loss of natural areas and agricultural lands;
- the separation of places to live, work and shop has made it difficult for Vaughan residents to make walking or cycling a practical reality for daily activities;
- the absence of a downtown has contributed to the lack of a City-wide identity and the inability to focus major office functions within a central area; and,
- the development of great civic spaces and attention to the public realm has not been a significant consideration to date.

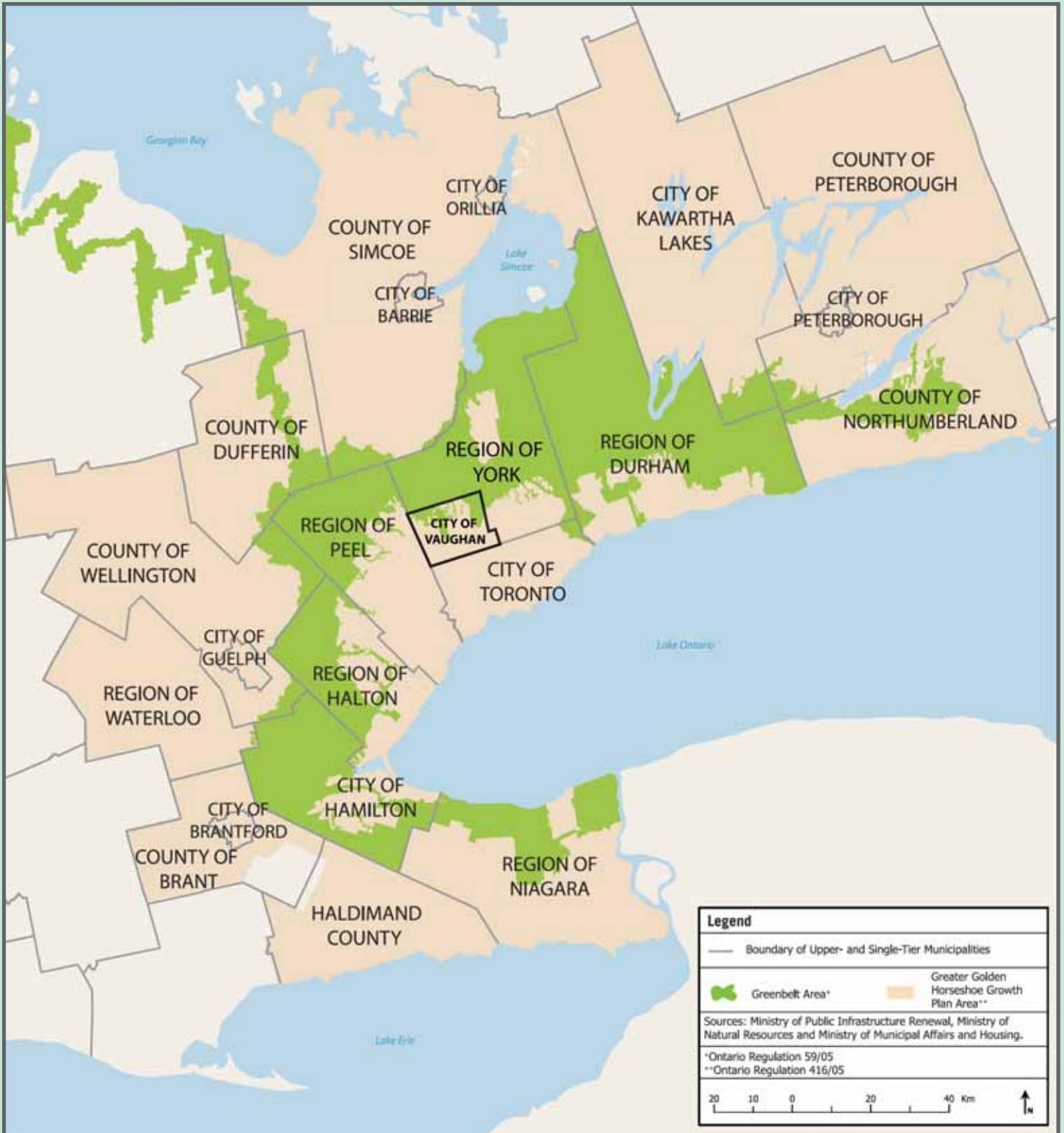


Looking forward to 2031, the City of Vaughan will have to address these challenges as it grows to accommodate the population and employment forecasts. Specifically, Vaughan will need to manage land and plan for development in a manner that is both responsible and sustainable.

The Vaughan Vision for Transformation, developed as part of the Official Plan Review process, provides many of the principles regarding how Vaughan can grow better. Taken together with the policies in the *Growth Plan for the Greater Golden Horseshoe* and the work undertaken as part of the York Region Official Plan Review, a clear set of directions for future growth are emerging. These include:

- direct growth to built-up areas of Vaughan where the capacity and infrastructure exists to best accommodate population and employment forecasts;
- promote transit-supportive densities and mixed uses, particularly along the VIVA system, at GO stations and at future subway stations;
- identify and support intensification areas and corridors as a major means of accommodating future growth;
- ensure an appropriate supply of employment lands is maintained for future economic growth and reduce competition for these lands by directing office uses and major retail activities to the mixed-use areas supported by transit;
- ensure existing *designated greenfield* areas are developed as complete communities with a compact urban form that supports transit service and promotes walking and cycling;
- ensure a series of mixed-use neighbourhood or district centres are developed in each of the major residential communities in a compact form and at appropriate densities to support transit service and promote walking and cycling; and,
- identify and protect natural systems, the Greenbelt, the Oak Ridges Moraine, prime agricultural lands and other rural features as part of Vaughan's protected countryside.

Applying the principles listed above, and working with Provincial and Regional policy directions, this paper will look at the specifics of Vaughan's population and employment forecasts and the capacity of the City's land base to accommodate such growth.



▲ Figure 4:

The City of Vaughan sits at the heart of the Greater Golden Horseshoe

Source: Places to Grow: The Growth Plan for the Greater Golden Horseshoe, Province of Ontario, 2006

03

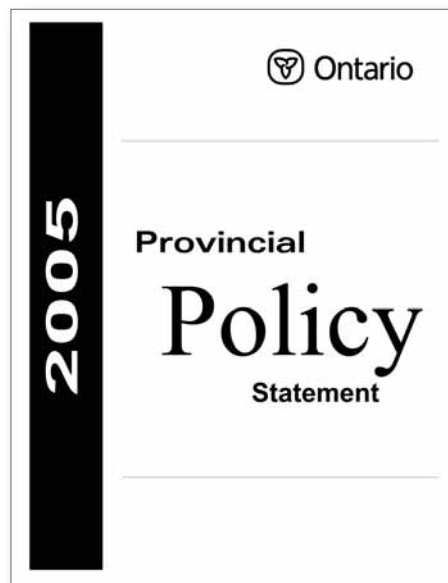
policy context

3.1 Provincial Policies

Over the last seven years the Province of Ontario has developed a series of plans and policy directions impacting how growth will occur in the Greater Golden Horseshoe. The Province has taken a comprehensive approach that has resulted in a suite of legislation addressing the need to protect natural systems and the important relationship between transportation and land use. In particular, *Places to Grow: the Growth Plan for the Greater Golden Horseshoe* has set the stage for a new era of land use planning in Ontario. It is a significant departure from previous regional planning initiatives in that it creates the need for a level of detail and required local action that did not previously exist. The *Growth Plan* and the other related legislation that set the groundwork for the new Vaughan Official Plan are outlined here.

The Provincial Policy Statement, 2005

Since Vaughan's last major Official Plan review, the Province has released a new Provincial Policy Statement (PPS), which came into effect on March 1, 2005. The PPS requires that all municipal official plans "be consistent with" its policies, whereas previously they needed only to "have regard to" the PPS. The policies in the PPS (2005) support intensification and more compact, transit-supportive land use patterns; the protection of employment lands; the redevelopment of brownfields; the promotion and development of clean energy sources and conservation for improved air quality; among other important policies. The PPS also requires that upper- and lower-tier municipalities coordinate their land use planning efforts, particularly in the area of allocating population and identifying areas for intensification. Many of the other policies in the PPS are expanded on in the other documents described below.

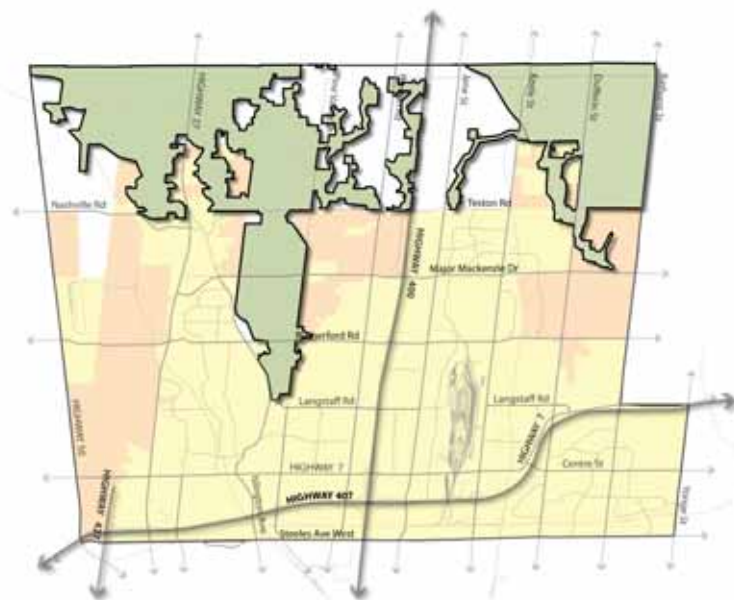


▲ *Figure 5:*
Provincial Policy Statement

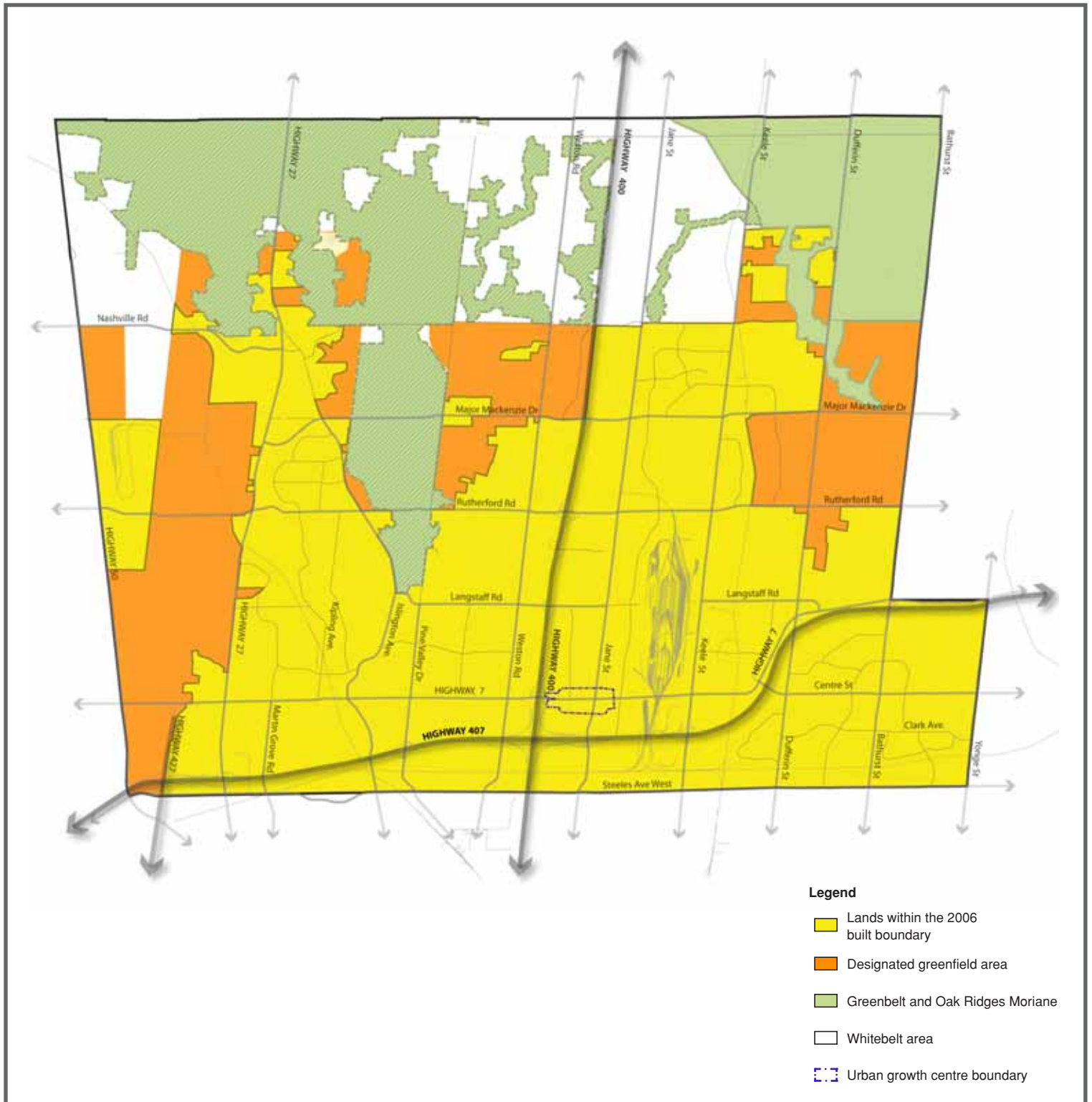
Greenbelt Plan (2005) & Oak Ridges Moraine Conservation Plan (2002)

The Province-initiated region-wide protection and preservation of important natural features and undeveloped areas in the *Oak Ridges Moraine Conservation Plan (2002)* and the *Greenbelt Plan (2005)*. These plans were the precursors to the significant Provincial land use directives in the *Growth Plan for the Greater Golden Horseshoe*, described below.

The *Greenbelt* and *Oak Ridges Moraine Conservation Plans* aim to protect agricultural lands and lands performing vital ecological features from urbanization. The policies in these plans effectively prohibit any kind of activity on the lands designated by them except for agricultural, passive recreational, and traditional rural settlement area uses. In determining how Vaughan will grow, lands included in the *Greenbelt* cannot be considered for future urban development. The result is that while these Plans protect certain lands from urbanization, in doing so they effectively require the City to look elsewhere for places to accommodate growth.



▲ Figure 6:
21% of Vaughan is protected by the Oak Ridges Moraine Conservation Plan and Greenbelt Plan



▲ Figure 7:
Places to Grow nomenclature applied to the City of Vaughan

Places To Grow - A Growth Plan for the Greater Golden Horseshoe (2006)

Places To Grow - A Growth Plan for the Greater Golden Horseshoe was released in 2006 to implement the principles of the Places to Grow Act, 2005. It builds on and strengthens other related Provincial initiatives already described, and is the key policy driver for the growth management exercise and new Official Plan. The *Growth Plan* is a framework for managing growth in the Region over the next 25 years. It attempts to balance the needs of a growing population base and healthy economy with the parallel desire to protect lands for the future by changing the way the Greater Golden Horseshoe has grown to date. The *Growth Plan* emphasizes:

- the efficient use of existing infrastructure and directs growth at higher densities and with a mix of uses to those areas best able to accommodate it;
- the creation of complete communities in both existing built-up areas and new developments so that residents can meet their basic needs close to home;
- the preservation of designated employment areas for future economic opportunity;
- conservation of natural heritage areas; and
- multiple modes of safe and efficient transportation to move around.

The *Growth Plan* employs a specific nomenclature that creates a new basis for planning in the Greater Golden Horseshoe. Based on *Places to Grow*, Vaughan's land supply is made up of:

- Lands within the *built boundary*, which were designated by the Province as built-up as of June 2006.
- *Designated greenfield*: the areas that are designated for urban development in the City's Official Plan but were not yet built as of June 2006.
- *Greenbelt*: the areas protected by the Provincial Greenbelt Plan (including the Oak Ridges Moraine Conservation Plan area).
- *Whitebelt*: the rural areas between the *Greenbelt* and the designated *urban areas* have come to be known as "*whitebelt*" areas because of their colour on the *Places to Grow* maps.

Together, the *designated greenfield* lands and the lands within the *built boundary* make up the current extent of the City's *urban area* as designated in the City's existing Official Plan. The *Greenbelt* and *whitebelt* define the rural area. Figure 7 shows these categories as they apply to Vaughan.

The policies of the *Growth Plan* address growth in specific ways within each of the built-up, *greenfield*, *Greenbelt*, and *whitebelt* areas:

- At a minimum, 40% of all residential development within a Region must be accommodated through intensification of the built-up area as of the year 2015, and every year thereafter (policy 2.2.3.1).
- A sub-category of the built up area, Provincially-designated *urban growth centres*, (which are to be the focus for more intense growth and significant public and private investment) must achieve a minimum density of 200 people and jobs per hectare (policy 2.2.4.5.b). The Vaughan Corporate Centre node is designated as an *urban growth centre*.
- *Designated greenfield* areas, together with any lands subject to an *urban boundary* expansion, are required to be planned at a minimum density of 50 people and jobs per hectare to create compact, transit-supportive, walkable places that offer people real options for living, working and meeting their daily needs in their neighbourhoods (policies 2.2.7.1, 2.2.7.2).

The *Growth Plan* also provides municipalities with stronger support for designating and protecting strategically located employment areas. There are specific criteria that must be met in order for a municipality to allow conversion of employment areas to allow non-employment uses (policy 2.2.6.5). In addition, major offices and major retail are directed to transit corridors and centres in order to better protect employment areas for more traditional manufacturing, industrial and warehousing uses.

Furthermore, the *Growth Plan* attempts to restrain low-density urban sprawl by restricting when and how expansions of a municipality's *urban boundary* may be approved. Expansions can no longer be considered by means of site-specific applications to amend the Official Plan and may only be approved through a municipal comprehensive review.

These targets and policies are to be applied based on a common forecast for future levels of population and employment across the Greater Golden Horseshoe. The *Growth Plan* forecasts that York Region will be home to a total of 1,500,000 people and offer 780,000 jobs by the year 2031². It is up to the Region to then allocate the forecasted population and employment numbers to the local municipalities. This allocation is described in subsequent sections.

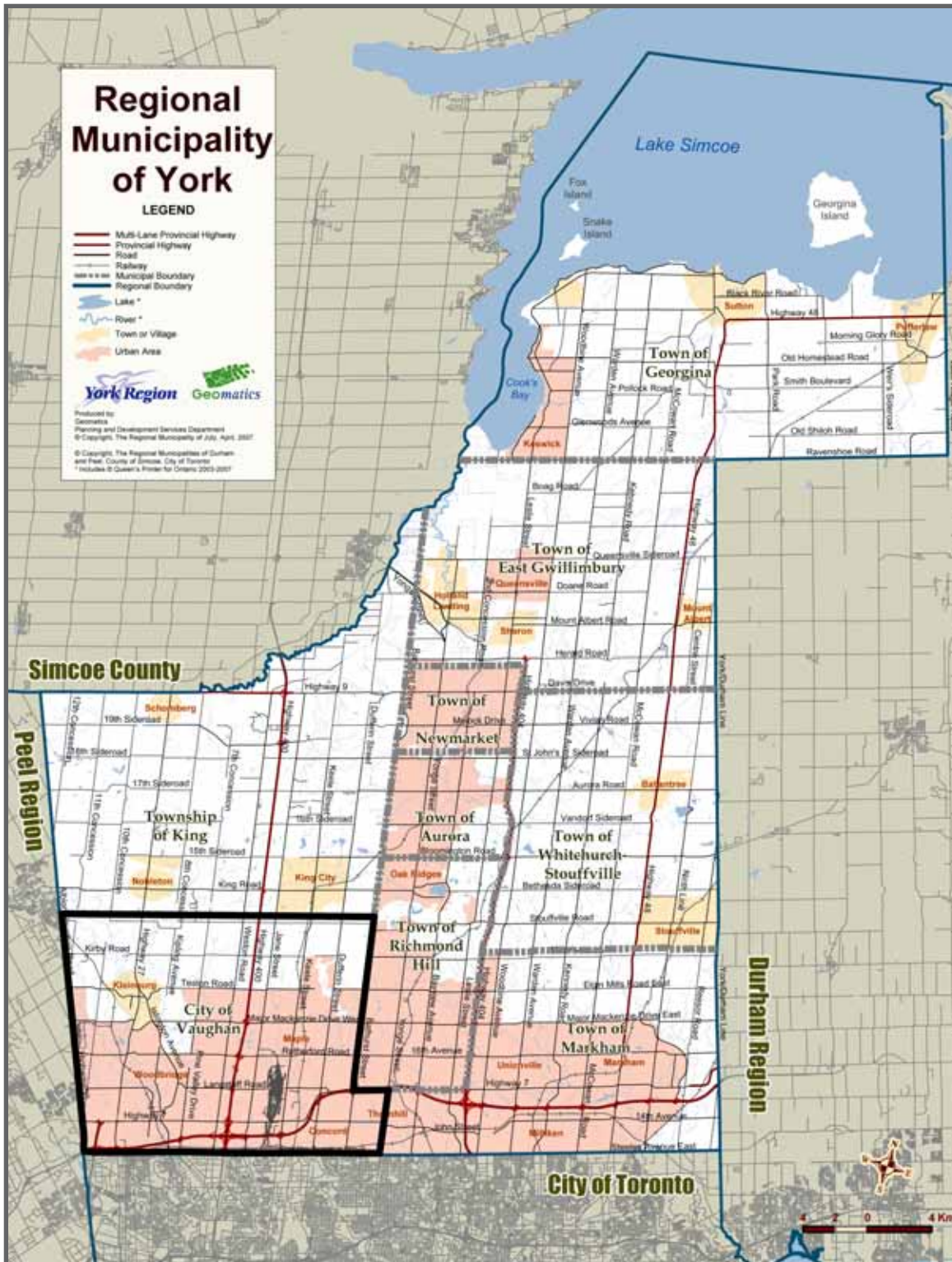
The Big Move: The Regional Transportation Plan (2008)

Metrolinx is the regional transportation agency for the Greater Golden Horseshoe. It was established to support the ambitious shift in development patterns required in the *Growth Plan* and recognizes the symbiotic relationship between transportation and land use. Metrolinx has released a Regional Transportation Plan in public transportation infrastructure directly associated

with the higher density communities to be delivered by the *Growth Plan*. Vaughan is a significant recipient of this investment as both the Yonge and Spadina subway extensions will have stops in Vaughan, and Viva Rapid Transit service will see expanded service along Highway 7 and Yonge Street. GO Transit service to Bolton is being studied, and would have stops in Vaughan.

▼ Figure 8:
Detail from the *Regional Transportation Plan: 25 Year Plan for the Regional Rapid Transit and Highway Network, Metrolinx, 2008*





▲ Figure 9:
 Vaughan is located at the southern end of York Region.
 Source: Region of York

3.2 Regional Policies

The York Region Official Plan Review

In a two-tier municipality the targets and policies of the *Growth Plan* are measured and evaluated at the Regional level. This means that the York Region Official Plan must be in conformity with the *Growth Plan* and must demonstrate that 40% of all residential growth will be directed to the built areas of the Region and that unbuilt areas identified for urban uses are planned for a minimum density of 50 people and jobs per hectare. The Region is in the process of updating its Regional Official Plan (ROP), which is anticipated for draft release in June 2009. The Vaughan Tomorrow process has been coordinated with the ROP update to ensure the two policy documents are consistent. Regional planning staff sit on the Technical Advisory Committee for Vaughan's Official Plan and information has been shared between the two Official Plan Review processes.

In support of the ROP update, the Region has released background reports that cover a variety of topics and provide base-line planning data for the lower-tier municipalities including:

Planning For Tomorrow Part 1, York Region Population & Employment Forecasts, April 2007

Refined York Region 2031 Forecast & Land Budget, September 2008

Planning For Tomorrow Part 2, Land Requirements, April 2007

Enhancing York Region's Urban Structure: A Guide to Developing Area Municipal Intensification Strategies, April 2008

Planning For Tomorrow Part 3, York Region Residential Intensification Strategy, April 2007

York Region Employment Land Area Analysis, April 2008

Planning for Tomorrow Part 4, York Region Residential Area Analysis: Preliminary Report, April 2007

York Region 2031 Population & Employment Forecasts, January 2009

Planning For Tomorrow Part 5, Phase 2: Public Engagement & Consultation, April 2007

York Region 2031 Land Budget, January 2009

York Region Preliminary Draft Sustainability Strategy, March 2007

Draft Criteria For Building New Communities in York Region, March 2009

Table 1: York Region Total Population by Local Municipality (2006 to 2031)

Municipality	Total Population 2006	Total Population 2031	Population Growth 2006-31	2006-31 Share of Growth (%)	2006-31 Average Annual Increase (%)
Aurora	49,600	70,400	20,800	2%	1.4%
East Gwillimbury	21,900	88,000	66,100	11%	5.7%
Georgina	44,500	70,700	26,200	5%	1.9%
King	20,300	35,100	14,800	3%	2.2%
Markham	272,500	423,500	151,000	26%	1.8%
Newmarket	77,400	97,300	19,900	3%	0.9%
Richmond Hill	169,500	242,800	73,300	13%	1.4%
Vaughan	248,800	418,800	170,000	29%	2.1%
Whitchurch-Stouffville	25,400	60,800	35,400	6%	3.6%
York Region	929,900	1,507,400	577,500	100%	2.0%

Source: York Region 2031 Land Budget, January 2009

Table 2: Total Employment by Local Municipality (2006 to 2031)

Municipality	Total Employment 2006	Total Employment 2031	Employment Growth 2006-31	2006-31 Share of Growth (%)	2006-31 Average Annual Increase (%)
Aurora	20,300	34,700	14,400	4%	2.2%
East Gwillimbury	5,900	31,800	25,900	8%	7.0%
Georgina	8,000	21,700	13,700	4%	4.1%
King	7,100	12,100	5,000	2%	2.2%
Markham	144,800	248,500	103,700	31%	2.2%
Newmarket	42,100	49,700	7,600	2%	0.7%
Richmond Hill	61,100	100,600	39,500	12%	2.0%
Vaughan	162,200	275,900	113,700	34%	2.1%
Whitchurch-Stouffville	10,900	23,700	12,800	4%	3.2%
York Region	462,400	798,700	336,300	100%	2.2%

Source: York Region 2031 Land Budget, January 2009

Included in these papers are forecasts for population and employment growth undertaken by the Region, and the allocation of this growth to each of the lower-tier municipalities, shown in Tables 1 and 2. The Region has allocated 29% of the total Regional population growth and 34% of the total Regional job growth to Vaughan. This means the City is planning to accommodate 113,700 more jobs, 170,000 more people and 64,850 more homes between 2006 and 2031.

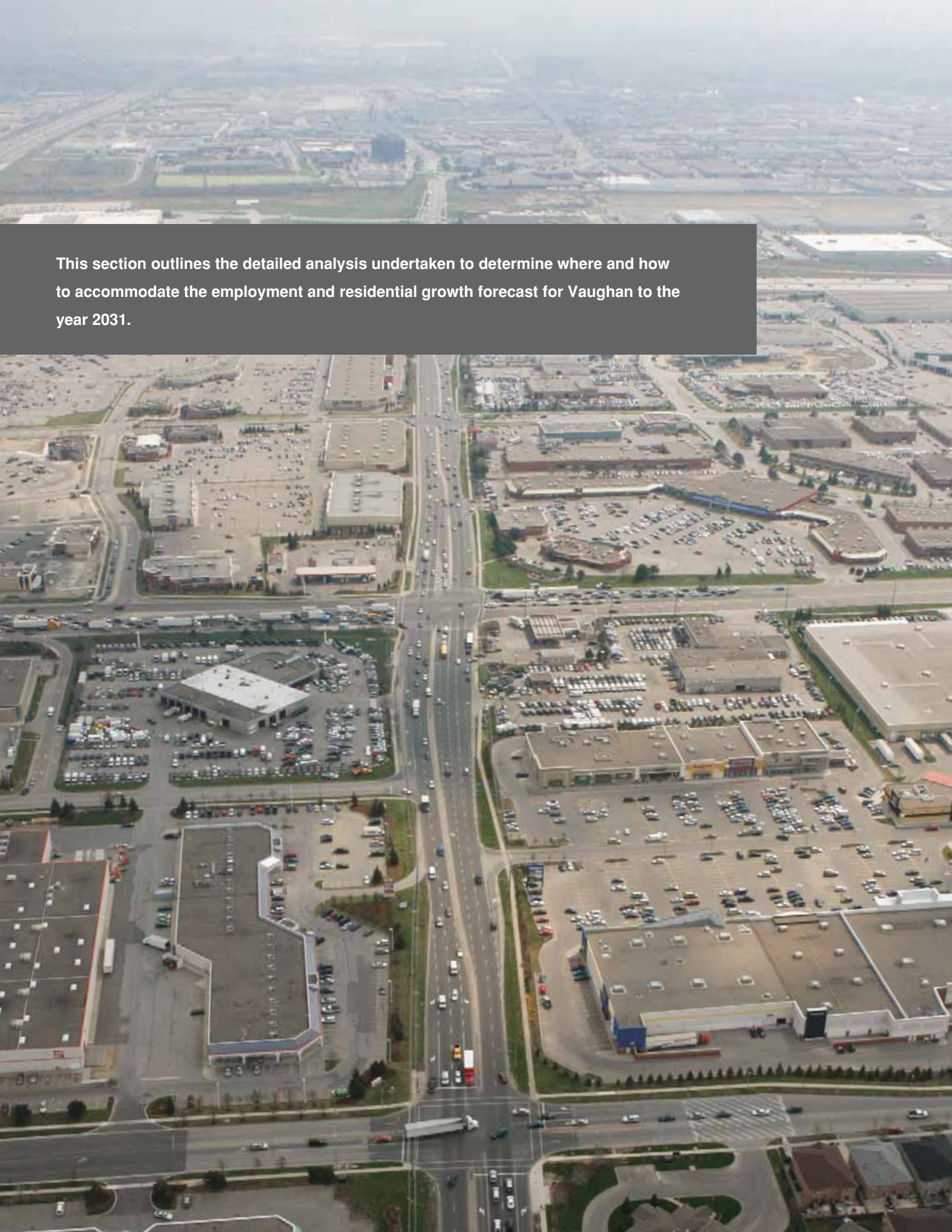
To meet the Region-wide target of 40% residential intensification, growth within the *built boundary* has been allocated to the local municipalities based on their ability to best absorb and accommodate such development. York Region has undertaken an analysis to determine where these intensification units should be located and, in recognition of the fact that the southern part of the Region is already more built up and has more services and infrastructure to accommodate growth, the southern municipalities are expected to handle more than 40% intensification. This makes up for the lower rates of intensification to be expected in the northern, more rural municipalities.

Table 3: Vaughan Planning Parameters (2006 to 2031)

	2006	2031	Change
Jobs	162,200	275,900	113,700
People	248,800	419,800	170,000
Homes	69,500	134,350	64,850

Table 4: York Region Intensification Allocation

	Intensification Units	% Intensification
Newmarket	5,250	55%
Markham	31,590	52%
Richmond Hill	14,700	49%
Vaughan	29,300	45%
Aurora	3,140	37%
Geogina	2,690	24%
Whitchurch-Stouffville	2,100	15%
King	920	15%
East Gwillimbury	1,030	4%



This section outlines the detailed analysis undertaken to determine where and how to accommodate the employment and residential growth forecast for Vaughan to the year 2031.

04

accommodating growth to 2031

4.1 Employment Growth

The Region of York has allocated 113,700 new jobs to Vaughan between 2006 and 2031. While job growth is to be confirmed by Hemson Consulting, early analysis suggests that for land use planning purposes York's figure is within a reasonable range³.

Land use planning typically considers employment uses in three categories:

- **Population-based employment** includes retail and service commercial uses such as dry cleaners, restaurants, aestheticians, and small offices which typically locate close to the population base on main streets, in plazas.
- **Major office employment** means office uses that take place in office buildings greater than 20,000 square feet, including corporate head offices, larger business services providers that prefer to locate where other business synergies can be achieved in highly visible, easily accessible and attractive locations. The *Growth Plan* directs such uses away from employment lands and to *urban growth centres* (such as the Vaughan Corporate Centre) and intensification areas and corridors that are well serviced by transit.
- **Employment land employment** includes typical heavy or light industrial, warehouse and manufacturing uses. Some of these uses may benefit from segregation from other areas of a community because of noise, smell, heavy trucking or other environmental considerations. Such lands need specific designation and protection from other forms of development in order to maintain separation distances from other uses (where appropriate) and to allow a municipality to create and protect a range of economic activities.

Table 5: Vaughan Employment Growth (2006 to 2031)

Forecast Employment Growth 2006-2031	
Major office	6,260
Population-based	29,590
Employment land	77,920
Total	113,770

Source: York Region 2031 Land Budget, January 2009

³ Hemson Consulting is currently preparing an Employment Land Needs Analysis for Vaughan that will form part of the final Official Plan analysis prior to the preparation of draft Urban Structure and Land Use Designation maps.

Major Office and Population-based Employment

The Region of York has estimated that of the 113,700 new jobs expected to locate in Vaughan, 35,850 (or 32%) will be population-based or major office. As described above, the new population-based jobs will be located in the mixed-use areas of the city including the village cores, district centres, along main streets and in the new Downtown (Vaughan Corporate Centre).

Major office demand will be directed to the new Downtown to take advantage of the transit infrastructure planned for that area. Historically, 85% of major office uses in Vaughan have located on employment lands⁴. In light of the designation of the Vaughan Corporate Centre as an *urban growth centre* and the desire for intensification within the *built boundary*, the Region has assumed that 50% of the forecast major office activity will take place on employment lands and the remainder will take place in the community (primarily in the Downtown).

Restricting Uses in Employment Lands

It is the emerging position of the Official Plan and Vaughan Corporate Centre (VCC) Focus Area Study teams that, to bolster development of the VCC, no new major office should be permitted on employment lands (unless such development forms part of an intensification area). Furthermore, the VCC has ample land supply to accommodate the modest office demand in the Region's forecasts and the findings of that Focus Area Study may result in a higher forecast of office jobs than assumed by the Region. Additional support for restricting major office from designated employment areas comes from the *Growth Plan*. Policy 2.2.6.4 directs major office and institutions to *urban growth centres*, transit station areas and other nodes or corridors with existing or planned higher-order transit services. The Vision for Transformation, endorsed by the Official Plan Review Committee of Council, also includes direction for limiting major office uses in employment areas.

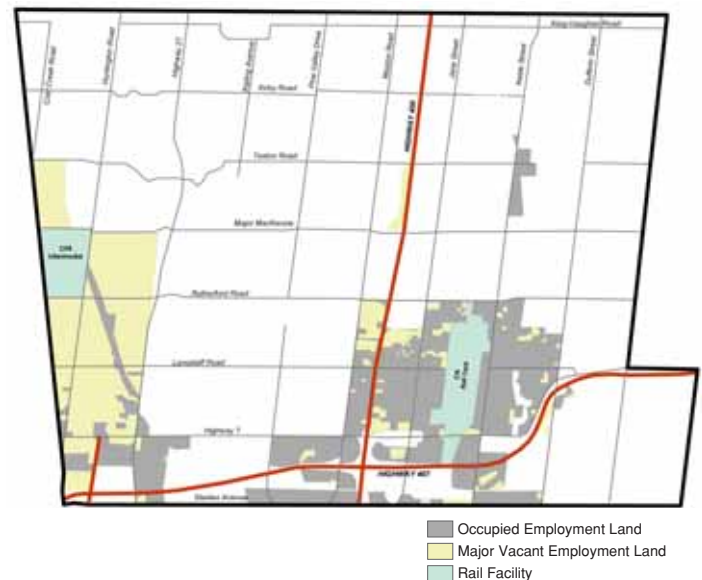
Both the *Growth Plan* and Vision for Transformation also state that major retail, which is considered a component of population-based employment, should be directed to transit nodes and corridors. It is the emerging position of the Official Plan team that no major retail uses should be permitted in employment areas unless they form part of an intensification area, are supported by transit and contain a mix of non-retail uses.

Employment Land Employment

The other 77,920 jobs (or 68%) are forecast to be located on employment lands. It is estimated by York Region that within the existing supply of designated employment lands (OPA 450) there are 1,250 net hectares of vacant land. Nearly one-third of these vacant lands are within the existing built-up area. The remainder includes the Vaughan West Employment Area and the employment lands adjacent Highway 400 in Block 33 West.

A 2006 survey of employment lands determined the density of Vaughan's existing employment lands to be 49 jobs per net hectare (approximately 37 jobs per gross hectare assuming a typical net to gross ratio of 25%). If existing major office uses on employment lands are excluded, this density drops slightly to 47 jobs per net hectare (33 jobs per gross hectare). These results are shown in Table 6 on the following page. Based on a conservative estimate of 45 jobs per net hectare, these vacant lands can accommodate approximately 56,300 jobs. That leaves 21,700 jobs still to be accommodated on employment lands by 2031.

▼ Figure 10:
Occupied and Vacant Employment Land, 2005



Source: Highway 400 North: Working Paper on Employment Land Need, Hemson Consulting Ltd, December 2005

New Employment Land Needs

While higher job densities are desirable, unlike residential densities, employment densities are more difficult to control or shift with policy, as employment location decisions tend to be more mobile than residential location decisions. To meet its growth forecast, and in lieu of policy direction to create a major shift in the economic structure of the City towards office and other non-industrial sectors, Vaughan will need a readily available supply of employment lands. New employment lands need to be designated to accommodate the remaining 21,700 anticipated employment lands jobs.

York Region's analysis assumes that new employment lands should be built out at approximately 40 jobs per gross hectare (equivalent to 50 jobs per net hectare at a net to gross factor of 20%) to meet *Places to Grow* targets. At this job density, 540 gross hectares are needed to satisfy employment land job growth in Vaughan.

Table 6: Employment Land Density in the City of Vaughan and York Region

	Occupied Area (ha)	Employment Land Employment	Major Office Employment	Employment Land Density (jobs/ha)
Employment Land Density EXCLUDING Major Office				
Vaughan	2,080	97,700	-	47
York Region	4,000	199,600	-	50

	Occupied Area (ha)	Employment Land Employment	Major Office Employment	Employment Land Density (jobs/ha)
Employment Land Density INCLUDING Major Office				
Vaughan	2,130	97,700	6,910	49
York Region	4,310	199,600	58,600	60

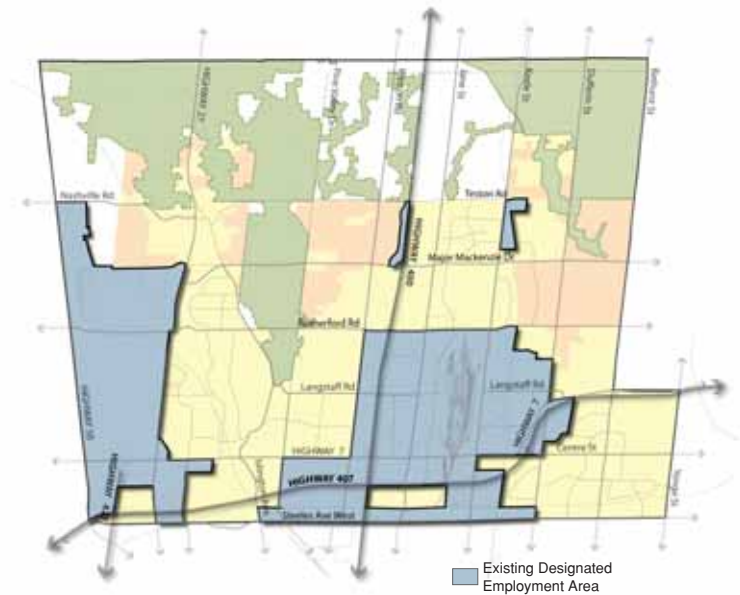
Source: *City of Vaughan Official Plan Background Paper on Employment*, Hemson Consulting, June 2008

In 2005, The City of Vaughan undertook an exercise to locate new employment lands. The analysis at the time identified a Region-wide long-term deficit of employment land and identified lands straddling Highway 400 in Vaughan as an appropriate addition to the supply base. An Official Plan amendment was passed by Vaughan Council and Regional Council in 2006 but the amendment has not yet come into force.

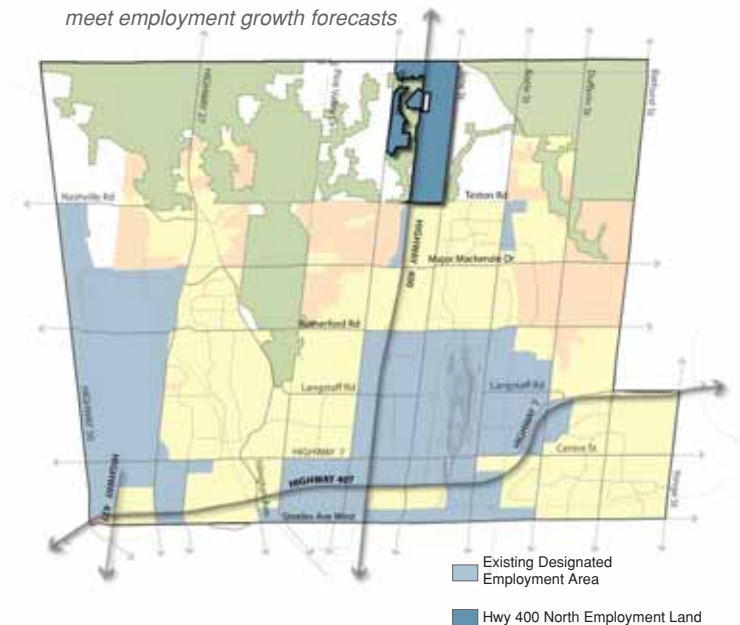
The *urban boundary* expansion analysis prepared under the original Highway 400 North Employment Lands Study has been reviewed as part of the Official Plan process in compliance with the Province's direction, and is consistent with the Region-wide needs analysis described above. As a result, these same lands are appropriate to accommodate the remaining employment land job growth, subject to final confirmation from the Employment Land Needs Analysis. The Highway 400 lands designated under OPA 637 comprise 540 gross developable hectares which meet the need identified by the Region.

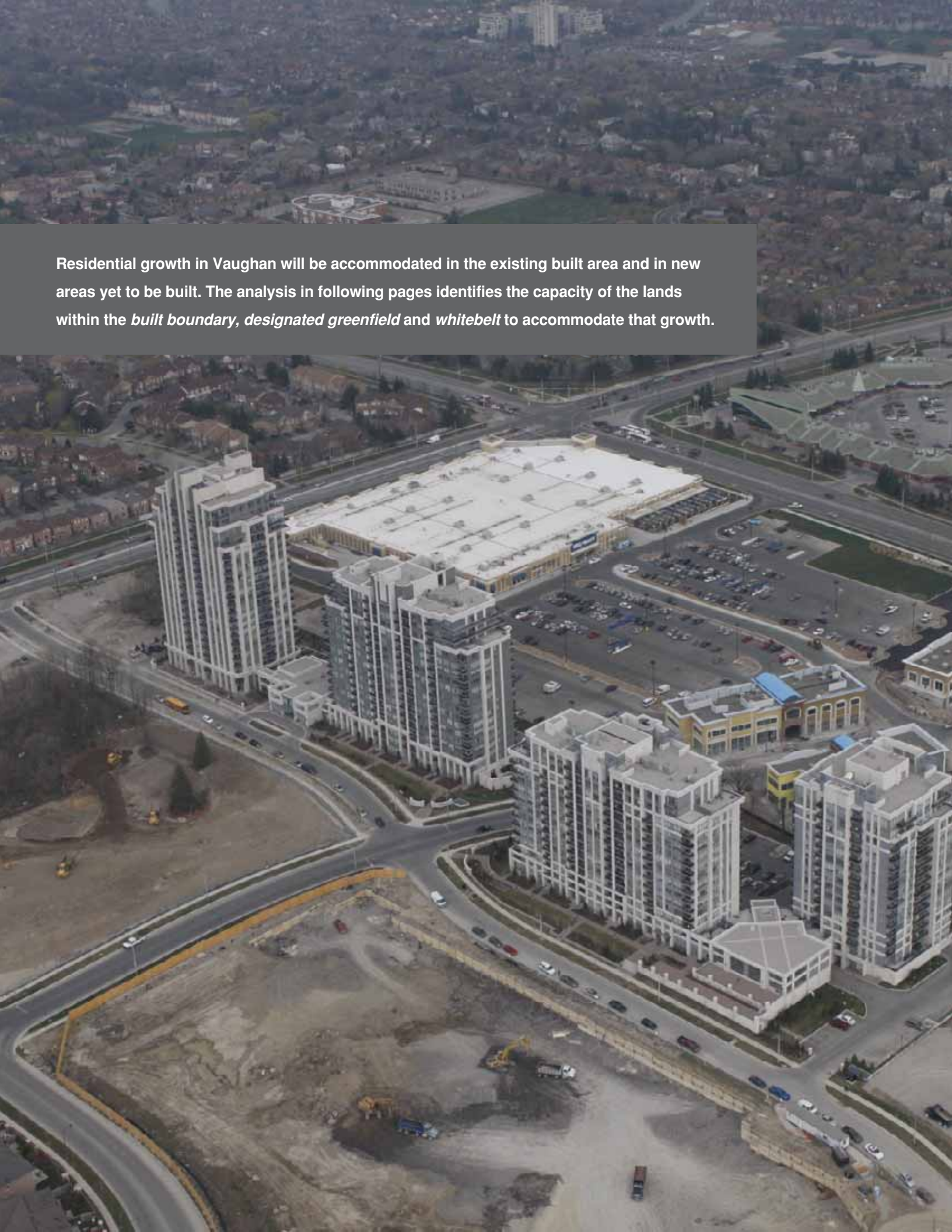
Over 80% of all employment growth in Vaughan can be met within the existing *urban area*. No new employment lands are needed in addition to those already identified through the Highway 400 Employment Lands (OPA 637) process.

▼ Figure 11:
Existing designated employment areas



▼ Figure 12:
The Highway 400 North lands will be brought into the urban area to meet employment growth forecasts





Residential growth in Vaughan will be accommodated in the existing built area and in new areas yet to be built. The analysis in following pages identifies the capacity of the lands within the *built boundary*, *designated greenfield* and *whitebelt* to accommodate that growth.

4.2 Residential Growth - Intensification

In order to meet the Province's Region-wide target of a minimum 40% intensification, Vaughan is expected to plan for a minimum of 30,000 housing units within the *built boundary* through intensification.

Places to Grow defines intensification as:

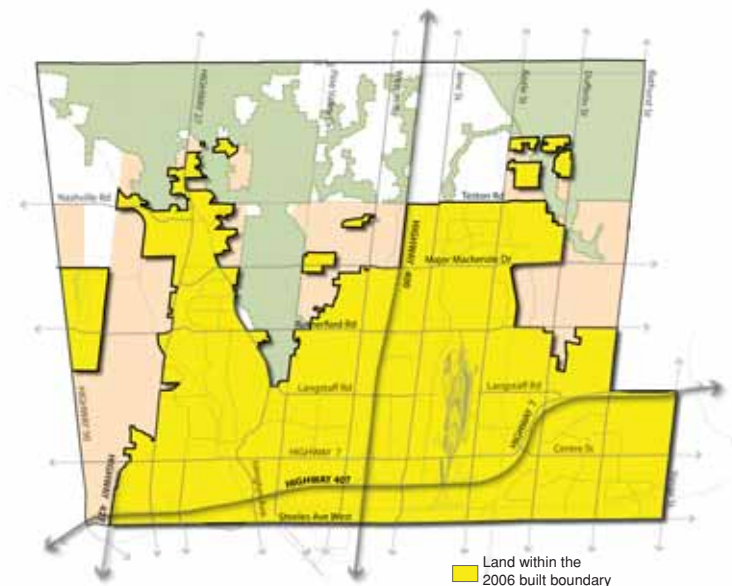
"The development of a property, site or area at a higher density than currently exists through:

- a) redevelopment, including the reuse of brownfield (former industrial) sites;
- b) the development of vacant and/or underutilized lots within previously developed areas;
- c) infill development; or
- d) the expansion or conversion of existing buildings."

While intensification through sensitive infill and redevelopment will generally be encouraged throughout the *built boundary* area, the majority of the intensification target will be met by focused intensification activity at key intensification areas and corridors, as determined through this capacity study and in keeping with Regional policies. In general, intensification areas should be identified at Regional Centres, along Regional Corridors (Highway 7 and Yonge Street), and around major transit stations such as GO and TTC Subway stations. The capacity analysis study identified these areas in the City of Vaughan and determined their capacity for redevelopment. The study also identified other areas appropriate for intensification, specifically those areas that have the public infrastructure and land capacity to accommodate significant intensification, and the potential to support public transit.

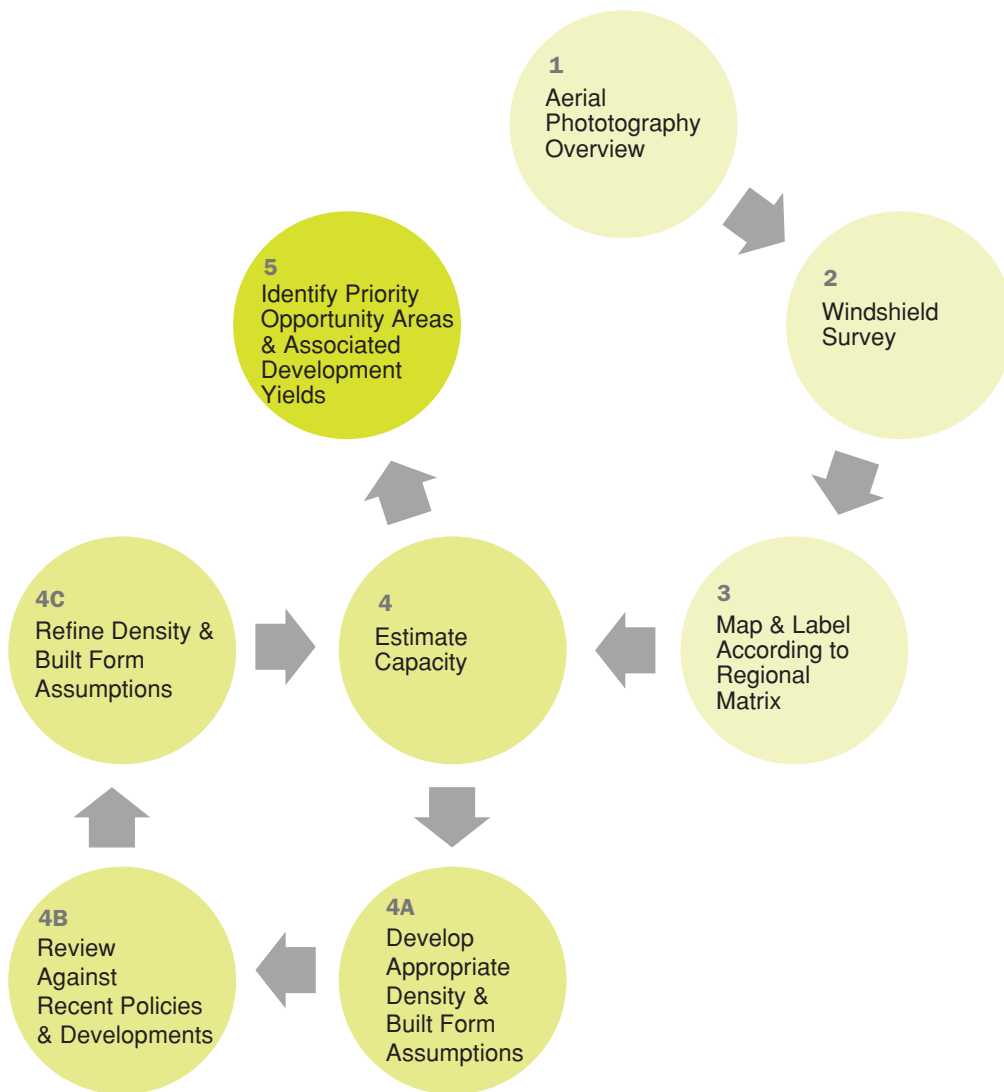
Intensification within the *built boundary* will be guided by the following principles, in keeping with the principles established in the Vision for Transformation to guide preparation of the City's new Official Plan:

- Create memorable places by intensifying local and Regional nodes
- Seek opportunities to urbanize the fabric of connecting corridors
- Capitalize on planned transit infrastructure
- Improve the overall design aesthetic and urban quality of place
- Diversify the housing and commercial space mix
- Generally protect stable residential areas



▲ Figure 13:
Lands within the 2006 built boundary established by the Province will be the focus for at least 45% of all residential growth.

The following methodology was used to determine the 2031 intensification parcels. It is derived from the Region's Urban Capacity Study steps outlined in the April 2008 "Enhancing York Region's Urban Structure: A Guide to Developing Area Municipal Intensification Strategies".



▲ Figure 14:
Methodology for determining the 2031 intensification parcels

Aerial photography overview

The intensification analysis was initiated in July 2008 with a study of 2006 aerial photography overlaid with parcel boundaries and the Province's established *built boundary*. From these photographs a first determination was made to identify vacant or underutilized parcels within the *built boundary*. Areas for both mixed-use residential/commercial and employment intensification were identified. The basis for identifying parcels was as follows:

Vacant parcels: No structures or apparent active use.

Underutilized parcels:

- The City's major arterials (including both Regional and Local corridors and nodes) were scanned to identify underutilized parcels. Sites with significant parking coverage relative to the amount of building have potential for intensification, either on the parking portion or the whole parcel. Most strip plazas, shopping malls, and car sales lots fall into this category, regardless of age. New buildings with complementary uses can be constructed along the street front with parking moved to the rear, in a parking structure, or ideally below grade.
- Parcels developed at low densities (i.e. less than three storeys in height) along key transit corridors were identified as underutilized.
- Industrial sites with significant outdoor storage are not the best use of high intensity corridors and nodes and were identified as underutilized.
- Where a parcel was identified as productive but is surrounded by, or adjacent to a number of contiguous underutilized or vacant parcels in a key intensification area (identified node or corridor), that productive parcel was considered part of the intensification area and its redevelopment capacity was estimated.
- Other secondary corridors were also scanned for lands meeting the criteria. These parcels were identified for consideration as local infill or redevelopment sites. That is to say that identifying an underutilized parcel on a minor street did not result in the whole strip being considered for intensification as was the case for major corridors, described above.

Parcels that contained any of the following were excluded: stand-alone school, special institution, heritage structure, cemetery, stand-alone place of worship, conservation or public parkland, right of way.

Parcels that contained single-detached, semi-detached, row or townhouses, walk-up or mid-rise apartment buildings were excluded except where existing City policy already identified such parcels for intensification (e.g. north side of Centre Street).

Other key community hub facilities that may have lands that are underutilized, such as community centres, were also identified for possible intensification.

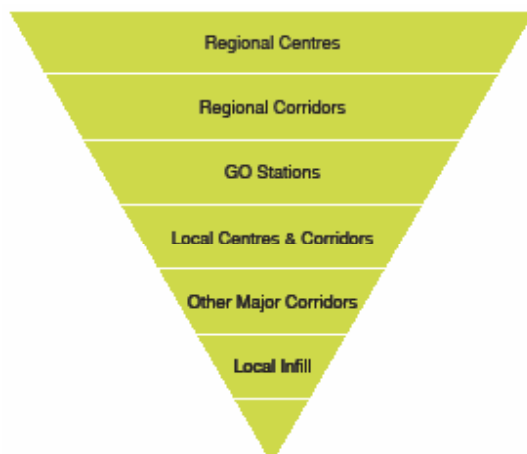
Windshield survey

A visual assessment was taken of the identified parcels by way of a windshield survey (tour) of the City. This served to corroborate the assumptions made during the aerial photography assessment with what was on the ground.

Map and label according to matrix

The identified intensification opportunity parcels were then mapped and labelled according to the Regional Matrix structure. This step allowed identified parcels to be checked against the locations of significant planned transit investment and the *urban growth centre* to ensure that intensification opportunities were identified at these features. Adjacent or proximate intensification parcels were grouped together for ease of analysis. These groups are referred to as Opportunity Areas (OAs). The OAs were mapped using GIS software where the draft natural heritage network was overlaid. The total gross developable area of the OAs was determined, net of any natural heritage components.

▼ *Figure 15: Regional Matrix Structure*



Estimate capacity

An Excel spreadsheet was devised for each OA. The number of parcels and total gross developable area of all parcels was determined through GIS analysis. The OA was then assigned an intensification potential based on a desired built form mix, determined through internal team discussion.

The typologies used to create each OA mix include residential/mixed-use and non-residential forms as follows:

- | | |
|----------------------------------|---|
| Grade-Related Residential | <ul style="list-style-type: none"> • Singles / Semi-detached homes* • Towns / Row Houses • Stacked Towns |
| Apartment Residential | <ul style="list-style-type: none"> • Low Rise Apartment Style⁺ • Mid Rise Apartment Style⁺ • High Rise Apartment Style⁺ |
| Non-Residential | <ul style="list-style-type: none"> • Standard Industrial* • Prestige Industrial* • Business Park Office* • Urban Office • Major Retail • Neighbourhood Retail |

*this category was included to acknowledge the full range of forms available but is generally avoided in the intensification analysis

⁺with or without grade-related commercial

The following tables identify the development parameters associated with each typology:

Table 7: Residential Intensification Assumptions

Residential Typologies	Storeys	FSI Range	Average units Size (m ²)	Typical Persons per Unit	% of GFA for non-res purposes
Single/Semi		0.25 - 0.75	170	3.69	
Town		0.50 - 1.00	150	3.13	
Stacked Town		1.00 - 1.75	110	2.27	
Low Rise Apartment	3 - 5	1.00 - 1.80	100	2.03	19%*
Mid Rise Apartment	6 - 10	1.80 - 3.25	100	2.03	9%*
High Rise Apartment	11 - 25	3.25 - 6.50	100	2.03	4%*
Special Tall Building	26+	6.50 - 9.00	100	2.03	3%*

* 75% of the ground floor space based on the average height in the range

Table 8: Employment Intensification Assumptions

Non-residential Typologies	FSI Range	Typical area/ employee (m ²)
Industrial	0.25-0.45	100
Prestige Industrial	0.35-0.55	70
Suburban Office	0.60-0.80	27
Urban Office	2.90-3.10	27
Major Retail	0.15-0.35	50
Neighbourhood Retail	0.15-0.35	40

The gross developable land area of the OA was reduced to a net developable area by allocating a percentage of the total land for roads and parkland (typically 30%, but in some situations the amount was adjusted to reflect the specific context). The land area remaining following that subtraction is the net developable area.

The net developable area was apportioned between an appropriate mix of typologies based on the context

of that area to determine its potential yield. Each mix was established with an interest in keeping higher densities along arterials and at feature corners and lower densities in proximity to existing low-density neighbourhoods. The mix also favours grade-related forms (townhouses and stacked townhouses) where appropriate to demonstrate that such housing types can be a viable part of intensification scenarios.

The Vaughan Corporate Centre, Woodbridge, Kleinburg and the Yonge Street Corridor are all being studied in additional detail through Focus Area Studies. These Studies are each at various stages of completion but all have provided input into this process. Where appropriate, initial results from the Focus Area Study was used in place of the parcel selection and built form mix that would have been generated through this methodology.

Some parcels identified for intensification may currently be the subject of applications for amendments to the Official Plan or zoning by-law. Application data was not included in the analysis. It was assumed that the capacity analysis would capture an appropriate amount of development potential for any given site.

Review against recent policy direction

The selected OA intensification mix is informed by sound planning judgement based on the principles mentioned above. Recent policy was also reviewed for each area (OPAs etc). Where OPAs had recently been passed, and if it was deemed that those policies were still in keeping with the established principles and upper-level policy direction such as *Places to Grow*, then the intensification mix was based on that OPA to determine a theoretical yield.

Existing policy was also reviewed with respect to designated employment lands. Provincial policy allows for conversion of employment land to other

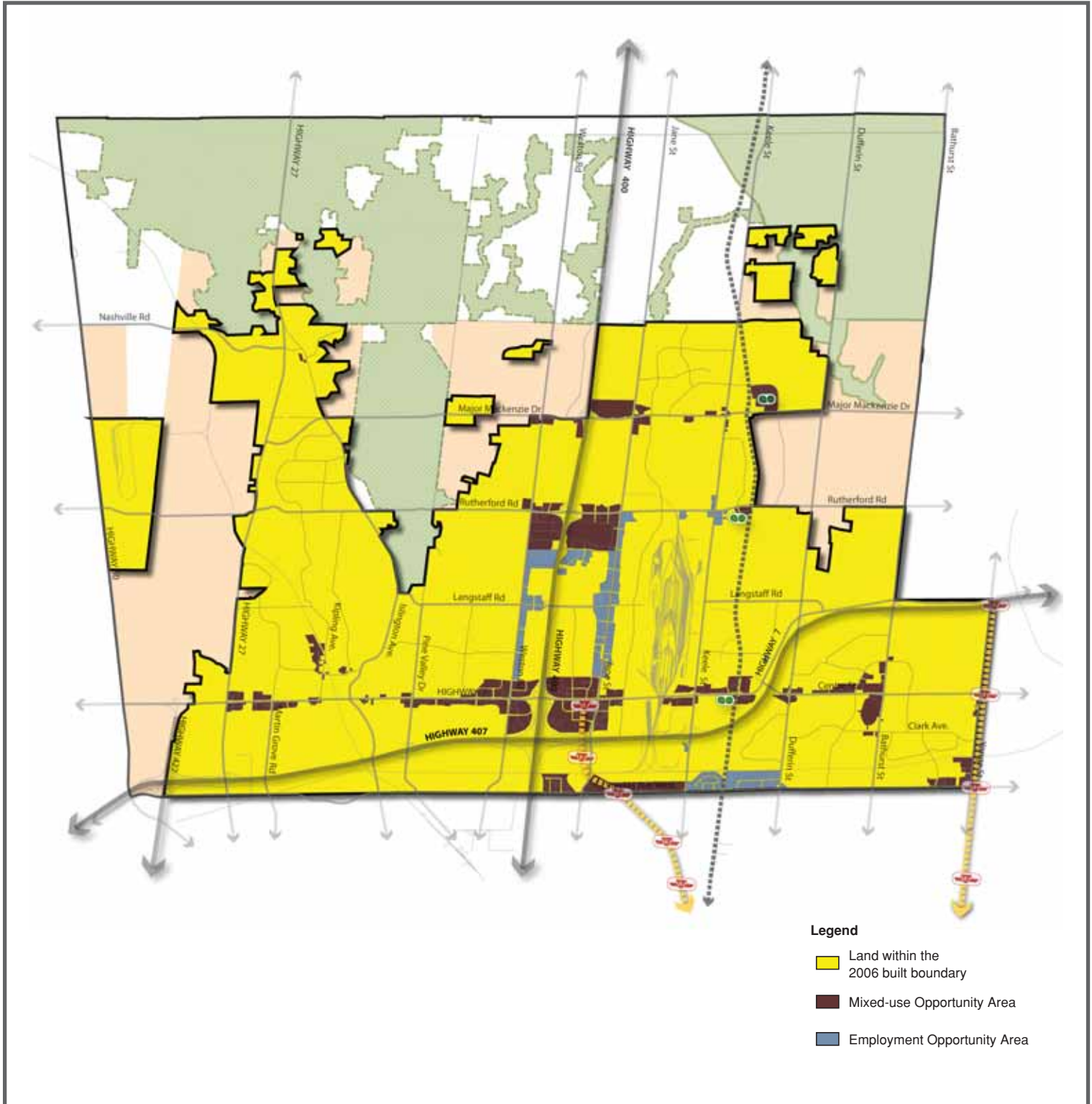
uses if certain criteria are met during a municipal comprehensive review, such as the development of a new Official Plan. Selected parcels on designated employment lands were identified where they met the criteria described above (i.e. on a Regional or local corridor, in close proximity to existing or proposed rapid transit facilities.)

Refine Opportunity Areas

The original opportunity parcels were reviewed following the first full round of analysis. In some cases parcels were removed from the OAs and in some cases OA's were reorganized. Parcels were removed from the analysis if upon review it was determined that the parcel did not meet the prescribed criteria or could not be supported as an employment land conversion. The employment intensification opportunities were removed from the analysis at this point because the focus of the study was to understand residential intensification potential.

Built Area Capacity Analysis Results

The results of the first full analysis indicated that the identified lands could accommodate in the order of between 75,000 and 100,000 units. This clearly indicates long-term supply past 2031 and establishes significant potential for intensification within the City of Vaughan.



▲ Figure 16 :
Results from the first full analysis identified capacity for 75,000 to 100,000 units.

The analysis was further reviewed to identify which areas could be considered Priority Opportunity Areas to focus intensification growth. Smaller infill OAs were removed and those OAs not on major transit, or not located at key nodes were similarly removed. Though the identified parcels still hold intensification potential they will not be the primary focus for growth over the planning horizon. The Priority Opportunity Areas identified are more likely to undergo redevelopment because of high value catalysts such as the Highway 7 rapid transit initiative, the subway extensions, Downtown economic development policies, and the existing attractiveness of the community cores and Vaughan Mills Mall.

The 2031 Priority Opportunity Areas yield approximately 54,200 units at the low end of the FSI range.

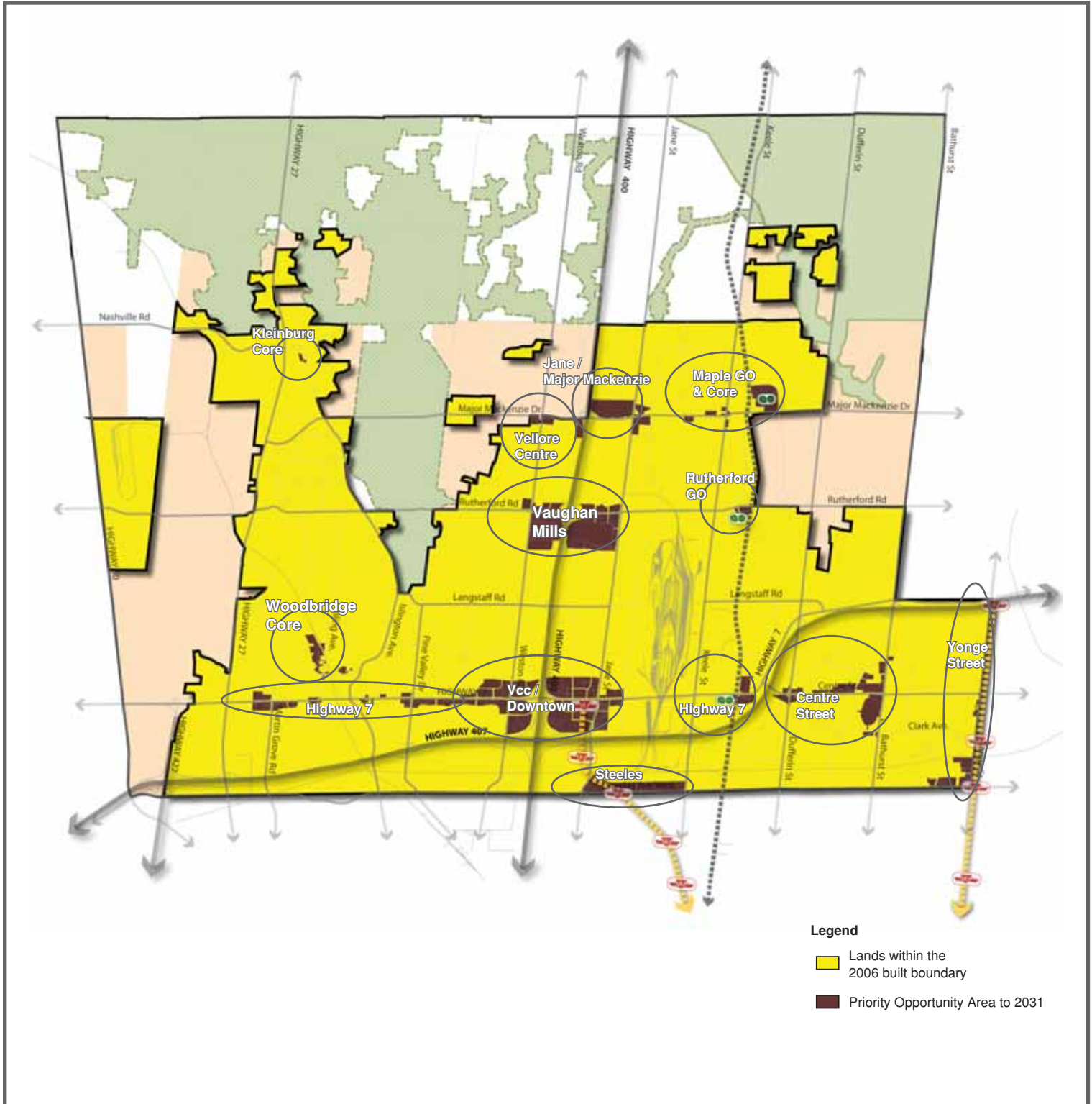
Each Priority Opportunity Area is outlined on pages 36-59.

The result confirms that the City of Vaughan has the capacity to meet and exceed the intensification targets set by the Region while maintaining stable neighbourhoods.

There is opportunity for further refinement resulting from public comment following the release of this paper and a final analysis of the intensification areas based on additional work carried out by the Focus Area Studies, selected demonstration areas and related Master Plans. The results of that analysis will form the basis of the draft recommendations on the Urban Structure and Land Use Designation maps to be brought forward in Fall 2009.

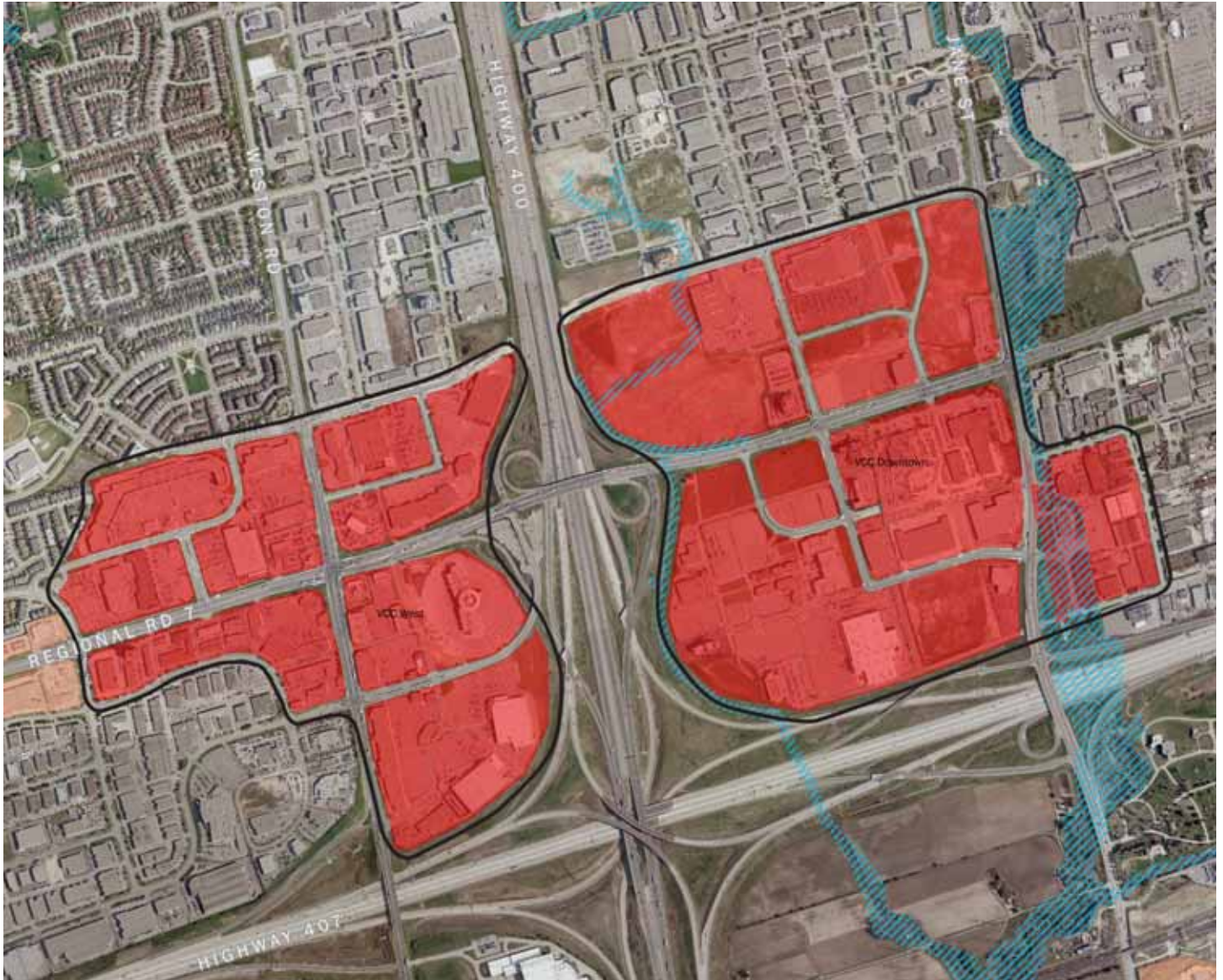
Table 9: Summary of Intensification Capacity Analysis

Priority Area	Intensification Capacity
Vaughan Corporate Centre	10,000 - 15,000
Highway 7	5,000 - 6,500
Centre Street	4,000 - 5,000
Steeles Corridor	5,500
Yonge Street	5,000 - 7,000
Vaughan Mills	5,000 - 9,000
Jane / Major Mackenzie	1,000 - 2,000
Woodbridge Core	1,000
Maple GO & Core	1,500 - 2,000
Vellore Centre	1,000 - 2,000
Rutherford GO	300
Kleinburg Core	100



▲ Figure 17 :
Priority Areas for intensification

vaughan corporate centre



Intensification Assumptions

The Vaughan Corporate Centre is governed by OPA 500 which is being reviewed through a Focus Area Study. Early results from that process suggest that only two-thirds of the designated VCC area will be redeveloped by 2031. The area is characterized by scattered large format retail and is dominated by surface parking. While there are some existing uses that are expected to remain (such as the Royal Bank office building) all of the parcels in the western two-thirds have been identified for intensification.

A significant amount of the City's growth will be directed to the new Downtown Vaughan. It has been identified as an *Urban Growth Centre* in the Province's *Growth Plan* and as a result it must be planned for a minimum density of 200 people and jobs per hectare. Downtown (generally east of the 400 and west of Jane) is no longer envisioned only as a centre for commerce but as a new urban district and focus for the whole City. The large expanse of land allows for the creation of new neighbourhoods to support the Downtown, including a significant supply of grade related housing forms. This area will also be the focus for new office development in the City. Determining how much office is likely to develop in the Downtown is still ongoing. The Region forecasts only 6,200 office jobs for Vaughan between 2006 and 2031, while the capacity of the Downtown is much greater.

Key Map



Intensification Summary

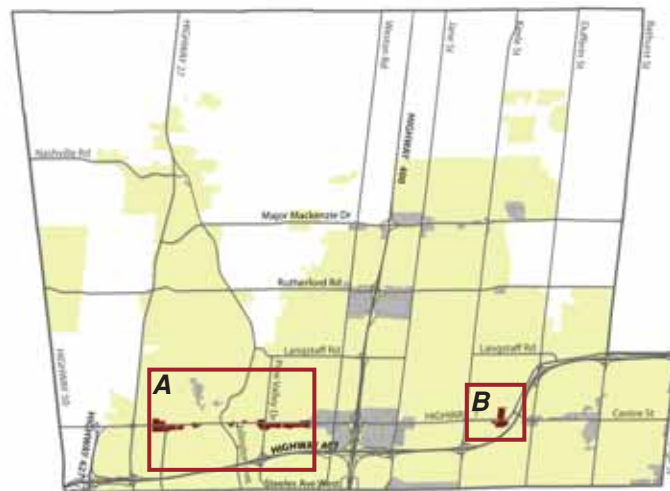
	Units	People
VCC West	2,991	6,383
VCC Downtown	10,026	21,362
TOTAL	13,017	27,745

Intensification Assumptions

Highway 7 is currently designated as a Regional Corridor and is the location of a planned higher-order dedicated transitway. Land uses vary along its length and include most of the typologies found throughout Vaughan including major large format retail sites, industrial/commercial areas and a variety of residential areas ranging in density. For the purposes of the intensification analysis the parts of Highway 7 in the Vaughan Corporate Centre have not been considered as part of this Opportunity Area. They are considered as a separate Opportunity Area. The parcels identified for intensification are primarily commercial uses with significant surface parking.

The Highway 7 lands were recently the subject of a series of Official Plan amendments which sought to allow for an increased variety and intensity of uses along the corridor in support of planned higher-order transit. The Highway 7 OPAs set minimum densities for various segments of the corridor including transit stops, GO station areas and interstitial areas. These minimum densities were approximated, where appropriate in the analysis, for the areas identified. While the OPAs generally apply to all parcels (with some exceptions), the parcels identified here are the ones that demonstrate the greatest likelihood of redevelopment and/or the most desirable places for redevelopment to take place. Under the current OPAs, the theoretical yield of the whole corridor is therefore higher than shown here because it applies to all parcels and not just selected ones. Such additional potential is considered post-2031 supply.

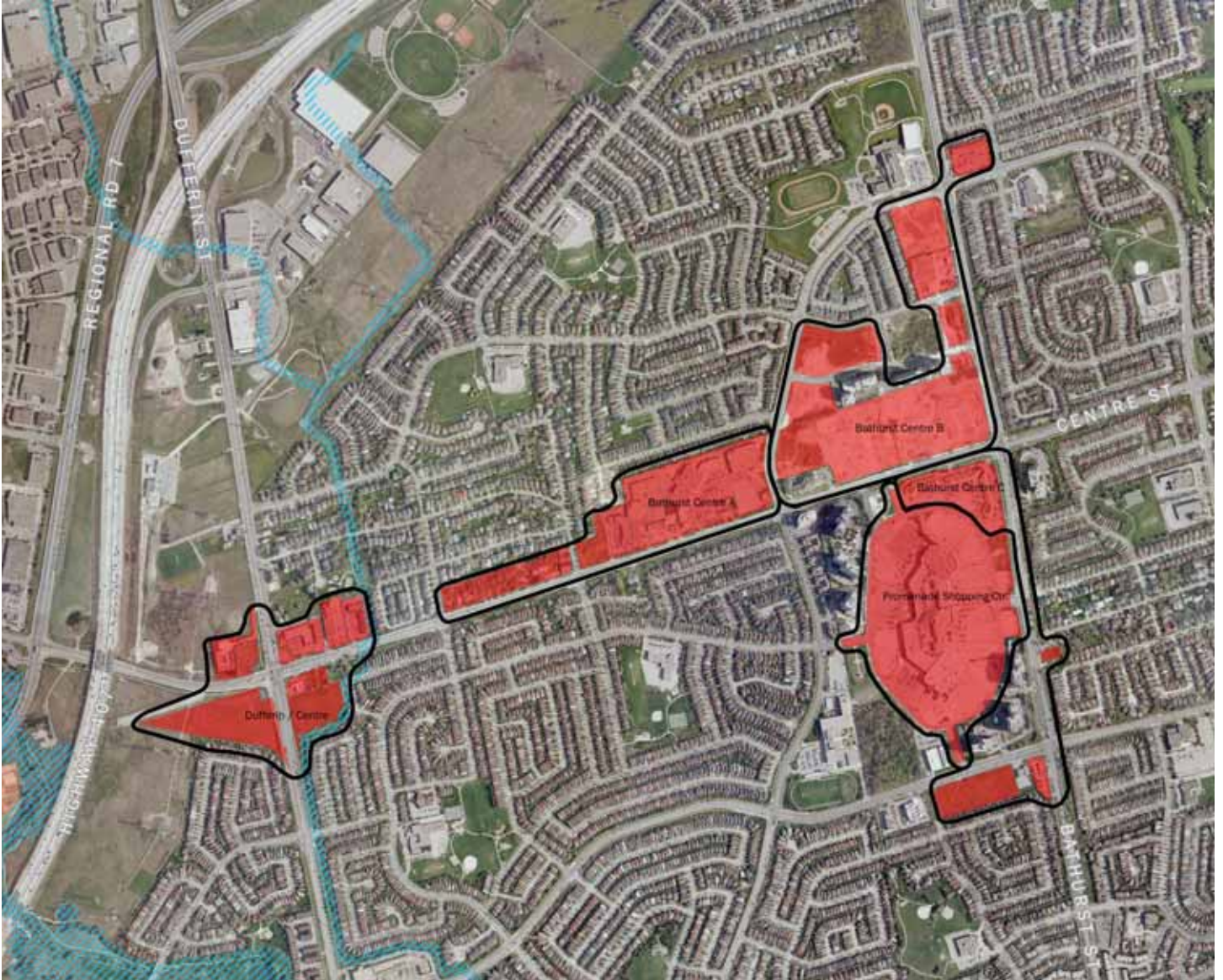
Key Map



Intensification Summary

	Units	People
7 & Martin Grove	1,241	2,754
7 & Kipling	237	490
7 & Wigwoss	159	355
7 & Pine Valley	885	1,913
7 & Whitmore	981	2,112
Concord GO	2,427	4,954
TOTAL	5,929	12,579

centre street



Intensification Assumptions

The Centre Street Opportunity Area includes primarily the lands governed by OPAs 671 and 672 as well as additional lands within the Thornhill Town Centre (OPA 21). Among these lands are vacant parcels, strip malls, large format shopping plazas with extensive surface parking and the parking areas associated with Promenade Shopping Centre. The Promenade acts as the eastern gateway to Thornhill and its surface parking areas can accommodate additional development. The analysis also contemplates the long-term redevelopment of the large format retail and associated parking north of the Mall. The potential for mixed-use residential development was also tested on the deep residential lots on the north side of Centre Street, which were identified for redevelopment in OPA 672.

The lands at Dufferin and Centre represent the western gateway to the community and also have intensification potential. Centre Street in this vicinity is a prime candidate for intensification as it is part of the Highway 7 transit corridor.

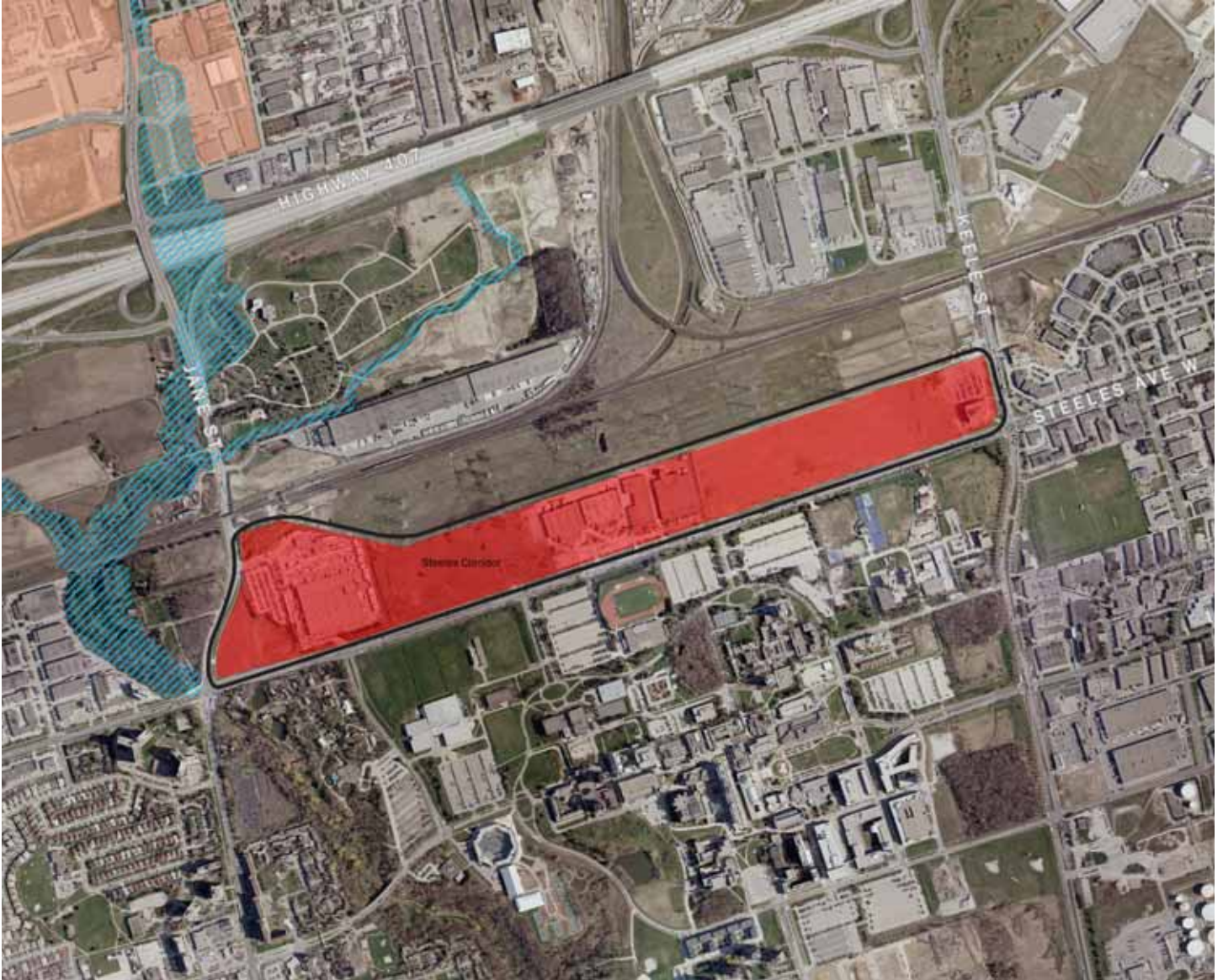
Key Map



Intensification Summary

	Units	People
Dufferin / Centre	828	1,682
Bathurst Centre A	974	2,009
Bathurst Centre B	1,382	2,987
Bathurst Centre C	462	995
Promenade Shopping Centre	1,385	2,902
TOTAL	5,036	10,575

steeles corridor



Intensification Assumptions

The Steeles Corridor Opportunity Area generally includes the lands governed by approved OPA 620, which are located on the north side of Steeles opposite York University. The lands are primarily vacant lands, but also include a UPS distribution centre and some low rise commercial/industrial buildings. A new subway station on the planned extension of the subway line will be located within this Opportunity Area, suggesting that transit supportive densities are appropriate here. The intensification assumptions are generally consistent with the development levels anticipated in OPA 620.

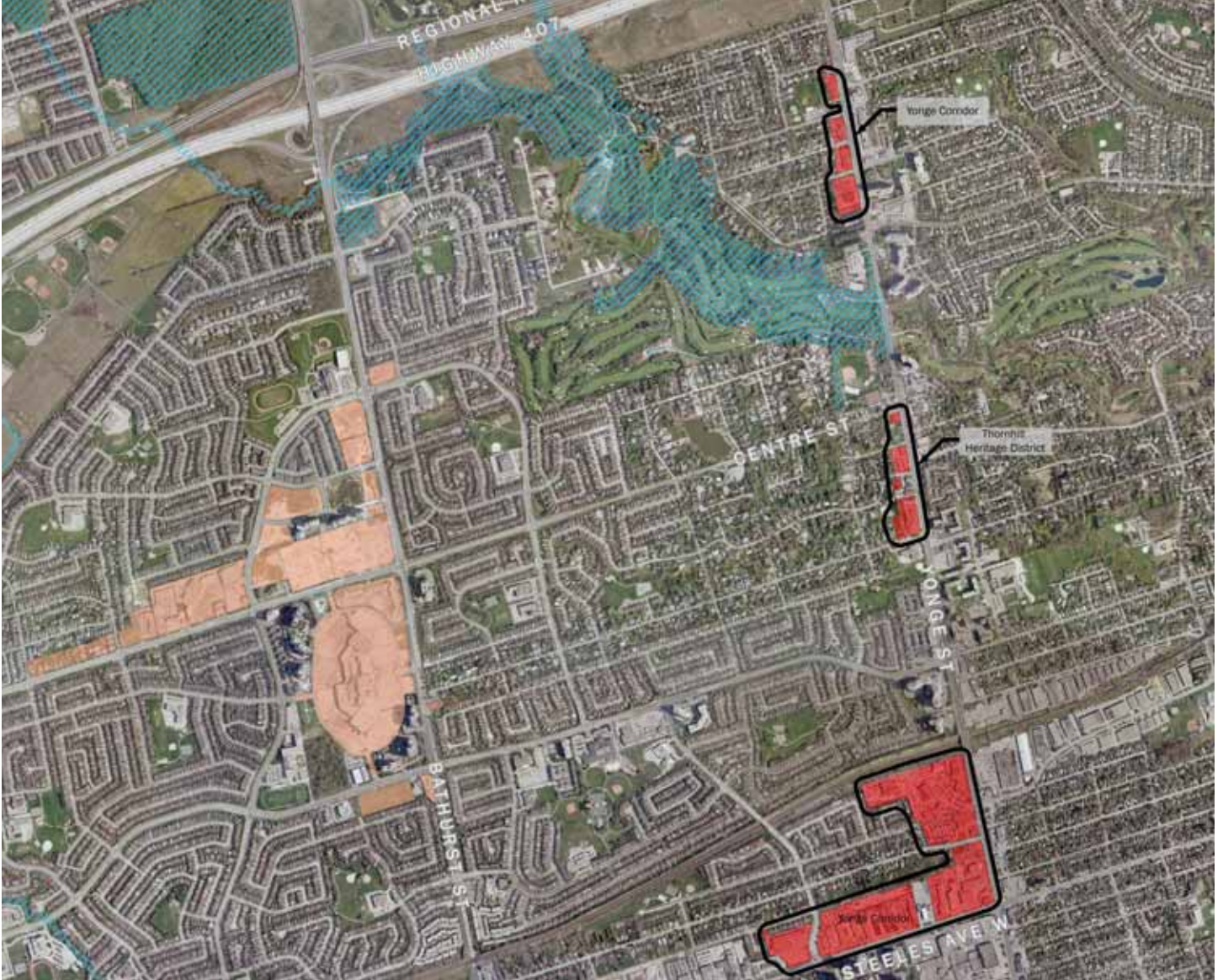
Key Map



Intensification Summary

	Units	People
Steeles Corridor	5,396	10,954

yonge street corridor



Intensification Assumptions

Yonge Street is designated a Regional Corridor.

Thornhill Heritage District area was reviewed and only non-heritage parcels were evaluated for intensification potential. The Yonge Street corridor is also the subject of a Focus Area Study, excluding the Thornhill Heritage District. The total potential for intensification in this area has been determined through the early results of that study. Because of the very small contribution of the Thornhill Heritage District parcels to the overall capacity of the Opportunity Area, the total capacity was taken to be the Yonge Street Focus Area study results. Most of the intensification potential is concentrated near the future subway node at Yonge and Steeles. The Yonge Street Study will propose new policies for the development at Yonge and Steeles and for the west side of Yonge between the Thornhill Country Club and Highway 407. While the OPAs generally apply to all parcels (with some exceptions) the parcels identified here demonstrated the most likelihood of redevelopment and/or the most desirable places for redevelopment to take place.

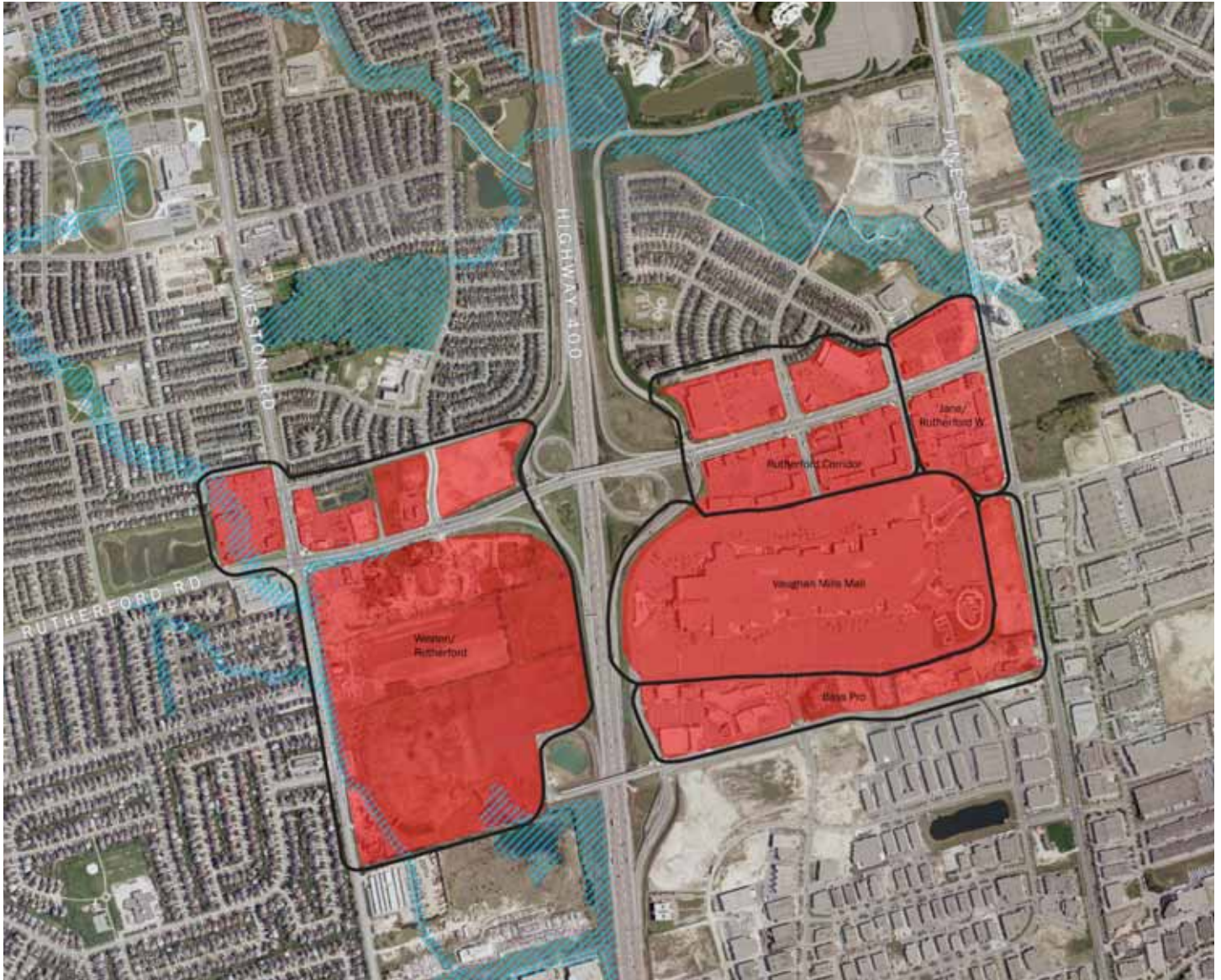
Key Map



Intensification Summary

	Units	People
Thornhill Heritage District	164	345
Yonge Corridor	6,000	14,000
TOTAL	6,164	12,345

vaughan mills



Intensification Assumptions

This opportunity area consists of two major areas on either side of Highway 400: a large collection of vacant parcels at Weston and Rutherford Roads and the strip plazas at the intersection, as well as the lands surrounding Vaughan Mills Mall. The Mall itself is not identified as an intensification area, however the extensive parking areas surrounding it have been. The plaza immediately north of the mall could also be intensified though it is recognized that the units are in condominium ownership and may be a challenge to land assembly. On the north side of Rutherford Road, the large format retail areas and strip plazas have extensive parking that could accommodate additional uses, as previously envisioned by the Vaughan Centre plan. The north side of Bass Pro Mills Drive is also a logical extension of the intensification potential of the mall parking areas. The west side of Highway 400 south of Rutherford Road has the most potential in this Opportunity Area as it is mostly unbuilt. The lands are currently designated employment lands and while the assumed mix would promote office and pedestrian related retail, significant residential development could be introduced here. When the extension of Bass Pro Mills drive is completed, it, together with Rutherford, will form the closest pair of links over the 400 and create the opportunity for a community to form that bridges the Highway.

Key Map



Intensification Summary

	Units	People
Weston / Rutherford	2,863	6,443
Rutherford Corridor	1,011	2,241
Jane / Rutherford W.	916	1,941
Vaughan Mills Mall	2,939	6,097
Bass Pro	1,091	2,387
TOTAL	8,820	19,110

jane street & major mackenzie

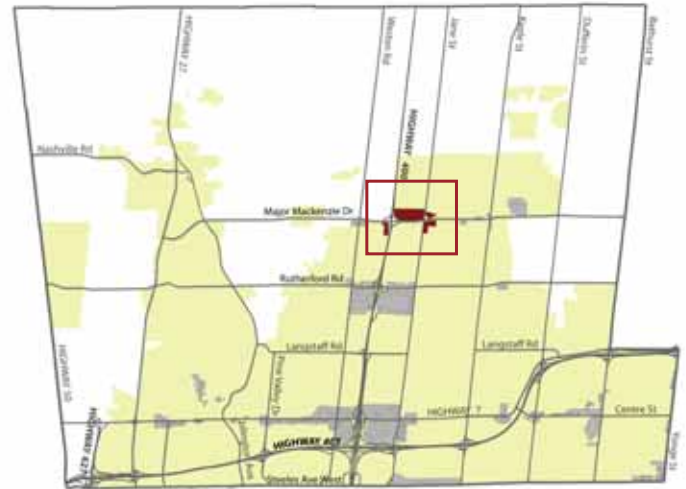


Intensification Assumptions

Parcels have been identified for intensification at each corner of the Jane Street and Major Mackenzie Drive intersection, with the exception of the southwest quadrant occupied by Canada's Wonderland. The parcel at the northwest quadrant extends west to Highway 400 and is currently overflow parking for Canada's Wonderland. The parcel has been put up for sale and is currently the subject of a City study to assess its development potential. The northeast quadrant is occupied by a large strip plaza separated from the road by surface parking and very large stormwater management facilities. The southeast quadrant is occupied by a collection of stand-alone commercial/retail uses and a small strip plaza with significant surface parking. A portion of the southern parcel is vacant.

The mix for the Wonderland parking lands includes significant employment potential as a companion site to the employment lands on the west side of the highway in Block 33 West.

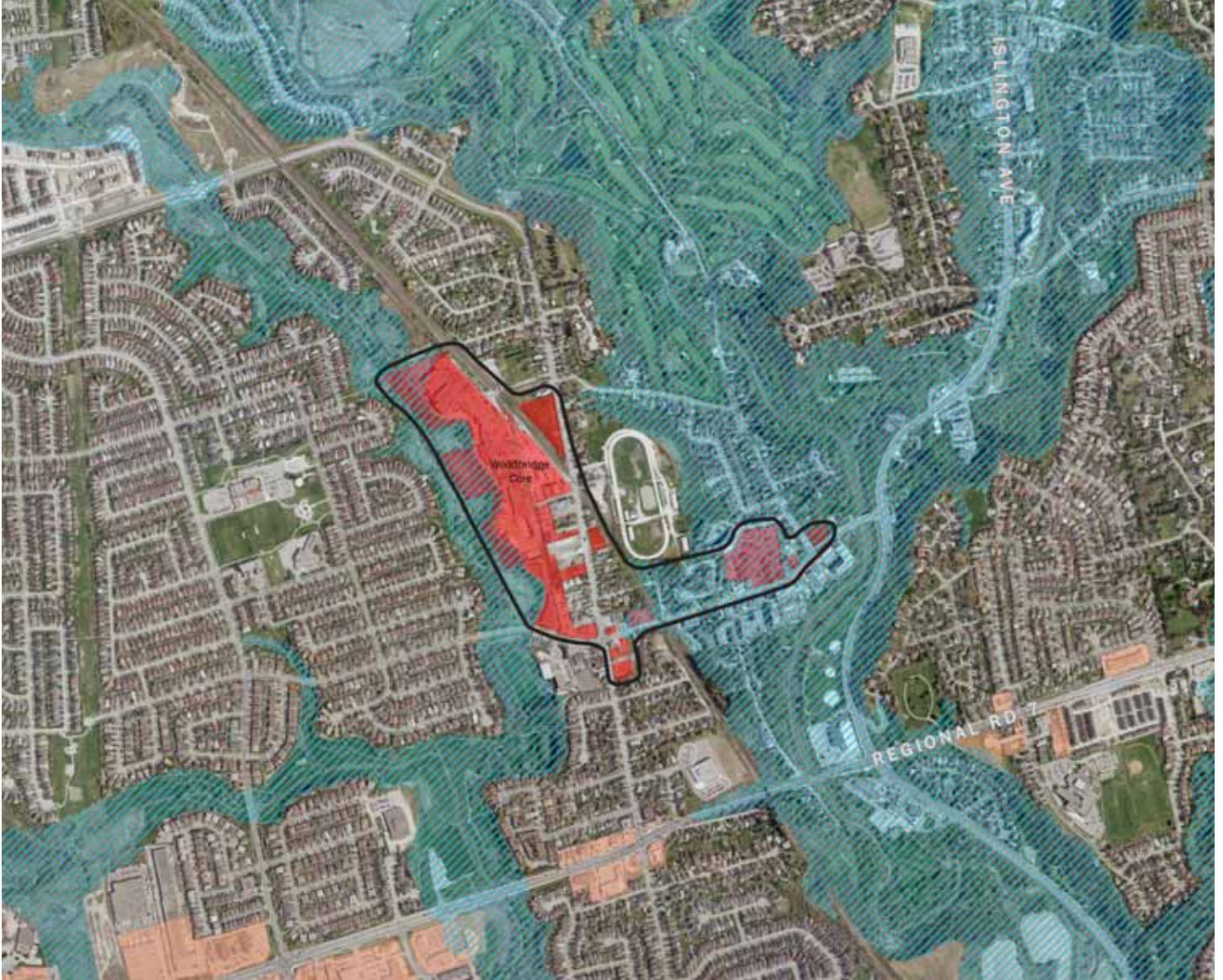
Key Map



Intensification Summary

	Units	People
Wonderland North	744	1,762
Jane Street North	1,289	2,785
TOTAL	2,033	4,547

woodbridge core



Intensification Assumptions

Parcels in both Woodbridge Core and on Kipling Ave. have been identified for intensification potential. The parcels in Woodbridge Core include the Market Lane commercial plaza, vacant lots and underutilized parcels. Parcels along Kipling Avenue are primarily occupied by light industrial uses and commercial uses in single-story. This area is the subject of a Focus Area Study and has also recently been the subject of the Kipling Corridor Study and Woodbridge Heritage District Study. Detailed analysis and yields will be incorporated into the Official Plan. The study will also review floodplain issues and associated development controls which may limit development potential. The Focus Area Study will determine detailed Secondary Plan policies.

Key Map



Intensification Summary

	Units	People
Woodbridge Core	917	1,923

maple GO & core



Intensification Assumptions

The large site adjacent to the Maple GO station is currently vacant with the exception of a recently constructed large format Lowes store. Other sites in Maple Core have also been identified as having intensification potential including vacant lots, older strip plazas and parking areas. The area around the GO station in particular should receive intensification to make better use of that transit infrastructure.

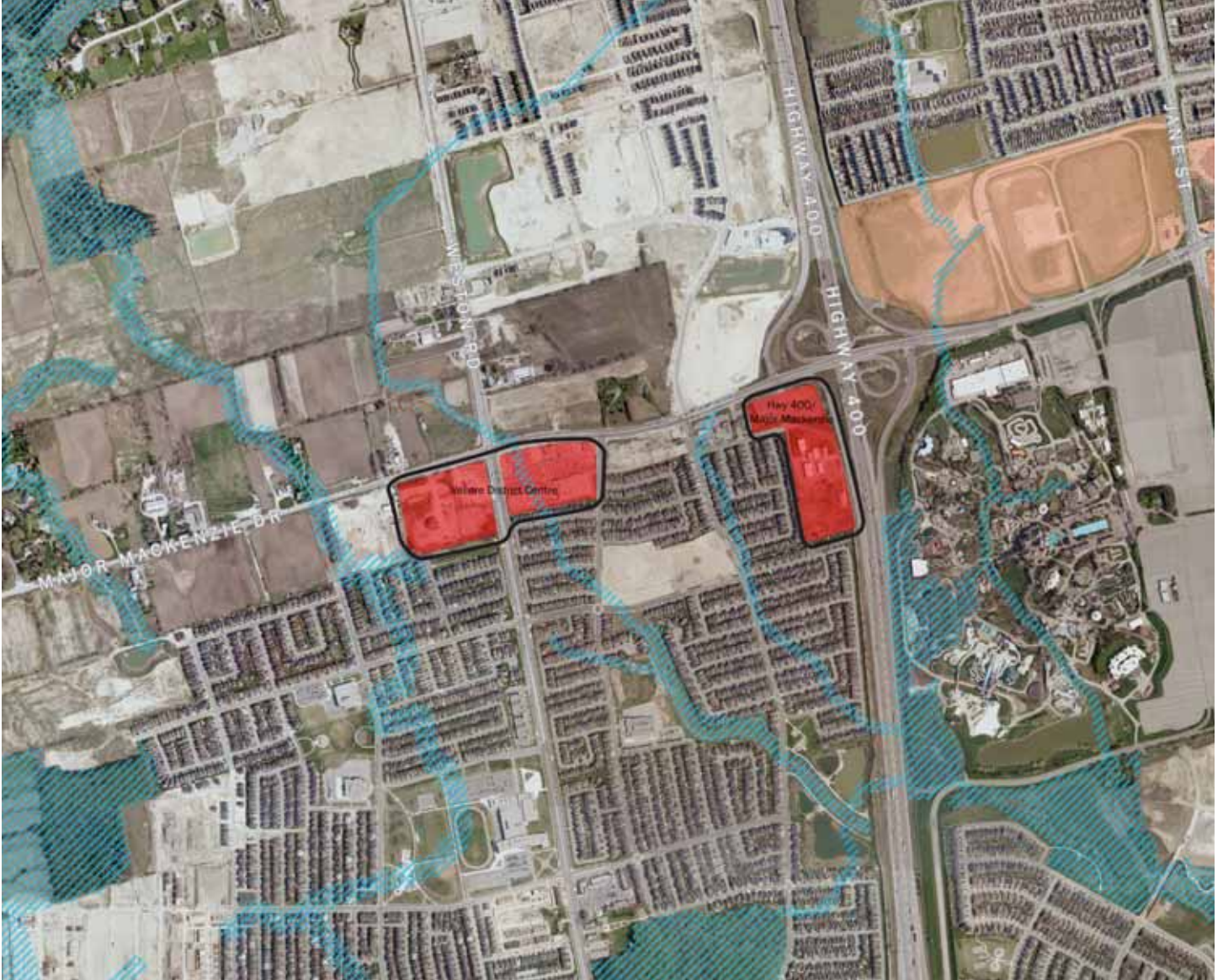
Key Map



Intensification Summary

	Units	People
Maple Core	412	930
Maple GO	1,525	3,437
TOTAL	1,937	4,367

vellore centre



Intensification Assumptions

Parcels on the south side of Major Mackenzie at Weston are considered within the Province's designated *built boundary*. The southeast quadrant has recently been developed as a strip plaza with extensive surface parking at the street. The southwest quadrant includes lands that are currently used by MTO for highway maintenance supply storage and vacant lands that are temporarily being used for sales pavilions associated with the surrounding housing developments. Parcels at Major Mackenzie and Highway 400 include a park and ride car pool parking lot and a large lot used for swimming pool sales.

The parcels at Major Mackenzie and Weston are considered part of the Vellore District Centre governed by OPA 650. Development of the southeast quadrant is not consistent with the District Centre policy for a mix of uses but can be intensified over time. The southwest quadrant has yet to be developed and should develop to meet the OPA 650 policies at a minimum, however additional potential has been assumed. The pool sales lot and car pool parking lot offer an opportunity for higher density forms to be integrated into the community while taking advantage of a local corridor with transit and adjacencies to an emerging employment area to the north.

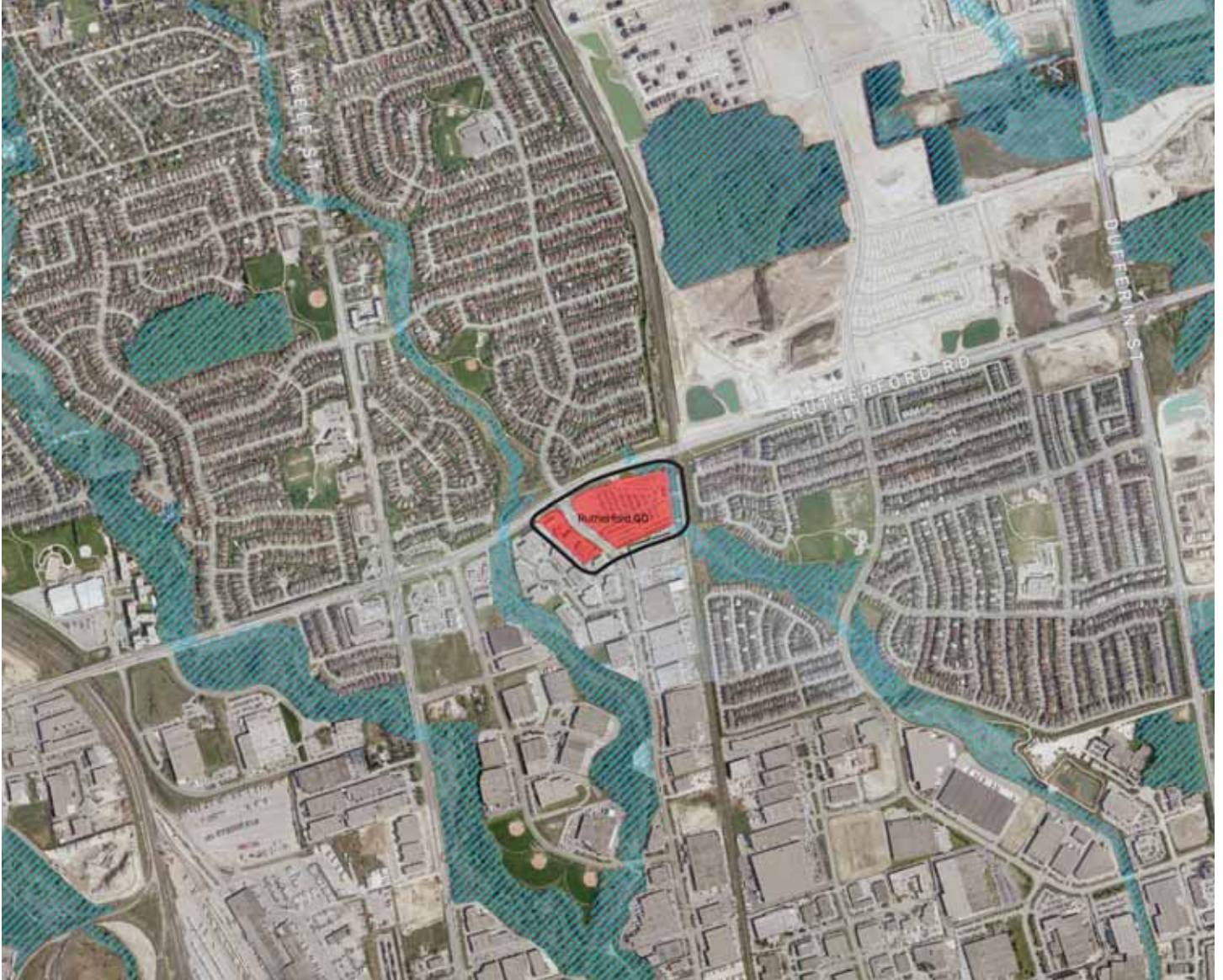
Key Map



Intensification Summary

	Units	People
Vellore District Centre	1,400	2,889
Hwy 400 / Major Mackenzie	384	824
TOTAL	1,784	3,713

rutherford GO station



Intensification Assumptions

The Rutherford GO Station is located on the south side of Rutherford Road, east of Keele Street in the Tudor employment area. West of the station to Keele Street and south to Highway 7 is the low-density employment fabric typical of Vaughan's employment areas. There is a retail cluster at Keele and Rutherford. To the north of the station are parts of the existing low-density Maple Community and to the northeast is the as yet unbuilt Carrville community. To the east of the rail line is the Carrville community. The intersection of Rutherford and Dufferin is largely planned to develop with higher density uses as part of the Carrville District Centre. The station site consists of a simple ticketing building and an extensive surface parking with approximately 980 spaces. GO trains, GO buses and York Region Transit service this station. Parcels to the west of the station include low-density commercial office buildings that could accommodate additional employment uses. A mix of uses, including residential, is suggested for the immediate vicinity of the station.

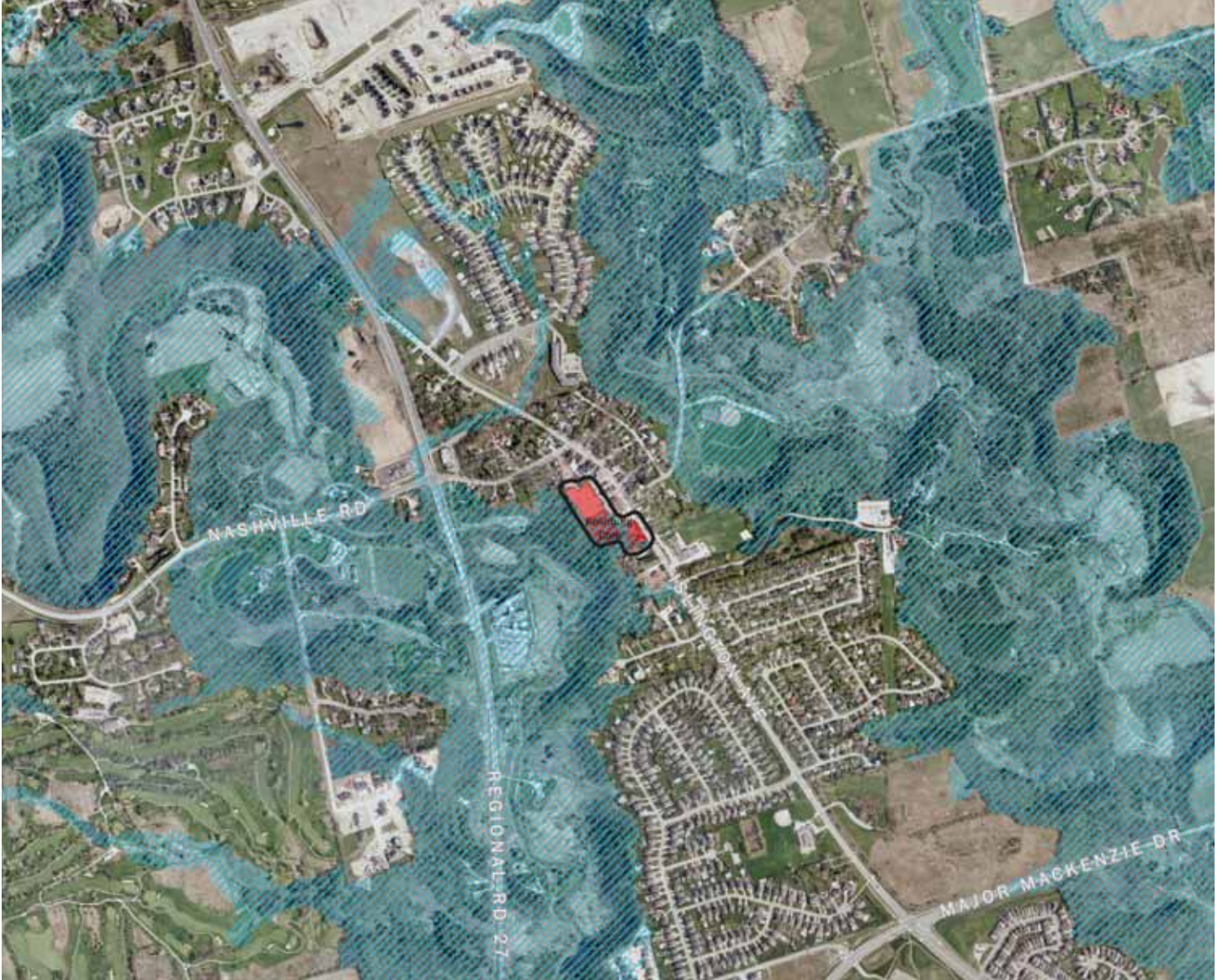
Key Map



Intensification Summary

	Units	People
Rutherford GO	330	670

kleinburg core



Intensification Assumptions

The Kleinburg Core area offers very few parcels that are appropriate for intensification. The historic core is also covered by Heritage Conservation District policies. The parcels identified include the large surface parking lot associated with the Doctor's House Restaurant and an abandoned lot containing a three-bay garage. This Opportunity Area represents the smallest amount of intensification in the built areas of the City in keeping with its heritage nature.

Key Map



Intensification Summary

	Units	People
Kleinburg	80	163

Oversupply of Intensification Potential is Necessary

Most of the Priority Areas for intensification coincide with parts of the City that already have higher density development permissions and so the bulk of the intensification target can be met without significantly changing policies. However, unlike greenfield development where the total unit build out is known at the early planning stages, there is little such certainty when planning for redevelopment. For this reason a certain oversupply of intensification potential is necessary to allow for the market to select the most desirable of the priority areas. Factors which may impact the rate of intensification uptake include land owner willingness or interest to undertake redevelopment, market upswings/downturns, and ease of land assembly. The theoretical capacity is conservative and does not necessarily represent the maximum or minimum capacity of any given parcel.

From Opportunity Areas to Official Plan Designations

The identification of specific parcels as having intensification potential should not be construed to mean that the existing permissions for development on the lands have or will change. The intensification analysis provides theoretical comfort, based on realistic options, of the capacity of the built-up area to meet the minimum intensification target set by the Region. This analysis will be used to help establish which areas of the City should receive land use designations that are consistent with intensification. In the Official Plan, such designations may be applied to areas generally consistent with the parcels identified here for intensification but may include other similar parcels that were not previously identified as having immediate intensification potential. The designations will also sort the intensification areas and other centres into an appropriate hierarchy.

Additional Development Through Infill

In addition to the parcels identified through the preceding analysis, there may be other sites that over time, may meet the criteria for intensification. The Official Plan will need to include policies to help Council evaluate potential intensification areas as they come forward. Policies will also be developed to monitor the supply of intensification sites over the horizon of the Plan. *Places to Grow* requires that municipalities meet the minimum intensification target for residential growth by the year 2016 and every year thereafter. Coincident with every Provincially mandated five-year review of the Official Plan, the City should review the level of intensification being achieved and compare that to potential supply to ensure both needs and targets are being met.

For the purposes of meeting the spirit of the intensification policies of *Places to Grow*, York Region's prescribed intensification targets for the local municipalities do not include any single-detached or semi-detached units. There will, however, be a certain amount of low-density infill that occurs within the *built boundary* that contributes to meeting the overall demand for new housing units - approximately 100 units per year on average. These units also contribute to creating a more diversified mix of intensification typologies. They will be scattered throughout the built-up area.

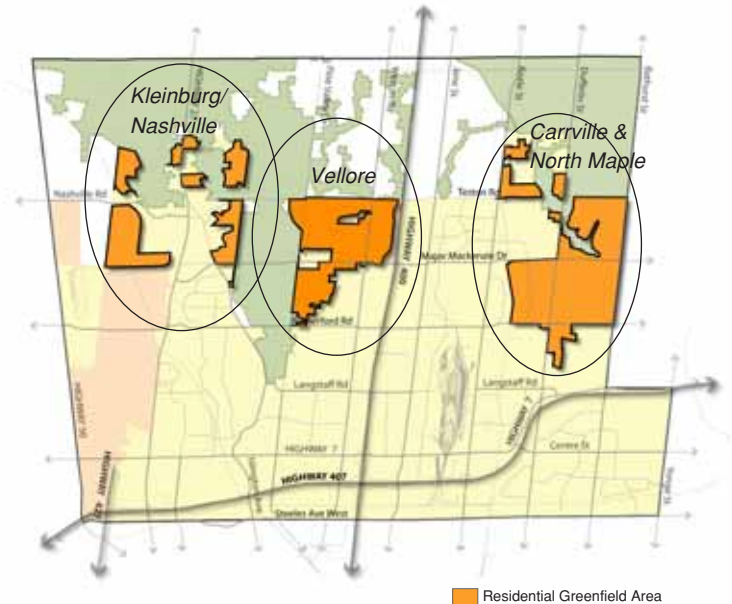
It is estimated that approximately 2,000 low-density infill units will be built within the *built boundary*⁵.



4.3 Residential Growth - Greenfield

In addition to the supply of lands within the designated built-up area, Vaughan already has a significant amount of land designated for urban development that falls outside the 2006 *built boundary* line. These are known as the *greenfield* areas. Region-wide, all *greenfield* lands, including those designated employment lands that have not yet been built, must reach a minimum density of 50 people and jobs per hectare.

The approval of OPA 400 in 1995 set the stage for three new communities: Woodbridge Expansion Area, Vellore (Urban Village 1) and Carrville (Urban Village 2), and OPA 600 added additional area to Vellore and Carrville. While the Woodbridge Expansion Area has been built out, Vellore was only half finished and Carrville had only just started to be built as of June 2006. There are also areas of Kleinburg/Nashville and North Maple that have yet to be built out but are within the existing *urban area*. The Region of York has estimated the remaining supply in these areas as of June 2006 at 23,500 units. This figure was determined prior to the release of the final *built boundary* and based on 2005 data, and updated to 2006. As part of the Vaughan Tomorrow exercise a capacity study of the greenfield areas was undertaken to refine the Region's figure. Two independent methodologies were used to complete the analysis.



▲ Figure 18:
Residential greenfield areas yet to be built

Methodology 1 – policy-based estimates

OPA 600 included an estimate of the expected yields of the new *urban areas* at full build out. The yields presented in Appendix B to OPA 600 were derived by applying the built form parameters (density) associated with each land use designation to the approximate land areas covered by those designations. Conversions to population were based on persons-per-unit assumptions listed with the table. The results are presented by block. To determine the remaining capacity, the number of units built as of 2006 in those blocks still considered to have Greenfield capacity was counted and subtracted from the Appendix B total. The built unit count was undertaken by overlaying the official *built boundary* line on address point and parcel layer information in GIS. Those units inside the *built boundary* could then be counted and subtracted from the policy-based totals.

It is expected, and understood, that in the implementation of OPA 600 some amendments to the original policies were made by way of OPAs etc. These are primarily accounted for in Methodology 2 described below. However, one major amendment to the original policies was included in the analysis. The recent approval of Nashville Heights (Block 61 West) significantly amends the Kleinberg - Nashville Community Plan (OPA 601) and the approximately 3,000 units associated with that development were added to the policy-based greenfield supply calculation.

Methodology 1 yields a remaining unbuilt greenfield supply of 26,500 units.

Table 10: Residential Greenfield Capacity Methodology 1

Block	OPA 600 Housing Units	Built Area Housing Units	Remaining Capacity
Vellore Urban Village 1			
33W	1,775	2	1,773
39	6,129	3,465	2,664
40	1,924	79	1,845
Sub Total	9,828	3,546	6,282
Carville Urban Village 2*			
10**	5,791	3,491	3,260
11	4,720	13	4,707
18	4,190	7	4,183
Sub Total	14,701	3,511	12,150
Other Areas			
12	4,119	15	4,104
40/47N	1,000	15	985
61 West***	3,000	-	3,000
Sub Total	8,198	30	8,168
TOTAL	32,727	7,087	26,521

* OPA 651 designates lands at the Carville District Centre for high-density development of approximately 5,000 units. These are not captured in this preliminary conservative analysis.

** The remaining capacity was determined by unit typology. The number of units planned by typology is broken out in Appendix B. The typology of the built units was determined through aerial photography and address points and was subject to interpretive inaccuracies. For this reason the subtractions of Built units from Planned units did not "penalize" the total potential of the Block if more of one typology was found to be built than OPA 600 predicted. For example in Block 10 more single family low-density units were counted than estimated in Appendix B. Rather than register a negative number that would then decrease the overall remaining potential for the Block, it was assumed that no additional low-density units would be built but the maximum number of other units could still be built (that is, it was assumed that the additional low-density units did not take the place of the other typologies).

*** Because of its substantial amended addition to the supply, the Nashville Heights (Block 61 West) approval was included in the policy-based analysis although it was not anticipated in OPA 600 Appendix B.

Methodology 2 – plan of subdivision estimates

A more detailed approach was also applied to determine *greenfield* supply. Methodology 2 relies on unit counts associated with detailed block plans, draft and registered plans of subdivision identified as being on the remaining *designated greenfield lands* outside the *built boundary* and within the *urban area*. Where there are areas without applications, the block plan was used to estimate a yield. Where no block plan was available, policy documents such as OPA 600 were used to determine the permitted density on the lands which was then translated to a unit yield. The Focus Area Review for Kleinburg-Nashville may determine that the greenfield areas in the OPA 601 planning area have greater development potential. The results of that study will be incorporated into the Official Plan. This methodology includes the Block 61 West proposal, and the District Centre assumptions as per OPAs 650 and 651.

Methodology 2 yields a remaining unbuilt greenfield supply of 30,128 units.

To be conservative, the result from Methodology 1 is used in the subsequent stages of the analysis.

Table 11: Residential Greenfield Capacity Methodology 2

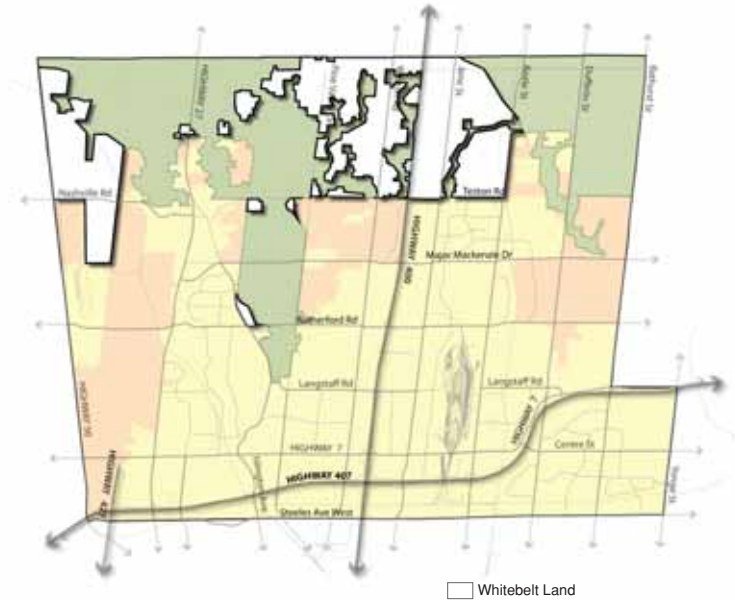
	Single / Semis	Town-house	Apt	Total Units
Carrville				
Block 10	839	83	-	922
Block 11	1,994	550	1,094	3,638
Block 12	2,704	34	700	3,438
Block 18	2,627	410	66	3,103
Carrville DC	-	-	5,400	5,400
Sub Total	8,164	1,077	7,260	16,501
Block 20				
Sub Total	294	91	62	447
Vellore				
Block 33W	1,461	284	415	2,161
Block 39	1,568	225	22	1,815
Block 40	2,041	305	173	2,519
Block 47	419	-	-	419
Vellore DC	-	550	755	1,305
Sub Total	5,489	1,364	1,366	8,219
KNCP				
Block 55	821	-	-	821
Block 61	1,189	1,197	1,004	3,390
Block 62	750	-	-	750
Sub Total	2,761	1,197	1,004	4,962
TOTAL	16,708	3,729	9,692	30,128



4.4 Residential Growth - Whitebelt

Places to Grow requires that an *urban boundary* expansion may only occur as part of a municipal comprehensive review. Furthermore, *Places to Grow* sets out criteria that must be met before an *urban boundary* expansion can be made (policy 2.2.8.2). The comprehensive review must demonstrate that:

- a) Sufficient opportunities to accommodate the forecasted growth through intensification and *designated* greenfield areas are not available;
- b) The expansion would not create a supply of lands that exceeds 20 years;
- c) The timing of the expansion would not adversely affect the achievement of the intensification targets and greenfield density targets;
- d) The expansion would meet the requirements of the Greenbelt and Oak Ridges Moraine Conservation Plans;
- e) The infrastructure required to accommodate the proposed expansion can be provided in a financially and environmentally sustainable manner;



▲ Figure 19:
Vaughan's whitebelt areas

- f) There are no reasonable alternatives to prime agricultural areas, if the proposed expansion is in one;
- g) Impacts from the expansion area on adjacent agricultural areas can be mitigated; and
- h) The PPS policies on the Wise Use and Management of Resources and Protecting Public Health and Safety are applied.

It is important to state that testing the capacity of the *whitebelt* in the analysis that follows does not constitute a fulfillment of Policy 2.2.8.2 (a) of the *Growth Plan*. That final assessment will be undertaken and reported in the Fall of 2009 when a draft Urban Structure and Land Use Designation Map are released.

The *whitebelt* in Vaughan is made up of the rural and agricultural lands that are not otherwise protected by the Greenbelt or Oak Ridges Moraine Conservation Plans. There are 3,281 total hectares of *whitebelt* in Vaughan. Not all of these lands, however, are available for development. The natural heritage network covers extensive parts of these areas. As well, there are existing estate residential uses that will remain. The gross developable area remaining, net of natural heritage and existing uses is 2,656 ha. As described in Section 4.1, it is proposed that 540 ha of these lands that straddle Highway 400 be redesignated to accommodate employment growth.

In order to meet the *Places to Grow* density target for new community areas of 50 people and jobs per hectare, the Region has determined that any new communities in expansion areas must be planned at an overall gross density of 20 uph. This is equivalent to approximately 70 people per hectare and also represents a more compact sustainable and transit supportive urban form. This density works together with the new employment area density of 40 jobs per hectare as outlined in section 4.1, to meet the *Growth Plan* requirement that new areas be developed at 50 people and jobs per hectare, measured across the Region.

Other whitebelt uses: Northwest Vaughan

Not all of the *whitebelt* lands are appropriate for consideration for residential development. Specifically, the northwest corner of the City is removed from residential consideration because it is strategically located for post-2031 employment land needs and Provincial infrastructure considerations, including the possibility of further extension of Highway 427 to meet a conceptual new east-west transportation corridor being studied by the Province. This area comprises about 595 hectares of land, net of the natural heritage network. It is adjacent to the *Greenbelt* and north of the Vaughan Enterprise Zone industrial area. To the west in Brampton/Caledon there is an existing industrial area. With surrounding industrial uses, proximity to the CP rail intermodal terminal, the possibility of further extension of Highway 427 and the need to protect for long-



▲ *Figure 20:*
The whitebelt with the natural heritage network, existing uses, Highway 400 Employment Lands and potential additional employment lands

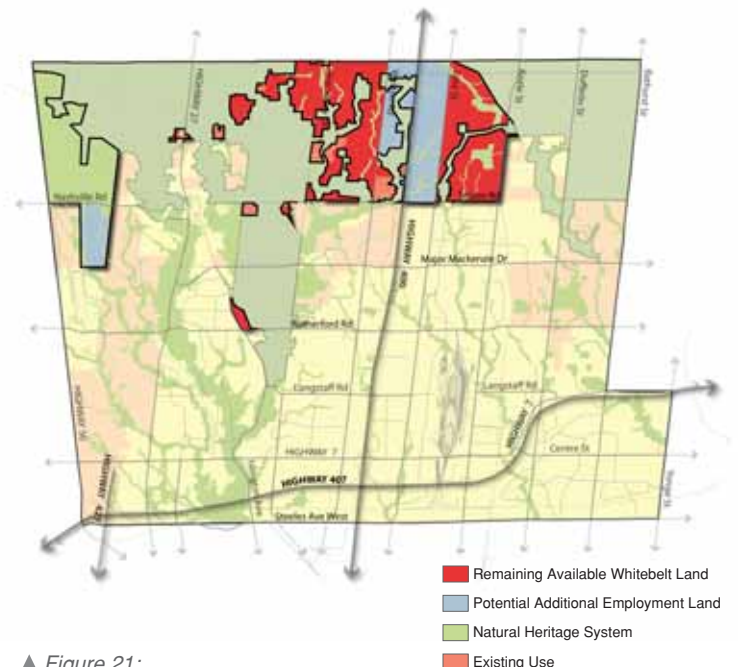
term (post-2031) employment opportunities, these lands are not being considered for residential development. The lands should be maintained as rural and agricultural areas until such time as the need for additional employment land is identified through the next municipal comprehensive review.

A possible exception to this are the lands extending south of Nashville Road and west of Huntington Road. Depending on the outcome of the detailed employment lands needs analysis by Hemson Consulting (that is, the demonstration of quantifiable need for such an expansion) and decisions made about possible residential expansion into the *whitebelt* as described further in subsequent sections, those southern lands (approximately 588 ha, net of natural heritage, as illustrated at left) could be considered for redesignation to employment land at this time.

Capacity of remaining developable whitebelt

After accounting for the natural heritage network, existing estate residential, Highway 400 North employment lands, and protecting for strategic long-term employment lands with the potential for additional employment lands between Nashville Road and Major Mackenzie Drive, there are 1,463 ha of gross developable *whitebelt* area.

Applying a density of 20 units per hectare to these remaining *whitebelt* lands yields a potential unit supply of 29,260 units.



▲ Figure 21:
Remaining available whitebelt lands



4.5 Is An Urban Boundary Expansion Necessary?

The Region estimates that in order to house the 170,000 new people expected to make their homes in Vaughan by 2031 and to account for declining household sizes of the existing population, we will need to plan for 64,850 housing units. It has been shown that a minimum of 32,000 units can be accommodated in the *built boundary* and a conservative minimum of 26,500 units can be accommodated in the extensive unbuilt *designated greenfield areas*. This total existing supply therefore accommodates a minimum of 58,500 units of the forecast 64,850 units.

The full range of options for accommodating the remaining growth (a maximum of 6,350 units) includes:

1. Additional intensification
2. Additional *designated greenfield* development
3. *Urban boundary* expansion

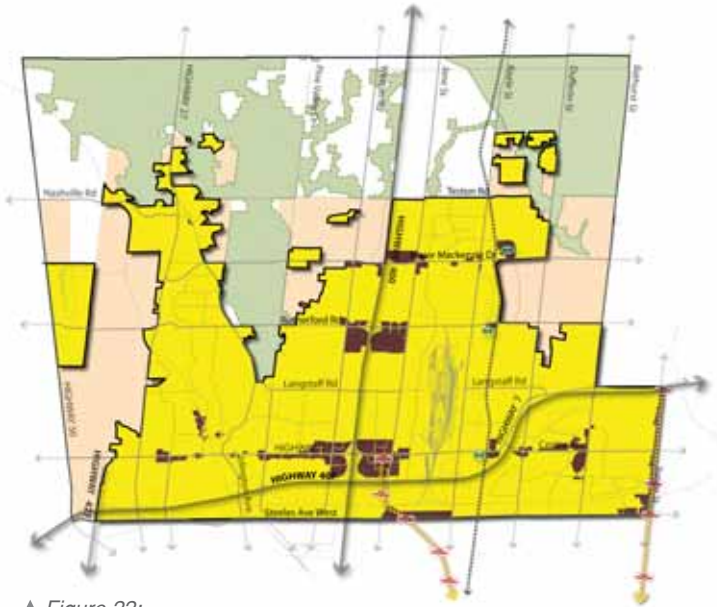
Minimum of:

	30,000	intensification units
+	2,000	additional infill units
+	26,500	greenfield units

58,500 units in supply

	64,850	forecast units
+	58,500	units in supply

6,350 units difference



▲ Figure 22:
Option 1: Additional intensification within the built boundary

Option 1

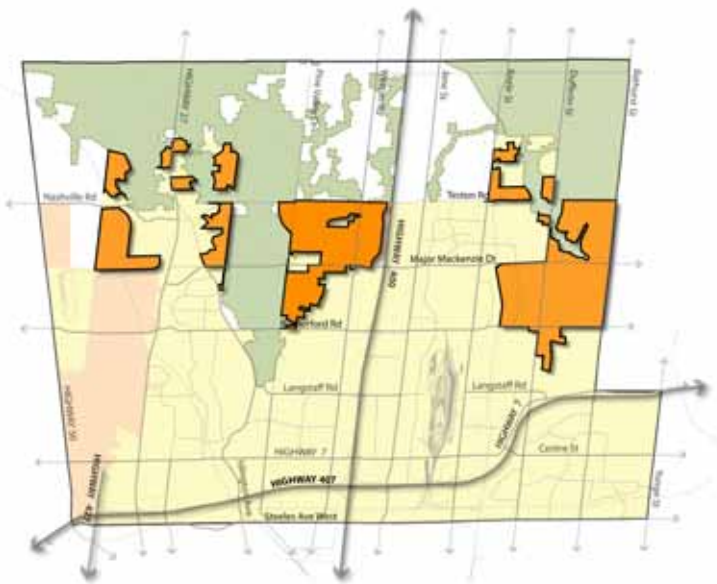
Additional intensification

It has been shown in Section 4.2 above that there is an oversupply of capacity for residential intensification within Vaughan's *built boundary*. This extensive supply of underutilized lands also means that there is the opportunity for large portions of it to be developed with grade-related housing forms such as townhouses and stacked townhouses, in addition to the expected apartment-style forms.

Option 2

Increasing designated greenfield development

According to York Region, the *designated greenfield* areas in Vaughan are currently planned for a density of 48 people and jobs per hectare and most of these areas are covered by approved block plans and plans of subdivision. Only Block 40/47 north of Cold Creek has no block plan, although one is underway. The block planning process could establish densities higher than currently allowed in OPA 600 but the potential for these small areas to contribute significantly to accommodating the remaining growth is low. There are also areas within the Kleinburg - Nashville Community Plan (OPA 601) that may be able to accommodate additional growth. This area is being studied as part of a detailed Focus Area Study, the findings of which will be integrated into the Official Plan. Also, for the purposes of developing the Urban Structure and Land Use Designation maps, the second methodology outlined in section 4.3 could be applied, which would result in a minimum of 30,000 units being allocated to the greenfield area.



▲ Figure 23:
Option 2: Additional designated greenfield development

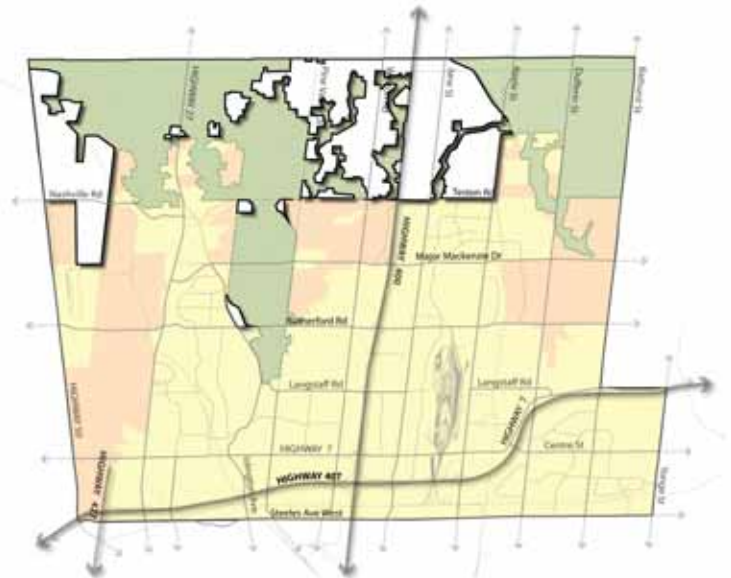
A combination of increased intensification (including directing additional growth to the VCC) and/or additional *greenfield* development would also be able to accommodate the remaining growth. The extent to which this may be accomplished is primarily a policy decision. There are many factors that will influence such a policy decision, including the ability of the existing supply to match forecast demand by unit type. It appears that the overall mix of unit types available in the *greenfield* and intensification areas is good because of the relatively large supply of single-detached, semi-detached homes and townhouses in the unbuilt *designated greenfield* areas, and the 2,000 units of infill development. This means that the overall shift to higher density forms will not need to be as dramatic in Vaughan as it may be in other municipalities that do not have the same *greenfield* supply. The forthcoming Housing Analysis by Hemson Consulting will include a discussion of matching typology demand with available supply to further inform policy and Official Plan decisions in this area.

Option 3

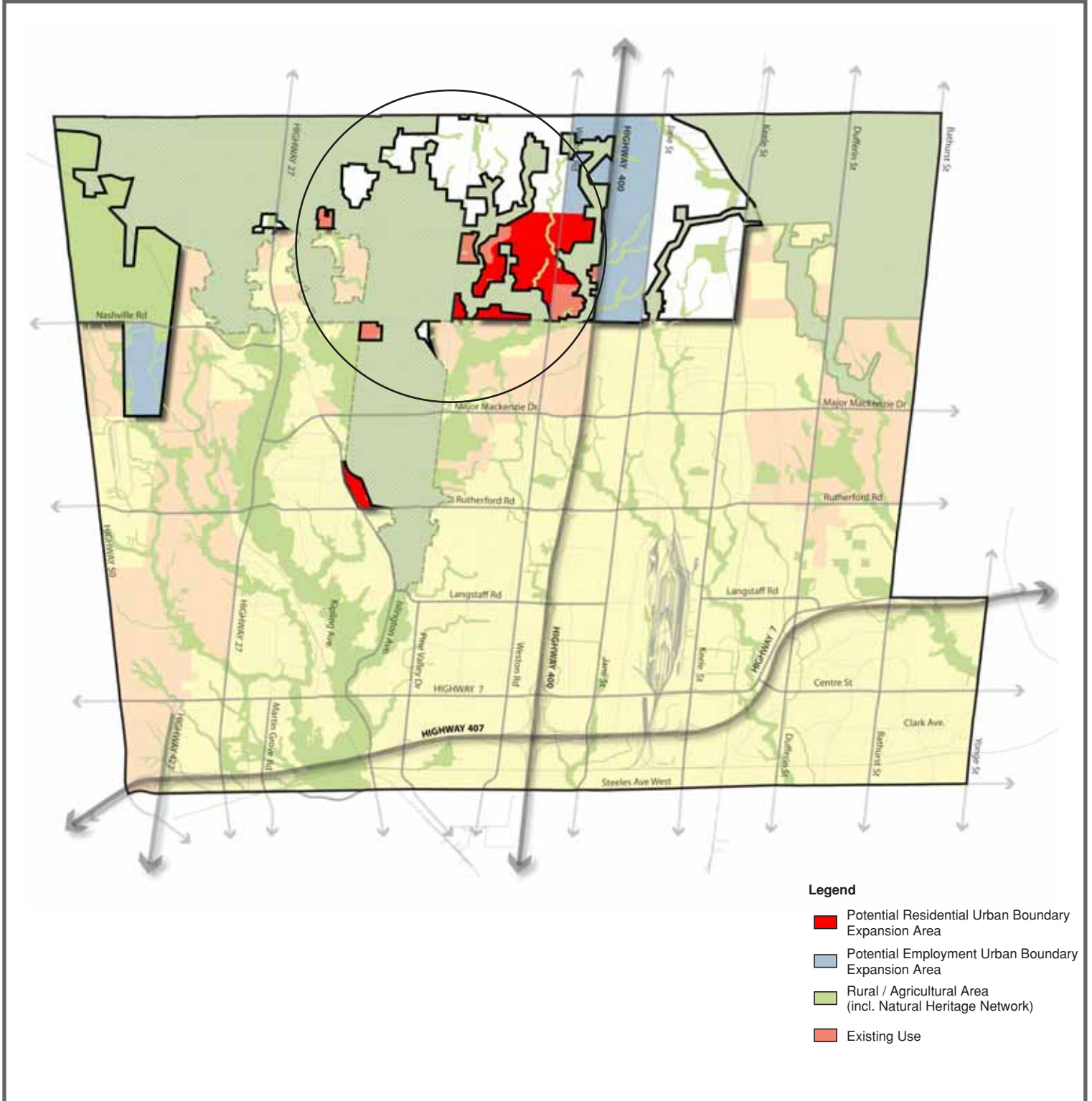
Urban boundary expansion

Applying the required density target for new areas (20 uph) to the need for 6,350 units results in a maximum potential land need of 318 ha. The Province's requirement for planning complete communities would also be met by using a density of 20 uph. The compact land form associated with such a density includes both residential and local commercial and retail, primarily on the ground floors of multi-storey mixed-use buildings.

Vaughan's *whitebelt* is broken up by the *Greenbelt* lands (including the Oak Ridges Moraine) but can generally be analyzed as three distinct areas: Northwest Vaughan, North West and North Jane. It has already been proposed that Northwest Vaughan remain rural and agricultural to protect it as a long-term strategic employment area, as discussed in section 4.4. The other two areas will be addressed in turn.



▲ Figure 24:
Option 3: The *whitebelt* lands could be considered for an urban boundary expansion



▲ Figure 25:
A conceptual urban boundary expansion area along Weston Road

North Weston

This area straddles Weston Road north of Teston Road and is fragmented by *Greenbelt* lands and other natural heritage features. The total area of the fragmented lands is 863 hectares, net of natural heritage and existing estate residential development. The area consists primarily of agricultural and rural-type uses in addition to the few existing estate residential developments. The lands on the east side of Weston Road between Teston and King/Vaughan Side road have also been identified as appropriate for a new employment area. In order to create a complete community, the lands proposed for employment uses on the east side of

Weston Road would be better suited to residential development. If necessary, the displaced employment lands could be made up in the northwest Vaughan area south of Nashville Road and west of Huntington Road. A residential expansion into this area could be established as an extension of the Vellore community, but north-south access across Teston Road would be limited because of the valley and *Greenbelt* lands. The Province is currently studying the need for a new east-west highway that may intersect with Highway 400 between Teston Road and King Road.



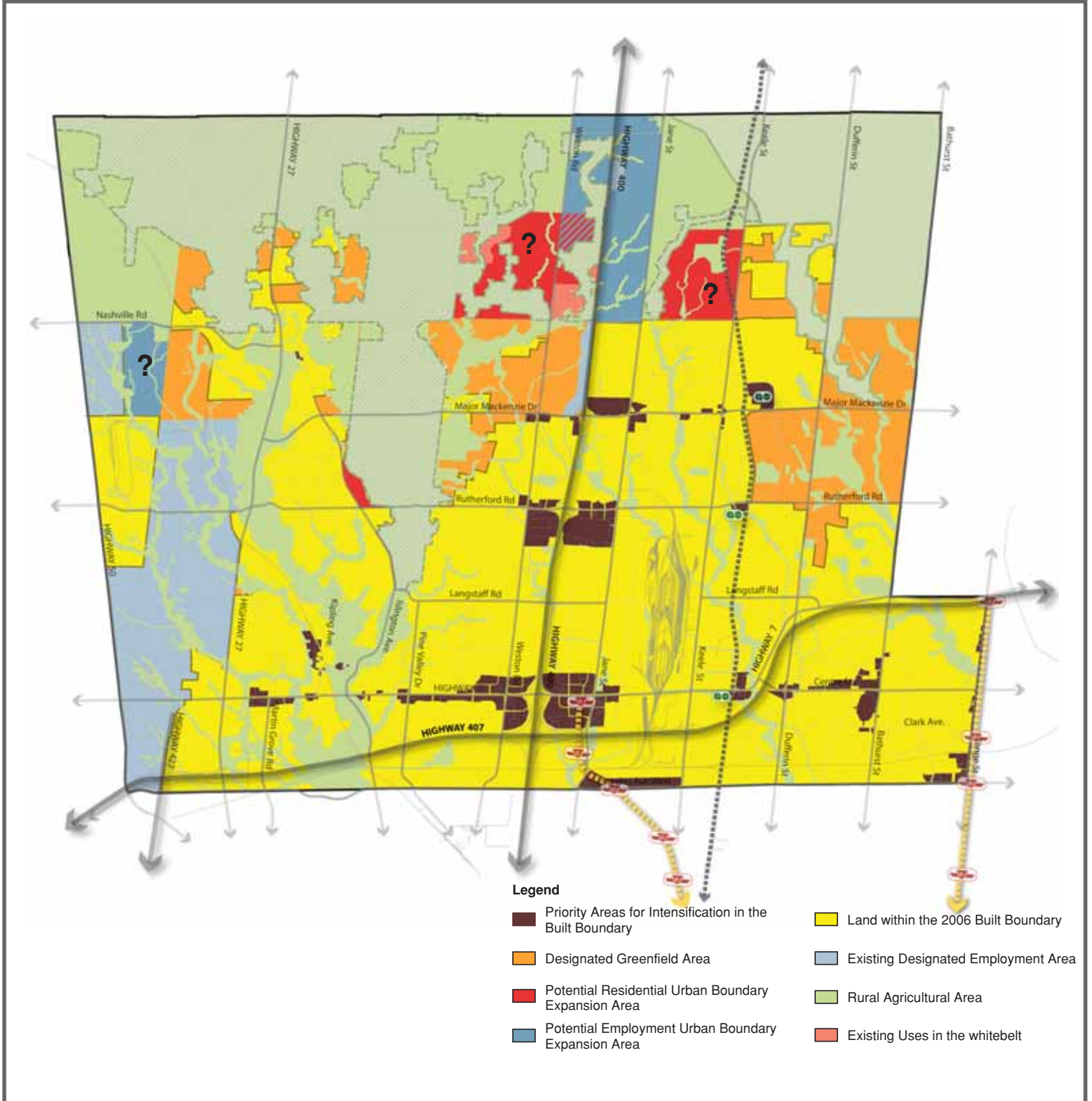
North Jane

This area is east of Jane Street and north of Teston Road, providing approximately 600 ha of contiguous lands, a portion of which could be connected to the Maple area of Blocks 20 and 26. The lands are currently used for agricultural purposes. The swath of *Greenbelt* running along the west and north sides of Block 27 would provide a natural limit to a new community here and would encourage a compact development pattern. The west side of Jane Street has been identified as appropriate for a new employment area. Expansion of the *urban boundary* for residential growth could be considered here.



Additional Expansion Considerations

Agriculture is an existing use in all three of the City's *whitebelt* areas and any urban expansion opportunity, particularly in North Weston and North Jane, would need to be evaluated with respect to the loss of those lands for agricultural purposes. The Region has recently completed a LEAR (Land Evaluation and Area Review) to identify prime agricultural lands. The LEAR review process is considered more comprehensive than relying on the Canada Land Inventory classifications alone. The results of the LEAR show that some of the highest rated agricultural lands in York Region are in Vaughan's *whitebelt*. The northernmost part of the Northwestern area and the southern part of the North Jane area have the lowest LEAR scores in Vaughan. This information will be considered in any decisions made with respect to urban expansion possibilities.



▲ Figure 27:
There are choices to make to accommodate growth to 2031

Urban Boundary Expansion Summary

The analysis in this chapter shows that an *urban boundary* expansion is not necessary because the land supply within the existing *urban area* can accommodate the remaining 6,350 housing units. However, the final determination of how the remaining housing units will be accommodated will be made in the Fall of 2009 pending additional information from other studies as well as public input.

For the purposes of this paper, three areas were considered for an *urban boundary* expansion, if it is ultimately selected as the best option to accommodate the remaining growth.

- 1) The northwest corner of the City can remain in rural and agricultural uses. If necessary, the lands south of Nashville Road and west of Huntington Road may be considered to meet any additional employment land needs.
- 2) The lands on either side of Weston Road north of Teston Road, west of Highway 400, and generally south of Kirby Road could be considered for expansion of the *urban boundary* to accommodate residential growth. The lands generally north of Kirby Road can remain in rural and agricultural uses.
- 3) The lands north of Teston Road, between Jane Street and Keele Street and generally south of Kirby Road could be considered for expansion of the *urban boundary* to accommodate residential growth. The lands generally north of Kirby Road can remain in rural and agricultural uses.



5.1 Vaughan's Capacity to Accommodate Growth: Summary

By 2031, the City is expected to grow by:

- 170,000 people;
- 64,850 housing units; and
- 113,700 jobs.

In lieu of policy direction to create a major shift in the economic structure of the City towards office and other non-industrial sectors, new employment lands along Highway 400 north of Teston Road are needed to meet the demand forecast for employment land-based jobs.

Priority Opportunity Areas for intensification located at key centres and major transit stops can accommodate over 54,000 housing units. Therefore there is ample capacity to meet the minimum target of 30,000 intensification units within the *built boundary*.

Approximately 2,000 infill housing units, consisting of single-detached and semi-detached houses, are also expected to be built within the *built boundary*.

The *designated greenfield* areas have a capacity for a minimum of 26,500 units, but detailed analysis suggests the capacity may actually be closer to 30,000 units.

The existing *urban area* can therefore accommodate a minimum of 90% of the forecast housing demand to 2031.

The remaining 10% (6,350 units) of the forecast demand can be met through:

- additional intensification within the *built boundary*;
- additional development in the *designated greenfield*;
- an *urban boundary* expansion; or
- a combination of some or all of the above.

5.2 Key Decisions and Next Steps

The capacity of each of the City's land areas presented in this paper is theoretical, though based on sound planning practice and judgement. Before final land use designations are attributed to any lands in the new Official Plan, the options to accommodate growth will be tested for functionality. Certain options may have greater impacts on the transportation network, which will be tested through the Transportation Master Plan; the built form feasibility of some options will be tested through the Focus Area Studies and selected detailed urban design demonstration studies; housing unit typologies will be tested against forecast demand and supply; and any potential *urban boundary* expansion must be evaluated against emerging policies to protect the countryside and near-urban agriculture.

Choices will also be informed by additional information forthcoming from other companion studies that are currently underway and illustrated in the foreword to this report.

Furthermore, final choices must be evaluated against the principles and directions that have been established to guide the Official Plan, including the City's Strategic Plan: Vision 2020, the Community Sustainability and Environmental Master Plan: Green Directions Vaughan, and the Vision for Transformation.

The results of the other studies and any comments received will be used to draft Urban Structure and Land Use Designation maps and will translate the findings of this paper into Official Plan policies.

Message from the Official Plan Review Committee Chair



PETER MEFFE
WARD 1 COUNCILLOR

As Chair of the Official Plan Review Committee, my primary goal is to oversee the development of Vaughan's New Official Plan. The Official Plan is part of Vaughan's integrated Growth Management Strategy, known as Vaughan Tomorrow. It will address all elements of effective, sustainable and successful city-building, while managing projected growth to 2031. The Where and How to Grow report is the first step towards determining how the next 20 years of growth will shape our City. We welcome your comments on this important document.

Peter Meffe
Official Plan Review Committee Chair



LINDA D. JACKSON
MAYOR



JOYCE FRUSTAGLIO
REGIONAL COUNCILLOR



MARIO FERRI
REGIONAL COUNCILLOR



GINO ROSATI
REGIONAL COUNCILLOR



TONY CARELLA
WARD 2 COUNCILLOR



BERNIE DIVONA
WARD 3 COUNCILLOR



SANDRA YEUNG RACCO
WARD 4 COUNCILLOR



ALAN SHEFMAN
WARD 5 COUNCILLOR

Be sure to visit the Vaughan Tomorrow website, a portal for information on all Official Plan project events, and important dates at www.vaughtomorrow.ca

URBAN
STRATEGIES
INC .