

# THE TOR-YORK EAST MEGAZONE: A PROFILE

Pamela Blais  
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# PREFACE

*Planning for Prosperity: Globalization, Competitiveness, and the Growth Plan for the Greater Golden Horseshoe* was released by the Neptis Foundation in late 2015. It was intended to contribute to the Province of Ontario's Coordinated Review of the *Growth Plan for the Greater Golden Horseshoe*, the Greenbelt Plan, the Oak Ridges Moraine Plan, and the Niagara Escarpment Plan in 2016. The Neptis report described the economy of the Greater Golden Horseshoe and the region's changing economic landscape, identifying important considerations for the Growth Plan.

Among other things, *Planning for Prosperity* identified three major suburban regional employment “megazones.” These are large, economically significant employment areas that had not been recognized in nor addressed by the Growth Plan. Given the importance of these megazones to the regional, provincial, and national economies, as well as their role in achieving key Growth Plan objectives, Neptis sponsored further research on these areas to inform planning and policy development. This policy brief provides additional detail on the Tor-York East megazone. Companion policy briefs provide similar profiles of the other two megazones: Airport and Tor-York West.

# EXECUTIVE SUMMARY

This Policy Brief defines and describes the Tor-York East megazone (TYE), one of three regionally, provincially, and nationally significant employment zones identified in the Neptis Foundation report *Planning for Prosperity*.

The TYE megazone surrounds the interchange of Highways 404 and 407, including parts of the cities of Markham, Richmond Hill and Toronto. It contains approximately 106,000 jobs, many of them in tradeable goods and services.

TYE represents a significant regional concentration of finance and business services, which account for 46,000 jobs. There are also major concentrations of wholesaling employment (18,000 jobs), manufacturing (more than 14,000 jobs), and a significant information and communications technology cluster (about 18,000 jobs, spanning computer manufacturing, services and wholesaling).

Between 2001 and 2011, TYE added close to 10,000 jobs, of which about 7,500 were in “core” or tradeable industries – while the Greater Golden Horseshoe as a whole experienced a net loss of jobs. Although 5,000 manu-

facturing jobs were lost across the megazone, they were more than offset by the addition of 9,500 jobs in finance and business services and 2,600 jobs in warehousing.

The TYE megazone includes one of five regional “Suburban Knowledge-Intensive Districts” (SKIDs) surrounding the intersection of Highways 7 and 404. SKIDs were identified in *Planning for Prosperity* as concentrations of highly skilled, knowledge-intensive occupations. Much of the employment growth between 2001 and 2011 has occurred within the SKID. The megazone also includes Markham Centre, an emerging Urban Growth Centre identified in the *Growth Plan for the Greater Golden Horseshoe*. As of 2011, Markham Centre contained only 7,600 jobs.

The growth of knowledge-intensive and other office-based jobs represents potential for the development of higher-density, more transit-supportive urban forms in TYE. This transition is critical to address the high level of auto dependency: on a typical day, 94% or 92,000 work trips to the megazone are made by automobile. The redevelopment of surface parking lots, as well as of some vacant sites in business parks near Highway 7, could provide for an additional 32,000 to 42,000 office workers. At the same time, areas within the megazone

# REALIZING THE POTENTIAL OF TYE BEGINS WITH ACKNOWLEDGING THE TYE MEGAZONE IN THE GROWTH PLAN AND REGIONAL TRANSPORTATION PLAN.

that are already at transit-supportive densities could be intensified to attract more users to the Highway 7 bus rapid transit line.

Two-way, all-day service on the GO Stouffville line should increase travel to the Unionville GO Station in Markham Centre, improving access for 28,000 workers who travel daily to TYE from the south. But providing improved transit access to almost 100,000 jobs located elsewhere in the megazone is key. The largest share of TYE workers – 33,000 a day – come from the east, which is not well served by transit. The extension of the Highway 7 BRT east of Unionville GO station is still only in the planning stages.

TYE represents significant potential for fostering economic development, reducing regional congestion, and achieving Growth Plan objectives and provincial greenhouse gas reduction targets. Yet along with the two other megazones identified in *Planning for Prosperity*, it is not currently identified in the *Growth Plan for the Greater Golden Horseshoe*. This omission makes it difficult to ensure the alignment of land use and transit planning, as the Regional Transportation Plan uses the Growth Plan as its starting point.

Realizing the potential of TYE will require:

- Acknowledging the TYE megazone in the Growth Plan and Regional Transportation Plan, by prioritizing transit to existing employment concentrations.
- Prioritizing transit investments that shift drivers to transit, such as two-way service to Unionville GO station.
- Focusing on reurbanization, by leveraging the megazone's existing employment base and economic assets (particularly the existing ICT cluster), and integrating proactive planning, placemaking, economic development and access by transit, walking, and cycling.
- Directing new office uses to transit-accessible locations and restricting or prohibiting them in auto-dependent areas.

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# THE BASICS

The Tor-York East (TYE) megazone represents 3,677 hectares of lands to the north, east, and south of the interchange of Highways 404 and 407, partly in the Region of York and partly in the City of Toronto. This megazone contained 106,260<sup>1</sup> jobs in 2011.

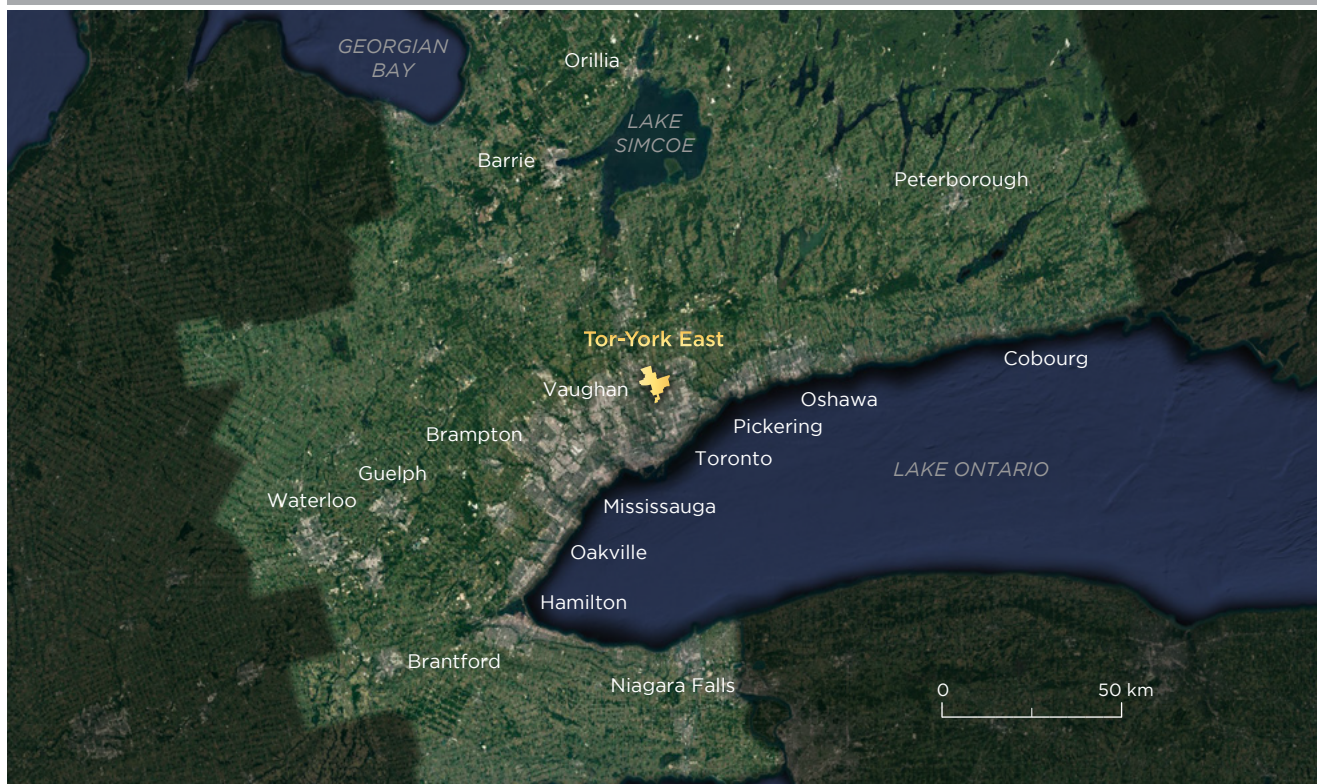
Employment in the district increased by 9,625 net jobs between 2001 and 2011. This represents 3% of the net growth in jobs across the entire Greater Golden Horseshoe (GGH) during that period.

Most of the jobs in the TYE megazone are in “core” employment sectors, that is, in tradeable goods and services that drive the regional economy and bring in revenues from outside the region.<sup>2</sup> There were 90,050 core jobs in the megazone in 2011, a net increase of 7,415 since 2001. (See Table 1 in the Appendix.)

While core employment in the TYE megazone grew between 2001 and 2011, the GGH as a whole experienced a net *loss* of more than 3,000 core jobs in this period, largely due to deindustrialization. Much of the region’s growth since 2001 has been in non-core, population-related sectors.

Because the TYE megazone crosses municipal boundaries (it includes lands in the municipalities of Markham and Richmond Hill in York Region, and in the City of Toronto), it has not been recognized nor planned for as the significant economic and urban centre that it is. Incremental and uncoordinated planning is at odds with key planning concepts in the Growth Plan, such as the foundational idea of “complete communities.”

## LOCATION OF THE TYE MEGAZONE IN THE GGH

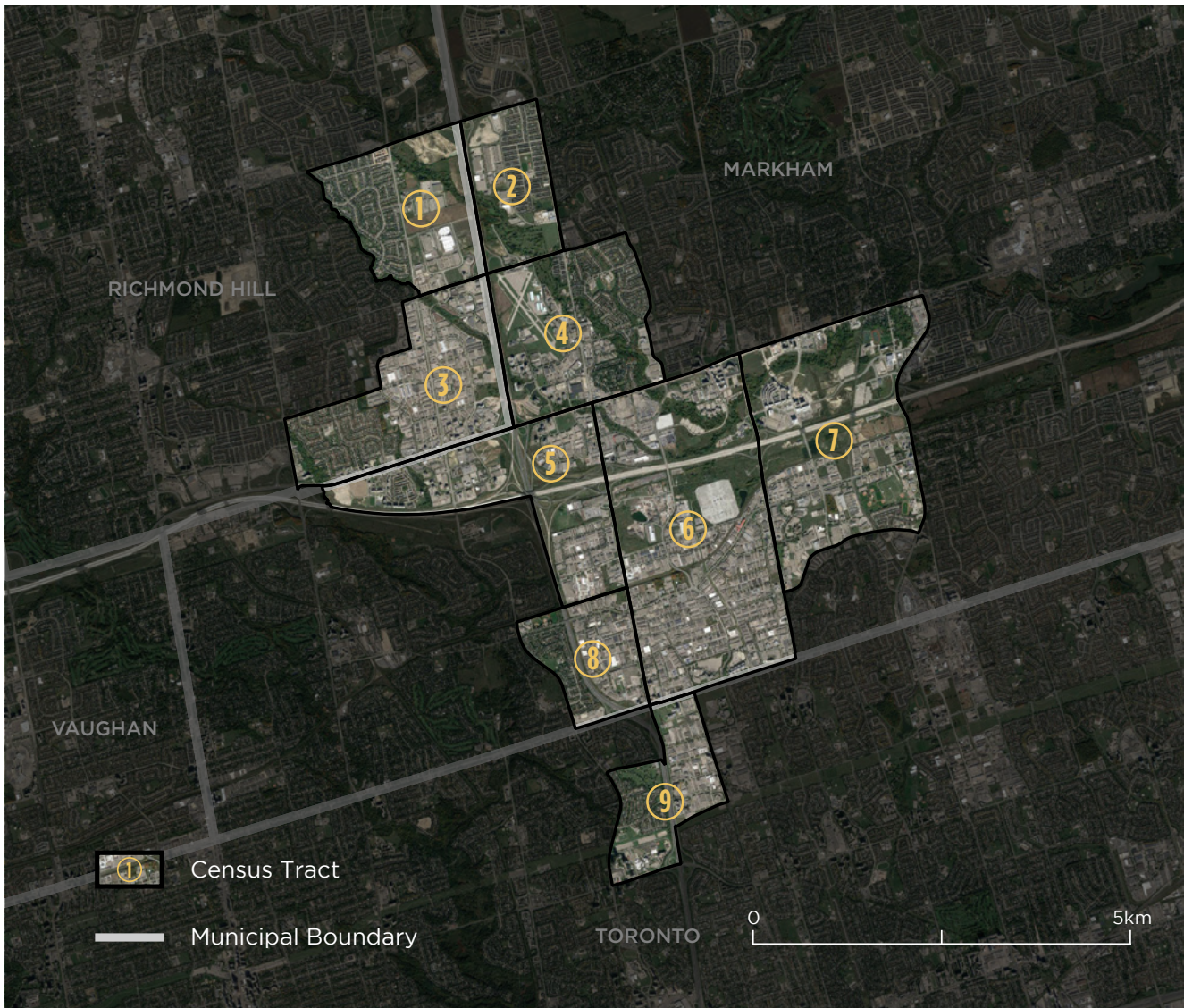


<sup>1</sup> Unless otherwise noted, all employment numbers quoted in this brief represent employment with a usual place of work only – jobs without a usual place of work and at-home jobs are not included. The data are drawn from the Census of Canada place of work data.

<sup>2</sup> As distinct from “population-related” employment that serves local population, such as retail, personal services, and local schools.



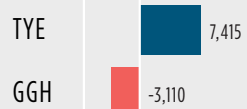
## AREA OF THE TYE MEGAZONE



## TYE EMPLOYMENT, 2011



## CORE EMPLOYMENT CHANGE, 2001-2011



# TYPES OF EMPLOYMENT

“Core” employment accounts for 85% of jobs in the Tor-York East zone. This compares with 62% for the Greater Golden Horseshoe as a whole, suggesting that jobs in the TYE are significantly specialized in the core, tradeable activities that drive the regional economy. In fact, the TYE has the highest share of core employment of all three GGH megazones. Employment by planning category and sector<sup>3</sup> is shown in Table 2 in the Appendix.

Almost all the Zone’s core employment falls into three sectors:

- Finance and business services;
- Manufacturing, construction, and utilities;
- Warehousing and transportation.

The district shows a strong specialization in finance and business services, which accounts for 43% (46,000) of TYE jobs, compared with 22% of jobs for the GGH as a whole. The TYE megazone is the most finance- and business services-specialized of the three GGH megazones (although the absolute number of jobs is still lower than in the Airport Megazone, which has about 60,000 jobs in this category).

Within the finance and business services sector, finance and banking accounted for 7,995 jobs in 2011, insurance another 4,395, and real estate 2,590. On the business services side, the most significant industry is computer systems design, with 8,210 jobs. Other business services with a significant presence in the district include architecture, engineering, and related work, with 4,900 jobs; accounting and related work with 2,170 jobs; and administrative and support activities, such as back-office uses or employment services, with 5,385 jobs.

Employment in the manufacturing, utilities, and construction category consists mostly of manufacturing employment – with 14,490 of the 19,190 jobs in this industry in 2011. Computer and electronic product manufacturing was by far the most significant manufacturing industry, with 3,085 jobs, followed by printing with 2,450 jobs, and transportation equipment manufacturing with 1,000 jobs.

The area also shows a strong specialization in warehousing and transportation, which accounted for 19% of employment in the TYE in 2011, compared with 10% for the GGH as a whole.

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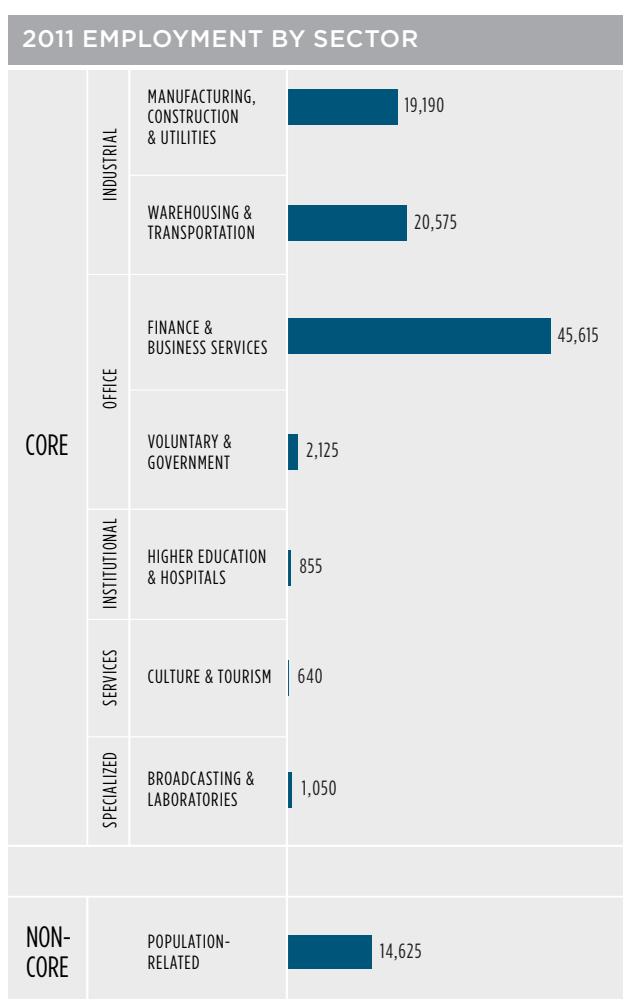
<sup>3</sup> The planning categories used here (industrial, offices, etc.) are designed to link processes of economic restructuring and change with built environment characteristics relevant to planning. Shares do not necessarily add to 100% as a result of data suppression associated with breaking down data by NAICS code and census tracts.



Almost all employment in warehousing and transportation is found in the wholesale sector, which accounted for 18,310 of 20,575 jobs in this category in 2011. About half of the wholesale employment was accounted for by the machinery, equipment, and supplies wholesale subsector – including 6,800 jobs in computer and communications equipment wholesaling.

In brief, computer-related services and manufacturing; finance, insurance, and real estate; architecture and engineering; and wholesaling – especially machinery equipment, and supplies – are the dominant types of employment and industries in the TYE megazone.

Computer-related employment, which spans the finance and business services, wholesaling and manufacturing categories, represents about 18,000 jobs altogether,<sup>4</sup> indicating an important computer-related industry cluster located here.

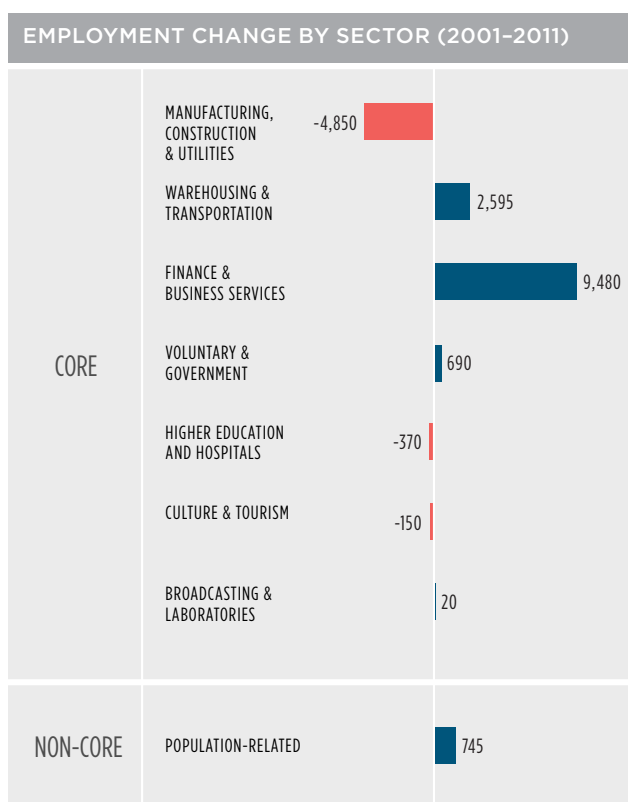


<sup>4</sup> This figure is the sum of employment in computer and electronic product manufacturing (NAICS 334), computers and communications equipment wholesaler-distributors (NAICS 4173), and computer systems design and related services (NAICS 5415).

# EMPLOYMENT CHANGE

The TYE megazone is unusual in that it experienced net growth in core jobs between 2001 and 2011 – while the GGH as a whole experienced a net loss. During that period, the TYE megazone added 9,625 jobs, of which 7,415 were in “core” employment sectors.

However, as elsewhere in the region, the net growth numbers mask significant change and transition. Manufacturing experienced a net loss of almost 5,000 jobs in the megazone in this period. But this loss was more than offset by an increase of about 9,500 finance and business service jobs, and about 2,600 warehousing and transportation jobs. (See Table 3 in the Appendix.)



# THE EMPLOYMENT GEOGRAPHY OF THE MEGAZONE

The TYE megazone is both shaped and fragmented by Highways 404 and 407. Highway 7 also runs east-west through the Zone, and is the focus of transit improvements, such as the York Region Viva Bus Rapid Transit corridor.

## DISTRIBUTION OF EMPLOYMENT

Employment is fairly evenly and uniformly distributed throughout the zone. There are, however, fewer jobs north of 16th Avenue in York Region, as this area is still developing.

THE AREA SURROUNDING THE INTERSECTION OF HIGHWAYS 7 AND 404 IS ONE OF FIVE REGIONAL SUBURBAN KNOWLEDGE-INTENSIVE DISTRICTS, CHARACTERIZED BY MANY HIGH-SKILLED AND KNOWLEDGE-INTENSIVE JOBS.

Although finance and business services employment dominates the TYE megazone as a whole, these activities are not concentrated in specific areas within the megazone. Indeed, every census tract contains a mix of manufacturing, warehousing, and finance and business services employment. (See Table 4 in the Appendix.) This pattern is due in part to the way in which the boundaries of the CTs are drawn, as they tend to encompass both office and industrial areas. However, the area surrounding the intersection of Highways 7 and 404 is one of five regional Suburban Knowledge-Intensive Districts (SKIDs). This area was identified in the report *Planning for Prosperity* for its many high-skilled and knowledge-intensive jobs, including occupations in science, technology, engineering, and mathematics (STEM jobs).

Markham Centre, an Urban Growth Centre (UGC) designated in the *Growth Plan for the Greater Golden Horseshoe*,<sup>5</sup> is in the eastern portion of the megazone, spanning two census tracts. This area is still under development.

Markham Centre has been planned to accommodate 41,000 residents and 39,000 jobs. As of 2011, there were 7,640 jobs in the UGC,<sup>6</sup> or about 7% of current TYE employment. Between 2006 and 2011, there was essentially no change in the number of jobs in the UGC<sup>7</sup>—while the TYE megazone as a whole grew by 3,755 finance and business services jobs during the same five-year period. The UGC is also outside the SKID, with its concentration of knowledge-intensive jobs.

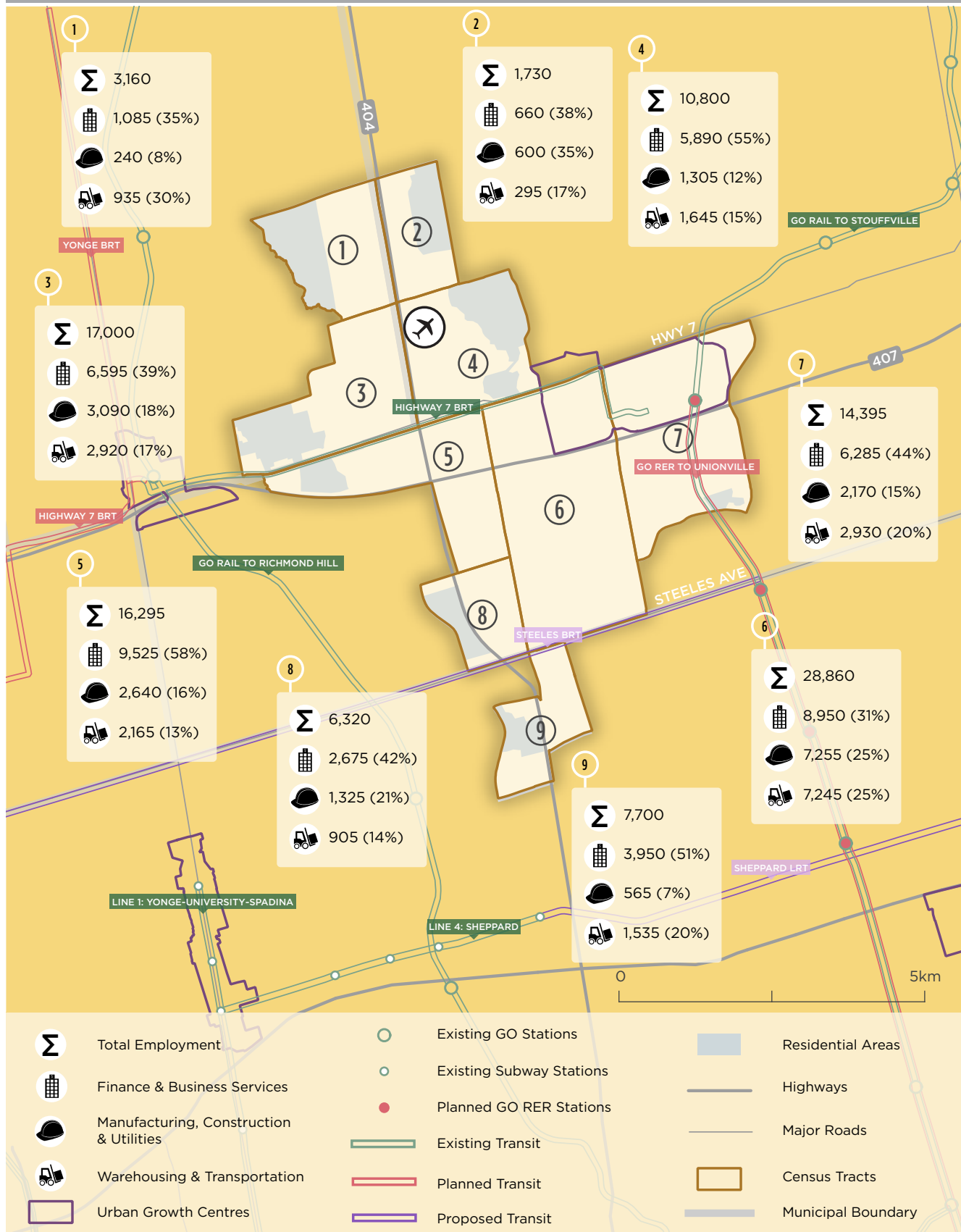
5 The boundary of Markham Centre is slightly larger than that of the Urban Growth Centre identified in the *Growth Plan for the Greater Golden Horseshoe*.

6 Ministry of Municipal Affairs and Housing, Growth Secretariat, Technical Report on Preliminary Performance Indicators for the *Growth Plan for the Greater Golden Horseshoe*, 2006.

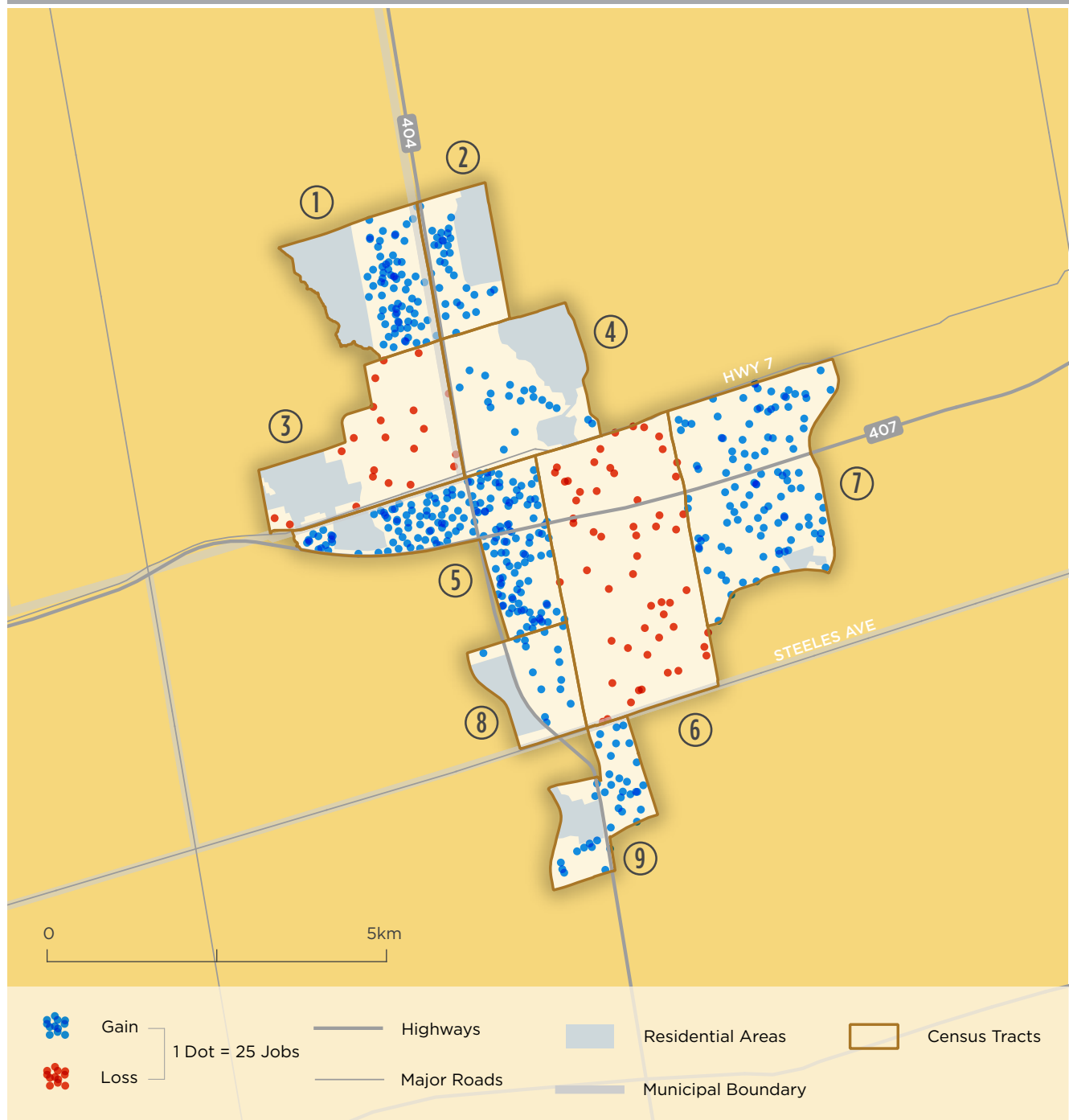
7 According to MMAH data, there was a loss of five jobs during this period in the UGC.



EMPLOYMENT IN TOP THREE SECTORS, 2011



EMPLOYMENT CHANGE, 2001-2011



8 At least, there was no growth in Markham Centre in the 2006-2011 period, the years for which we have data for the UGC itself.

## THE GEOGRAPHY OF EMPLOYMENT CHANGE

The geography of employment change within the TYE shows a patchwork pattern. Two census tracts lost jobs, while all the other census tracts added jobs.

The greatest job growth is found in the census tract around the 404/407 interchange and at the easternmost census tract. Although the latter area includes part of the Markham Centre UGC, most employment growth occurred south of the 407, not in Markham Centre.<sup>8</sup>

## EMPLOYMENT CHANGE BY SECTOR

As it does elsewhere in the GGH, looking at net growth or loss of employment in the megazone as a whole tends to mask underlying economic restructuring within the TYE zone.

Each census tract in the TYE megazone experienced growth in some industries and loss in others between 2001 and 2011 – with the exception of the census tract at the northeast edge of the zone, which is newly urbanizing and has not experienced loss.

The loss of manufacturing employment is widespread, occurring in every other census tract in the megazone, particularly census tract 6, where such employment predominated. In the warehousing and transportation sector (which in the TYE megazone consists mostly of wholesaling jobs) the pattern is more mixed, with some areas losing employment and others gaining jobs. Notable was the addition of more than 1,000 such jobs in the easternmost census tract.

Finance and business services employment has also been growing across the entire megazone (with the exception of one census tract, which saw a slight net loss). More than net new 4,000 finance and business services jobs were added to the census tract immediately surrounding the 404/407 interchange and almost 1,700 net new jobs in the census tract in the City of Toronto. In addition, more than 1,000 net new finance and business services jobs were added in the census tract spanning Highway 404 north of Steeles Avenue.

Much of the growth in finance and business services employment has occurred in office campuses (such as those in the northeast and northwest quadrants of the 404/407 highway intersection subarea), rather than in the more industrial areas characterized by single-storey, large-floorplate buildings.

Overall, we see the megazone undergoing a significant transition away from manufacturing towards finance and business services and, to a lesser extent, wholesaling. With this transition comes a shift in the internal geography of the area, with new finance and business services tending to concentrate in specific locations. (See Table 5 in the Appendix.)

## EMPLOYMENT DENSITY

The census tracts with the lowest employment densities, particularly those at the northern and eastern edges of the megazone, are newly urbanizing and still contain undeveloped land. In addition, employment densities will be lower in tracts that include residential land, if this residential land area is included in the land component of the calculation. Most census tracts in the TYE include significant areas of residential development. Therefore, to obtain more consistent and accurate measurements of employment density, we removed residential land areas from the calculation. The resulting employment densities range from 13 to 16 jobs per hectare at the low end, for areas still under development, to more than 50 jobs per hectare in the more office-oriented areas adjacent to the Highway 7 and 404 intersection.

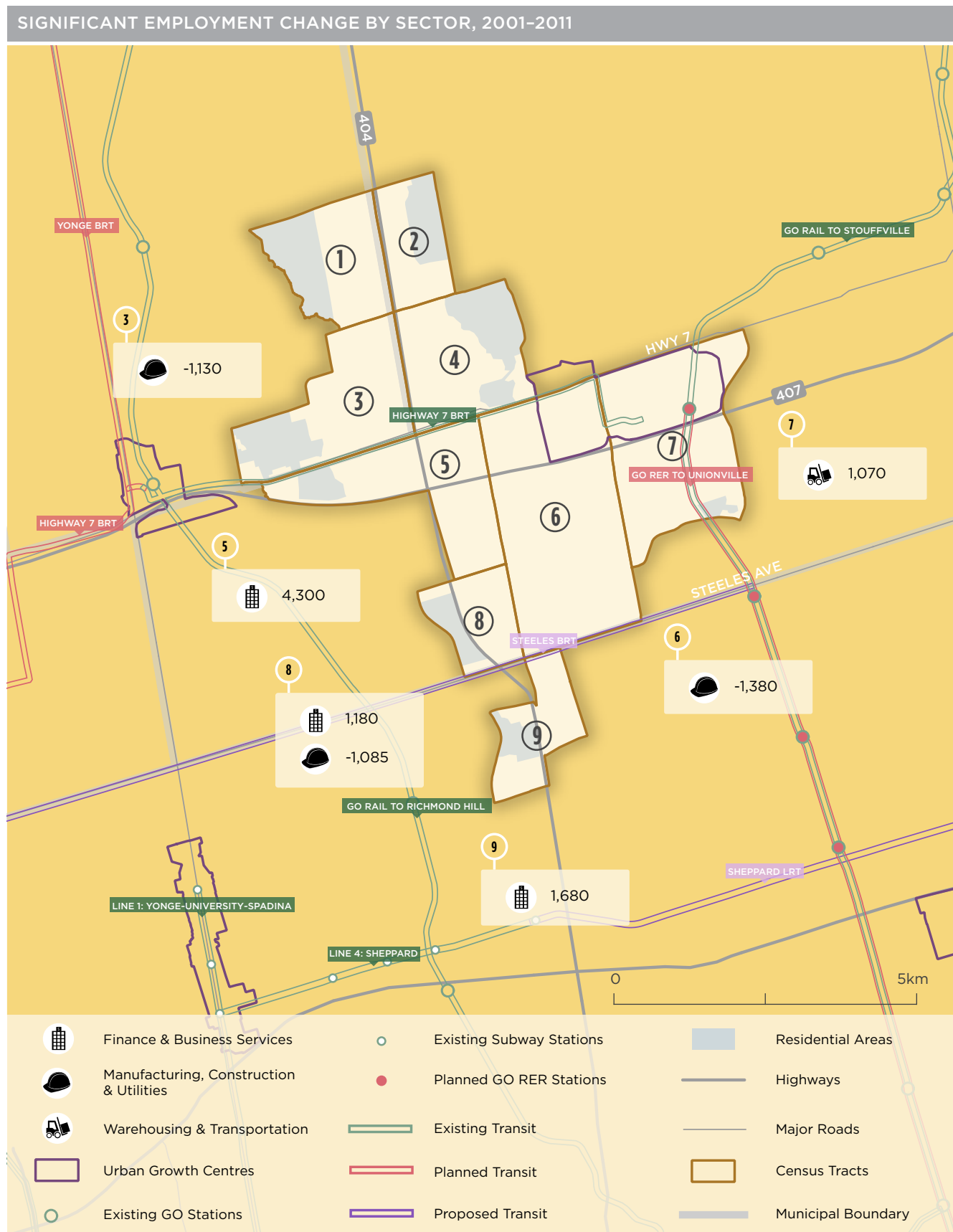
Areas of the TYE megazone that do not contain many yet-to-be-developed sites generally meet or approach minimum Ministry of Transportation density guidelines for basic transit service (50 residents plus jobs per hectare).<sup>9</sup> This includes office parks around the 404/407 interchange and north of Highway 7, as well as the tract in the City of Toronto, which exceeds that threshold. (See Table 6 in the Appendix.)

As economic restructuring continues, the types of employment that support higher densities (e.g., finance and business services) should continue to grow, creating the potential for further densification.

<sup>8</sup> At least, there was no growth in Markham Centre in the 2006–2011 period, the years for which we have data for the UGC itself.

<sup>9</sup> Ontario Ministry of Transportation, *Transit-Supportive Guidelines*, mto.gov.on.ca.





# DEVELOPMENT POTENTIAL

The TYE megazone contains two main types of built environment. Office parks, such as those in the Commerce Valley Drive, Allstate Parkway, and Cochrane Drive areas, are characterized by multi-storey buildings with relatively low lot coverage. Other areas are dominated by single-storey, industrial-form buildings that tend to have relatively high lot coverage, such as the area around Denison Street.

At present, the office parks hold the greatest potential for densification. These areas tend to have small-floorplate buildings, with low lot coverage and large surface parking lots. In contrast, the industrial-style buildings tend to have larger floorplates and higher lot coverage, and are usually in the centre of each lot, with surface parking surrounding the building. The surface parking lots are not configured to allow the addition of new buildings – although expansions of existing buildings are possible.

The three census tracts that make up the Markham SKID, in which most of the office parks are found (surrounding the intersection of Highways 7 and 404), contain

about 55 hectares of vacant land.<sup>10</sup> A rough estimate suggests that if each vacant site were to be developed at a modest office floor space index<sup>11</sup> of 1.0 times the lot area (equivalent to, for example, a two-storey building covering 50% of the lot), almost 550,000 square metres of new employment space could be created. At typical office occupancy rates,<sup>12</sup> this new development could accommodate an additional 24,000 to 32,000 workers.

This estimate does not include additional areas that could be redeveloped, such as surface parking lots. In the same three census tracts, developable surface parking represents at least 18 hectares – in particular along Highway 7 and in the office parks surrounding the intersection of Highways 404 and 7.<sup>13</sup> This land represents the potential for an additional 180,000 square metres of office development, accommodating 8,000 to 10,000 workers. These development sites are all within a one-kilometre distance of the Highway 7 Bus Rapid Transit (BRT) route – challenging an oft-made argument that suburban employment sites cannot be effectively served with higher-order transit due to low densities and the “last mile” issue.

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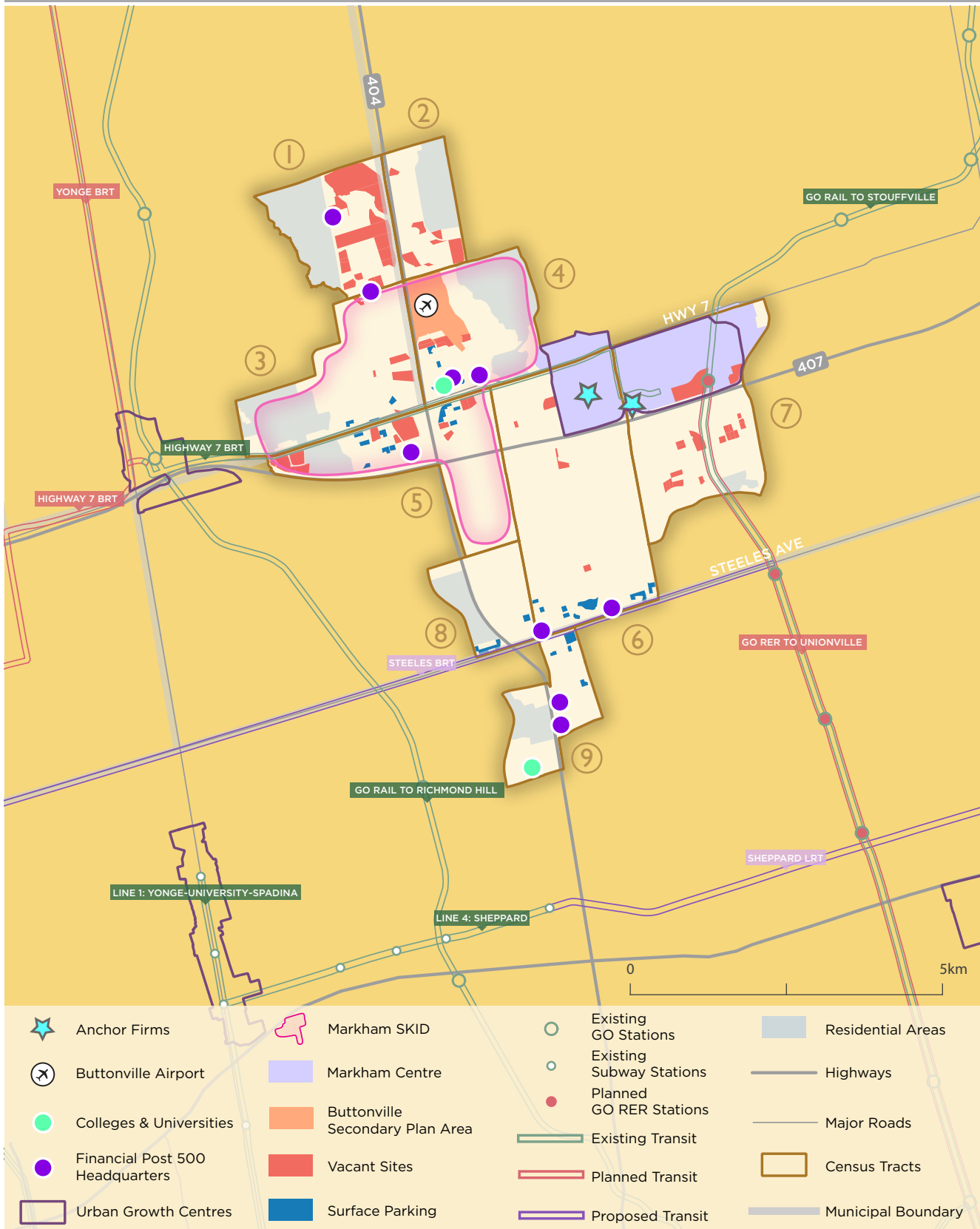
<sup>10</sup> Vacant sites were identified using the York Region Vacant Employment Land Inventory and measured using the Parcels dataset from York Region Open Data.

<sup>11</sup> A floor space index is the measure of the floor area of a building divided by the area of its lot.

<sup>12</sup> A very conservative 23 sq. metre per worker was used to arrive at the lower number. Many facilities have lower floorspace per worker. A figure of 17 sq. metre per worker was used to arrive at the higher number.

<sup>13</sup> Only surface parking lots with an area greater than 0.5 hectares are included.

DEVELOPMENT POTENTIAL AND ECONOMIC ASSETS





Altogether, a conservative estimate suggests the potential to add 32,000 to 42,000 workers to these areas. This is almost enough to accommodate all of the projected employment growth in major office employment for the entire City of Markham to 2041 – about 46,000 new jobs.<sup>14</sup>

The addition of office uses in sites clustered along or near the Highway 7 corridor would support increased transit ridership along the Viva Bus Rapid Transitway and contribute to the urbanization of this regional corridor, York Region's most significant east-west connector. Directing future office uses to key transit-served locations like the Highway 7 corridor is critically important to reducing the auto-dependence of suburban employment areas that is the cause of so much of the region's traffic congestion and greenhouse gas emissions.

In addition, there are about 22 hectares of developable land in surface parking lots within one kilometre of Steeles Avenue, suggesting further potential to densify along this corridor.

In Tor-York East, additional potential lies in the redevelopment of the Buttonville Airport site east of Highway 404. A plan currently before the Ontario Municipal Board proposes a mix of land uses on this site, including residential and retail, and a business park with 418,000 square metres of office/institutional development, representing an estimated 16,700 jobs.<sup>15</sup> A critical issue for this proposal is whether frequent transit will be provided to support the scale of development.

## EMPLOYMENT LANDS VS. CENTRES AND CORRIDORS

According to a report completed in 2015 using data from 2013, an estimated 82% of York Region's total office employment is located in employment lands, with just 13% in the region's centres and corridors.<sup>16</sup> In terms of major office floor space, 75% is located in employment lands, and 13% in centres and corridors.<sup>17</sup>

This pattern has been improving, with 23% of major office floor area locating in centres and corridors between 2006 and 2013. Still, 76% of new major office floor space has been built on employment lands.<sup>18</sup> This pattern represents a missed opportunity to shift employment to more transit-accessible locations and thereby support the region's transportation infrastructure investment. Shifting office development from employment lands to centres and corridors would also lessen demands for new greenfield development areas and urban boundary expansions, freeing up existing and future employment lands for industrial activity.

Putting more employment in transit-supported areas will require a concerted approach to addressing obstacles, such as zoning, parking requirements, and non-residential development charges that act as a disincentive to creating denser buildings and adding new development within already urbanized areas. The nature of the built environment also poses challenges. The Highway 404/407 interchange and the large scale of arterial roads make it harder to urbanize the surrounding areas and to integrate transit with development. Integration with existing and improved transit, an updating of the area, and a plan to address the needs of knowledge-intensive activities while supporting the major ICT cluster and attracting further investment are all needed.

14 York Region, 2041 Preferred Growth Scenario, Land Budget, November, 2015, p. 12.

15 City of Markham, Report to Development Services Committee, Master Plan and Status Report Update, Application by CF/OT Buttonville Properties LP for Official Plan Amendment & New Secondary Plan for the Buttonville Airport Lands, May 7, 2013.

16 Watson & Associates, York Region Employment Trends Review, September 25, 2015, Figure 61.

17 Watson & Associates, York Region Employment Trends Review, September 25, 2015, Figure 67.

18 Watson & Associates, York Region Employment Trends Review, September 25, 2015, Figure 68.

# ECONOMIC ASSETS

In addition to more than 100,000 jobs, the TYE megazone contains important economic assets, such as “anchor” firms (mostly head offices), major institutions, or infrastructure assets such as intermodal facilities. The TYE megazone is home to Canadian corporate head offices such as Allstate Insurance and Hyundai Canada, and major anchor firms such as IBM and Motorola. The regionally significant ICT industry cluster found here includes anchor firms such as, OnX, AMD, and Qualcomm, as well as laboratory facilities, and many smaller firms.<sup>19</sup> The megazone also contains two campuses of Seneca College; and a future York University satellite campus is planned for Markham Centre.

Leveraging these assets means acknowledging and actively promoting the increasingly important role of agglomeration economies – characterized as “sharing, learning and matching”<sup>20</sup> – in regional competitiveness, as well as the role of urban environments in economic development. Other jurisdictions are employing deliberate strategies to take maximum advantage of these economic assets.<sup>21</sup> Regional and local planning has a key role to play.

LEVERAGING ECONOMIC  
ASSETS MEANS  
ACTIVELY PROMOTING  
THE INCREASINGLY  
IMPORTANT ROLE  
OF AGGLOMERATION  
ECONOMIES IN REGIONAL  
COMPETITIVENESS.

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19 The City of Markham website states that 400 Canadian head offices are located in the municipality. Most of these are in the megazone area.

20 G. Duranton and D. Puga, “Micro-Foundations of Urban Agglomeration Economies.” In *Handbook of Regional and Urban Economics*, ed. J.V. Henderson and J.F. Thisse, Amsterdam: Elsevier, 2004.

21 See, for example, Brookings Institution’s Bass Initiative on Innovation and Placemaking, <http://www.brookings.edu/about/projects/innovation-and-placemaking>.

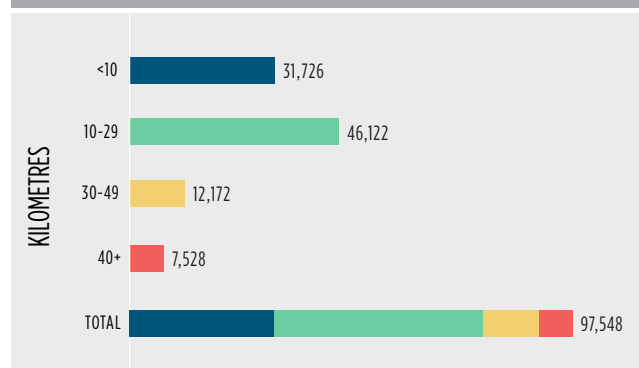
# TRAVEL

On a typical day, about 98,000 trips to work are destined for Tor-York East. Of these, 94% are made by automobile. This represents roughly 92,000 auto work trips to the area per day – plus another 92,000 return trips *from* the TYE, for a total of roughly 184,000 daily car work trips associated with the district.

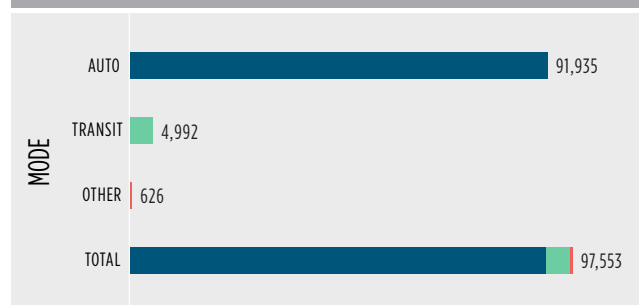
This figure does not include non-work trips to the TYE megazone. When travel for all purposes is considered, the TYE attracts almost 220,000 trips per day. Assuming a similar number of return trips from the AMZ, we can conclude it generates about 440,000 trips in total daily – almost all of them by car.

Thus the TYE megazone is an auto-dependent area, contributing to congestion and greenhouse gas emissions. Only about 5,000 of the roughly 98,000 daily work trips to the TYE zone are by transit. In comparison, downtown Toronto, with almost half a million jobs, generates only 133,287 all-day auto work trips, because 60% of workers there take transit and another 11% use active forms of transportation such as walking or cycling. (See Tables 7 and 8 in the Appendix.)

ALL-DAY WORK TRIPS TO TYE BY DISTANCE



ALL-DAY WORK TRIPS TO TYE BY MODE





## WHERE ARE TYE WORKERS COMING FROM?

Workers travel from all directions to jobs in the TYE megazone. The predominant direction is from the east, which accounts for one-third or about 33,000 all-day work trips from eastern Markham and the City of Toronto, as well as Pickering and Ajax.

About 29% or 28,000 daily work trips come from the south, including the southwestern part of Markham and the City of Toronto, especially North York.

Travel from the north and west are about equal, accounting for 19% and 18%, respectively, or 19,000 and 18,000 trips to the TYE megazone. The patterns are largely similar when only morning peak-period work trips are considered. (See Table 9 in the Appendix.)

The highest share of trips by transit is from the south, at 9%. Trips by transit from the east and west are at 5% and 4%, respectively, while transit accounts for only 1% of the roughly 19,000 trips from the north. (See Table 10 in the Appendix.)

About one-third of all-day work trips, or 32,000 trips, originate within less than 10 kilometres of their TYE zone work destination. Just under half of all-day work trips – about 46,000 – are between 10 and 30 kilometres.

Most (12,000) short work trips to the TYE originate in the east. Many come from the neighbourhoods immediately adjacent to the TYE megazone to the east, flanking Steeles Avenue.

The remaining short trips are fairly evenly distributed amongst northern, western, and southern origins – about 6,000 to 7,000 daily short work trips emanate from each direction.

For all-day work trips in the mid-range of 10 to 29 kilometres, the south and east dominate as origins, with approximately 16,000 and 15,000, respectively, originating from these directions.

Since most short and medium-length trips to the TYE come from the south and east, there is potential for improved transit from these directions to serve TYE workers and reduce congestion. (See Table 11 in the Appendix.)

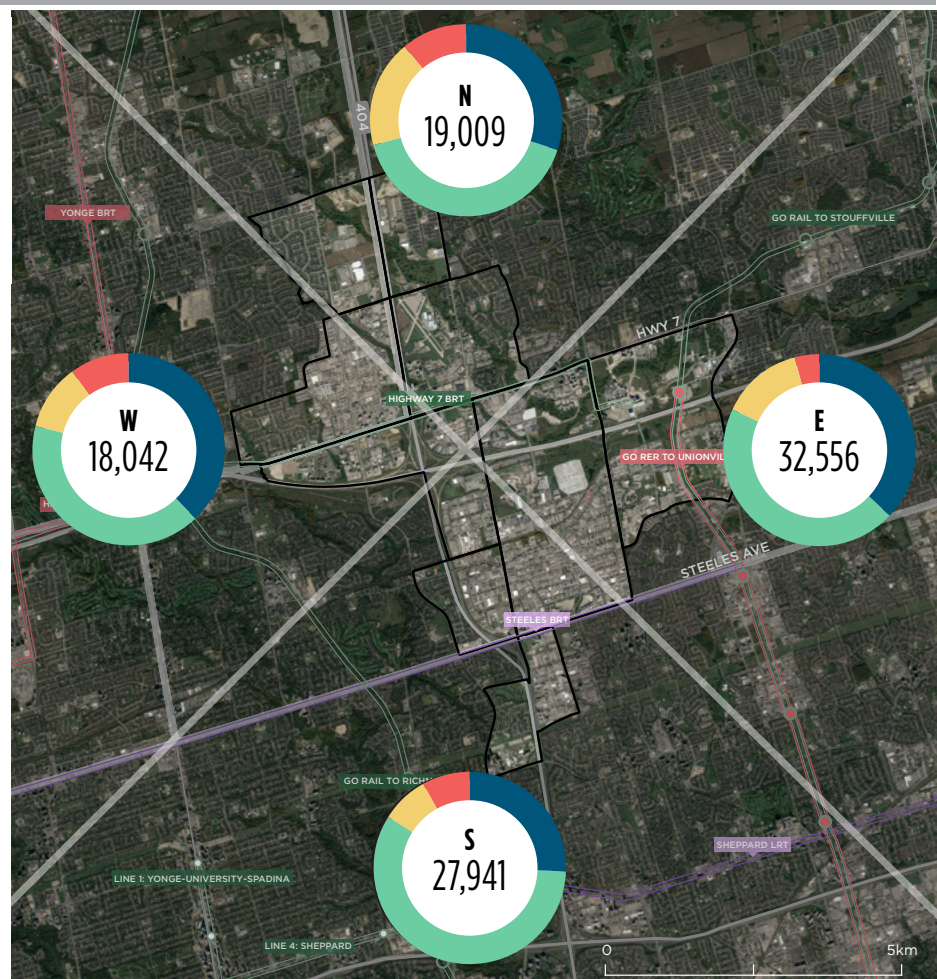
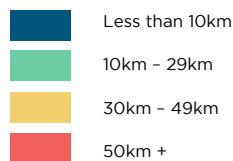
## TRANSIT TO AND WITHIN THE TYE MEGAZONE

A main reason that transit mode share in the TYE is very low is that current transit service to the megazone is poor. Rapid transit consists primarily of GO Rail service to Unionville (the station is within the Markham Centre UGC), and the Viva BRT along Highway 7. At present, GO Rail service is focused on serving peak travel to and from downtown Toronto, and does not effectively serve jobs in the TYE district. This explains why, although Markham Centre has a GO Rail station, only workers coming from the north – about 120 workers a day – use the service to get to work in the TYE megazone.

Transit improvements are being planned, including two-way service to the Unionville GO station in Markham Centre, but are not well coordinated and fail to treat the area as a single employment zone. For example, the greatest number of work trips to the zone and the greatest number of short trips originate east of the TYE megazone. But the district is poorly served by transit from the east. Rapid transit connections come primarily from the west and south. And the timing and funding of the extension of the Highway 7 BRT east of Unionville GO and Kennedy BRT Stations to Cornell has not yet been confirmed.<sup>22</sup>

Planned GO Rail service improvements will benefit the roughly 7,600 current jobs as well as future jobs in the Markham Centre. But reducing auto dependence and improving transit service to the almost 100,000 current jobs located elsewhere in the zone requires focused attention. A regional approach to serving this important economic and employment area, one that integrates land use and transit planning, is currently lacking.

#### ALL-DAY WORK TRIPS TO THE TYE MEGAZONE BY ORIGIN AND DISTANCE



22 York Region Transit, Moving to 2020: YRT/Viva 2016-2020 Strategic Plan Update.

# CONCLUSIONS

The TYE megazone is a regionally, provincially, and nationally significant economic zone, specializing in the production of tradeable goods and services. It includes more than 100,000 jobs in key and growing industries. Like many other suburban employment zones, it contains significant concentrations of jobs in finance; architecture and engineering; accounting; and administrative and business support services, as well as wholesaling and manufacturing. The TYE megazone is also home to a regionally significant industry cluster related to computers and information and communications technologies (ICT), and one of the five regional Suburban Knowledge-Intensive Districts identified in *Planning for Prosperity*.

Despite manufacturing job losses, and unlike many other areas in the GGH, the TYE megazone has seen considerable net employment growth, especially in finance and business services, focused on the office parks surrounding the intersection of Highways 404 and 7. Finally, the TYE megazone is significant as a source of car travel and congestion, generating over 400,000 daily trips to and from the zone, almost all by car.

The megazone's office parks have significant potential for further intensification and densification, through the development of what are currently vacant sites and surface parking lots. These areas are generally within walking distance of BRT service along Highway 7.

Directing office growth to these locations would help support transit investments and ridership and reduce auto trips. In addition, accommodating office development through reurbanization would deflect pressure from further greenfields development, and would promote agglomeration economies by building on the existing critical mass of development, for example, further strengthening the zone's ICT cluster.

At the same time, the TYE megazone faces several challenges.

It is not recognized in the regional structure of the *Growth Plan for the Greater Golden Horseshoe*. This omission makes it difficult to ensure the alignment of land use and transit planning, especially since the Regional Transportation Plan uses the Growth Plan's regional structure as its starting point. A critical element of any regional transportation strategy must be getting people to jobs. How will this be achieved if regionally significant employment areas with hundreds of thousands of jobs are not recognized in planning frameworks? Recognizing the TYE megazone, along with other regionally significant employment areas, is a fundamental first step toward creating comprehensive, integrated planning and transportation strategies that improve access to jobs and reduce congestion.

Major transit investments need to be identified and prioritized on a region-wide basis, based on key crite-

ria, such as maximizing the number of trips that can be shifted from auto to transit, and delivering workers to existing jobs. For example, prioritizing two-way GO service would allow workers coming from the south to get to jobs in the TYE megazone, something not currently possible because GO service focuses on getting workers to downtown jobs.

And while there is considerable development potential in the megazone, attracting new development, especially office uses, to sites within the already urbanized area requires coordinated action – “plan it and they will come” cannot be assumed. Having higher-order transit in place is one element. Transforming the existing auto-oriented environment and creating physical environments that attract office uses and support investment and business competitiveness is essential. Businesses are attracted to areas that feature good urban design, a range of amenities, a mix of uses, walkability, and seamless integration of transit. Another key is removing financial disincentives to denser development on already urbanized land by, for example, recalculating development charges to more accurately reflect actual the typically lower servicing costs for these types of development.

An often-overlooked way to maximize the potential of existing employment zones is shaping planning policy related to office uses elsewhere in the region. When significant transit investments are being made, major new office development in areas that are not well served by frequent transit should be prohibited or severely restricted.

Planning can also support the existing ICT cluster by promoting agglomeration economies and the co-location of related firms and assets. This support includes leveraging major public investments such as education campuses and other major public buildings, as well as providing for urban environments that encourage related uses and activities.

That the area continues to attract new investment and employment indicates its importance. Yet if auto dependence is not addressed, growth will only add to regional congestion and greenhouse gas emissions – and potentially undermine the attractiveness of the TYE megazone itself. Availability of higher-order transit plays an increasingly important role for knowledge economy firms, as it means access to a broad labour market. This is one reason we have seen significant employment growth in downtown Toronto in recent years.

Change will be challenging, given the nature of the built environment, the current pattern of segregated land uses, and the fragmentation of the area resulting from the Highway 404/407 interchange and the scale of arterial roads. In short, there is a need for integrated strategies that simultaneously address economic development and change, auto dependence, land use planning, and placemaking. In addition, a mechanism is needed that promotes a comprehensive approach to planning the area as whole, which involves the City of Toronto, Markham, Richmond Hill, and York Region.



# APPENDIX – TABLES

TABLE 1: TOR-YORK EAST STATISTICS

ALL EMPLOYMENT, 2011	106,260
TYE SHARE OF GGH EMPLOYMENT, 2011	3%
EMPLOYMENT CHANGE 2001-2011	9,625
TYE SHARE OF GGH EMPLOYMENT CHANGE	3%
CORE EMPLOYMENT, 2011	90,050
TYE SHARE OF GGH CORE EMPLOYMENT, 2011	4%
TYE CORE EMPLOYMENT CHANGE 2001-2011	7,415
GGH CORE EMPLOYMENT CHANGE 2001-2011	-3,110

TABLE 2: EMPLOYMENT BY PLANNING CATEGORY, TYE MEGAZONE, 2011

	CORE EMPLOYMENT								POPULATION-RELATED
		INDUSTRIAL		OFFICE		INSTITUTIONAL	SERVICES	SPECIALIZED	
	CORE	MANUFACTURING, CONSTRUCTION & UTILITIES	WAREHOUSING & TRANSPORTATION	FINANCE & BUSINESS SERVICES	VOLUNTARY & GOVERNMENT	HIGHER EDUCATION & HOSPITALS	CULTURE & TOURISM	BROADCASTING & LABORATORIES	
TYE EMPLOYMENT	90,050	19,190	20,575	45,615	2,125	855	640	1,050	14,625
GGH EMPLOYMENT FOR EACH PLANNING CATEGORY, 2011	2,198,555	607,295	336,030	763,570	217,715	182,155	51,915	39,875	1,106,985
TYE SHARE OF GGH EMPLOYMENT FOR EACH PLANNING CATEGORY, 2011 (%)	4	3	6	6	1	0	1	3	5
TYE EMPLOYMENT BY PLANNING CATEGORY (% SHARE)	85	18	19	43	2	1	1	1	14
GGH EMPLOYMENT BY PLANNING CATEGORY (% SHARE)	62	17	10	22	6	5	2	1	31

TABLE 3: EMPLOYMENT CHANGE IN THE TYE MEGAZONE

	2001-2006	2006-2011	2001-2011
<b>CORE EMPLOYMENT</b>	10,155	-2,740	7,415
<b>MANUFACTURING, CONSTRUCTION &amp; UTILITIES</b>	1,295	-6,145	-4,850
<b>MANUFACTURING</b>	630	-5,505	-4,875
<b>WAREHOUSING &amp; TRANSPORTATION</b>	2,725	-130	2,595
<b>FINANCE &amp; BUSINESS SERVICES</b>	5,725	3,755	9,480
<b>FINANCE</b>	1,625	2,115	3,740
<b>VOLUNTARY &amp; GOVERNMENT</b>	10	680	690
<b>HIGHER EDUCATION &amp; HOSPITALS</b>	380	-750	-370
<b>CULTURE &amp; TOURISM</b>	100	-250	-150
<b>BROADCASTING &amp; LABORATORIES</b>	-80	100	20
<b>NON-CORE (POPULATION-RELATED)</b>	2,025	-1,280	745
<b>TOTAL EMPLOYMENT</b>	12,050	-2,425	9,625

TABLE 4: CORE EMPLOYMENT BY PLANNING CATEGORY AND CENSUS TRACT, 2011

CENSUS TRACT	LOCATION & MUNICIPALITY	INDUSTRIAL		OFFICE		INSTITUTIONAL	SERVICES	SPECIALIZED
		MANUFACTURING, CONSTRUCTION & UTILITIES	WAREHOUSING & TRANSPORTATION	FINANCE & BUSINESS SERVICES	VOLUNTARY & GOVERNMENT	HIGHER EDUCATION & HOSPITALS	CULTURE & TOURISM	BROADCASTING & LABORATORIES
(1) 5350420.1	NORTH: RICHMOND HILL	240	935	1,085	45	0	0	0
(2) 5350403.04	NORTH: MARKHAM	600	295	660	0	0	0	0
(3) 5350420.05	404/407 INTERCHANGE: RICHMOND HILL	3,090	2,920	6,595	605	0	240	375
(4) 5350401.10	404/407 INTERCHANGE: MARKHAM	1,305	1,645	5,890	205	465	30	95
(5) 5350402.12	404/407 INTERCHANGE: MARKHAM	2,640	2,165	9,525	230	25	225	315
(6) 5350401.05	EAST: MARKHAM	7,255	7,245	8,950	335	30	145	110
(7) 5350401.18	EAST: MARKHAM	2,170	2,930	6,285	305	0	0	110
(8) 5350402.01	EAST: MARKHAM	1,325	905	2,675	95	0	0	0
(9) 5350324.03	SOUTH: TORONTO	565	1,535	3,950	305	335	0	45

TABLE 5: EMPLOYMENT CHANGE BY PLANNING CATEGORY AND CENSUS TRACT, 2001-2011

CENSUS TRACT	LOCATION & MUNICIPALITY	CORE							POPULATION-RELATED	TOTAL
		MANUFACTURING, CONSTRUCTION & UTILITIES	WAREHOUSING & TRANSPORTATION	FINANCE & BUSINESS SERVICES	VOLUNTARY & GOVERNMENT	HIGHER EDUCATION & HOSPITALS	CULTURE & TOURISM	BROADCASTING & LABORATORIES		
(1) 5350420.1	NORTH: RICHMOND HILL	-30	585	565	45	-25	0	-10	560	1,785
(2) 5350403.04	NORTH: MARKHAM	355	185	115	0	0	0	0	40	790
(3) 5350420.05	404/407 INTERCHANGE: RICHMOND HILL	-1,130	-375	320	195	-20	-10	-10	295	-515
(4) 5350401.10	404/407 INTERCHANGE: MARKHAM	-510	-115	715	105	395	10	-15	-240	465
(5) 5350402.12	404/407 INTERCHANGE: MARKHAM	-350	495	4,300	-35	-10	65	305	-330	4,590
(6) 5350401.05	EAST: MARKHAM	-1,130	355	-220	10	-50	-180	-125	-40	-1,410
(7) 5350401.18	EAST: MARKHAM	-255	1,070	825	235	-20	-10	40	655	2,645
(8) 5350402.01	EAST: MARKHAM	-1,085	30	1,180	5	-10	-25	-75	25	370
(9) 5350324.03	SOUTH: TORONTO	-465	365	1,680	130	-630	0	-90	-220	905

TABLE 6: EMPLOYMENT DENSITY BY CENSUS TRACT, 2011 (1)

CENSUS TRACT	LOCATION AND MUNICIPALITY	POPULATION + JOBS	AREA (HA)(2)	POPULATION + JOBS/HA	TOTAL JOBS	JOBS/EMP. HA.(3)
(1) 5350420.10	NORTH: RICHMOND HILL	7,039	326	21.6	3,160	15.6
(2) 5350403.04	NORTH: MARKHAM	5,987	214	28.0	1,730	12.5
(3) 5350420.05	404/407 INTERCHANGE: RICHMOND HILL	23,627	438	53.9	17,000	50.4
(4) 5350401.10	404/407 INTERCHANGE: MARKHAM	15,884	361	44.0	10,800	47.6
(5) 5350402.12	404/407 INTERCHANGE: MARKHAM	20,759	353	58.9	16,295	51.3
(6) 5350401.05	EAST: MARKHAM	31,024	825	37.6	28,860	35.0
(7) 5350401.18	EAST: MARKHAM	17,847	619	28.8	14,395	23.8
(8) 5350402.01	EAST: MARKHAM	8,906	197	45.2	6,320	43.2
(9) 5350324.03	SOUTH: TORONTO	11,798	217	54.4	7,700	43.2

(1) Large non-developable areas have been deleted from the land base estimation: the runway areas of Buttonville Airport, and the area of the 404/407 interchange.

(2) Non-developable areas have been deleted, such as the 404/407 interchange, and Buttonville Airport runway area.

(3) Employment divided by developable employment lands (excluding residential-only lands).

TABLE 7: ALL-DAY TRIPS TO THE TYE MEGAZONE AND IN THE GGH

	ALL-DAY TRIPS TO TYE	ALL-DAY TRIPS IN THE GGH
FOR ALL PURPOSES	218,646	17,924,261
TRIPS TO WORK ONLY	97,563	3,114,064
MORNING PEAK	76,151	-

TABLE 8: WORK TRIPS TO THE TYE MEGAZONE BY MODE AND DISTANCE

		NO.	SHARE OF ALL TRIPS
ALL-DAY BY MODE	AUTO	91,915	94%
	TRANSIT	4,982	5%
	OTHER	626	1%
ALL-DAY BY DISTANCE TRAVELLED	LESS THAN 10 KM	31,726	33%
	10 - 29 KM	46,122	47%
	30 - 49 KM	12,172	13%
	50+ KM	7,528	8%

TABLE 9: DIRECTION OF ORIGIN FOR TRIPS TO THE TYE MEGAZONE

	NORTH		EAST		SOUTH		WEST	
	NO.	%	NO.	%	NO.	%	NO.	%
ALL PURPOSES, ALL-DAY	57,442	26	64,222	29	53,377	24	43,605	20
WORK TRIPS ONLY, ALL-DAY	19,010	19	32,562	33	27,956	29	18,044	18
WORK TRIPS ONLY, MORNING PEAK	15,238	20	24,816	33	21,764	29	14,333	19

TABLE 10: ORIGIN OF TRAVEL BY MODE, WORK TRIPS, ALL-DAY

	NORTH		EAST		SOUTH		WEST	
	NO.	%	NO.	%	NO.	%	NO.	%
AUTO	18,654	99	30,838	95	25,207	90	17,236	96
TRANSIT	219	1	1,532	5	2,617	9	624	4
ACTIVE	137	1	192	1	132	1	165	1
TOTAL	19,010	100	32,562	100	27,956	100	18,044	100

TABLE 11: ORIGIN OF TRAVEL BY DISTANCE, WORK TRIPS, ALL-DAY

	NORTH		EAST		SOUTH		WEST	
	NO.	%	NO.	%	NO.	%	NO.	%
LESS THAN 10KM	5,736	30	11,925	37	7,146	26	6,919	38
10KM- 29KM	7,766	41	14,561	45	16,467	59	7,328	41
30KM- 49KM	3,436	18	4,617	14	2,185	8	1,934	11
50KM +	2,071	11	1,453	5	2,143	8	1,861	10
TOTAL	19,009	100	32,556	100	27,941	100	18,042	100



TYE MEGAZONE CENSUS TRACT NUMBERS

