PEEL 2041: PLANNING FOR GROWTH AND MANAGING RISK

Region of Peel

HEMSON Consulting Ltd.

September 22, 2017
# TABLE OF CONTENTS

**EXECUTIVE SUMMARY** ......................................................................................................................... 1

**I  SECURING A HEALTHY, LIVEABLE, RESILIENT FUTURE REQUIRES AN INTEGRATED APPROACH TO LONG-TERM PLANNING** ................................................................. 8

A. A DECADE OF CHANGE ......................................................................................................................... 8
B. COMPREHENSIVE AND INTEGRATED ................................................................................................. 10
C. A WIDE RANGE OF SCENARIOS WERE TESTED ............................................................................. 11

**II  ALLOCATION TO GUIDE GROWTH TO 2041** .............................................................................. 15

A. PROVINCIAL MANDATE ACHIEVED WHILE RESPECTING LOCAL GROWTH OBJECTIVES .................. 16

**III  UNDERSTANDING RISKS** .............................................................................................................. 21

A. ENVIRONMENTAL CONSIDERATIONS ASSOCIATED WITH THE GROWTH ALLOCATION ................ 21
B. RISKS ASSOCIATED WITH RESIDENTIAL DEVELOPMENT ................................................................ 22
C. RISKS ASSOCIATED WITH EMPLOYMENT GROWTH ASSUMPTIONS ........................................ 23

**IV  MITIGATING RISKS AND OPTIMIZING OPPORTUNITIES** ............................................................ 26

A. MITIGATING THE IMPACT OF GROWTH AND DEVELOPMENT ON THE ENVIRONMENT .................... 26
B. A MATURE URBAN REGION REQUIRES A MATURE TRANSPORTATION STRATEGY ............................. 27
C. ACHIEVING EMPLOYMENT TARGETS REQUIRES MORE THAN A LAND USE PLAN ...................... 30
D. CONVERGENCE .................................................................................................................................... 31

**V  GETTING THERE** .............................................................................................................................. 32

A. REGIONAL STRUCTURE ......................................................................................................................... 32
B. ADDITIONAL IMPLEMENTATION ACTIONS AND STRATEGIES ..................................................... 34
EXECUTIVE SUMMARY

PEEL 2041

In 2041 the Region of Peel will have almost 2 million residents and will be home to almost 1 million jobs, capturing 19% of population growth and 21% of employment growth forecast for the Greater Toronto Area and Hamilton (GTAH).

The question is not “Will the Region grow?” Growth is definitely coming. Managing where and how that growth occurs is the essence of planning. It is critical to understand the impacts and challenges of that growth, as well as the opportunities growth presents for the Region overall and for the three local municipalities.

The Peel 2041 Regional Official Plan Review (Peel 2041) is a municipal comprehensive review that will introduce official plan policies, implementation strategies and finance mechanisms to manage this growth. Peel 2041 is an integrative strategy that will guide the Region to manage the timing and location of growth, and ensure a healthy and sustainable future for the residents of the Region. The official plan amendments that result will ensure Regional policy conforms to the Growth Plan as revised in 2017, the Provincial Policy Statement (2014), the Affordable Housing Act (2011) and other Provincial policy initiatives.

A municipal comprehensive review is a full review of municipal growth targets and the policy framework that directs and structures that growth throughout the planning period. Peel 2041 is an exercise in determining the optimal allocation of population, housing and employment growth to 2041 among the local municipalities, and amending official plan policies to guide that growth. Central to the process has been the objective of reducing the regional infrastructure cost–revenue gap.

A growth management Regional Official Plan Amendment (ROPA) is required which sets the objectives for growth to be implemented through regional land use planning, physical infrastructure and environmental policy all as a support to local municipal objectives for communities and economic development. These efforts will align with the Region’s Strategic Plan Vision “Community for life” and Mission “Working with you to create a healthy, vibrant and connected community”. The ROPA sets out the allocated population, housing and employment targets for each area municipality, however, it is largely up to each municipality to plan for that growth in keeping with local visions and priorities.
The growth management ROPA is one of a number of amendments to the Regional Official Plan that are required in order to address the directions of the Growth Plan that came into effect July 1, 2017. Additional amendments will deal with other subjects such as settlement area boundaries, employment land conversions and the delineation of Major Transit Station Areas (MTSAs) for detailed planning purposes.

AN INTEGRATIVE PROCESS

In building a consensus on the optimal outlook for growth, an integrative process was undertaken. A wide range of alternative scenarios were assessed for their ability to address regional and local priorities and their impacts on water and wastewater servicing, transportation, economic development and the stewardship and protection of environmental resources. Staff from the local municipalities have been involved throughout the process. The Inter-Municipal Workgroup was instrumental in defining alternative scenarios and assessing their performance against local planning visions and priorities. Industry stakeholders also participated in the process through a Development Industry Workgroup, providing important insights into the alternative scenarios. This dialogue benefited from detailed comments provided by BILD reflecting their on-the-ground experience.

Key activities included:

- In the summer and fall of 2016, regional staff, consultants, and the development industry worked through an initial set of growth scenarios and related infrastructure, including finance and costing.

- In the winter of 2017 refinements to the initial set of scenarios resulted in additional scenarios for examination.

- In the spring and summer of 2017 still additional scenarios of alternative allocations were studied reflecting suggestions from local municipal representatives, Councillors and the development industry as well as incorporating the new policies of the Growth Plan (2017). This phase of the process concluded with the identification of a proposed allocation.

Throughout the scenario testing process, parallel work on servicing, transportation infrastructure, other regional services, financing and development charge issues continued to be addressed and resolved through the integrative approach.

In January of 2017, Regional staff updated the Growth Management Committee on the Peel 2041 process. At that time it was estimated that the integrative approach had
accrued significant long-term cost savings compared to what otherwise might have occurred, as follows:

- $100 million from earlier collection of Development Charges;
- $290 million from adjusting services estimates; and
- $140 million resulting from the consensus to focus growth in areas where it can take advantage of existing and planned infrastructure.

Following evaluation of fifteen scenarios, a consensus focused on a preferred allocation of population and employment growth, as outlined in the Table below, which is consistent with the growth assignment for Peel Region found in the Growth Plan (2017) Schedule 3, to 2041. This allocation reflects emerging demographic and economic trends while incorporating local municipal objectives with respect to intensification and development densities as well as economic development.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mississauga</td>
<td>746,000</td>
<td>920,000</td>
<td>174,000</td>
<td>241,000</td>
<td>308,000</td>
<td>67,000</td>
<td>474,000</td>
<td>565,000</td>
<td>91,000</td>
</tr>
<tr>
<td>Brampton</td>
<td>614,000</td>
<td>890,000</td>
<td>276,000</td>
<td>168,000</td>
<td>251,000</td>
<td>83,000</td>
<td>303,000</td>
<td>325,000</td>
<td>122,000</td>
</tr>
<tr>
<td>Caledon</td>
<td>69,000</td>
<td>160,000</td>
<td>91,000</td>
<td>21,000</td>
<td>50,000</td>
<td>29,000</td>
<td>28,000</td>
<td>80,000</td>
<td>52,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,429,000</strong></td>
<td><strong>1,970,000</strong></td>
<td><strong>541,000</strong></td>
<td><strong>430,000</strong></td>
<td><strong>609,000</strong></td>
<td><strong>179,000</strong></td>
<td><strong>705,000</strong></td>
<td><strong>970,000</strong></td>
<td><strong>265,000</strong></td>
</tr>
</tbody>
</table>

**CONSENSUS ALLOCATION MEETS PROVINCIAL MANDATE WHILE RESPECTING LOCAL OBJECTIVES**

By 2041 Peel Region will grow by 541,000 residents requiring 179,000 additional homes. Much of this growth will be accommodated through intensification initiatives in Downtown Mississauga and Downtown Brampton as well as in strategic growth areas such as the Hurontario Corridor, Dundas Corridor and Main Street and Queen Street corridors. Additional intensification will take place as older industrial areas are redeveloped as dynamic mixed-use communities in Lakeview and Port Credit. The allocation also draws on the capacity in Peel Region to contribute to meeting demand for single family housing in the GTA, in keeping with Provincial policy directives, in the already approved greenfield areas of Brampton and Caledon. Some additional greenfield supply has been identified to accommodate future demand for ground-related housing while respecting Provincial targets.

Employment will grow by an additional 265,000 jobs by 2041. Currently, employment is estimated to be tracking below the levels that had been originally anticipated by the Growth Plan in 2006 and which are incorporated in the present Regional Official Plan.
This is evidence of the difficulty of planning for employment growth as complex developments within the broader regional economy have led to significant market adjustments in terms of the demand for major office development. Another adjustment has been the continuing technological change which has resulted in the development of large sites for warehousing and logistics, employing significantly fewer employees, leading to low employment densities over large areas. The allocation continues this somewhat slower growth in jobs for the next few years, then the pace of growth picks up resulting from assumptions around the longer-term demand for major office development as well as the development of major institutions and additional employment to serve the growing residential population, especially in strategic growth areas.

MITIGATING RISKS A CORE ELEMENT TO THE INTEGRATIVE PLANNING PROCESS

While the consensus allocation emerged from a comprehensive assessment of a wide range of growth scenarios, there remain risks for the Region and local municipalities as the economy and development evolve, including the following:

- Greenfield development may not pay for itself;
- Intensification may be delayed, owing to shifts in GTA-wide demand for apartments;
- The future of e-commerce could significantly impact the existing and the planned retail landscape;
- Road congestion and economic viability may make strategic locations for major office development uncompetitive; and
- The continuing focus of employment land development in the form of very large logistics and warehousing facilities is central to the Region’s economic future, and the development of the GTA West highway will be key to sustaining Peel’s strategic role in this sector. However, this trend will pose a challenge for increasing employment densities, while still presenting demands on Regional infrastructure.

The integrative nature of the Peel 2041 process has resulted in the identification of approaches that could help to mitigate these risks. These strategies include:

- Outlining a mature transportation strategy for a mature urban region, focussing on:
• Enhancing and expanding the transit network;

• Creating more ‘urban’, pedestrian-friendly environments for office development that are more accessible by transit and cycling;

• Managing road congestion through strategic capacity improvements including road widenings and optimizing road network operations; and

• Investigating solutions to address the “last mile” commuting challenge such as exploring new mobility options around ride sharing and autonomous vehicles.

• Outlining considerations for creating a dynamic, regional, economic development strategy in partnership with local municipalities, focusing on:
  
  • Improving the competitiveness of major office nodes accessible by transit;

  • Protecting key employment lands from conversion to non-employment uses;

  • Exploring transit solutions for the workforce that address the “last mile” challenge in low density employment areas;

  • Ensuring a supply of employment land that includes a range of location, size and servicing to ensure a variety of opportunities for businesses; and

  • Exploring the potential of enhancing access to affordable broadband data networks in strategic employment areas.

• The early initiation of a Development Charges By-law Review that reflects the new forecast and associated infrastructure plan which will yield an updated DC Background Study and By-law.

A REGIONAL STRUCTURE TO MANAGE GROWTH

An amendment to the Regional Official Plan (ROPA) is required to update the Regional Growth Management Strategy and bring the Regional Official Plan into conformity with the Growth Plan (2017) by incorporating the allocation of growth to 2041 and modifying official plan policies to manage this growth in keeping with provincial mandates.

The draft ROPA includes a Regional Structure, Schedule D, indicating strategic priority areas to accommodate growth. Supporting Schedule D are Schedule D4, locating the policy areas governed by the Growth Plan (2017), Schedule D5, delineating employment areas, and Schedule D6 which outlines Strategic Growth Areas such as MTSAs, intensification corridors and community nodes. These
Schedules are in Appendix A, attached. The draft ROPA includes the following key measures:

- Amending Regional Structure policy in keeping with Schedules D, D4, D5 and D6;
- Updating for 2031 and extending to 2041 the allocation of population, households and employment to the local municipalities;
- Updating for 2031, and extending to 2041, intensification and greenfield development density targets for the Region and local municipalities;
- Identifying strategic growth areas and MTSAs;
- Comprehensive amendments to policy to guide and manage this growth;
- Policies that will enable Regional Council to request that any proposed development satisfy criteria of infrastructure phasing staging and financing plans.
- Direction to develop monitoring plans to support this process in the future.
- Guidelines for Regional and local implementation efforts; and
- A framework for working with local municipalities on an employment strategy, including support for the provision of affordable, symmetrical broadband in employment areas.

Peel 2041 will continue and may result in additional amendments, including settlement boundaries and employment land conversion policy. Additionally, reviews of the Greenlands System, Water Resources policy and Agricultural policy will address the requirements of the *Greenbelt Plan, 2017*, *Niagara Escarpment Plan, 2017* and the *Oak Ridges Moraine Protection Plan, 2017*. Implementation strategies will also include:

- Working with local municipalities to identify the boundaries of MTSAs, as required by the Province to facilitate more detailed planning for these areas;
- Developing Infrastructure Master Plans;
- Adopting a Transportation Strategy;
- Working with local municipalities and industry on an Employment Strategy;
- Preparing a Financial Strategy and DC By-law update; and
- Revising the monitoring and exceptions work program to include regular reporting to Council and stakeholders.
It is our conclusion that the draft Growth Management Strategy ROPA conforms to the *Growth Plan (2017)* and the *Provincial Policy Statement (2014)*, but that further Regional strategies and related ROPAs will be required to bring the Regional Plan into full conformity with the new *Growth Plan*. 
I SECURING A HEALTHY, LIVEABLE, RESILIENT FUTURE REQUIRES AN INTEGRATED APPROACH TO LONG-TERM PLANNING

This is a pivotal moment in planning for the future of Peel Region. By 2041 Peel Region will have almost 2 million residents and 1 million jobs, approaching the size of today’s Greater Vancouver Region. To ensure a healthy and sustainable future for the residents of the Region, an integrated approach to planning for the next wave of growth is critical. To further mitigate the risks associated with this growth, it is important to integrate land use and transportation, to develop the region’s economy, and to plan for a more intensified urban fabric.

This report is an overview of a unique approach to updating the Region's *Growth Management Strategy* and serves as a planning justification report for the draft Regional Official Plan Amendment (ROPA). Not only have regional and local infrastructure and investment mandates been integrated, but the process has also been proactive with early and thoughtful engagement of stakeholders. This exercise will generate the following outputs:

- Draft Growth Management Regional Official Plan Amendment (ROPA) and land budget;
- Updated servicing master plans and associated capital plans;
- Final Growth Management ROPA;
- Monitoring and Exception Plans; and
- Development Charges By-law update.

A. A DECADE OF CHANGE

Since the last comprehensive update to the Regional Official Plan the dynamics of growth and development have changed significantly, as have economic and environmental conditions.

- Mississauga is largely built-out and will become the focus for intensification as the downtown and key corridors are reshaped as dynamic mixed-use areas with transit supportive densities.

- Brampton continues to be one of the fastest growing municipalities in Ontario with some capacity to accommodate demand for new single-family homes in a greenfield setting as well as a number of intensification opportunities.
• The provincial commitment of funds for light rapid transit on the Hurontario corridor that will link Brampton to Lake Ontario will be transformative for Peel residents.

• Establishment of a university campus and health sciences portal will help to reshape Brampton’s urban growth centre.

• Caledon has been meeting more of the demand for greenfield development with the addition of the growth area in Mayfield West and has seen the addition of a significant amount large-scale industrial development.

• Changing economic conditions across the GTA are also observable within Peel Region;
  • Overall job growth has lagged behind the previous Growth Plan forecast;
  • Following a period of substantial growth in major office parks and Downtown Mississauga, the last few years have seen a slowdown in office demand and an increase in vacancy rates;
  • New employment land development is increasingly characterized by large warehousing and distribution centres with low employment but large impacts on the landscape and on municipal services; and
  • Changes in the type of economic activity, and also in the way people work contributed to an increase in the proportion of workers who have ‘no usual place of work’.

• An increased frequency of severe weather occurrences exacerbated by climate change requires that in planning for complete communities and a healthy urban environment, municipalities must also plan for resiliency and recognize upstream conditions and downstream impacts.

• On the policy front, the Provincial government undertook a comprehensive policy review of provincial plans that guide growth management policy. The Provincial Policy Statement was updated in 2014, and the Growth Plan, Greenbelt Plan and Oak Ridges Moraine Conservation Plan were amended in 2017 introducing significant new policy requirements for upper- and single-tier municipalities.

These changing dynamics of growth have implications for Council’s mandate to manage the infrastructure cost-revenue gap. To address these changing conditions, the Peel 2041 Regional Official Plan Review (Peel 2041) was initiated as a municipal comprehensive review intended to amend the official plan to manage this growth and implement provincial policy directions outlined in the Growth Plan as revised in 2017,
the Provincial Policy Statement (2014), the Affordable Housing Act (2011) and other Provincial policy initiatives.

B. COMPREHENSIVE AND INTEGRATED

As part of Peel 2041, the update to the Regional Growth Management Strategy, currently underway, is a fully-integrated initiative, and has presaged revisions to the Growth Plan that came into effect July 1, 2017.

The Growth Plan (2017) calls for growth management to be pursued in an integrated approach, co-ordinating land use planning, infrastructure planning and infrastructure financing and investment. Planning for expanded or new infrastructure should assess a range of long-term development and finance scenarios and should be supported by infrastructure master plans along with watershed planning, and other environmental assessments and studies. Infrastructure investment should be leveraged to guide growth in a structured manner toward strategic growth areas and to meet density targets for intensification and greenfield development, to create a more healthy urban environment, protect natural areas and mitigate the effects of climate change. (S. 3.2 Growth Plan for the Greater Golden Horseshoe, 2017)

1. Peel 2041, a New Approach

The approach taken through Peel 2041 is unique and departs from previous official plan review exercises in three important areas:

- It is more comprehensive in scope by examining a range of growth scenarios and assessing the differences in infrastructure and infrastructure financing required for each.

- It is more integrative by design in considering the implications for financing as well as transportation, the economy and the environment. This has been an integrative process where the conditions and prospects in traditional areas such as transportation, economic development and the stewardship and protection of the environment have been brought to the table early in the process for assessment.

- It is more inclusive in engaging key stakeholders in the development and evaluation of scenarios. Unique to this exercise has been the involvement of the area municipalities in identifying and testing alternative scenarios, reflecting local municipal priorities and the interests of key stakeholders.
Importantly, the process also incorporated an evaluation of implications for Regional finances and utilities. Background studies were commissioned that address how growth management challenges intersect with employment trends, environmental conditions and transportation needs. Experts in these areas played important roles in the evaluation process. The objective of reducing the regional infrastructure cost-revenue gap has been central to the background research, strategy development and consensus building has been.

All of this work has been in conformity with the *Growth Plan (2017)*, and will advance the conformity of the Regional Official Plan in setting a framework to manage growth to 2041. The collaborative process is outlined in Figure 1 below.

**Figure 1**

A diverse range of growth scenarios were generated for assessment against Regional and local municipal perspectives, and evaluated from the key objectives of managing financial risk and reducing the infrastructure cost–revenue gap. The scenarios reflect...
differing approaches to achieving the forecast growth assigned to Peel Region through Schedule 3 of the *Growth Plan (2017)*: 1.97 million population and 970,000 jobs.

Some of the scenarios went beyond the *Growth Plan (2017)* to test the implications of even higher population growth, largely based upon greater intensification within Mississauga alongside reduced growth in employment that might result from slower than anticipated economic growth.

Guiding principles around key elements of a healthy and sustainable future were identified for their contribution to benchmarks for the evaluation of scenarios:

- Intensification;
- Economic development;
- Transit-supportive development; and
- Environmental protection and stewardship.

The scenarios that were evaluated are found in Table 1.
Table 1

<table>
<thead>
<tr>
<th>Scenario Description</th>
<th>Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2016 Base</td>
<td></td>
</tr>
<tr>
<td>2 Brampton Base – Without 40% Activity Rate</td>
<td>Test of Brampton at 890,000 population with additional population allocated to both Caledon and Mississauga, 40% activity rate not achieved</td>
</tr>
<tr>
<td>2A Brampton with 40% Activity Rate</td>
<td>Test of Brampton at 890,000 population and achievement of 40% activity rate for employment</td>
</tr>
<tr>
<td>3 Greenfield Policy</td>
<td>Test of implications of increased greenfield and reduced intensification versus the Base scenario</td>
</tr>
<tr>
<td>4 Market Employment Consideration</td>
<td>Test of implications of employment growth using recent historical employment trends to 2041</td>
</tr>
<tr>
<td>5 Infrastructure Phasing Consideration</td>
<td>Test of benefits / costs of alternate phasing of major trunk sewer and water infrastructure to inform all scenarios</td>
</tr>
<tr>
<td>6 Proposed Provincial Growth Plan Policy</td>
<td>Test to gain an understanding of proposed amendments to Growth Plan. Adjustments required to incorporate modifications to the new Growth Plan policy</td>
</tr>
<tr>
<td>7 Transit Oriented / Intensification</td>
<td>Test of higher transit supportive intensification, primarily in Mississauga; test to get Mississauga population close to 1 million</td>
</tr>
<tr>
<td>8 GTA West Corridor High Employment</td>
<td>Test of higher employment land, employment primarily in Caledon resulting from GTA West infrastructure</td>
</tr>
<tr>
<td>9 Extreme Focused Intensification</td>
<td>Test of extreme intensification focused in Mississauga Note: Forecasts exceed Provincial Growth Forecasts</td>
</tr>
<tr>
<td>10 Provisional Growth Scenario</td>
<td>This scenario aims to respond to Local municipal, Regional and Provincial growth objectives and industry input and meet Growth Plan Amendment 2 requirements for 1.97 million population</td>
</tr>
<tr>
<td>10A Brampton 40% Activity Rate – revised</td>
<td>Test based on Provisional allocation but adjusted for 40% activity rate in Brampton</td>
</tr>
<tr>
<td>11 Caledon +15,000</td>
<td>Test of a Caledon population 15,000 higher in 2041 and Mississauga 15,000 lower</td>
</tr>
<tr>
<td>12 Caledon +30,000</td>
<td>Test of a Caledon population 30,000 higher in 2041 and Mississauga 30,000 lower</td>
</tr>
<tr>
<td>13 &amp; 14 New Growth Plan Policies</td>
<td>Initial tests of the Provisional Scenario and a higher Caledon population scenario under the new Growth Plan policies released in May 2017</td>
</tr>
<tr>
<td>15 Recommended Allocation</td>
<td>Population and employment growth allocation recommended for the Peel 2041 Official Plan Amendment</td>
</tr>
</tbody>
</table>

1. Stakeholder Engagement

Stakeholder engagement is critical to the success of this process. The early involvement of local municipal staff broadened the range of scenarios tested and their insights contributed to the evaluation. Bringing the development industry to the table early also generated key insights to the evaluation.

An Inter-Municipal Growth Management Workgroup (IMW) provided important insight in the crafting of alternative scenarios of growth, and examining the potential risks and impacts of the scenarios. This workgroup met 22 times leading up to this report.

The Growth Management Development Industry Workshop (DIW) also provided important insight into the alternative scenarios. This early engagement with the
development industry also led to the commencement of reviews of a set of technical inputs for the next Development Charges By-law update.

Municipal economic development teams were consulted in reviewing the potential effects of growth scenarios on economic prospects especially considering that recent job growth has lagged behind the currently adopted employment forecasts.

The conservation authorities, and public utilities, as well as consultants working on strategies such as the Transportation Master Plan and an employment development strategy also provided insight.

2. Cost Implications of Scenarios

A key outcome of this process has been more collaboration and a “deeper understanding” between various participants, including a recognition that the joint municipal regional monitoring plan should be enhanced to incorporate the assessment of progress and the generation of recommendations to adjust policy if necessary. Moreover, in an update report on the Growth Management Strategy in January 2017 Regional staff identified savings to the Region had already been realized, including:

- $100 million from earlier collection of DC charges;
- $290 million from adjusting service estimates; and
- $140 million from the draft growth allocation work that focuses growth using existing and planned servicing.

In addition, high-level cost estimates were developed for the water, wastewater, and Regional transportation infrastructure necessary to support each scenario’s geographic distribution and timing of forecast growth in order to determine which approaches would result in cost savings for the Regional infrastructure program.

This preliminary costing analysis did not reveal material differences for total projected capital costs between the scenarios to the horizon year of 2041. It is recognized, however, that beyond 2041 the Region is expected to enter a new cycle of major infrastructure investment to deal with continued growth. In addition, the evaluation of the scenarios demonstrated that the geographical distribution and timing of growth can affect the efficiency of infrastructure and its costs.
II ALLOCATION TO GUIDE GROWTH TO 2041

These high-level infrastructure cost estimates, along with feedback from local municipalities, the development industry and other stakeholders, informed the determination of a consensus scenario allocation of growth to 2041. Gaining consensus on a single allocation has allowed for continued planning of infrastructure, and the initiation of an update to the DC By-law while the ROPA continues to advance.

The consensus scenario establishes a balance in meeting local municipal growth objectives while maximizing the use of the Region's existing and planned infrastructure. This consensus scenario allocation reflects the population and employment growth to 2041 allocated to Peel Region, as well as the principles for density and intensification that are associated with these targets in the *Growth Plan* (2017). Table 2 illustrates how each local municipality is anticipated to grow to 2041.
Appendix B outlines the assumptions underlying the scenarios and the consensus view.

A. PROVINCIAL MANDATE ACHIEVED WHILE RESPECTING LOCAL GROWTH OBJECTIVES

Peel is fortunate that the question is not “Will the Region grow?” Growth is definitely coming. Managing where and how that growth takes place is important, and is the essence of planning. It is critical to understand the impacts and challenges of that growth, as well as the opportunities growth presents for the Region overall and for the local municipalities. Housing mix and transit-supportive densities are key objectives embedded in the mandate outlined in the Growth Plan (2017).

Additionally, the regional economy will continue to evolve, with significant implications for Peel Region. Beyond employment growth that is associated with an increase in population (such as retail, services, education and health care), economic growth will likely see a continuation of a dual focus. On one hand, new office space will be required to accommodate new business ventures, primarily in transit accessible locations, while on the other hand, the development of large logistics operations with low employment densities will continue, with consequent significant impacts on transportation infrastructure. The transition of older employment areas might also be a concern in the more established urban parts of the Region.

The Region of Peel official plan is currently in conformity with the Growth Plan, 2006. Population and employment forecasts are allocated among the three local municipalities and planning policies address targets for intensification and development in designated greenfield areas as well as implementation measures such as phasing.

The Growth Plan was revised in 2013 to update the population and employment allocations to upper- and single-tier municipalities for 2031, and extended the growth outlook to 2041. The current municipal comprehensive review was initiated to incorporate these new targets in the Regional Official Plan. The Growth Plan was revised more comprehensively in 2017, continuing with the allocations to 2041 along with substantial policy adjustments. These included new policies pertaining to employment lands, revisions to density targets, and a revised methodology for calculating density in designated greenfield areas. It also calls for upper- and single-tier municipalities to identify strategic growth areas and MTSAs in order to guide intensification. Additionally, upper- and single-tier municipalities may now identify employment areas, including “prime” employment areas and must prepare an
employment strategy which, in part, sets out minimum employment density targets for employment areas measured in jobs per hectare. Furthermore, the Provincial Policy Statement (PPS 2014) authorizes municipalities to plan for economic growth beyond the horizon year through the identification of “future strategic employment lands”. These changes to Provincial policy direction have been considered throughout the Peel 2041 exercise.

1. Regional Structure Supports the Forecast Allocation of Population

By 2041 Peel Region will grow by 541,000 additional residents, requiring 179,000 additional housing units. With Mississauga’s greenfield land substantially built out, the city’s growth will have to be accommodated almost exclusively through intensification. The Mississauga Official Plan provides for this through objectives to accommodate significant growth, especially in the Downtown and key redevelopment areas.

Brampton is transitioning from a development pattern dominated by greenfield development of ground-related housings to a pattern of greenfield development plus intensification. The Brampton Official Plan goals for intensified development, especially in the Hurontario and Queen Street corridors, are supported in this scenario.

Caledon continues to focus on greenfield development but while plans provide for intensification to be focused mainly in Bolton; this has also been incorporated into the recommended allocation.

Some specific examples of key opportunity areas for accommodating intensification and meeting local and regional planning objectives include:

- Downtown Mississauga;
- Downtown Brampton;
- Hurontario Corridor;
- Main Street and Queen Street Corridors in Brampton;
- Lakeview;
- Port Credit; and
- Dundas Corridor.

Comprehensive planning for these centres and corridors is key to achieving the intensification goals of the official plan. The Region-wide intensification achievement in the consensus scenario meets the mandated 50% up to 2031. As Brampton, and even Caledon, rely more on intensification in the latter years of the planning horizon, the Region achieves an intensification rate of 60% from 2031 to 2041, consistent with the Growth Plan (2017). This level of implementation planning will be led by the local municipalities in collaboration with Regional staff, to ensure policies and infrastructure are in place and the Growth Plan (2017) objectives for strategic growth areas and MTSAs are met.
This preferred scenario for population growth supports continued greenfield development of largely ground-related housing and strikes a balance in the shift towards higher density residential development. This market segment for new ground-related housing will be served mainly through the build-out of greenfield areas already designated in Brampton and Caledon, including the areas designated as a result of the Bolton Residential Expansion Study (BRES) which are currently under appeal to the Ontario Municipal Board at time of writing. A limited amount of new designated greenfield residential land has been identified:

- The Ninth Line lands ROPA guides the development of these lands being added to Mississauga; and
- The Mayfield West Phase 2 Stage 2 lands.

The consensus scenario assumes that currently approved designated greenfield areas will develop to the required density of 60 residents and jobs per hectare by 2041, while the Ninth Line and Mayfield West additions will be planned for 80 residents and jobs per hectare by 2041. The exact amount and location of additional new greenfield growth identified by the consensus scenario in Caledon will be determined through subsequent, more detailed, planning that the Region and the Town will undertake.

The resulting Regional Official Plan Amendment will only set the overall allocation targets and the servicing to support that, however.

2. Employment Allocation Sensitive to a Range of Outside Factors

In 2041 there will be 265,000 more jobs in the Region. The employment allocations seek to balance the employment and non-residential development objectives of all three local municipalities while working within the context of an overall Regional target mandated by the Province of 970,000 jobs. Employment and related development is much more difficult than residential development to direct in terms of location, and especially density, through land use policy.

As with population growth, the maturing nature of the urban parts of the Region will mean that employment growth arises in a range of land use contexts.

- Growth in Major Office Employment will be considerable given the changing economy and will, for the most part, be accommodated in areas already well-served by existing and planned regional infrastructure located primarily in the Mississauga and Brampton urban growth centres, office parks and in the Hurontario corridor. Some of this growth will be accommodated through rising employment densities in the current stock of office space. However, new office construction will still be required, but demand for new office space could be limited by advances in technology, a more mobile workforce and trends to more densely populate commercial office space.
Continued development of employment lands in greenfield settings could have significant implications for infrastructure investments as well as potential impacts on the environment; however such development will be characterized by a lower density of employment.

A more intense residential fabric may result in denser commercial, service and institutional employment to serve the residential population. The Region has already attained a threshold to support a second university campus and major health sciences investment. As growth continues, and current residents age in place, there will be increasing demands for government and institutional services. On the retail front, influences such as e-commerce and other technology influences are difficult to anticipate, but it would be prudent to plan for less physical space for retailing in new developments. Major retail and major institutional development could place demands on regional infrastructure.

Agriculture is an important element of the Region’s economy. Gross farm receipts (GFR) for Peel Region farms have increased steadily since 2006 and were valued at $94 million in 2016. Amendments to the Growth Plan and the Greenbelt Plan now permit a broader range of on-farm diversified and agricultural-related industrial and commercial uses with the Prime Agricultural Area. Despite these changes and the continuing implementation of the Golden Horseshoe Agricultural & Agri-Food Strategy – Food and Farming Action Plan, 2021, rural employment is not anticipated to increase by a large factor.

Current employment levels are tracking below the rate of growth anticipated when Schedule 3 of the Growth Plan (2006) was updated, and an intermediate target currently incorporated in the official plan of 820,000 jobs by 2021 is not likely to be met. Nevertheless, a range of scenarios were examined to meet the target of 970,000 by 2041. The proposed allocation anticipates a continuation of the recent slower pace of employment growth at least until 2021, reflecting the soft office market and low employment densities in the logistics sector. By 2031 employment is anticipated to recover to 870,000 (just shy of the updated Schedule 3 target) and to attain the 970,000 total by 2041.

While not all municipal goals can be met within the strictures of policy and the current market view, there is nothing in the ROPA or the Region’s infrastructure plans that restrict the achievement of higher employment growth than shown in the ROPA. In particular, Brampton’s goal of achieving a 40% activity rate by 2041 was assessed. It was determined that this target can be approached, but cannot be met, within the analysis supporting the ROPA within this period. However, it is a worthy long term goal as guidance for economic development efforts. Moreover, if Brampton’s efforts to attract significant new office growth as well as the attraction of major institutions including a new university and a second major hospital allow it to exceed the employment allocation, the Regional Official Plan and the Region’s supporting infrastructure plans support employment growth beyond what is anticipated.
Similarly, growth in employment beyond the ROPA allocation in Mississauga is also possible and is not limited or restricted by the proposed policy amendments, growth allocations or supporting infrastructure.

Employment growth in Caledon is different in character from the other two municipalities. Brampton will, in part, rely on the build out of its already designated greenfield employment areas, while Caledon’s existing and proposed new designations for employment lands will accommodate the majority of its forecast employment growth.
III UNDERSTANDING RISKS

An important element of the dialogue that has taken place in building the consensus allocation has been the identification of risks that the Region and local municipalities might face. Mitigating these risks is a critical element of planning.

A. ENVIRONMENTAL CONSIDERATIONS ASSOCIATED WITH THE GROWTH ALLOCATION

Growth in the Region has the potential to impact the environment in many ways and requires integrated approaches throughout the planning and development approvals process to ensure air, land and water resources, natural heritage systems, energy and climate are considered in decision making.

The development and evaluation of scenarios considered the policy framework that is in place to manage environmental risks associated with growth. The policy-based framework for planning in Ontario confers significant authority on municipalities to protect natural heritage and environmental resources through:

- The Provincial Policy Statement (2014);
- The Growth Plan (2017); and more specifically through

The recent changes to the Provincial Policy Statement, 2014 and Growth Plan, 2017 require a greater level of integration between planning for growth and the protection of the environment. The amendments to the Growth Plan in particular have embedded the consideration of climate change throughout the plan’s themes. The policies establish targets for intensification and greenfield density, identification and protection of water resource systems and natural heritage systems, and the integration of growth, land use, infrastructure, and watershed planning. In planning for growth, water, wastewater and stormwater planning will be informed by watershed planning formally throughout the process. There are more detailed requirements for planning new greenfield areas requiring comprehensive review and subwatershed plans or equivalent studies. Updated guidance is also provided to promote a culture of conservation through municipal planning to support conservation objectives related to water conservation, energy conservation, air quality and waste management.
Municipalities will also need to identify actions that will reduce greenhouse gas emissions and address climate change adaptation goals, aligned with the *Ontario Climate Change Strategy, 2015* and *Climate Change Action Plan, 2016*.

Within Peel Region, resource protection and risk management is achieved through policies in:

- The Regional Official Plan;
- Local Municipal Plans;
- Infrastructure Master Plans;
- Conservation Authority Watershed Plans and Programs; and
- Regional and local municipal climate change initiatives including the Peel Climate Change Strategy.

1. **Allocation a Starting Point for Environmental Planning**

The Region and local municipalities are well positioned to deal with issues arising from the near-term growth within the forecast horizon as the Regional and local official plans conform to Provincial legislation. The Conservation Authorities also have current watershed plans and programs to deal with the near-term. Risks that might need to be addressed from longer-term growth patterns will be identified through detailed planning exercises with the local municipalities and Conservation Authorities as decisions on how and where to grow are made to implement growth allocations. These decisions will be guided by the Province’s policy framework and policies that are being updated as part of the continuing Peel 2041 work program to address the provincial requirements noted above.

Overall, there is a greater consideration for the environment in planning and a requirement to implement the policy direction through different levels of planning, more detailed studies, and the development approvals process.

**B. RISKS ASSOCIATED WITH RESIDENTIAL DEVELOPMENT**

As noted earlier in Section II, there is little risk that population growth will not happen. The risks Peel Region faces arise from the location and timing of residential development and the financial responsibilities that come with servicing that development.

1. **Greenfield Development May Not Pay for Itself**

Greenfield residential land of the type currently being developed in Brampton and Caledon, and to be added in Caledon, is in relatively short supply across the GTA, and, barring economic calamity in the metropolis, is nearly certain to be needed within the forecast period.
Certainty of development also means certainty of the revenue stream through Development Charges to pay for the infrastructure. Adjustments to the allocation of residential development among the three local municipalities has placed an increased emphasis on development within the built boundary. This means that the current designated greenfield land supply will serve lower density residential needs later into the planning period.

This is important as the infrastructure investments being made by the Region and local municipalities are mostly related to this development. Phasing the future expansion of greenfield areas is the Region’s most effective tool for managing the risks that could arise from service extension timing.

Nevertheless, as noted earlier in Section I, the implications for regional infrastructure costs varied little among the scenarios.

2. Intensification May Be Delayed

The higher density residential development that will largely occur through intensification has a somewhat higher risk related to timing. The overall planning objectives for the Greater Golden Horseshoe, expressed through the Growth Plan, and the Region of Peel, expressed through the Regional Official Plan, relies on major shifts in how the population is housed, favouring apartments and rowhouses over new single and semi-detached houses. This shift in housing preferences of the population is already underway, in part as a result of rising real estate prices. However, within the metropolitan region, apartment development has remained much more focussed in Toronto, especially downtown, than had been conceived in the planning vision that is the foundation of the Growth Plan.

For Peel Region, there is a risk that not all of the intensified apartment-oriented development will occur within the forecast period as a result of market demand for these units broadly within the metropolitan area, and within Peel. In addition, high-density residential projects sometimes take much longer to come to market than low-density residential projects. The risk for the Region is that this shift in housing will occur over a longer time period than anticipated by the consensus allocation. As much of the infrastructure is in place and paid for to support development within the built boundary, the risk of delayed growth for this type of housing is higher than it is for greenfield development but still very manageable.

C. RISKS ASSOCIATED WITH EMPLOYMENT GROWTH ASSUMPTIONS

Employment growth is much less predictable than residential growth. Overall, there is relative certainty of the metropolitan growth occurring, which is to say that economic growth, employment growth and population growth go hand in hand. Either they all occur together or they do not. What is less predictable is the change in economic
activities, changes to built form to accommodate the activities, and changes in location preferences.

1. **Population-Related Employment**

Jobs supporting the local population (around 40% to 45% of employment) have a high certainty of occurring as the population over the forecast period as communities require commercial, health, education and other services. The commercial retail landscape is shifting significantly with increasing automation and e-commerce, resulting in the physical space needs for commercial retail activities changing. However, the need for space will not disappear.

There is less risk for the Region here as these activities are mostly part of residential communities and serviced as part of these communities, and they will be a large part of more dense mixed-use communities as redevelopment increases in areas already supplied with regional trunk services. As the urban areas of the Region mature, challenges may arise around locating community services to ensure complete communities are achieved and residential densities increase. Another challenge may involve contemplation of the fate of older retail plazas that might lose their viability in the face of a new retail reality.

2. **Major Office Employment**

Major office development has been the source of most of the employment growth in Mississauga, and a significant share of the growth in Brampton through the 1990s and 2000s. However, in this decade, there has been a major market shift to Downtown Toronto from Peel and York Regions. This poses a significant change to assumptions that were made at the time the allocations in Schedule 3 of the *Growth Plan* were developed in 2013.

This market shift poses a risk for Peel Region as major office development is seen as the continued source of most employment growth in Mississauga, and a significant part of the growth planned for Brampton. Much of this shift by the market is related to the high degree of accessibility for the regional labour force afforded by the GO system centred on Union Station, while the more auto-oriented employment locations in the Regions surrounding Toronto have a reduced attractiveness arising from increasing road congestion. While the market is likely to shift back to some extent from the current location preferences, Peel can no longer simply expect the high shares of office growth experienced in the 1990s and 2000s. Efforts must be made through all regional and local activities to improve the competitiveness of designated office nodes throughout Peel. This includes investing in a modern urban transit network, providing more urban amenities, and improving telecommunications capacity.
3. Employment Land Employment

There are two risks facing the large areas of the Region that were originally developed to house industrial, and related, businesses, and those areas designated for future development as employment lands.

Firstly, the overall amount of development is not certain as the economy continues to shift. While there has long been a shift in employment from industrial to service activities in the economy, the pace of change appears to have accelerated in the metropolitan region during the period since the 2008–2009 recession.

Secondly, the development may occur, but may not house the number of jobs originally expected. New development in employment areas is increasingly dominated by distribution and warehousing functions and less by manufacturing. In both cases, a great deal of economic activity is occurring but automation is facilitating sharp reductions in the number of jobs required by employers in these buildings. The result is that new developments in employment areas today are not generating the same number of jobs that had been anticipated. This is a significant challenge for the Region and local municipalities where original plans called for somewhat more intensification of jobs over time. The allocation provides for an employment land density of about 30 jobs per gross hectare averaged over all new employment areas.

In the older parts of the Region there may also be challenges in planning for a transition of older industrial areas to accommodate new business ventures with industrial buildings being repurposed for the incubation of new firms.

Most of the new employment land development will occur through the build out of designated areas in Brampton and planned new areas in Caledon, particularly those lands in the vicinity of the proposed GTA West corridor. The financial risk for the Region here is that the amount of development may simply not happen, either due to metropolitan market demands, or due to lack of access should the GTA West corridor be delayed, or not built at all. Such risks for the Region are best managed through careful phasing of development of the new areas in Caledon, only bringing them on as required, while assuring a competitive land supply is available throughout the Region to attract development. The revenue stream from these developments is equally at risk. As with accommodating population growth, there are fewer risks if employment can grow in existing buildings or in developments with already serviced business parks.

The risk associated with not achieving higher employment densities in the employment areas is more of a policy risk than infrastructure or financial. The Region is not likely to overbuild infrastructure based on higher employment densities to the extent that investments in infrastructure are wasted. Major infrastructure will likely have more of a relationship to the extent of land required for new employment areas, the scale of buildings, and the road network required, than to the number of workers inside the buildings. A better understanding of the infrastructure needs of such low employment density developments, such as large logistics facilities, is in order.
IV MITIGATING RISKS AND OPTIMIZING OPPORTUNITIES

More than ever, when allocating growth across the Region it is important to understand the potential risks of both the magnitude and the distribution of growth and to plan accordingly. The most critical tool for mitigating the risks associated with growth, most notably for greenfield development, is phasing. Phasing has been an important element to planning in Peel Region in the past and will be employed through this next wave of growth. A benefit of this integrative exercise will be the formalized input from stakeholders that will inform phasing of future growth.

The population growth forecast is reasonable. With regional infrastructure planning and local land use planning: intensification targets can be met, greenfield expansion can be achieved through the creation of complete communities, and a regional structure featuring high density centres and moderate density mixed-use corridors will be achieved.

The employment forecast, which is increasingly dependent on major office development, will require a concerted effort on the part of the Region and the local municipalities to attract new firms, grow existing firms and create opportunities for residents of the Region.

The integrative nature of this planning exercise has included a discussion of potential strategies to mitigate risks to the Region. The Regional role is multi-faceted, from financing and building the infrastructure necessary to support growth to working with local municipalities to put in place land use designations and secondary plans to direct growth to strategic locations, working with conservation authorities to build resilient communities and working with local authorities on an enhanced monitoring program.

A. MITIGATING THE IMPACT OF GROWTH AND DEVELOPMENT ON THE ENVIRONMENT

The consensus allocation distributes population and employment growth targets among the three local municipalities. Distributing the allocation within the municipalities will be required along with more detailed planning and studies as implementation progresses, including the development approvals process. More refined planning to identify boundaries for growth and mitigate issues for environmental conditions will involve staff from the Region, local municipalities and
the Conservation Authorities. These efforts will be informed by watershed planning and will be guided by updated Regional policies for natural heritage, water resources, climate change and agriculture.

In addition to recent amendments to the Regional Official Plan which added sustainability as an overarching theme for the Peel 2041 initiative, five focus areas have been identified to guide policy updates in an integrated manner:

- Greenlands System Policy Review;
- Water Resources Policy Review;
- Agricultural Policy Review;
- Climate Change Policy Review; and
- Greenbelt Plans Conformity Review.

The Region and Conservation Authorities already have a strong foundation of plans and studies as a basis to inform decisions, including recently completed watershed plans for all of the watersheds draining from the Oak Ridges Moraine.

The Region has also been working with community partners since 2009 to collectively address climate change in the Region. In 2011, the Peel Climate Change Partnership completed the Peel Climate Change Strategy, and has since completed a community greenhouse gas inventory and vulnerability assessments for key sectors of the community as implementation actions under the Strategy. The Partnership continues to work on and evolve the implementation of the Strategy with partner organizations.

The Province is in the process of developing implementation guidance for agricultural systems, natural heritage systems, watershed planning, greenhouse gas emissions inventories and community emissions reduction plans to support implementation of the Growth Plan. Once guidance is finalized, the Region will be working with its partners to undertake and update studies, plans and mapping in conformity with the updated policy direction ensuring that planning decisions to implement the growth allocations will be informed by appropriate studies.

**B. A MATURE URBAN REGION REQUIRES A MATURE TRANSPORTATION STRATEGY**

Developing a transportation strategy is pivotal to managing growth. As future growth is to be increasingly focused within the built-up area, the linkage between land use and transportation is more important than ever. Higher density employment clusters in
urban growth centres and corridors will support shorter trips and create opportunities for sustainable choices for trip-making.

The background study “Transportation Strategies to Support Employment Growth” outlines an integrated suite of actions that recognize “…the transportation system will need to transform from one that is largely reliant on accommodating automobile and truck traffic to one that provides residents and employees with viable choices for walking, cycling and transit in addition to vehicular travel.” The actions address strategic goals that pertain to healthy communities, climate change and economic prosperity while acknowledging the expansion of the regional road network is not a sustainable option.

Transit should support intensification initiatives. The Region is well connected to Toronto via three GO Rail lines, and improvements to the ability to travel within the Region by public transit are coming with the Hurontario LRT and the Mississauga Transitway. Both initiatives provide links to key employment centres that are critical to the region’s economic future. At the same time, improvements to current levels of transit service should continue.

An emerging Employment Strategy should be linked with transit priorities by, for example, calling for employment growth to be focused in the Airport area, as well as Downtown Mississauga and Brampton, and at Regional Express Rail Stations.

Active transportation initiatives will also be key to improving the quality of life in Peel. Efforts can be made to make the road network safer and more accessible for
walking and cycling. “There is a need to re-envision roads in Peel Region, while still accommodating goods movement vehicles that are critical for employment areas.”

While some may see congestion as an indicator of economic success, it also can deter new businesses from establishing themselves here. With employment levels already tracking below what had been forecast, it is important that a congestion management strategy be established to underpin a Regional Economic Development Strategy. Road congestion can be managed through strategic capacity improvements in combination with measures to optimize operations.

As such, any employment strategy should be linked with mitigating congestion, especially through transit prioritizing initiatives, such as calling for employment growth to be focused in the Airport area, as well as Downtown Mississauga and Brampton, and at MTSAs.

IBI is suggesting such a strategy adopt a Transportation Systems Management Approach: “a suite of measures that focus on operational and policy changes for smoother and safer traffic movements by private vehicles, public transit and goods carriers.” This strategy also calls for an investigation into High Occupancy Vehicle (HOV) lanes to improve the carrying capacity of existing roads. Additionally, the Region would be prudent to protect for opportunities to introduce autonomous vehicles and new mobility options such as dynamic transit shuttles. Along with conventional car sharing, dynamic carpooling and paid rideshare, these new services and technologies can help address the “last mile” commute challenge – that is providing connections between transit stations and places of work in low density employment areas.

The 400-series highway network is the lifeblood of Ontario’s economy, and Peel Region is at the crossroads of this network. Over $21 billion, or 40% of Peel’s GDP is derived from manufacturing, transportation and warehousing activities. It is critical that an efficient and connected goods movement network focused on major employment areas be maintained. Part of this strategy could include advocating for the GTA West transportation corridor, and experimenting with autonomous vehicles for goods movement at night.
C. ACHIEVING EMPLOYMENT TARGETS REQUIRES MORE THAN A LAND USE PLAN

Given recent trends and current market conditions, a strategy is needed to improve the competitiveness of the region, notably the locations already designated for major office development. If that competitiveness is not established and supported by all levels of government, the next wave of suburban office development may pass some of these nodes by, just as the market, in the 1980s and 1990s, passed by Scarborough, North York and Etobicoke office centres. These nodes have never recovered, although they continue to be an important part of Toronto’s mixed-use urban structure. The Region must be nimble and flexible to adapt to economic change in some aspects of its work without losing sight of its strongest strategy in continuing to provide high-quality, well-planned infrastructure.

The Mississauga Transitway and the Hurontario LRT are critical to supporting and improving the competitive edge enjoyed by the Airport mega-node and Downtown Mississauga. While the planned improvements to GO Regional Express Rail (RER) will be a tremendous benefit to Peel residents, there is a risk that this enhanced accessibility to Downtown Toronto could reinforce the market trend to favour Toronto.

The mapping of employment lands in Schedule D5 reflect the land use designations in the local municipal official plans. The proposed amendment to the Regional

Key Directions from the Cushman & Wakefield Employment Strategy Report

**Major Office Employment:**
- Improve the competitiveness of Major Office Nodes.
- Provide attractive multi-modal environment to attract a broad local and regional labour pool.
- Consider financial incentives to attract new office development.

**Employment Land Employment:**
- Protect budgeted lands from conversion to non-employment use.
- Identify Prime Employment Areas.
- Support employment land intensification opportunities.
- Ensure a variety of opportunities – by location, size and servicing.
- Recognize highway access is increasingly important.

**Population Related Employment:**
- Differentiate in planning between “general” population related employment and the needs of major retail and major institutions.
- Plan for retail employment demand to decline as e-commerce increases.

Adopt supportive planning policy for home-based employment.

Collaborate to increase rural employment.

Protect and enhance the Agri-Food Network.

Undertake research into gaps and the potential benefits of establishing a broadband infrastructure strategy for employment areas.
Official Plan and the emerging employment strategy take into account recently approved conversions of older employment lands in Mississauga as part of planning for complete mixed-use communities.

Ensuring the employment concentration around Pearson Airport continues to grow is critically important to the Ontario economy, presenting significant economic opportunities for Peel. Emerging proposals to transform Pearson into a “global hub” airport with an associated transit hub and other development are very significant to the GTAH and Peel and will only serve to increase the attractiveness of the employment area.

Other efforts, such as exploring a potential broadband strategy are also critical. Local municipalities with the regional staff are continuing to explore potential strategies for the economy as it is evolving today. Monitoring employment densities in office nodes and employment lands should be part of the regular monitoring program.

D. CONVERGENCE

The findings of the transportation and employment studies converge in a number of important areas:

- Planning for higher order transit to support MTSAs as well as Downtown Mississauga, Downtown Brampton and the Airport employment area. The draft ROPA identifies the MTSAs as conceptual nodes. Detailed planning will be undertaken by the Region in collaboration with the local municipalities to delineate the boundaries of the MTSAs and identify minimum density targets to maximize potential transit ridership and support intensification policy.

- Ensuring nodes with major office development are attractive and incorporate key amenities to attract workers, including planning for better access by bicycle as well as transit;

- Addressing the “last mile” commuting challenge; and

- Advocating for Provincial commitment to the GTA West Transportation Corridor as critical to managing goods movement over the long term, including the identification of a potential “future strategic employment area”.

HEMSON
V GETTING THERE

A broad strategy to manage growth is required in order to mitigate the risks and capitalize on the opportunities that come with growth and development. Implementation will be a collaborative effort, integrating efforts across Regional departments and agencies in addition to local municipalities. The foundation of the strategy is the adoption of a growth management amendment to the Regional Official Plan. A key element of this strategic approach to managing growth will be the role played by the local municipalities in amending their official plans and preparing secondary plans to accommodate growth.

A. REGIONAL STRUCTURE

A key element in managing growth is the establishment of a Regional Structure and associated policy. Schedule D of the current official plan brought in through ROPA 24 lays out the regional structure for accommodating growth. Along with this structure Schedule D3 delineates the areas governed by the Greenbelt Plan, Niagara Escarpment Plan and the Oak Ridges Moraine Protection Plan, mapping out the protected countryside and natural heritage coverage.

A draft amendment to the Regional Official Plan (ROPA) has been prepared to revise the forecast of population, housing and employment among the three local municipalities to 2031 and extend the planning period with allocations of growth to 2041. The draft amendment includes updates to policies to bring the official plan into conformity with the Growth Plan, 2017 including, among other policy adjustments;

- Updating for 2031 and extending to 2041 the allocation of population, households and employment to the local municipalities for 2041;
- Updating for 2031, and extending to 2041, intensification and greenfield development density targets for the Region and local municipalities;
- Identifying strategic growth areas and MTSAs and
- Outlining a framework for working with local municipalities on an employment strategy, including support for the provision of affordable, symmetrical broadband in employment areas.

As with ROPA 24, which brought the official plan into conformity with the 2006 version of the Growth Plan, the current draft ROPA includes policies guiding how and
where this growth should occur, including prescribed rates of residential intensification and minimum densities for development in designated greenfields, among other policy objectives.

For the period 2016 to 2030, the residential minimum intensification rate is set at 50%, while the Draft ROPA introduces a new minimum intensification target of 60% to be achieved post-2030, as required by the *Growth Plan (2017).*

The Draft ROPA includes revisions to the density objectives for designated greenfield areas. The new methodology outlined in the *Growth Plan (2017)* calls for regionally-designated employment lands to be excluded from the calculation of densities in designated greenfield areas. With the revised method, the designated greenfield development density target has been set at 80 residents and jobs per hectare for areas that are approved after July 1, 2017; those designated greenfield areas already in the approved official plan prior to July 1, 2017 will still be subject to the density target of 60 residents and jobs per hectare.

In addition, revisions to the *Growth Plan* that came into effect on July 1, 2017 call for a more extensive mapping of regional structure. The current draft ROPA includes a revised Schedule D – Regional Structure which incorporates additional elements for structuring growth, including:

- A more detailed mapping of the two urban growth centres in Downtown Mississauga and Downtown Brampton;
- A Regional intensification corridor along Hurontario Street;
- A Conceptual Strategic Infrastructure Study Area for the GTA West Transportation Corridor;
- Transit corridors;
- MTSAs; and
- The Airport Transit Hub.

Two new Schedules are also added to support the Regional Structure mapping and meet the conformity requirements of the *Growth Plan (2017).* These schedules are attached in Appendix A.

Schedule D4 delineates the key policy geography governed by the *Growth Plan:*

- Urban Growth Centres;
- Built-up area;
- Designated Greenfield Areas established through ROPA 24;
- Additional Designated Greenfield Areas required to accommodate the proposed forecast which should be deemed to be in effect as of July 1, 2017;
• Greenbelt;
• Agricultural and Rural Areas; and
• Villages and Hamlets.

Schedule D5 presents a structure for accommodating employment growth by designating:

• Employment Areas consistent with the extent of designations in local official plans; and
• Future Strategic Employment Areas on a conceptual level in the vicinity of the GTA West Transportation Corridor.

Policies are also introduced, consistent with the Provincial Policy Statement (2014), for future strategic employment areas.

B. ADDITIONAL IMPLEMENTATION ACTIONS AND STRATEGIES

The last element of the municipal comprehensive review will be establishing a process for adjustments once a land budget is set. This will include a process for dealing with requests for settlement area expansions and potential conversion of employment areas.

Additional actions will be initiated and will extend beyond this plan review exercise, including:

• Working with local municipalities to identify the boundaries of MTSAs, as required by the Province to facilitate more detailed planning for these areas;
• Developing Infrastructure Master Plans;
• Adopting a Transportation Strategy;
• Working with local municipalities and industry on an Employment Strategy;
• Developing updated technical and financial policies to inform a Development Charges By-law update which will yield an updated DC Background Study and By-law; and
• Updating and implementing a monitoring and exceptions program that respects the risks regarding the staging and timing of infrastructure and includes regular reporting to Council and stakeholders.
Peel 2041 has been, and will continue to be, a unique and dynamic process. The Growth Management Strategy ROPA is a critical first step in extending the Region’s planning horizon to 2041 and coming into full conformity with Provincial Policy objectives, upon which additional policy amendments will build toward a fully integrated official plan.

Future work will result in additional amendments to the Regional Official Plan to address new policy directions regarding settlement area boundaries, the conversion of employment lands and the delineation of boundaries for MTSAs.

The preparation of this proposed Growth Management Strategy has been comprehensive. All the background studies have been prepared respecting the latest updates to the Growth Plan that came into force on July 1, 2017. Along with the extensive stakeholder input from local municipalities, conservation authorities and the development industry (primarily through BILD), we conclude that adoption of the consensus allocation and proposed policies for managing growth conforms to the relevant Growth Plan (2017) and the PPS (2014) policies respecting growth and the planning horizon.

Adoption of this ROPA and future amendments will not only bring the official plan into conformity with Provincial policy but, in concert with integrated implementation strategies around the environment, transportation and economic development, will set the Region on a path to continue with good planning, improve the Region’s fiscal position and increase prosperity.
APPENDIX A

SCHEDULES
APPENDIX I
PEEL 2041
GROWTH MANAGEMENT
ROPA

GROWTH
PLAN POLICY AREAS

SCHEDULE D4
September 2017

Legend

Growth Plan Policy Area

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purple</td>
<td>Urban Growth Centre</td>
</tr>
<tr>
<td>Orange</td>
<td>Built Up Area</td>
</tr>
<tr>
<td>Red</td>
<td>Designated Greenfield Area (D24) in Schedule 3</td>
</tr>
<tr>
<td>Yellow</td>
<td>Designated Greenfield Area (D24) in Schedule 3</td>
</tr>
<tr>
<td>Green</td>
<td>Agricultural and Rural Area</td>
</tr>
<tr>
<td>Brown</td>
<td>Palgrave Estate Residential Community</td>
</tr>
<tr>
<td>Light Green</td>
<td>Greenbelt</td>
</tr>
<tr>
<td>Gray</td>
<td>Village and Hamlet</td>
</tr>
<tr>
<td>Gray</td>
<td>Regional Urban Boundary</td>
</tr>
</tbody>
</table>

This Schedule forms part of the Region of Peel Official Plan and should be read in conjunction with the Plan. It shows the Town and the area in municipal official plans. Information outside of Peel Region is shown on this Schedule for illustrative purposes to display inter-regional linkages.
APPENDIX B

GROWTH FORECAST ASSUMPTION TABLES
The overall method for the forecast is based on the approach and models used for the preparation of the forecasts in Schedule 3 to the Growth Plan adopted as Amendment 2 in 2013. As described the Greater Golden Horseshoe Growth Forecasts to 2041 (Hemson, 2012 http://www.hemson.com/wp-content/uploads/2016/03/HEMSON-Greater-Golden-Horseshoe-Growth-Forecasts-to-2041-Technical-Report-Nov2012.pdf), the population, households and employment are first forecast at the GTA H level and then distributed to the upper and single-tier municipalities by shares of housing growth by type and shares of employment growth by type.

By a similar share of housing and employment method, the growth in housing and employment is distributed to the area municipalities. Population is then determined by applying persons per unit (PPU) to housing and then accounting for non-household population and net under-coverage. This method, with some improvements and updates over the years has been used for most forecasts prepared for the Cities of Mississauga and Brampton over the past 20-plus years.

The distribution to SGUs within the municipalities is based on assigning unit growth to identified supply (either greenfield or intensification) first by a community or policy geography and then to the SGUs within these policy areas. The available supply in the SGUs has both a quantity of available development potential and a date that it may be available. In Mississauga these area Downtown, Major Nodes, Community Nodes, Neighbourhoods, etc. In Brampton, it is approached by UGC, Rest of Queen Street Corridor, Hurontario Corridor, Other Intensification, Greenfield, etc. In Caledon the major geographies are Bolton area, Mayfield West area, Caledon East area, Villages, Hamlets and other rural areas. The Town of Caledon has the unique characteristic of providing sufficient future greenfield land supply opportunities to accommodate forecast greenfield growth once existing designated supplies are exhausted in Mississauga and Brampton.

The Mississauga and Brampton methods have been documented in reports prepared for them in past updates to forecasts. The Caledon SGU model developed for this current Peel scenarios work follows the same methods as the Mississauga and Brampton forecast models.

A key underlying assumption for the forecasts (like those in Schedule 3) is that adequate infrastructure will be in place to accommodate the growth. This is being directly tested for water and sewer services in this work as well as for transportation services. There is, however, no specific starting assumption about the timing of, say, the GTA West corridor, but it is assumed that adequate road infrastructure is in place to support forecast population and employment growth in northern Brampton and southern Caledon.

A full description of all of the methods and assumptions involved in this approach would be a very lengthy and most elements have been documented elsewhere. However, there are specific areas of interest that have been raised by regional and municipal staff, municipal consultants and other stakeholders. The follow pages address the specific methods and assumptions that have been identified to date as being of special interest in this work. The data in the table below is limited to Scenario 15, the recommended scenario for the allocation of population and employment in the proposed ROPA.

HEMSON
APPENDIX I
PEEL 2041 GROWTH ALLOCATION AND GROWTH MANAGEMENT REGIONAL OFFICIAL PLAN AMENDMENT
- REQUEST TO PROCEED WITH CONSULTATION ON DRAFT AMENDMENT

Technical Input

<table>
<thead>
<tr>
<th>Housing and Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Housing mix by structure type at the Regional level</td>
</tr>
<tr>
<td>• Like the Schedule 3 background work, the housing mix initially assigned to the Region of Peel (and the other upper and single-tier municipalities) from the GTA models is based broadly on market demand and is clearly acknowledged not to be a housing mix that would allow for compliance with Growth Plan policies. Through Regional implementation of the Growth Plan policies, it is expected that the housing mix would shift towards denser forms to meet intensification and density targets. How that is done depends on each Region’s characteristics and is, indeed, the subject of some of the current scenario testing in Peel. This initial allocation is shown in the table below as the “market” housing mix.</td>
</tr>
<tr>
<td>• The initial step at the Regional level is to shift units by type from demand in singles and semis to row and apartment forms. This is necessary to meet Growth Plan and Regional targets for intensification since most units provided through intensification are mostly apartments, a significant number of rows and very few singles and semis. Some of this shift is also necessary to achieve the minimum Designated Greenfield Area (DGA) density targets.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peel Housing Mix - Scenario 15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>1986-01</td>
</tr>
<tr>
<td>2001-16</td>
</tr>
<tr>
<td>2016-31</td>
</tr>
<tr>
<td>2031-41</td>
</tr>
</tbody>
</table>

2. Growth Allocation Methodologies |

| • Growth is allocated by shares of housing type for each five-year Census period to the municipalities accounting for the development potential and intensification targets. |
| • Growth is allocated initially to assure all designated greenfield lands in the Region are fully developed within the planning period. |
| • Intensification is allocated the municipalities on the basis established potential and targets for intensification develop. These targets and potentials vary by scenario since the scenarios are defined, in part, by the intensification level. |
| • Greenfield development — the vast majority of singles and semis and a substantial portion of rows — that does not fit into the existing designated greenfield area is assigned to the Future Designated Greenfield Area (FDGA). Beyond the relatively small amount of future greenfield development in the Ninth Line lands in Mississauga, all potential new future DGA is in Caledon. |
APPENDIX I  
PEEL 2041 GROWTH ALLOCATION AND GROWTH MANAGEMENT REGIONAL OFFICIAL PLAN AMENDMENT  
- REQUEST TO PROCEED WITH CONSULTATION ON DRAFT AMENDMENT

Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios

### Housing Unit Growth, 2016 - 2041 by Policy Area

<table>
<thead>
<tr>
<th>Scenario 15: Growth Plan</th>
<th>Brampton</th>
<th>Caledon</th>
<th>Mississauga</th>
<th>Peel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Share</td>
<td>Units</td>
<td>Share</td>
<td>Units</td>
</tr>
<tr>
<td>Built-Up Area</td>
<td>29,800</td>
<td>36.0%</td>
<td>3,900</td>
<td>13.4%</td>
</tr>
<tr>
<td>Existing Greenfield (DGA, including BRES)</td>
<td>52,900</td>
<td>64.0%</td>
<td>9,900</td>
<td>34.1%</td>
</tr>
<tr>
<td>Future Greenfield (FDGA)</td>
<td>0</td>
<td>0.0%</td>
<td>13,600</td>
<td>46.9%</td>
</tr>
<tr>
<td>Rural</td>
<td>0</td>
<td>0.0%</td>
<td>1,600</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82,700</td>
<td>100.0%</td>
<td>29,000</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Housing Unit Growth, 2016 - 2041 by Housing Type

<table>
<thead>
<tr>
<th>Scenario 15: Growth Plan</th>
<th>Brampton</th>
<th>Caledon</th>
<th>Mississauga</th>
<th>Peel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Share</td>
<td>Units</td>
<td>Share</td>
<td>Units</td>
</tr>
<tr>
<td>Single &amp; Semi Detached</td>
<td>42,400</td>
<td>51.3%</td>
<td>17,200</td>
<td>59.7%</td>
</tr>
<tr>
<td>Row Housing</td>
<td>18,700</td>
<td>22.6%</td>
<td>7,500</td>
<td>26.0%</td>
</tr>
<tr>
<td>Apartment</td>
<td>21,600</td>
<td>26.1%</td>
<td>4,100</td>
<td>14.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82,700</td>
<td>100.0%</td>
<td>28,800</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

3. **Housing mix by structure type at the local level**
   - Having assigned the shares for intensification and greenfield by unit type to each municipality, the local municipal housing mix by type is a result of this process. Mississauga will be mostly apartments in accordance with its supply and shares of growth and Brampton will be a mix of the development of its remaining greenfield areas and the significant amount of intensification assigned in most scenarios.
   - Because Caledon is the only location for future greenfield development (beyond Ninth Line lands), the assignment by structure type is somewhat “open ended.” As these are unplanned areas, the housing assignments in these scenarios are for testing regional servicing options and not intended to be direction for the specifics of housing mix or density that would be determined through a municipal comprehensive review or subsequent secondary planning.
7.2 - 62

APPENDIX I
PEEL 2041 GROWTH ALLOCATION AND GROWTH MANAGEMENT REGIONAL OFFICIAL PLAN AMENDMENT
REQUEST TO PROCEED WITH CONSULTATION ON DRAFT AMENDMENT

Technical Input

<table>
<thead>
<tr>
<th>4. Person per Unit (PPU)</th>
</tr>
</thead>
</table>

- In general, there is a gradual decline over time in PPUs in all unit types as the population ages. In accordance with the method used in the Schedule 3 and other Hemson-prepared forecasts, the overall rate of decline is established by the population and household forecast at the GTAHH level. These rates declines are then applied to each housing type through to the regional level; noting that it is a rate so that places with a high PPU like Peel and York decline gradually from that high level.

- The same method is then applied from the Regional level to the local level by unit type.

- Importantly, the shift in unit types is significant here. As noted above, the Growth Plan demands a shift in unit type, but is not based on changes in household type. That is, as the housing market shifts to more apartments, these apartments will be accommodating more of the types of households that would otherwise have been in medium or lower density forms; more families in apartments means a relatively higher PPU than in the past. The model accounts for this shift.

- At the sub-municipal level PPUs are also distinguished between the relatively higher PPUs expected in new housing units over the planning period and the relatively lower PPUs in the existing base. While not a direct “new units – existing units” PPU calculation that would be used in a Development Charge Background Study, it reflects the same principle.

- The newly developing areas, such as Northwest Brampton or the Mayfield West or Bolton expansion areas, will reflect a population associated with the higher PPUs expected from newly developed units.

**Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios**

<table>
<thead>
<tr>
<th>Scenario 15: Growth Plan</th>
<th>Historical &amp; Forecast Persons Per Unit</th>
<th>Caledon</th>
<th>Brampton</th>
<th>Missisauga</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Single/Semi</td>
<td>Row</td>
<td>Apartment</td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td>3.34</td>
<td>2.12</td>
<td>3.28</td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td>3.28</td>
<td>2.33</td>
<td>3.10</td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td>3.21</td>
<td>2.69</td>
<td>3.02</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>3.19</td>
<td>2.59</td>
<td>3.12</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>3.16</td>
<td>2.64</td>
<td>3.09</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>3.18</td>
<td>2.73</td>
<td>3.10</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td>3.15</td>
<td>2.72</td>
<td>3.09</td>
</tr>
<tr>
<td>2026</td>
<td></td>
<td>3.16</td>
<td>2.71</td>
<td>3.06</td>
</tr>
<tr>
<td>2031</td>
<td></td>
<td>3.18</td>
<td>2.82</td>
<td>3.07</td>
</tr>
<tr>
<td>2036</td>
<td></td>
<td>3.20</td>
<td>2.92</td>
<td>3.06</td>
</tr>
<tr>
<td>2041</td>
<td></td>
<td>3.23</td>
<td>2.99</td>
<td>3.07</td>
</tr>
</tbody>
</table>

HEMSON
### Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios

<table>
<thead>
<tr>
<th>Technical Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Key Specific Residential Development Assumptions – Mississauga</td>
</tr>
<tr>
<td>• Ninth Line is included as a new greenfield area.</td>
</tr>
<tr>
<td>• Significant growth is accommodated in the Downtown area including the recently announced Rogers development.</td>
</tr>
<tr>
<td>• Lakeview redevelopment is included, with a significant amount developed by 2041.</td>
</tr>
<tr>
<td>• Imperial Oil lands redevelopment is included, also with most of the development complete prior to 2041.</td>
</tr>
<tr>
<td>• Significant development in the Dundas Street corridor is incorporated into the growth scenario.</td>
</tr>
<tr>
<td>6. Key Specific Residential Development Assumptions – Brampton</td>
</tr>
<tr>
<td>• Greenfield development occurs in accordance with current secondary plans.</td>
</tr>
<tr>
<td>• Heritage Heights, the only unplanned area in Brampton, is assumed to develop with a minimum of 300 net ha of employment land. The remaining lands area assumed to develop for residential uses within the period of the plan.</td>
</tr>
<tr>
<td>7. Key Specific Residential Development Assumptions – Caledon</td>
</tr>
<tr>
<td>• Existing DGA is assumed to be built out within the forecast period.</td>
</tr>
<tr>
<td>• The full Mayfield West Phase 2 area is assumed to be designated and developed; the Stage 1 area, currently designated, in included as part of the current DGA and the Stage 2 lands are assumed to be the initial designation of the FDGA.</td>
</tr>
<tr>
<td>• The Bolton expansion is initially assumed to occur in accordance with ROPA 30 (the BRES Option 6 lands), directly to the west of the existing Bolton urban area.</td>
</tr>
<tr>
<td>• The location of further expansions in Bolton and Mayfield West are shown conceptually for testing purposes recognizing that actual settlement expansion boundaries will be subject to a full Municipal Comprehensive Review. Bolton expansions are generally shown on lands south of King Road.</td>
</tr>
<tr>
<td>• New greenfield residential in Mayfield West is added in the Mayfield West Phase 3 area, to the north of Phase 2.</td>
</tr>
<tr>
<td>• The relatively small amount of development in rural areas, including Palgrave Estates, has been set in consultation with Caledon.</td>
</tr>
</tbody>
</table>
### Technical Input

<table>
<thead>
<tr>
<th>Employment</th>
<th>Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios</th>
</tr>
</thead>
</table>

#### 8. Employment by Category

- The recommended scenario uses the GTHA 2041 total employment in Schedule 3 to the *Growth Plan* of 4,820,000.
- Employment by category is initially set at the GTHA level, as noted above, and then attributed to the upper and single-tier municipalities in the GTA by shares of each category. Working within the Schedule 3 totals, the forecast by category has been updated, noting that Schedule 3 had been based largely on 2006 Census data. The forecast by category now shows a more rapid shift from the Employment Land employment (employment in industrial-type buildings) to Major Office employment (freestanding office buildings of 1,929 m² [20,000 sq.ft. or more]) sector and to Population-Related employment. Rural-based employment is small and expected to remain stable.
- Population-Related Employment is forecast to grow in accordance with population growth, including a factor for increased levels of employment in the categories serving a GTA wide market such as universities, major hospitals or specialized retail.
- Employment Land Employment is expected to remain important in Peel, but with shares of growth declining as Halton Region attracts more development in the Highway 401 corridor and Hamilton and Durham’s shares rise from the historically low levels of recent times (in short, Peel is unlikely to maintain the market dominance it had during the development of lands near the airport in Mississauga and Brampton and those directly along the Highways 401 and 407 corridors). It is important to understand what is specifically meant by Employment Land Employment. While it is employment occurring in industrial-type buildings and within employment areas, the employment category specifically excludes major office employment even where those office buildings are physically located within an industrial-type employment area. Similarly, larger retail uses that are located within or on the edges of employment areas are also excluded from the Employment Land Employment category. At the same time, smaller office or retail functions that are located in a small industrial building or industrial multiple would be counted within Employment Land Employment.
- Peel Region’s 2006 estimated employment land employment total of 325,000 was made up of about 80% industrial and warehousing employment by NAICS codes (primary industries, manufacturing, utilities, construction, wholesale trade and transportation and warehousing). The 80% was down from 82% in 2001. By 2011, recession-affected employment declined to 320,000 of which 76% were in the more typical industrial and warehousing sectors. In both periods, the sectors more usually described as Population-Related Employment (retail, education, health care, arts and recreation) stayed at about 7% of Employment Land Employment.
- These trends are expected to continue in Peel’s employment base. In 2011, Employment Land Employment represented about 50% of all jobs in the Region. In the forecast, less than 40% of the growth from 2011 to 2041 is Employment Land Employment. Major Office and Population-Related are both becoming larger shares of the employment total. The declining share of jobs in Employment Land Employment growth is likely to be combined with a declining share of industrial-type activities (measured by jobs) within the Employment Land Employment category. That is, within the
### Technical Input

<table>
<thead>
<tr>
<th>Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>employment areas a smaller share of jobs would be in the more traditional industrial activities and a greater share is likely to be in professional and technical, finance and insurance and information and cultural industries.</td>
</tr>
<tr>
<td>• The changes in the employment base will not be as apparent on the ground since many of the non-industrial sectors in employment areas re-use existing building stock formerly occupied by industrial firms. More visibly, however, the newer development in Brampton and Caledon is dominated by large distribution centres, often with low employment densities (as described in more detail below).</td>
</tr>
<tr>
<td>• The Major Office market is addressed below.</td>
</tr>
</tbody>
</table>
### Technical Input

#### Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios

<table>
<thead>
<tr>
<th>Greater Toronto Area</th>
<th>Hamilton</th>
<th>Employment by Type</th>
<th>Historical &amp; Forecast Employment</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Other Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>482,000</td>
<td>831,000</td>
<td>2,275,000</td>
<td>1986</td>
<td>27,000</td>
<td>99,000</td>
<td>0</td>
<td>304,000</td>
</tr>
<tr>
<td>2001</td>
<td>713,000</td>
<td>1,012,000</td>
<td>2,939,000</td>
<td>2001</td>
<td>77,000</td>
<td>157,000</td>
<td>22,000</td>
<td>533,000</td>
</tr>
<tr>
<td>2016</td>
<td>933,000</td>
<td>1,364,000</td>
<td>3,636,000</td>
<td>2016</td>
<td>122,000</td>
<td>235,000</td>
<td>24,000</td>
<td>705,000</td>
</tr>
<tr>
<td>2031</td>
<td>1,187,000</td>
<td>1,654,000</td>
<td>4,376,000</td>
<td>2031</td>
<td>173,000</td>
<td>290,000</td>
<td>23,000</td>
<td>870,000</td>
</tr>
<tr>
<td>2041</td>
<td>1,346,000</td>
<td>1,823,000</td>
<td>4,821,000</td>
<td>2041</td>
<td>208,000</td>
<td>323,000</td>
<td>22,000</td>
<td>970,000</td>
</tr>
</tbody>
</table>

### Share of Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-01</td>
<td>21.8% 25.3% 51.5% 1.3% 100.0%</td>
</tr>
<tr>
<td>2001-16</td>
<td>26.2% 45.3% 27.9% 0.6% 100.0%</td>
</tr>
<tr>
<td>2016-31</td>
<td>30.9% 33.3% 36.4% -0.6% 100.0%</td>
</tr>
<tr>
<td>2031-41</td>
<td>35.0% 33.0% 32.0% 0.0% 100.0%</td>
</tr>
<tr>
<td>Technical Input</td>
<td>Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 9. GTAH and Peel office markets | • While the overall GTAH Major Office employment continues to grow well, there have been some major shifts in the marketplace for new development.  
• Firstly, the Floor Space per Worker (FSW) has declined significantly in recent years especially in new buildings. This means that a new building built now is accommodating far more employees than a building of equivalent size would have 10 or 20 years ago. This shift is also occurring in the existing built space, but at a slower pace as buildings may require retrofitting to accommodate the additional employees. Overall this has the effect of much reducing the amount of additional built space needed to accommodate the forecast office employment growth. The overall total office FSW shown in the table below. The figures provided are for occupied net rentable space. For some purposes (such as development charges), office FSWs are described in Gross Floor Area (GFA) and include occupied and vacant space; on this basis the estimated 20.25 m$^2$ in 2016 of occupied net rentable would be equivalent to about 25 m$^2$ of total GFA.  
• Secondly, Peel’s (and York Region’s) rapid office growth of the 1990s and 2000s coincided with low shares of growth in the City of Toronto. Over the past 10 years, the downtown market has surged with no end in sight at the moment. As a result, all of 905, including Peel, have recently had much lower shares of the GTAH market. Even if the market swings back in favour of more development in 905 during the forecast period, it is very unlikely that Peel can “catch up” to previous expectations for office growth to 2041.  
• These office market shifts create special challenges for the forecast of employment in Brampton, since the long-term expectation for employment growth in Brampton over the past decade have relied, in part, on Peel maintaining a high share of the GTAH and Brampton attracting a rapidly increasing share of that growth. |
Technical Input

<table>
<thead>
<tr>
<th>Historic &amp; Forecast Employment Growth by Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scenario 15: Growth Plan</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1986-91</td>
</tr>
<tr>
<td>1991-96</td>
</tr>
<tr>
<td>1996-01</td>
</tr>
<tr>
<td>2001-06</td>
</tr>
<tr>
<td>2006-11</td>
</tr>
<tr>
<td>2011-16</td>
</tr>
<tr>
<td>2016-21</td>
</tr>
<tr>
<td>2021-26</td>
</tr>
<tr>
<td>2026-31</td>
</tr>
<tr>
<td>2031-36</td>
</tr>
<tr>
<td>2036-41</td>
</tr>
</tbody>
</table>

10. No Usual Place of Work (NFPOW) and Work From Home (WFH)

- In accordance with forecasts in Schedule 3, total employment includes those with a usual place of work, those who work at home and those with no usual place of work.
- The work at home employment is assumed to maintain a constant ratio to population in Brampton and Mississauga at the know 2011 rate of 2.75% of Census population in Mississauga and 1.84% of the Census population in Brampton.
- Caledon is treated differently in the forecast because there is a much higher rate of work at home in rural areas than urban. In 2016 the estimated work at home is 4.55% of the Census population, much higher than Mississauga’s or Brampton’s rate. Since the vast majority of the growth in Caledon will be urban, the growth increment in work at home employment will be closer to an urban rate. It has been assumed to be 3.5% of Census population on the post-2016 growth. As a result, in Scenario 10, the work at home rate to Census population gradually declines from 4.55% in 2016 to 3.45% in 2041.
- Since it is incorporated into the base employment, the Scenarios do not incorporate a specific assumption set for those with no usual place of work. However, there may be other purposes or applications, such as development charges analysis, where it is desirable to know the distinction between those with a usual place and those without. For those purposes, the employment forecast will be categorized into usual and no usual based on an assumption of a stable or gradually increasing share of employment with no usual place of work.

HEMSON
### Assumptions

- Floor space per work for offices has been addressed above.
- FSWs are relatively stable for retail and institutional uses. Changes in these FSWs would have little effect on what is considered in the scenarios.
- The FSW in industrial-type buildings has risen in recent years as a result of an increasing number of distribution centres which typically have a very high FSW (meaning a very low density of employment). The modelling in the scenarios does not directly address FSW. However, the lower building employment densities do mean lower employment densities by land area (though not on a one-to-one basis as building coverage can change). As a result, the scenarios are assuming new employment land development in Brampton and Caledon will average about 33 employees per net ha across the entire base in 2041, a figure a little lower than in Brampton today and much lower than in Mississauga which has a much larger older employment base.

### Methodology for Growth

- Growth will continue in employment lands where there are vacant lands to development.
- Growth in population related employment will be largely by additions to where it currently exists with the greatest increases in the areas with the most population growth.
- The office market will continue to be concentrated in the areas where current development exist, but with an assumed shift back to the downtown and Hurontario Corridor from the business park areas, partly as a result of the Hurontario LRT.

### Technical Input

<table>
<thead>
<tr>
<th>Technical Input</th>
<th>Hemson’s Technical Assumptions and Explanation of Methodology for Growth Scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Floor Space per Worker (FSW)</td>
<td>- Floor space per work for offices has been addressed above.</td>
</tr>
<tr>
<td></td>
<td>- FSWs are relatively stable for retail and institutional uses. Changes in these</td>
</tr>
<tr>
<td></td>
<td>FSWs would have little effect on what is considered in the scenarios.</td>
</tr>
<tr>
<td></td>
<td>- The FSW in industrial-type buildings has risen in recent years as a result of</td>
</tr>
<tr>
<td></td>
<td>an increasing number of distribution centres which typically have a very high</td>
</tr>
<tr>
<td></td>
<td>FSW (meaning a very low density of employment). The modelling in the scenarios</td>
</tr>
<tr>
<td></td>
<td>does not directly address FSW. However, the lower building employment densities</td>
</tr>
<tr>
<td></td>
<td>do mean lower employment densities by land area (though not on a one-to-one</td>
</tr>
<tr>
<td></td>
<td>basis as building coverage can change). As a result, the scenarios are assuming</td>
</tr>
<tr>
<td></td>
<td>new employment land development in Brampton and Caledon will average about 33</td>
</tr>
<tr>
<td></td>
<td>employees per net ha across the entire base in 2041, a figure a little lower</td>
</tr>
<tr>
<td></td>
<td>than in Brampton today and much lower than in Mississauga which has a much</td>
</tr>
<tr>
<td></td>
<td>larger older employment base.</td>
</tr>
<tr>
<td>12. Key Specific Employment Development</td>
<td>- Growth will continue in employment lands where there are vacant lands to</td>
</tr>
<tr>
<td>Assumptions – Mississauga</td>
<td>development.</td>
</tr>
<tr>
<td></td>
<td>- Growth in population related employment will be largely by additions to where</td>
</tr>
<tr>
<td></td>
<td>it currently exists with the greatest increases in the areas with the most</td>
</tr>
<tr>
<td></td>
<td>population growth.</td>
</tr>
<tr>
<td></td>
<td>- The office market will continue to be concentrated in the areas where current</td>
</tr>
<tr>
<td></td>
<td>development exist, but with an assumed shift back to the downtown and Hurontario</td>
</tr>
<tr>
<td></td>
<td>Corridor from the business park areas, partly as a result of the Hurontario</td>
</tr>
<tr>
<td></td>
<td>LRT.</td>
</tr>
<tr>
<td>13. Key Specific Employment Development</td>
<td>- Growth will continue in employment lands where there are vacant lands to</td>
</tr>
<tr>
<td>Assumptions – Brampton</td>
<td>development.</td>
</tr>
<tr>
<td></td>
<td>- Growth in population related employment will be largely by additions to where</td>
</tr>
<tr>
<td></td>
<td>it currently exists and in planned locations in newly developing areas, with</td>
</tr>
<tr>
<td></td>
<td>the greatest increases in the areas with the most population growth.</td>
</tr>
<tr>
<td></td>
<td>- The growth scenario assumes that Brampton will attract two new regional</td>
</tr>
<tr>
<td></td>
<td>institutions, providing 4,000 jobs. It is not known what the estimated</td>
</tr>
<tr>
<td></td>
<td>employment level would be of the recently announced university campus in</td>
</tr>
<tr>
<td></td>
<td>Brampton nor of a possible new hospital. For the purposes of the analysis,</td>
</tr>
<tr>
<td></td>
<td>2,000 jobs have been assumed for the campus in Downtown Brampton and 2,000 for</td>
</tr>
<tr>
<td></td>
<td>the hospital assumed to be located in Northwest Brampton.</td>
</tr>
<tr>
<td></td>
<td>- The office market will continue to be concentrated in the following areas: Bram</td>
</tr>
<tr>
<td></td>
<td>West where significant development is occurring; Hurontario near the court</td>
</tr>
<tr>
<td></td>
<td>house where significant development already exists; a new office centre in the</td>
</tr>
<tr>
<td></td>
<td>vicinity of Bramalea GO Station to be supported by the RER investments; and the</td>
</tr>
<tr>
<td></td>
<td>UGC which could also be supported by new transit investments.</td>
</tr>
</tbody>
</table>
14. **Key Specific Employment Development Assumptions – Caledon**

- Growth will continue in employment lands where there are vacant lands to development. New employment lands are assumed to be added along the GTA West corridor. Because there is a wide range of land needs being tested, several areas are considered for development: west of Bolton along the corridor; the Tullamore area; areas east of Mayfield West near Highway 410; and, if needed, lands on the GTA corridor at the far west boundary of Caledon (acting largely as an extension to the employment land areas in Heritage Heights).