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PLANNING FOR TOMORROW

PART 4

YORK REGION RESIDENTIAL AREA ANALYSIS - PRELIMINARY REPORT

The Planning and Economic Development Committee recommends the following:

- 1. The presentation by Paul Bottomley, Manager, Growth Management, Economy and Information Research, Long Range and Strategic Planning, relating to Clauses 6 to 10 in this Committee Report be received;**
- 2. A Regional or Local Councillor from each local municipality be requested to “champion” the *Planning for Tomorrow* series to raise awareness in their communities; and**
- 3. The following recommendations contained in the report dated April 4, 2007, from the Commissioner of Planning and Development Services be adopted:**

1. RECOMMENDATION

It is recommended that the Regional Clerk circulates a copy of this staff report to the Ministry of Public Infrastructure Renewal (MPIR), the Ministry of Municipal Affairs and Housing (MMAH) and the Area Municipalities for information purposes.

2. PURPOSE

The purpose of this staff report is to track and analyze, how the Region’s built environment has evolved over the years with respect to residential density, housing mix and other built form factors. This analysis will also determine how residential densities in the Region’s greenfield communities relate to the targets in the Provincial *Places to Grow Plan*.

This report is Part 4 in the series of Planning for Tomorrow reports being brought forward for information and discussion in the spring of 2007. The reports in this series are:

1. York Region Population and Employment Forecasts
2. 2031 York Region Land Requirements
3. York Region Residential Intensification Strategy
4. York Region Residential Area Analysis – Preliminary Report
5. Phase 2 – Public Engagement and Consultation

All five reports are to be considered at the Planning and Economic Development Committee meeting of April 4, 2007 and should be read in the order in which they are listed above.

3. OVERVIEW

The key preliminary findings on the residential area analysis are as follows:

- The *Places to Grow Plan* density standard for new communities of 50 people and jobs/ha will be a challenge to reach especially given that a number of new developments over the next 5-10 years will not reach the standard.
- The Region will work together with its area municipalities and MPIR to define a consistent methodology for calculating the *Places the Grow* density target. This methodology could address the issues of declining household size, treatment of non-developable areas, and population-related employment.
- Preliminary findings indicate that, Region-wide, between 1971 and 2006, the proportion of registered single-detached dwellings decreased by approximately 7%, while the proportion of registered row housing increased by approximately 8%. Similarly, gross residential density for all registered plans of subdivision has increased by approximately 20%.
- Most recently developed areas analyzed come close to or meet the *Places to Grow* target of 50 people and jobs/ha.
- The findings from the Residential Area Analysis will be used to develop a set of principles and criteria for potential new development in the Region's whitebelt areas.

4. BACKGROUND

4.1 The Concept of Density

Density is a term used in planning to describe how land is used for development. It is often used in planning policy to direct how various elements of the built environment interplay with the amount of land it occupies such as, building footprint, floor space, parking requirements, as well as the number of people. In this way, planners can establish parameters to create compact and healthy communities.

The benefits of a compact community are discussed below and are based on Section 5.2 of the *Regional Official Plan (ROP)*:

- Communities can be designed so that cost-effective and efficient transit, infrastructure and human services systems can be operated and easily accessed. Through well-designed streets and building locations, people have a choice of walking and bicycling as opposed to complete dependency on automobiles.
- Higher densities result in a greater proportion of row and apartment style housing. These types of housing structures and their affordability provide opportunities for a broad range of age and income groups, and family and non-family structures.

- More land is available for other community functions such as employment, shopping, entertainment, arts and culture, recreation, education, places of worship and community services. All of these functions are easily accessible by transit, walking or bicycling.
- A sense of place and vibrancy takes shape in the community as street activity increases, people have personal contact with each other, and social cohesion is strengthened.

4.2 Provincial Growth Plan – “Places to Grow”

According to Provincial forecasts contained in the *Places to Grow Plan*, the Region is expected to have 1.5 million residents and 780,000 jobs by 2031. To accompany these forecasts, the *Places to Grow Plan* has established parameters on where and how this growth will be distributed throughout the Region. With respect to residential density, the following Growth Plan requirements apply:

- 200 residents and jobs combined per hectare by 2031 for the four Regional Centres in Markham, Vaughan, Richmond Hill and Newmarket. As these Centres fall into the Region’s Built Boundary, their analysis will be contained in the Residential Intensification Strategy. A preliminary report on the intensification strategy is a topic on this Committee agenda.
- The designated greenfield area of each upper- or single-tier municipality will be planned to achieve a minimum density target that is not less than 50 residents and jobs combined per hectare.

Expanding on the second point, the density target of 50 people and jobs per hectare applies to all designated Greenfield areas on a Region-wide basis. *This means that all new development within the Region’s remaining greenfield and whitebelt areas will be required to meet an average density target of 50 people and jobs per hectare.*

4.3 Definition of Residential Density

The definition of both gross and net residential density is important as the Region works towards meeting the density targets specified in the *Places to Grow Plan*. The Region will continue to consult with the Province to confirm a consistent and accurate definition of density. For the purposes of the Region’s residential area analysis, residential density is defined as follows:

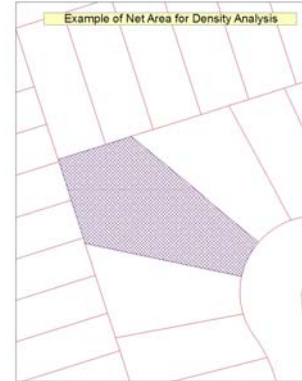
Gross Density: Total units or people divided by the total land area within plans of subdivision expressed as units/ha or people/ha. Total area excludes non-developable land outside the land being subdivided which may include major valley lands, woodlots, highways, hydro easements, etc. Plans of subdivision within the Secondary Plan area are commonly used to determine the gross density of communities.



Specific to this staff report, an employment density assumption of 1.88 jobs/ha will be applied to this calculation to compare with the *Places to Grow Plan* greenfield area requirement.

Net Density: Total number of units or people divided by the total residential private lot area within the plans of subdivision. Net density does not include roads, schools, industrial/commercial areas, parks, pathways nor woodlots and valleylands.

A more detailed explanation of the overall concept and components of residential density will be presented to Regional Council in a future separate report.



4.4 York Region Success in Compact Urban Form

In October 2006, Regional Council received a staff report entitled “York Region Intensification Opportunities Update”. This report included a “Made in York” Intensification Photographic Essay that contained a preliminary compilation of site-specific examples of compact development and design. This preliminary inventory illustrated that the Region has already established a trend for compact development that integrates high-density built form with urban design principles.

The complete preliminary photographic essay is included as *Attachment 1*. Regional staff will continue to expand and refine this photographic essay to include Greenfield examples of compact development.

5. ANALYSIS AND OPTIONS

This section contains the preliminary findings of the residential area analysis. Preliminary findings and anecdotal evidence suggests that, overall, the Region has increased in residential density (net and gross) over the last 40 years for the following reasons:

- Housing mix continues to diversify with a higher proportion of row and apartment style housing. As multi-unit dwellings continue to increase Region-wide, less land is required to accommodate a certain number of units.
- Residential private lots are decreasing in size. A typical lot frontage has been reduced from approximately 100 feet in the 1960s to approximately 40 feet and under today. Presently, a greater number of single- and semi-detached dwellings can be developed within a given land area compared to 40 years ago.

Regional staff will continue to detail these findings and report to Regional Council in the future.

5.1 Historical Growth and Development in the Region

The following tables illustrate the change in housing mix and density in the Region between 1971 and 2006 based on registered plans of subdivision. The calculations in Table 1 include all urban areas, towns and villages in the nine area municipalities, while Table 2 focuses exclusively on the Region's urban area. For the purposes of this staff report, urban area is defined as the five urban municipalities of Aurora, Markham, Newmarket, Richmond Hill and Vaughan. The following information is preliminary in nature and requires further refinement.

The key observations resulting from this analysis are as follows:

- There is not a substantial difference in the development trends between the urban area and the Region as a whole. This is due to the fact that nearly 95% of all registered units analyzed were located in the five urban area municipalities.
Region-wide housing mix has diversified over time when comparing the periods between 1971-1990 and 2001-2006:
 - An estimated 7% decrease in the proportion of registered single-detached dwellings region-wide.
 - An estimated 8% increase in registered row housing region-wide.
 - The urban areas experienced a similar 6% decrease in the proportion of registered single-detached dwellings and a 8% increase in the proportion of registered row housing.
- Gross density region-wide has increased by approximately 2.3 units/ha between the specified time periods based on registered plans of subdivision. During these time periods, the gross density in the urban area increased by 2.6 units/ha.
- Based on registered plans of subdivision between 1971-1990 and 2001-2006, and using the 2001 Census of Canada persons per unit averages, the number of people per hectare has increased by approximately 7.2. The urban area of the Region experienced a similar increase of 8.2 people/ha.

Table 1
York Region Residential Densities and Housing Mix (1971-2006)

	Housing Mix				Density (units/ha)		Density (people/ha)	
	Singles	Semis	Rows	Apt	Gross	Net	Gross	Net
1971-1990	67%	12%	12%	9%	11.1	19.2	36.2	62.3
1991-2000	65%	12%	20%	3%	12.3	22.1	40.6	72.5
2001-2006	60%	13%	20%	7%	13.4	25.5	43.4	82.2
Total	65%	12%	16%	7%	11.5	20.4	37.3	66.3

SOURCE: York Region Planning Department, 2007

1971-1999 based on registered plans of subdivision

2000-2006 based on registered plans of subdivision and condominiums.

Condominium plan information have been adjusted if associated with a registered plan to avoid double-counting.

People/ha Density based on 2001 Census of Canada people per unit figures by structure type.

Table 2
Urban Area Residential Densities and Housing Mix (1971-2006)

	Housing Mix				Density (units/ha)		Density (people/ha)	
	Singles	Semis	Rows	Apt	Gross	Net	Gross	Net
1971-1990	66%	12%	12%	9%	11.3	19.4	36.6	62.9
1991-2000	64%	13%	20%	3%	12.8	23.5	42.1	77.2
2001-2006	60%	14%	20%	7%	13.9	26.4	44.8	85.0
Total	64%	13%	16%	7%	12.3	21.9	39.9	71.2

SOURCE: York Region Planning Department, 2007

Urban Area includes the area municipalities of Aurora, Markham, Newmarket, Richmond Hill and Vaughan.

1971-1999 based on registered plans of subdivision

2000-2006 based on registered plans of subdivision and condominiums.

Condominium plan information have been adjusted if associated with a registered plan to avoid double-counting.

People/ha Density based on 2001 Census of Canada people per unit figures by structure type.

The Region has experienced a broader housing mix and a higher density increase between 1971 and 2006. The York Region Photographic Essay (*Attachment 1*) also demonstrates that the Region has made advancements in compact urban form and design at a site-specific level. Employing both an empirical and visual evaluation of the Region's residential areas provide for a more comprehensive and accurate depiction of growth and development.

The Region, in collaboration with the area municipalities, will review existing policies and obstacles to identify the tools required to achieve higher transit-supportive densities and a more diverse housing mix.

5.2 Preliminary Community Area Analysis

This section profiles typical greenfield communities in the Region to determine their density, housing mix and built form. The findings will be compared to the Greenfield density target of 50 people and jobs per hectare in the *Places to Grow Plan*. Seven communities have been assessed on a preliminary basis and require further analysis. The initial findings are listed in Table 3.

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Table 3
Preliminary Community Area Analysis

Community	Municipality	Density			Housing Mix				Private vs Public Lands (2)	Year of First Registered Plan	% of Registered Units
		Gross Density units/ha	Net Density units/ha	Gross Density People and jobs/ha (1)	Single	Semi	Row	Apt			
2B Lands and West Side of Bayview*	Aurora	11.6	24.9	37.38	53%	13%	33%	0%	55% vs 45%	1991	78%
Cathedral	Markham	17.8	46.6	54.98	39%	6%	22%	33%	57% vs 43%	2003	18%
Cornell	Markham	20.1	45.6	60.08	42%	19%	27%	12%	48% vs 52%	1998	66%
Wismer Commons	Markham	15.0	29.7	49.1	62%	24%	15%	0%	55% vs 45%	2001	53%
Bayview North	Richmond Hill	14.5	28.9	51.3	65%	4%	28%	3%	52% vs 48%	1997	97%
Block 39	Vaughan	15.2	28.4	53.68	62%	17%	16%	0%	54% vs 46%	1999	62%
Maple	Vaughan	13.1	23.0	47.7	75%	6%	17%	1%	58% vs 42%	1982	98%

SOURCE: York Region Planning Department, 2007

Density calculation includes all lands under application within the total site area.

Includes all Registered, Draft Approved and Pending Plans of Subdivision based on Vacant Residential Unit Supply Inventory (2006) (VRUSI), GIS Mapping and Development Tracking Database.

Includes all CDMs as reported in VRUSI mid year 2005.

Gross Density: Total units or people divided by the total land area within plans of subdivision expressed as units/ha or people/ha. Total area excludes non-developable land outside the land being subdivided which may include major valley lands, woodlots, highways, hydro easements. etc.

(1) Assume an average employment density of 1.88 jobs/ha

Net Density: Total number of units or people divided by the total residential private lot area within the plans of subdivision. Net density does not include roads, schools, industrial/commercial area, parks, pathways nor woodlots and valleylands.

A number of sites were identified as not part of the plans of subdivision and were excluded from the density calculation. Further analysis is required to include

2) Private lands include all private lots that are residential, industrial and commercial

2) Public lands include streets, open space, institutional and other public amenities.

Employment assumption regarding "Work at Home" estimates require further analysis.

Regional definition of Gross Density must be compared with the Places to Grow definition to confirm consistency and accuracy.

People/ha density based on 2001 Census of Canada persons per unit figures

Findings to be confirmed pending consultation with area municipalities.

*NOTE: Includes employment land areas, related employment numbers to be included.

With respect to the *Places to Grow Plan* target, Table 3 reveals that the densities in the Region's greenfield communities range from approximately 37 to 60 people and jobs per hectare. Most recently developed areas are close to or meet the *Places to Grow* density target. These findings will be verified with the area municipalities.

As well, there are no communities that are significantly over and above the 50 people and jobs per hectare target that would be able to compensate for those communities that are below the provincial target. The *Places to Grow Plan* requires an overall density average of 50 people and jobs per hectare for all greenfield areas Region-wide. Therefore, the new communities in the Region's whitebelt will have to exceed this density target. As mentioned previously, in this staff report, a review of policies and financial tools to promote more compact development is required.

In addition to refining these results, other built form factors will be assessed in order to compile an accurate depiction of the density, design, scale and overall character of these communities. These factors include:

- Lot size
- Density by structure type (single, semis rows and apt)
- Coverage and Floor Space Index (FSI). FSI compares the gross floor area of a building relative to the total site area.
- Transit-supportive density test
- Parking requirements
- Population-Related Employment figures

Staff will also continue to add to the analysis with the following communities. For comparative purposes, some communities within the built boundary will be examined:

- Block 10, Vaughan
- Block 11 and 12, Vaughan
- Newmarket Northwest
- Bayview Hill, Richmond Hill
- Leitchcroft, Markham
- Thornhill-Promenade, Vaughan
- Thornhill, Markham
- Keswick, Georgina

In addition to meeting the *Places to Grow* target, the findings from the community area analysis will inform a series of principles, best practices and standards for potential development of new communities in the Region's whitebelt areas.

5.3 Current Caveats and Issues in Residential Area Analysis

This section lists the caveats and issues specific to the Residential Area Analysis:

- A consistent and specific definition of density is critical. The Region will work together with MPIR to confirm a definition and methodology for measuring density as it pertains to the Growth Plan targets, sources of data and the treatment of non-developable lands. In this way, the Region, its Area Municipalities and the Province can avoid any discrepancy in measuring and comparing density figures.
- The 2001 Census of Canada persons per unit (ppu) averages by structure type were applied to determine the number of people per hectare. This approach skews the calculation of density because it does not address the demographic changes facing the Region. The Regional forecasts expect that household size and ppu will decrease by 2031 due to a number of factors including an aging society and a growing proportion of non-family households. This trend will ultimately affect residential densities. The Region will consult with the area municipalities on this issue. The Region also recommends that MPIR address this trend in their density target methodology.
- An assumed employment estimate of 1.88 jobs/ha for residential areas was used in the people and jobs/ha calculation. The jobs that occur in residential areas are primarily

associated with schools and small/neighbourhood retail. This assumption translates into approximately 760 jobs within one concession block or a typical Secondary Block Plan. The Region is currently conducting an analysis of population-related employment that will complement and inform the Residential Area Analysis. The Region will also work with MPIR on clarifying this assumption, methodology and sources of data.

- Plan of subdivision information was used as the data source to calculate density. Typically, all significant non-developable lands such as major valleylands, woodlots, highways and hydro easements, among others, are not included in subdivision plans. However, there are instances when a portion of these non-developable lands are included in the plans. Further analysis is required to ensure that these lands are not included in the density calculation of gross density.

5.4 Next Steps

The next major steps involve consultation with the area municipalities and MPIR to review and refine the residential area analysis. Next steps include:

- Looking at site specific development examples with respect to built form, transit-supportive densities and design, and other design factors. Energy efficient technologies will also be considered. Examples will include intensification and greenfield areas.
- Refining the population-related employment to inform the assumptions applied to this preliminary analysis.
- Expanding the community area analysis as follows:
 - Adding more communities.
 - Assessing other determining factors of residential density and design such as lot size, coverage and parking requirements, among others.
- Examining communities with various types of servicing (i.e municipal vs septic) to determine if servicing influences residential densities.
- Identifying the financial tools and planning policies to encourage more compact and transit-supportive densities.
- In consultation with the area municipalities and MPIR, develop a methodology for measuring residential density that addresses the issues outlined in section 5.3.
- Using the findings from the residential area analysis to develop a set of principles and criteria for potential development in the Region's remaining whitebelt areas.

- Integrating the findings from the residential area analysis to inform the Growth Management Strategy Update and the Regional Official Plan Review.
- Establish an easy in-house monitoring system for annual reporting on progress to Regional Council.

5.5 Relationship to Vision 2026

The Residential Area Analysis supports the Vision 2026 goal areas of “Housing Choices for Our Residents”, “Managed and Balanced Growth” and “Infrastructure for a Growing Region”.

In addition, the Residential Area Analysis also supports the “Healthy Communities” action area of the York Region Preliminary Draft Sustainability Strategy.

6. FINANCIAL IMPLICATIONS

The residential area analysis work is being conducted within the existing Planning and Development Services Department staff complement and within approved budget allocations.

Staff have been investigating the role and impact of fiscal policy and financial tools in influencing the urban structure of York Region. Achieving the Centres and Corridors vision and the 40% intensification target will require creative and innovative funding tools to be put in place and a significant investment in supporting infrastructure.

The Region recently completed a study of financial options to promote intensification in the Centres and Corridors with respect to development charges. Findings indicate that there are potential cost savings in transportation capital costs in the Centres and Corridors which could potentially justify restructuring the Region’s uniform development charges methodology.

A 25 year fiscal impact analysis will be completed to further assess the fiscal challenges associated with growth options. In this way, the Region can devise a decision-making model that gives equal consideration to land-use and infrastructure planning, human services and fiscal impacts.

7. LOCAL MUNICIPAL IMPACT

Municipal consultation and coordination are integral components in the Region’s Growth Management Strategy Update. The Municipal Technical Advisory Committee provides an opportunity for additional local input on the residential area analysis.

8. CONCLUSION

The Residential Area Analysis examines how the Region's built environment has evolved over the years with respect to residential density, housing mix and other built form factors. The analysis also determines how residential densities in the Region's greenfield communities relate to the targets in the Provincial *Places to Grow Plan*.

Preliminary findings indicate that, Region-wide, between 1971 and 2006, the proportion of registered single-detached dwellings decreased by approximately 7%, while the proportion of registered row housing increased by approximately 8%. Similarly, gross residential density for all registered plans of subdivision has increased by approximately 20%. In addition, a photographic survey demonstrates that the Region has advanced in compact development and design.

The *Places to Grow Plan* density standard for new communities of 50 people and jobs/ha will be a challenge especially given that a number of new developments over the next 5-10 years will not reach the standard. The Region will work together with its area municipalities and MPIR to define a consistent methodology for calculating and comparing density. This methodology could address the issues of declining household size, treatment of non-developable areas, and population-related employment.

Most recently developed areas analyzed come close to or meet the *Places to Grow* target of 50 people and jobs/ha.

Next steps include area municipal consultation and discussions with MPIR about the definition of density. As well, preliminary density calculations will be refined to address any caveats. The findings from the residential area analysis will be used to develop a set of principles and criteria for potential new development of new communities in the Region's whitebelt areas.

For further information about this staff report, please contact Paul Bottomley, Manager of Growth Management, Economy and Information Research at 905-830-4444 extension 1530 or paul.bottomley@york.ca.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)