

Housing Matters: Density

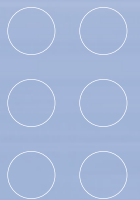


Table of Contents

1.0 Introduction	1
1.1 Objectives and Methodology	2
1.2 Forward	2
2.0 Growth Management Initiatives	3
2.1 Historical Residential Development Trends	3
2.2 History of Growth Management Initiatives	4
2.2.2 Recent Provincial Government Initiatives	5
2.3 Urban Sprawl	5
2.4 Smart Growth	6
2.5 Compact Urban Form and Densities	6
2.6 Density Targets	7
2.7 Conclusion	8
3.0 Land Use and Development Requirements in Mississauga	11
3.1 Planning Act and Provincial Policy Statements	11
3.2 Development Standards and Servicing	11
3.3 Residential and Employment Land Area	12
3.4 Public Rights-of-Way and Utilities	13
3.5 Open Space	14
3.6 Other Land Uses	14
3.7 Conclusion	15
4.0 Residential Density	17
4.1 Density as a Measure	17
4.2 Densities in Mississauga and the GTA-Hamilton	19
4.2.1 Density by Planning District and Traffic Zone	22
4.3 Housing Mix in Mississauga and the GTA-Hamilton	26
4.4 Conclusion	27
5.0 Community Profiles	29
5.1 Post World War II Development	29
5.2 1950s and 1960s: Prosperity in the Decades Following World War II	29
5.3 1970s and 1980s: Change and Economic Adjustment	32
5.4 1990s to Present	34
5.5 Net Plus Roads Density	36
5.6 Median Lot Sizes	37
5.7 Conclusion	38
6.0 Node Profiles	43
6.1 Node Land Use	43
6.2 Node Densities	44
6.2.1 Employment Density	45
6.2.2 Density Targets	45
6.2.3 Transit Supportive Density	45
6.3 Conclusion	46
7.0 Conclusion	49
7.1 Density and Historical Development	49
7.2 Land Use and Character	49
7.3 Growth Management	50
7.4 Sprawl	50
7.5 The Challenge	50

1.0 Introduction

The City of Mississauga is at a crossroads. Over the past fifty years¹, it has evolved from a suburban community to a city on the brink of maturity. Mississauga is now Canada's sixth largest municipality. The diversity of its housing stock, community amenities, accessibility and employment opportunities, as well as the availability of greenfield land to meet the demand for housing have all contributed to the City's growth. Over the next few years Mississauga's rate of growth is anticipated to slow as it becomes a stable urban community.



The Greater Golden Horseshoe² is one of the fastest-growing regions in North America. It is expected to grow from 7.8 million in 2001 to 11 million by 2031.³ Over the last few decades, growth patterns have led to concerns regarding traffic congestion, environmental degradation and urban sprawl.⁴ The Central Ontario Smart Growth Panel summarized the issues in its 2003 Discussion Paper:



It's clear that we cannot allow growth to just happen. When growth is not managed well, it comes at a price. Chronic gridlock, increasing smog and loss of forest and green spaces can result in fewer economic opportunities and jobs when businesses choose not to invest in areas where quality of life has deteriorated.⁵

The association of urban growth with sprawl have culminated in a series of strategies aimed at the physical form of communities referred to as "smart growth". Smart growth is a phrase that has been popularized in the last decade. It refers to well-established planning principles that propose the management of growth and the efficient use of existing land and infrastructure resources through the development of communities with compact urban form, high densities and transit-supportive development.



Since a new Provincial government was elected in November 2003, a number of initiatives including legislation and a provincial policy statement have been introduced to bring changes to the pattern of land development and guide future growth in the province.

This study reviews historical residential development and growth patterns in Mississauga through an examination of housing, population, land use and density across the City. This is timely given the context of growth management discussions. This report is intended to set the framework for where the City stands in regard to these issues and provide a benchmark for future directions.



1.1 Objectives and Methodology

The principal objective of this study is to understand the existing pattern of residential development in the City of Mississauga. This objective is addressed through a historical review of the development of the City and the calculation of densities for the City as a whole, in selected communities and in residential nodes. These densities illustrate trends in built form and development over time. Densities are compared with those in other municipalities and with transit-supportive density targets.

Housing mix is part of compact urban form discussions which not only influences density but the housing options available. This study compares the housing mix in Mississauga with that in other communities in the Greater Toronto-Hamilton Area (GTA-Hamilton).⁶

The proportion of lands devoted to public infrastructure (open space, roads, school sites, etc.) has been increasing over time. This has contributed to the rate of land consumption and, therefore, densities. Research has found that approximately 40% to 50% of gross land area is devoted to public infrastructure in newer communities, compared to 35 to 40% in older communities.⁷ A secondary objective of this study is to discuss selected policies and development standards that influence density. The following are not within the scope of the project:

- development densities for non-residential development;
- the appropriateness of applicable development standards; and,
- intensification opportunities - these will be reviewed in future studies.

1.2 Forward

The report is divided into seven sections. The following section briefly identifies some of the urban conditions that have lead to current development patterns. It provides an account of growth management initiatives, defines sprawl and smart growth. The density information and standards found in the literature are also reviewed in this section.

Section 3 reviews land area by land use in the City. It also discusses selected development requirements for residential development. Section 4 summarizes the density information for the City as a whole, by planning district and traffic zone. It reviews the challenges in relation to the calculation of this variable and compares Mississauga densities and housing mix with those in other municipalities.

Development trends, land use and densities in twenty-eight communities are the focus of Section 5. Section 6 reviews densities and land uses in the residential nodes. Section 7 outlines the issues and conclusions of this report and addresses the criticisms directed at the City and its image versus the reality of its urban landscape.

2.0 Growth Management Initiatives

This section examines growth management initiatives in Ontario, both past and present; it defines sprawl and smart growth and presents information on residential densities and transit-supportive density targets.

2.1 Historical Residential Development Trends

Historically growth was perceived as positive for cities. Growth meant more choice, opportunities, better services and a broader range of commercial enterprises.

Post World War II patterns of urban expansion, changed this and are often associated with sprawl, congestion, environmental and quality of life concerns. It is worth stepping back and identifying the conditions that have led to this situation.

Nineteenth century cities⁸ were infamous for their overcrowded and unsanitary conditions. There was little governing the location of non-residential and noxious uses. The regulation of development including density came about, in part, because of these conditions.

The urban reform movement promoted ideal communities where light, privacy and open space were enjoyed by every family.⁹ Suburban housing in the form of *garden cities* were the solution to the dirty and disease ridden conditions in the old city core.¹⁰ These conditions would influence attitudes and expectations regarding house and home for generations.

Disease, proximity of incompatible land uses, unsafe housing, lack of mobility and the absence of open space would play themselves out by the movement of population outside of the city core, the desire for large greenspace surrounding a home and the segregation of residential uses from non-residential uses.

Communities with separated land uses and curvilinear streets, that are now highly criticized, were believed to be well planned and adopted in response to historical city conditions. Suburban communities and the lifestyle they represented became the aspiration for many Ontario families. This ideal translated into demand for housing in suburban communities and resulted in suburban development being the dominant development form for the last half century.¹¹



2.2 History of Growth Management Initiatives

Growth management initiatives can be found as far back as the early 1950s. In 1953 Metropolitan Toronto was established to manage growth in Toronto. Regional governments were also introduced in York (1971), Peel (1974), Halton (1974), and Durham (1974).

In the 1960s, the environmental protection initiative began to emerge with the Conservation Authorities and then the Niagara Escarpment Commission (1973). Urban sprawl and quality-of-life concerns came to the forefront in the 1970s with the Parkway Belt West Plan (1973).

Increasing congestion on the roads and transit system, air pollution, lack of coordinated regional management resulted in the Planning Act (1983) and the Greater Toronto Area Urban Structure Concepts Study (1989) which contemplated differing structures for the area.

In the late 1980s, the Province established the Greater Toronto Coordinating Committee and the Office of the Greater Toronto Area to improve co-operation and coordination among the municipalities in the GTA.

In the 1990s the Office for the Greater Toronto Area outlined a new approach to managing growth and supported concentrated nodal development within the urban envelope.¹² The Sewell Commission reviewed the planning process with the objective of simplifying it. In 1999, the Greater Toronto Services Board was established to promote a better coordination and integration of services within the Greater Toronto Area.¹³ It was disbanded in 2001.

The Smart Growth Secretariat was established in 2001 to address longstanding issues including growth management, environmental protection, urban development and quality of life. Five smart growth panels were established to consult and make recommendations on growth. The Central Ontario¹⁴ Smart Growth Panel which represented the GTA-Hamilton had the following areas of recommendation:

- reshaping where and how we live;
- protecting the environment;
- unlocking gridlock;
- rethinking how we manage waste; and,
- optimizing other infrastructure.¹⁵

The City of Mississauga supports the intent and direction of the discussion regarding smart growth, although it has stated the Provincial strategy requires a “sharpened and a more ambitious approach”¹⁶ and provided growth management is the foundation for the initiatives.

Among the City's concerns are the clear identification of urban and rural areas, GTA-wide servicing networks, major nodes and development corridors, the protection of major environmental areas and adequate strategies for financial planning and infrastructure programs.¹⁷

2.2.2 Recent Provincial Government Initiatives

Over the last year, the Provincial government has put forward a number of legislative and policy initiatives relating to the growth and development of the Province.

- Bill 26, the *Strong Communities Act* was released on December 15, 2003;
- Bill 27, an act to establish a greenbelt study area and to amend the *Oak Ridges Moraine Conservation Act* was released on December 16, 2003;
- The Greenbelt Task Force is a 13-member committee created to develop recommendations on how the Province could establish a permanent Golden Horseshoe Greenbelt (February 2004);
- *Toward a Golden Horseshoe Greenbelt* discussion paper was released by the Greenbelt Task Force in May 2004;
- *Provincial Policy Statement: Draft Policies, Ontario Municipal Board Reform, Planning Act Reform and Implementation Tools* discussion papers address planning reform initiatives and were released in June 2004;
- *Places to Grow: A Growth Plan for the Greater Golden Horseshoe* is a long term strategic vision and tool for how the Golden Horseshoe and surrounding area should grow over the next 30 years was released in July 2004;
- *Source Water Protection* is a consultation on how to best deliver watershed-based source protection as a way of securing the long-term quality of water resources throughout the province;
- *Advice and Recommendations to the Minister of Municipal Affairs* was released by the Greenbelt Task Force in August 2004; and,
- Bill 135 an act to establish a greenbelt area and Bill 136 an act respecting the establishment of growth plan areas, received first reading October 28, 2004.

2.3 Urban Sprawl

Sprawl is associated with the development of a city and its suburbs in a low density pattern occurring primarily on the rural land or open space on the fringe of an urban area. Sprawl is identified as the process in which the spread of development across the landscape far outpaces population growth.¹⁸

Four characteristics of sprawl in the landscape are:

- a population that is widely dispersed in low density development;
- rigidly separated homes, shops and workplaces;
- a network of roads marked by huge blocks and poor access; and,
- a lack of well-defined, thriving activity centres, such as a downtown or town centres.

2.4 Smart Growth

Smart growth refers to a collection of urban development strategies with specific development goals that address urban form, infrastructure development, environmental protection, and social concerns of current development patterns. The following are the principal themes in the literature:

- communities and development form including the need to combine compact residential development with a variety of housing options and a mix of uses;
- growth management and containing sprawl, the consequence of lack of management is sprawling haphazard development;
- transportation issues include strategies to address congestion, smog and gridlock;
- environmental protection includes the protection of natural areas, agricultural and sensitive lands;
- infrastructure and the use of existing infrastructure more efficiently; and,
- partnerships involving larger regional governing bodies to address issues which extend beyond municipal boundaries.

2.5 Compact Urban Form and Densities

Development that is compact in nature and promotes an efficient use of existing resources is the principal solution anticipated to address the issues arising from the dominant development patterns of the last fifty years. Density is the most common method to measure compactness and establish benchmarks to guide future development.

There are few, if any definitive density guidelines which promote the values espoused by growth management initiatives. Comparative review instead is the means by which selected issues are promoted.

Communities which emulate the issues and ideals of compact form are transit-supportive and more efficiently use infrastructure compared with communities developed with relatively low densities and new areas under development.

Pre-World War II suburbs are often the density standard that contemporary suburbs are measured against. In many cases, these areas have a mix of housing and land uses, are transit-supportive and have higher densities than new communities. In addition, “neo-traditional planning”, which is one of the development trends that has emerged over the last two decades, incorporates many of the elements of pre-war neighbourhoods in its designs.

Average gross residential densities¹⁹ in pre-war inner city neighbourhoods are over 28 uph (11 upa). By way of comparison, densities at the end of the 1990s in municipalities at the edge of the urbanized area such as Newmarket and Vaughan are between 13 to 17 uph (5 to 7 upa). At the end of the spectrum, rural areas in the Region of Peel, York and Durham have densities between 2 to 7 uph (1 to 3 upa). Table 2.1 summarizes the density information found in the literature on gross residential density trends.²⁰

2.6 Density Targets

There is limited information on density targets. However, transit-supportive guidelines are useful since they are integral to the discussion of density because of the role they play in supporting public transit and reducing congestion.

Densities required for transit range from 20 to 30 uph (8 upa to 12 upa) for efficient transit service to 10 uph (4 upa) for infrequent service. Transit density targets can be quite aggressive near main streets and town centres (36 uph, 15 upa) and (62 uph, 25 upa) in the vicinity of light rail stations and regional centres. These are summarized in Table 2.2.

In relation to overall densities, the Office for the Greater Toronto Area released a report titled *Urban Density Study* in the mid-1990s which recommended minimum gross densities of 50 residents and/or employees per hectare (20 per acre) in greenfield situations and for retrofitting existing communities.²¹

Recent discussions regarding density in the Province of Ontario's *Places to Grow: A Growth Plan for the Greater Golden Horseshoe* (2004) discussion paper identifies population densities of over 60 pph (24 ppa) and employment densities of 60 eph (24 epa) for Priority Urban Centres.²² The paper also recommends transit-supportive densities of 3,000 persons per sq. km. (7,770 persons per sq. mile). Mississauga City Centre has been identified as a Priority Urban Centre.

2.7 Conclusion

Growth management and smart growth discussions on growth management can be found in planning objectives dating back to the 1950s. Despite all the literature there is little definitive discussion regarding density targets. There is less clarity still on the numeric value that is being discussed. Given the breadth of urban issues in these discussions, this report addresses residential density, transit-supportive development standards, and the mix or range of housing options.

Table 2.1 Summary of Residential Density by Municipality and Period of Time		
Region/Municipality	Period of Time	Gross Residential Density
York Region		
Urbanizing municipalities: Markham, Newmarket, Richmond Hill and Vaughan	end 1990s	13 to 16 uph (5 to 7 upa)
Aurora	end 1990s	5 uph (2 upa)
Aurora, Markham, Newmarket, Richmond Hill and Vaughan	1986 to 1990	6 to 11 uph* (2 to 4 upa)
Aurora, Markham, Newmarket, Richmond Hill and Vaughan	1976 to 1980	4 to 12 uph* (2 to 5 upa)
Durham		
Clarington, Oshawa, Pickering and Whitby	end 1990s	10 to 15 uph (4 to 6 upa)
Outer rural municipalities of Peel, York and Durham: Scugog, Whitchurch-Stouffville, Uxbridge, King, East Gwillimbury and Caldeon	end 1990s	2 to 7 uph (1 to 3 upa)
Ajax, Clarington, Oshawa Pickering and Whitby	1986 to 1990	8 to 10 uph* (3 to 4 upa)
Toronto		
Post war development in the City**	post war development	10 to 15 uph (4 to 6 upa)
Pre-war areas of Toronto, Riverdale, The Beach and Cedarvale	pre-war	28 to 36 uph (11 to 15 upa)
Pre-war parts of the City East York, "The Peanut" North York	pre-war	20 to 25 uph (8 to 10 upa)
Peel Region		
Mississauga and Brampton	end 1990s	14 to 17 uph* (6 to 7 upa)
Mississauga and Brampton	1986 to 1990s	6 to 10 uph* (2 to 4 upa)
Mississauga and Brampton	1977 to 1980	4 to 13 uph* (2 to 5 upa)
Mississauga Valley	post war	10 to 25 uph (4 to 10 upa)

* Density ranges are approximate from information presented in graphic form.

** Assumes reference to "City" indicates the City of Toronto.

Source: Blais, Pamela, M. *Inching Toward Sustainability: The Evolving Urban Structure of the GTA*. March 2000.

Table 2.2 Transit-Supportive Densities		
Source	Service/Area	Residential Density*
Ministry of Transportation. Ministry of Municipal Affairs ¹ (Transit-Supportive Land Use Planning Guidelines)		
	1 hour service	10 uph (4 upa)
	Rapid Service, peak times	30 uph (12 upa)
Institute of Transportation Engineers		
	30 Minute Service	17 to 19 uph (7 to 8 upa)
	Light Rail Service	Over 22 uph (9 upa)
Ministry of Public Infrastructure Renewal ²		
	Priority Urban Centres	3,000 persons per sq. km ³ (7,770 persons per sq. mile)
Smart Growth British Columbia ⁴		
	Efficient Transit Service	20 to 30 uph (8 to 12 upa)
City of Portland ⁵		
	One-quarter mile of transit streets, main streets and town centres	36 uph (15 upa)
	One-half mile of light rail stations and regional centres	62 uph (25 upa)

* Note: Assumes these are gross density targets.

1. Ministry of Transportation. Ministry of Municipal Affairs. Province of Ontario. Transit-Supportive Land Use Planning Guidelines. April 1992.
2. Ministry of Public Infrastructure Renewal. Province of Ontario. Places to Grow: Growth Plan for the Greater Golden Horseshoe. July 2004, p.14.
3. This converts to 30 pph (12 ppa).
4. Curran, D. Leung, M. Smart Growth: A Primer. Smart Growth British Columbia, 2000.
5. City of Portland, Bureau of Planning. Comprehensive Goals and Policies. Portland, Oregon. November 2003. p.20.

3.0 Land Use and Development Requirements in Mississauga

The land consumed for residential development extends beyond the land occupied by homes and includes lands for community centres, schools and hospitals, and for the infrastructure that supports the community. The *Planning Act*, regional, and local official plans, and servicing requirements must all be met in the process of land development. The result of each of these requirements is that the amount of land for residential purposes is considerably reduced, as is the residential density. This section provides a review of land area by land use in the City of Mississauga and discusses some of the policies and related development standards associated with residential development that influence density.



3.1 Planning Act and Provincial Policy Statements

Development in Ontario is regulated by the *Planning Act*. One of the purposes of the *Planning Act* is to “promote sustainable economic development in a healthy natural environment”. Although the *Planning Act* does not set out target density requirements, matters of Provincial interest have a bearing on the development of communities and the densities that can be achieved.



Density supportive policies include the provision of a full range of housing. Policies which result in the reduction in densities such as the preservation of ecological systems, and natural areas.

Both regional and local official plans must have regard for Provincial Policy Statements (PPS) issued by the Province. The PPS sets out the Ontario government's interests in land use planning and development and provides policy direction on matters of Provincial interest. The current PPS came into effect in 1996 and was amended in 1997.



In June 2004, the Provincial government released a draft PPS to address planning reform initiatives. Among the recommendations: focussing growth and public investment into settlement areas; new development adjacent to existing built-up areas; optimizing existing infrastructure; making transit the first priority for transportation investment; recognizing nodes and corridors in transportation planning; and, protecting the environment.

3.2 Development Standards and Servicing

Development standards such as road widths and areas dedicated for recreation and open space implement development objectives and policies. Consumer demands, safety concerns and lifestyle choices have lead to increases in the land consumed by development standards.



A historic review of communities conducted for the *Urban Density Study* found that in communities that developed before World War II, the amount of gross land devoted to public purposes ranged between 30% and 41%. This is compared with between 41% and 51% of land for public purposes in communities developed since World War II.²³ Table 3.1 summarizes the land requirements for various categories of public uses.

Table 3.1 Development Standards		
Standard	Pre World War II	Post World War II
Public Open Space	1.6% to 5.6%	10.7% to 16.7 %
School Sites	2.4% to 5.3%	4.3% to 8.2 %
Roads	24.3% to 34.9 %	25.2% to 30.1 %

Office for the Greater Toronto Area. *Urban Density Study: Technical Report*. Prepared by Lehman & Associates, IBI Group, Hill & Knowlton/Decima Research, March 1995, pp.19-20.

The largest portion of the growth in the City of Mississauga occurred after World War II and, therefore, many of its communities are developed with the standards that consume more land and drive down density.

3.3 Residential and Employment Land Area

Residential land is the largest component of land use in the City. It represents almost one-third of total land. Employment uses such as commercial, office and industrial lands represent just over one-fifth of the City's land. (Figure 3.1)

Residential and employment land areas in Mississauga are a function of the overall structure of the City and the role it plays in the regional context. Outside of established communities, development in Mississauga occurred generally from the south to the north and east to the west.

In the first half of the century, Mississauga was primarily a residential community. The southern half of the City, which has many of Mississauga's established residential communities, is a reflection of this as many choose Mississauga as a place to live while working in other areas.

Mississauga's role changed in the second half of the century. Among the reasons for this was the development of Lester B. Pearson International Airport (Pearson Airport), the expanding transportation system, the continued consumer preference for Mississauga and the growth of Mississauga's employment base.

The location of residential and employment districts in Mississauga and much of the planning of the north-east area of the City is largely based on the location of Pearson Airport and the attempt to distance residential uses from the higher noise levels in this area.

The transportation network has influenced the development of Mississauga from the 19th century with the laying of the railroads, to the construction of the Queen Elizabeth Way in 1937, to the development of Highway 401 in the late 1950s, and the widening of Hurontario Street in 1953, Lakeshore Road in 1967, and Highway 427 in 1971.

Reasonable housing prices and accessibility resulted in the rapid expansion of the residential base in Mississauga. This was intensified by the growing employment base which offered a variety of employment opportunities for the resident labour force.

Mississauga is no longer a “bedroom” community, and has been a net importer of labour for many years. However, because Mississauga’s resident areas are largely in the south and west areas of the City, and the employment lands are concentrated in the north-east, Mississauga is often still perceived as being a residential suburb.

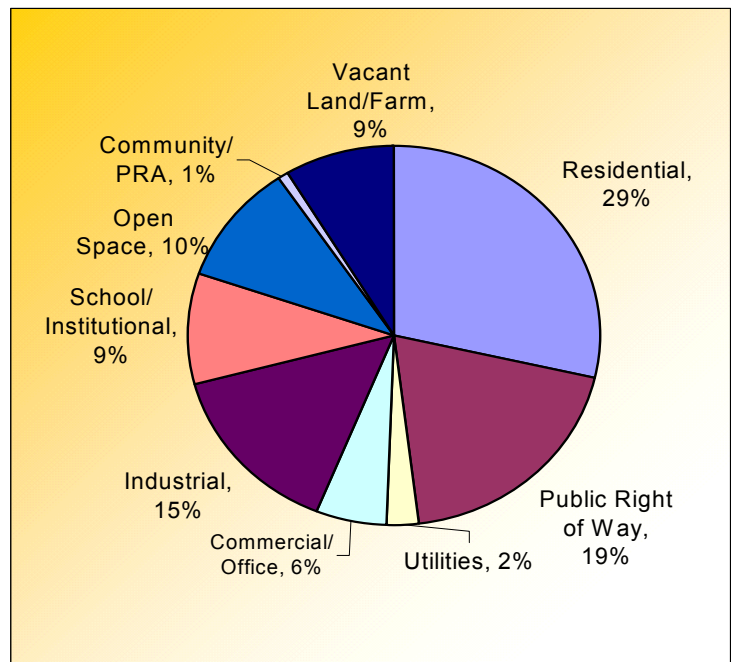


Figure 3.1: Land Use, City of Mississauga

Source: Planning and Building Department, IDMS (2003).

3.4 Public Rights-of-Way and Utilities

The land dedicated to servicing communities has been increasing over time. In Mississauga’s history, accessibility has played an integral role in the City’s development. Public rights-of-way are the second largest consumer of land and represent nearly one-fifth of the land area in the City. Highways represent 4% of the land area.

In residential areas, roads (including Provincial highways) take up a higher proportion of the land area than in the City as a whole, occupying an average of 22% of the total land area. Highways occupy an average of 3% of the land area in the City’s residential communities. Although the highway area seems to be a small proportion of total land, it is larger than the share of land occupied by some of the community uses.

In addition, contemporary urban life depends on the power and services provided by utilities. In Mississauga, utilities represent 2% of the land area in the City.

3.5 Open Space

Environmental protection has its roots in 1954 with Hurricane Hazel. This storm caused significant flooding, property damage and loss of life. It proved to be a mobilizing force in bringing a regional approach to flood control and water management in Ontario. The *Conservation Authorities Act* of 1946 was amended after this storm to enable an authority to acquire land for recreation and conservation purposes. As a result, lands subject to flooding or to erosion are determined not suitable for development.

In addition to its many natural areas, Mississauga has three significant linear open space corridors: the Credit River Valley, the Etobicoke Creek and the Lake Ontario Waterfront. These are also supported by numerous tributaries and smaller watercourses. Cities, such as Toronto, which developed earlier had very different conservation priorities as witnessed in relation to the Don and Humber Rivers in Toronto. In Mississauga, not only are significant natural areas off limits to development, but adjacent and connecting lands have often been acquired to provide recreational opportunities. Open space makes up 10% of the land area in Mississauga. Within Mississauga, significant natural features have been protected and have been incorporated into the city's open space system.

Historically, watercourses were piped and buried or channelized. Now the practice is to leave them intact and "natural". However, in an urbanizing environment, as run-off increases, the flow of stormwater must be managed in order to reduce flooding and erosion. Stormwater quantity controls are to be implemented on all applications in accordance with any applicable master drainage or subwatershed plan. The stormwater management requirements vary depending upon the watershed, and in some cases, the storm sewer shed.

In Mississauga, a number of tableland features have been incorporated into the City's extensive parkland system. The *Planning Act* requires that 5% of residential lands and 2% of non-residential land or the cash equivalent be contributed towards parkland. An alternative is found in *Mississauga Plan* which requires one hectare (2.5 ac) or cash-in-lieu per 300 units of high density development be dedicated for parkland.

3.6 Other Land Uses

Many of the residential communities in the City were developed as "master planned communities" with recreational and community facilities included in the community concept. The land area required by these uses varies. Some are regulated by boards, as in the case of schools; others by upper levels of government, as in the case of hospitals; municipal governments regulate community centres; and private organizations manage land for places of religious assembly.

Institutional uses are the largest share of other land uses. The combination of the two hospitals and the University of Toronto at Mississauga campus contribute to the majority of institutional land that represents 7% of the land area in the City. Libraries and fire halls are among the other institutional land uses.

Schools are 2% of the City's land area. Under the *Education Act*, the maximum area of land that Boards can acquire for school sites is associated with the number of pupils. Despite this, the Dufferin-Peel Catholic District School, for example, would generally not accept a school site that is less than 2.4 ha (6 ac) for an elementary school and 5.2 ha (13 ac) for secondary schools. Anything less would make it difficult to ensure that the building and facilities (e.g. field, parking) would fit. It is also important to note that in determining the recommended size of a school, the Board must look at the size of the catchment area and future growth.

Community Cultural uses which includes community centres, public art galleries and centres for the performing arts as well as places of religious assembly, occupy less than 1% of the land area in the City. Each of these have specific catchment areas and conditions that they need to full fill which would determine their land needs.

3.7 Conclusion

This section discussed land use in Mississauga and provided a brief review of the standards which are used in the development. Over 70% of the land area in the City is dedicated to non-residential land.

Land use has been influenced by, among other things, the City's historical role as a residential community prior to the mid 20th Century, the development of Pearson Airport and the influence this has exerted on surrounding lands and the protection of natural areas, major open space corridors and natural areas.

The range of land uses illustrates the diversity of land use within the City's boundaries and contradicts the perception that Mississauga is a suburban residential community. The existing structure combined with current land development standards has a considerable influence on density. This discussion is continued in the next section.

4.0 Residential Density

Density describes the relationship between the amount of use and the land area it occupies. Residential unit or population density is commonly used to measure compactness in cities and neighbourhoods. Densities are presented as standards to achieve although there are numerous issues in relation to these variables. Densities are indicators. Their value lies in the fact that they are related to the efficiency which land is used and the long term sustainability of our communities.²⁴ There is, however, no established methodology to calculate these variables. All too often how densities are calculated is unclear and comparative review is difficult. This is critical because there are few definitive standards and comparative review becomes the basis for analysis.

This chapter discusses the variables used to calculate densities, how these variables change with differing methodologies and the approach used in calculating the densities for this report. Density is reviewed at a City-wide scale, by planning district and traffic zone. Densities for the City of Mississauga are compared with those in other municipalities, as is the housing mix in order to assess where the City stands within the urban region.

4.1 Density as a Measure

Population and housing are the most common variables used to measure density, although employment is also emerging in these discussions. Often studies will concentrate on one variable yet this only presents part of the picture.

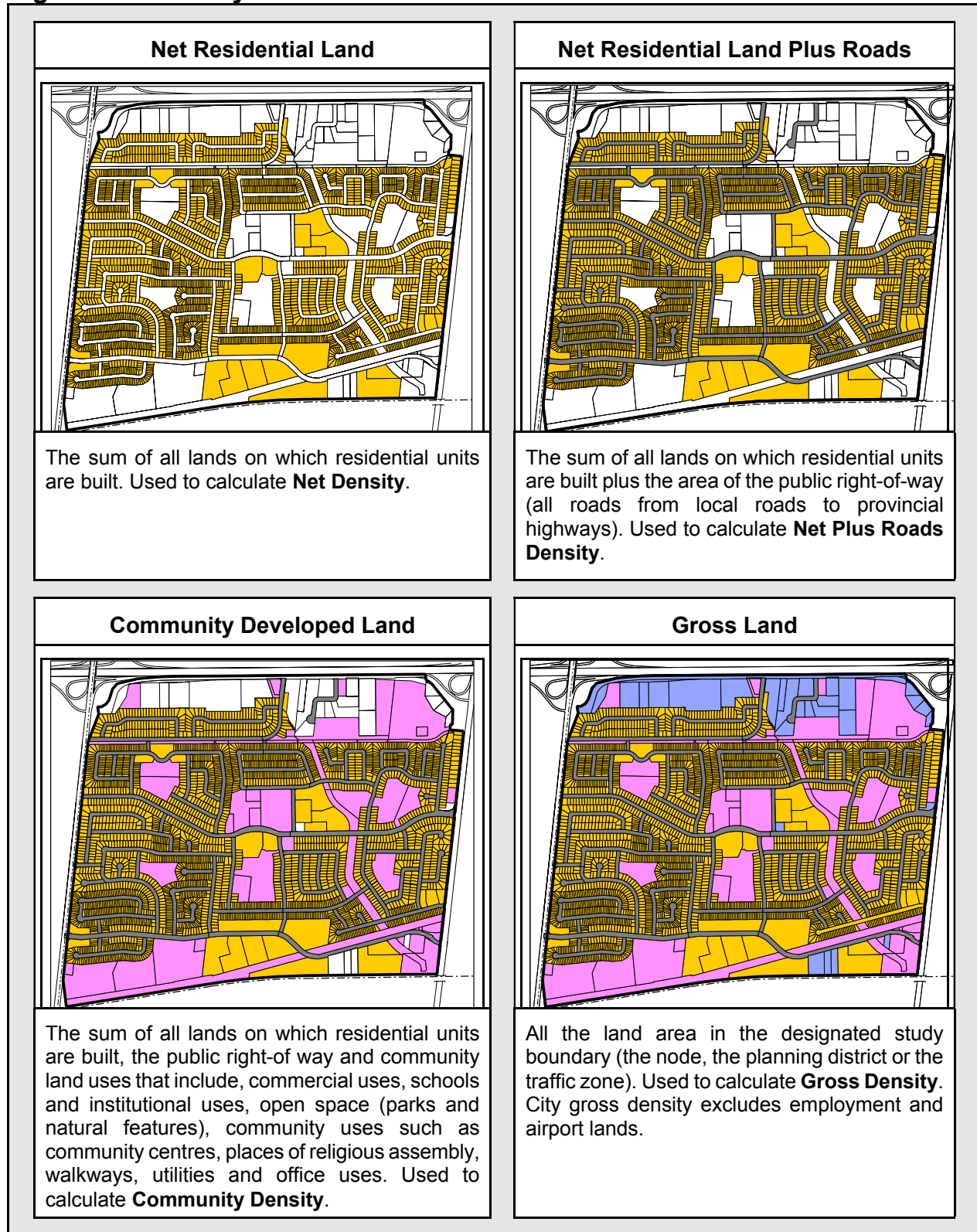
Reviewing housing units illustrates the number of units per area but will not provide any indication of the population characteristics. Conversely, focussing on population will not provide a perspective on the units that population occupies. Living arrangements and demographic variables such as household size as well as residential units all need to be taken into account when discussing density. Employment densities are also valuable as they illustrate the variety of uses in a community, and the ability, for example, to find housing and employment.

The density variables in this study include residential units, population and employment densities (where applicable). All of these variables are incorporated in this study to provide a broader perspective on the issue of density.²⁵

There is also considerable debate in relation to the land area in this calculation. The total area included is significant as the more non-residential areas that are included, the lower the density value. Figure 4.1 illustrates the various land areas that are part of the density calculations in this study.



Figure 4.1: Density Definitions



“Net residential land” is used to calculate the net density variable and yields the highest density value. It aligns with density numbers for various residential land use designations contained in Mississauga Plan.²⁶ It excludes public road areas and all land associated with businesses, community facilities, parkland and non-residential uses.

“Net residential land plus roads” density is the total residential land and road area. Given the discussions of efficiency in the use of existing resources, this variable can be of assistance in determining the effectiveness of different housing forms on density.

“Community density” is the land area associated with residences, road area and land occupied by other uses in a community including commercial uses, schools and open space. This variable stems from the premise that land consumption is not limited to the land occupied by the residential units but includes lands developed to establish the community or neighbourhood. Mixed use communities is a theme in growth management initiatives and sprawl is often associated with homogenous single use areas. Community density, therefore, is the most reasonable measure of density in a given area.

“Gross density” includes all the land in a planning district, traffic zone or node. This includes vacant land and industrial uses.²⁷ It is the lowest density value as it uses the total land area including vacant lands. Research on densities is limited and methodologies are not clearly defined. Gross density is often the only variable that can be used to compare densities as the population and total land area of a municipality can be easily determined. However, the number is not a fair comparison for those municipalities with large tracts of vacant or agricultural land such as Milton or Brampton.

The density review in this study focuses primarily on the community density figure. As mentioned, this is the most reasonable estimate of density. In selected situations, however, other land uses are large in scale and represent regional facilities or large commercial enterprises. These land uses drive the community density variable to a lower figure than would be expected from the housing form and mix. In comparison of the densities across communities, therefore, the net plus roads density can be of assistance in illustrating the density achieved by the housing forms and residential mix.²⁸

4.2 Densities in Mississauga and the GTA-Hamilton

Densities for Mississauga are for residential districts, traffic zones that are primarily developed for residential uses and roads, and do not include employment districts. Table 4.1 summarizes the population and residential units in the City of Mississauga and densities are summarized in Table 4.2.²⁹ The variation from the net density to gross density illustrates the effect of roads and other uses.

Net density for the City of Mississauga is 26.2 uph (10.6 upa). The net density for Mississauga relates to the high end of most Low Density Residential II and the low end of the most Medium Density designations in Mississauga Plan. These designations generally permit detached, semis and townhouse units.

Net plus roads density is 17.6 uph (7.3 upa). The decline from “net” to “net plus roads” illustrates the effect of the transportation system on land consumed for development. The transportation system and the accessibility of the City have played an integral part of the City’s development.

Community density is 12.7 uph (5.3 upa). This illustrates the effect of non-residential land in residential communities such as employment uses in commercial and office land, as well as community, institutional uses and open space. It also illustrates the range of services and opportunities available in the City of Mississauga.

Gross density is 11.8 uph (4.9 upa). Mississauga is approaching maturity as a community and there is little vacant land remaining and, therefore, there is very little difference between gross density and community density.

Development in Mississauga’s residential communities has generally seen lower and medium density forms developed first. These have then been followed by higher density sites. Therefore, throughout the City, there are a number of higher density sites that remain to be developed. If the opportunities that these sites offer are realized, Mississauga’s density will increase.

Overall, the community and gross densities in Mississauga are in range of the gross densities of post-war development in the City of Toronto. Gross densities are also in line with those found in the newer urbanizing municipalities of Markham, Newmarket, Richmond Hill and Vaughan, which have been influenced by the increasing density trends over the last decade. Gross densities are higher than those in outer municipalities of Oshawa, Pickering and Whitby.³⁰

Net residential densities³¹ in the urbanising fringe municipalities of Richmond Hill, Vaughan and Markham have been rising throughout the 1990s.³² The average net density for the City of Mississauga is also in line with this at 26.2 upa (10.6 upa).

The *Mississauga Growth Forecasts* place the gross population plus employment density for Mississauga at 41.8 pph (16.9 ppa) in 2003. This is below the proposed target of 50 residents plus employees per hectare in the *Urban Density Study*. However, future gross population and employment density is estimate to be 47.1 pph (19.0 ppa) by 2021. It is important to note that these are City wide figures and would be lower than densities in individual communities.³³

Table 4.1 Residential Units and Population Information City of Mississauga	
Residential Units* (2003)	Population based on 2001 Census
214,600	612,925

Notes: * Residential units based on the 2004 Development Profile, Residential Development but also includes other residential units such as units in seniors residents not included in the profile.

Table 4.2 Existing Residential Density City of Mississauga				
	Density for Existing Residential Units		Population Density based on 2001 Census Population	
	Units/Hectares	Units/Acres	People/Hectares	People/Acres
Net Density	26.2	10.6	74.9	30.3
Net Plus Roads Density	17.6	7.3	50.2	20.8
Community Density	12.7	5.3	36.3	15.0
Gross Density	11.8	4.9	33.7	14.0

Note: Existing Residential Densities based on combined review of planning district densities and traffic zone densities. They include traffic zones that are primarily developed for residential uses and roads. They do not include land in employment districts.

Table 4.3: Existing Density for Selected Municipalities in the GTA-Hamilton Area				
Municipality	Population	Number of Dwellings	Area Hectares (Acres)	Density** uph (upa)
Hamilton*	490,268	194,154	8,143 (20,122)	23.8 (9.6)
Toronto	2,481,494	965,554	41,168 (101,728)	23.5 (9.5)
Mississauga	612,925	198,235	15,540 (38,400)	12.8 (5.2)
Burlington	150,836	59,020	5,733 (14,167)	10.3 (4.2)
Pickering	87,139	27,188	2,679 (6,620)	10.1 (4.1)
Markham	208,615	61,618	6,250 (15,445)	9.9 (4.0)
Richmond Hill	132,030	41,966	4,374 (10,808)	9.6 (3.9)
Vaughan	182,022	54,359	6,141 (15,175)	8.9 (3.6)
Newmarket	65,788	21,589	2,607 (6,442)	8.3 (3.4)
Brampton	325,428	98,753	12,650 (31,259)	7.8 (3.2)
Aurora	40,167	13,412	1,853 (4,579)	7.2 (2.9)
Oakville	144,738	50,000	7,526 (18,597)	6.6 (2.7)

Source: UDI. Malone Given Parsons Ltd. Analysis of Land Supply in the GTA - Hamilton Area. July 2004.

Notes*: Hamilton information is based on the newly amalgamated City.

**Densities include regional road rights-of-way; highways, valley lands/open space, mixed use commercial, retail, office, schools and parks. Areas of major open space corridors, major institutional uses such as airports, train yards, employment and industrial lands are excluded.

A recent review of land supply in the GTA-Hamilton Area (July 2004) for the Urban Land Institute by Malone Givens Parsons Limited outlines the existing densities for selected municipalities in the GTA-Hamilton Area (Table 4.3).³⁴ In this review, the density is calculated excluding major open space corridors, major institutional uses such as airports, train yards and employment/industrial lands. The data illustrate that Mississauga is among the top three municipalities in terms of density. It is ranked third behind Toronto and Hamilton with 12.8 uph (5.2 upa).

This density value is similar to the 12.7 upa (5.3 upa) City of Mississauga community density figure calculated for this study. The decline in the densities from Toronto and Hamilton to Mississauga is reflective of the different times these municipalities were developed. Toronto and Hamilton were industrial centres that developed in the nineteenth and early twentieth centuries. Mississauga developed later with different development standards.

4.2.1 Density by Planning District and Traffic Zone

While it is useful to have a benchmark density variable for the City as a whole, this indicator does not illustrate the variations in densities and intensity of land within the City. Planning district densities provide a broader perspective of densities in Mississauga's residential districts. Traffic zone densities are a finer look at this indicator and are used to capture information on the City's communities. Figures 4.1 to 4.4 illustrate the residential unit and population densities by planning district and traffic zone. Appendix A and B have the density information associated with these figures.

Planning District

The highest planning district densities are found in the centre of the City, along the major east-west corridor of Mississauga Valleys, and in the mixed use historical community of Port Credit in the southern part of the City. Older established districts in the southern part of the City, such as Mineola and Sheridan, have the lowest densities. Densities increase in the newer communities of Meadowvale and Churchill Meadows.

There is a limited co-relation between unit and population densities. Malton and Fairview are examples of communities that have lower unit densities but higher population densities, indicating larger household sizes. The opposite is not yet evident in Mississauga that is situations where a higher unit density exists in conjunction with a smaller population density. A low population density and high unit density is more likely in mature cities such as Toronto and Hamilton and may also become evident in Mississauga as the City's population ages.

Residential unit densities, however, only present part of the picture. Demographic trends such as smaller household sizes also effect the efficiency of which resources are utilized. Communities designed for the larger three and four-person households, common some thirty or forty years ago, now house two and three-person households thus reducing the population density. Recent Statistics Canada findings confirm this is a national trend, the average household shrank from 3.9 people in 1961 to 2.6 people in 2001.³⁵

Density Targets

Proposed targets in the *Urban Density Study* prepared for the Office of the Greater Toronto Area suggest gross population plus employment densities of 50 persons and/or employees per hectare (20 per acre). Based 2003 population forecasts and employment survey data, 43% of residential districts in Mississauga meet this target.

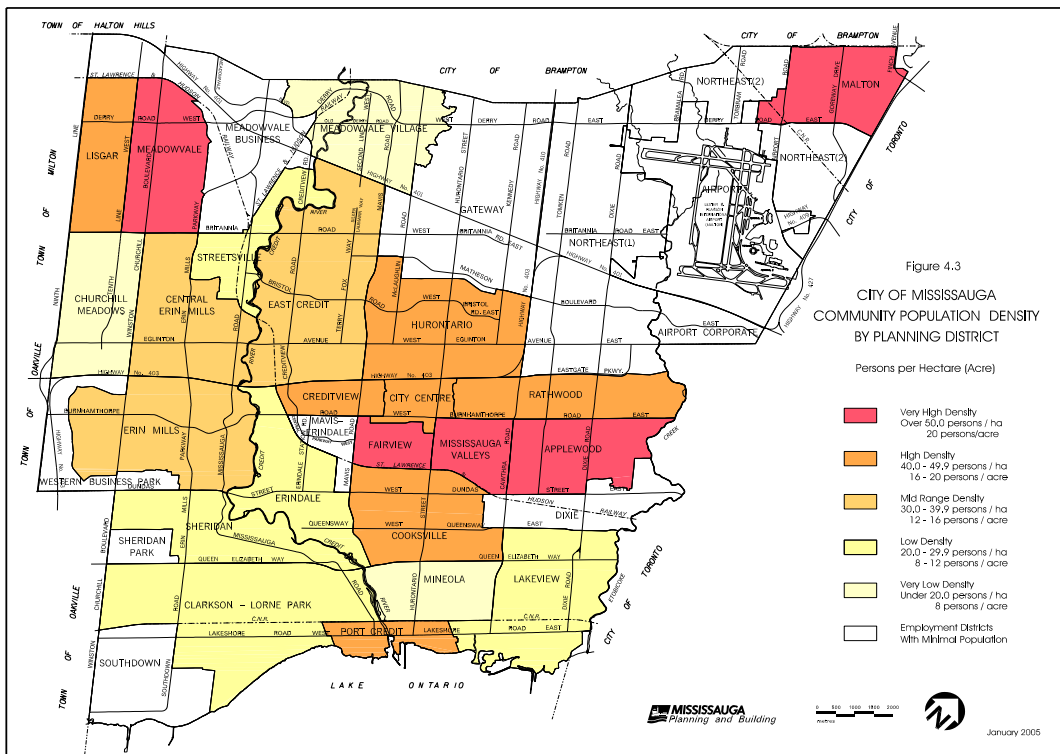
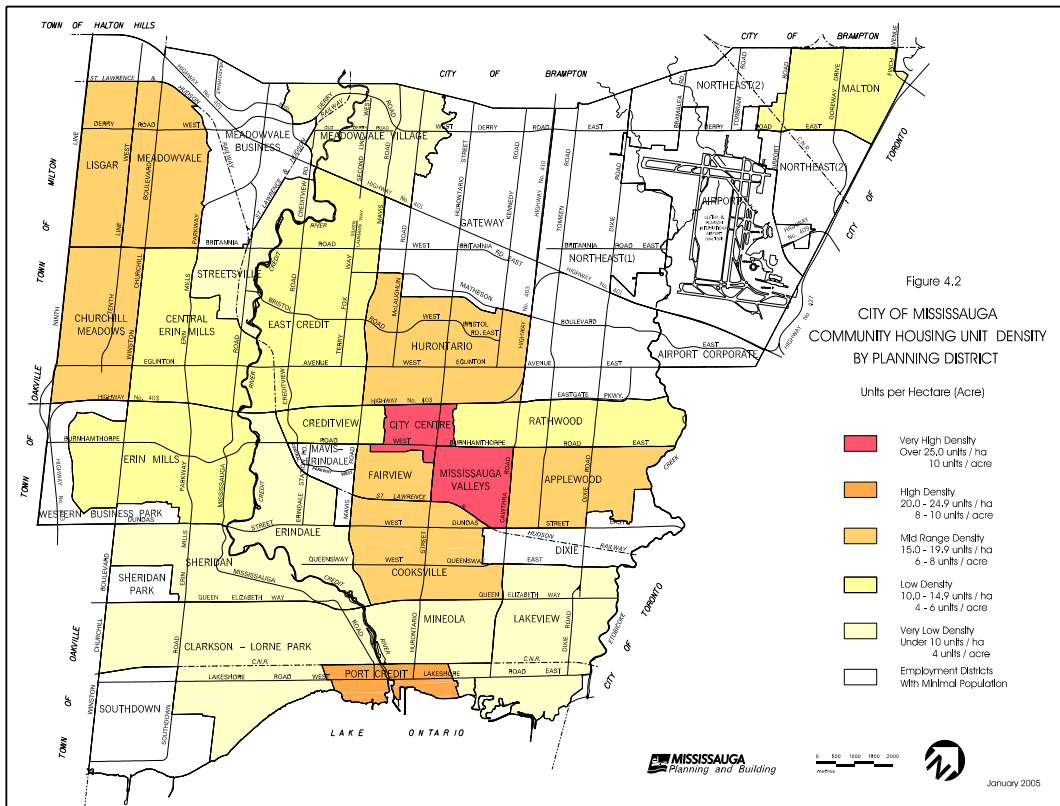
Traffic Zone

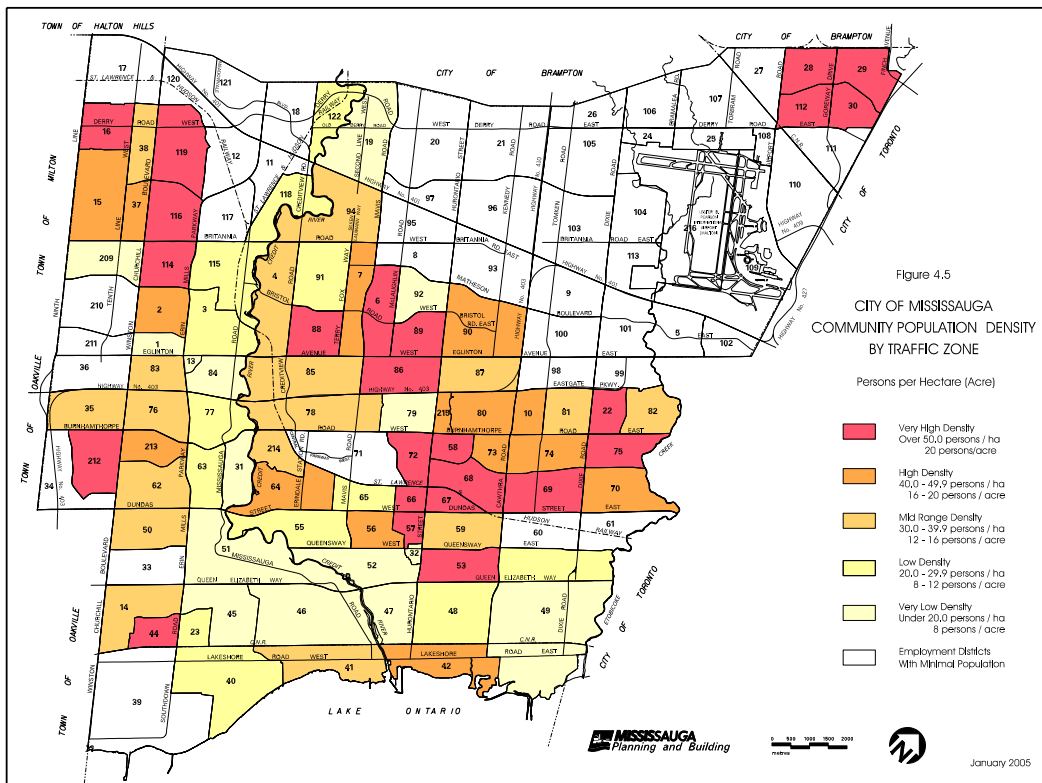
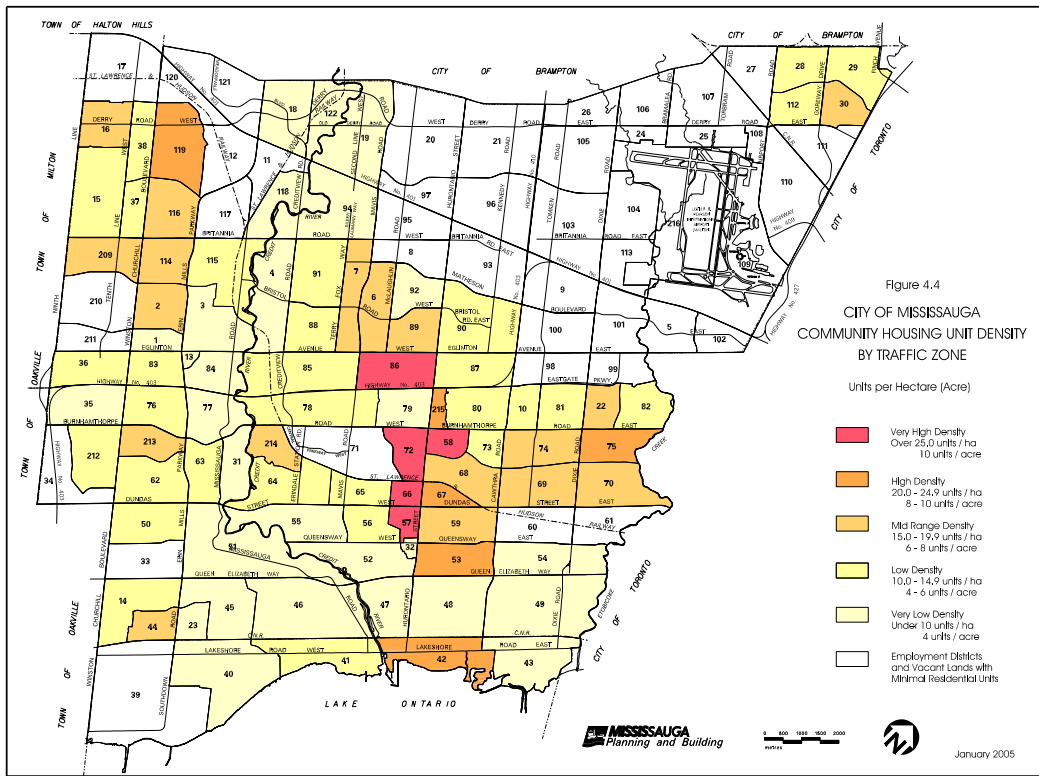
Densities have been calculated for traffic zones that are primarily residential. A traffic zone has been included in the study if it was in a residential planning district and primarily developed. Where a traffic zone was split between a residential and employment district, it was included if the majority of land was occupied by residential uses and roads (Appendix B illustrates the traffic zones included).³⁶

The density pattern by traffic zone illustrates development of the City as a whole. The lower densities south of the Queen Elizabeth Way represent communities planned and developed from the 1950s to 1970s. The higher densities in the western part of the City are reflective of the increasing densities over the last decade or so. The central city is the exception because it is the focal point in Mississauga with commercial, employment, entertainment and residential uses, and is the transit hub of the City.

Thirteen percent of the traffic zones in Mississauga have community residential unit densities of over 20 uph (8 upa) which are comparable to the gross densities in pre-war areas of Toronto although many of Mississauga's traffic zones were developed several decades later and with different development standards. The highest community residential unit density is in traffic zone 58 in the Mississauga Valleys district with 61.7 uph (25.0 upa).

Community population densities in Mississauga are as high as 135 pph (55 ppa) in the higher density neighbourhoods of Mississauga Valleys and 28% have population and employment densities in the very high density range of over 50 pph (20 ppa).





Transit-supportive densities are in the range of 10 uph (4 upa)³⁷ for one-hour service and 30 uph (12 upa) for rapid transit during peak times.³⁸ The majority of the traffic zones across the City fall into the one-hour service categories, although higher density corridors along Burnhamthorpe Road, Dundas Street and Erin Mills Parkway do fall into the ranges required for 30-minute service levels (17 to 19 uph, 7 to 8 upa). This is one of the challenges the City will need to address as it strives to encourage transit-supportive development.

4.3 Housing Mix in Mississauga and the GTA-Hamilton

A range of housing choices is one of the themes in growth management strategies. A good mix of housing allows communities to support households with a range of incomes and at different points of the housing needs life cycle.

Communities with a limited mix of housing and dominance of single family dwellings are associated with sprawl. Figure 4.6 illustrates the mix of housing by type in selected municipalities in the GTA-Hamilton. The housing mix in the City of Mississauga provides a variety of housing choices for its residents. Mississauga has the largest supply of housing outside of the City of Toronto. The mix of housing is one of the most diverse in the GTA.

The largest proportion of housing is in the form of single detached dwellings in every municipality except Toronto. This is not surprising given the demand for ground-related housing units over the last several decades. Current alternative ground-related units including semi-detached units and townhouses in Mississauga account for one-quarter of the housing mix.

Mississauga is second only to the City of Toronto in terms its proportion of apartments and has more apartment units than Brampton, Oshawa, Burlington and Oakville combined. Hamilton also has a significant proportion of apartments but a smaller proportion of alternative forms of low density units and a larger proportion of single detached units.

Future development in Mississauga will have a more limited supply of ground-related housing as the supply of land for greenfield development will be exhausted in the near future. In contrast, the apartment market is anticipated to strengthen and edge closer to the average of apartment units in the GTA which is 37%.

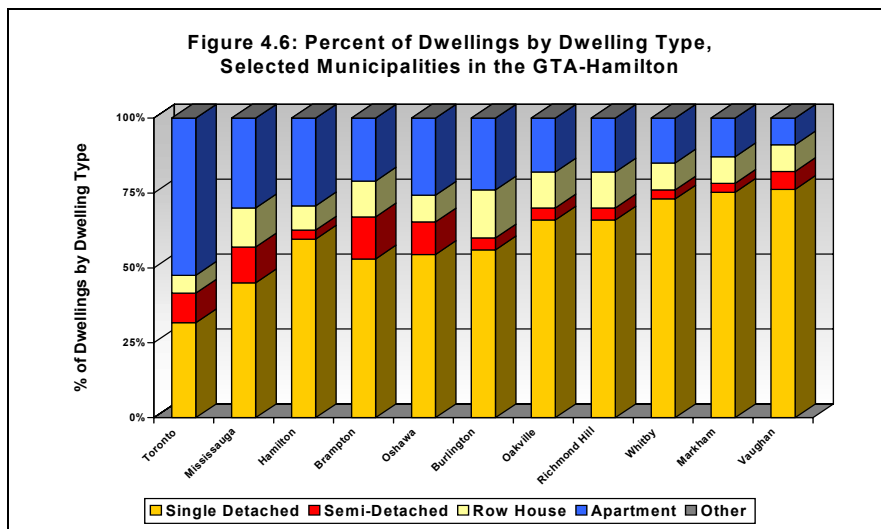
Finally, in 2001, a Labour Force Needs Study found that the mix of housing types in Mississauga assists in maintaining the City's employment base by providing opportunities for all types of workers to live near their place of work. The study found that while some employees in the City will choose to live in other municipalities, Mississauga has largely met the needs of its labour force.³⁹

4.4 Conclusion

Density remains an important benchmark to compare the efficiencies with which resources are used, however, there is lack of clarity regarding the approach with which this variable is calculated. Mississauga is ranked third behind Toronto and Hamilton in a recent review of density in the GTA-Hamilton Area. Mississauga has the largest supply of housing outside of Toronto. The mix of housing in Mississauga is one of the most diverse in the GTA-Hamilton, second only to Toronto in terms of diversity and its proportion of apartments.

This study's review of density found that 13% of the community densities in traffic zones in the City have densities over 20 uph (8 upa). The remaining high density sites are important to continue to see Mississauga's overall density figures increase as there is limited vacant land remaining.

Overall densities in Mississauga are comparable with or higher than densities in other municipalities where growth occurred at the same time. Despite this fact, the density levels in Mississauga do not support high public transit service levels. This issue affects not only the City of Mississauga but many communities throughout the Greater Toronto Area and Hamilton.



5.0 Community Profiles

One of the principal objectives of this report is to examine residential development trends. As part of the discussion of density, this section refers to the major development trends including post war housing patterns, real estate cycles, government legislation and funding programs that have had an influence on the development of the urbanized area.

In order to capture the variations and changes in density over time, as well as the effect of non-residential land uses on densities, profiles of twenty eight communities in the City have been prepared (Appendix C). Mississauga was incorporated in 1974 although there are a number of distinct communities within the present day boundaries of the City that have their roots well into the last century. These profiles include both historic and contemporary communities to illustrate the breadth of housing patterns, densities and land use across Mississauga. Figures 5.1 and 5.2 illustrate the location of these communities. Tables 5.1 and 5.2 at the end of this section summarize the densities and land use.

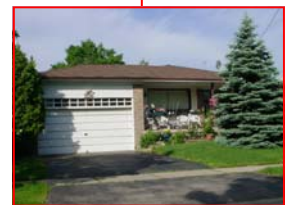
5.1 Post World War II Development

Toronto Township, Port Credit and Streetsville⁴⁰ were not immune to the expansion that followed World War II. New industry, office complexes and commercial opportunities were attracting a greater resident base. This combined with the households for whom the movement to these communities had become a lifestyle choice. Over the last fifty years, the population of the area which would become the City of Mississauga has increased over eighteen times from 33,310 in 1951 to 612,925 in 2001.

5.2 1950s and 1960s: Prosperity in the Decades Following World War II

Fuelled by pent-up demand from the depression and World War II, the expanding middle class and, the population surge⁴¹ demographic and economic expansion translated into urban growth and particularly growth of suburban municipalities in the 1950s and 1960s. Public sector federal and provincial subsidies from home insurance, to infrastructure development and municipal taxation inequities, contributed to placing home ownership within the grasp of a larger number of households and directing growth out of existing cities.

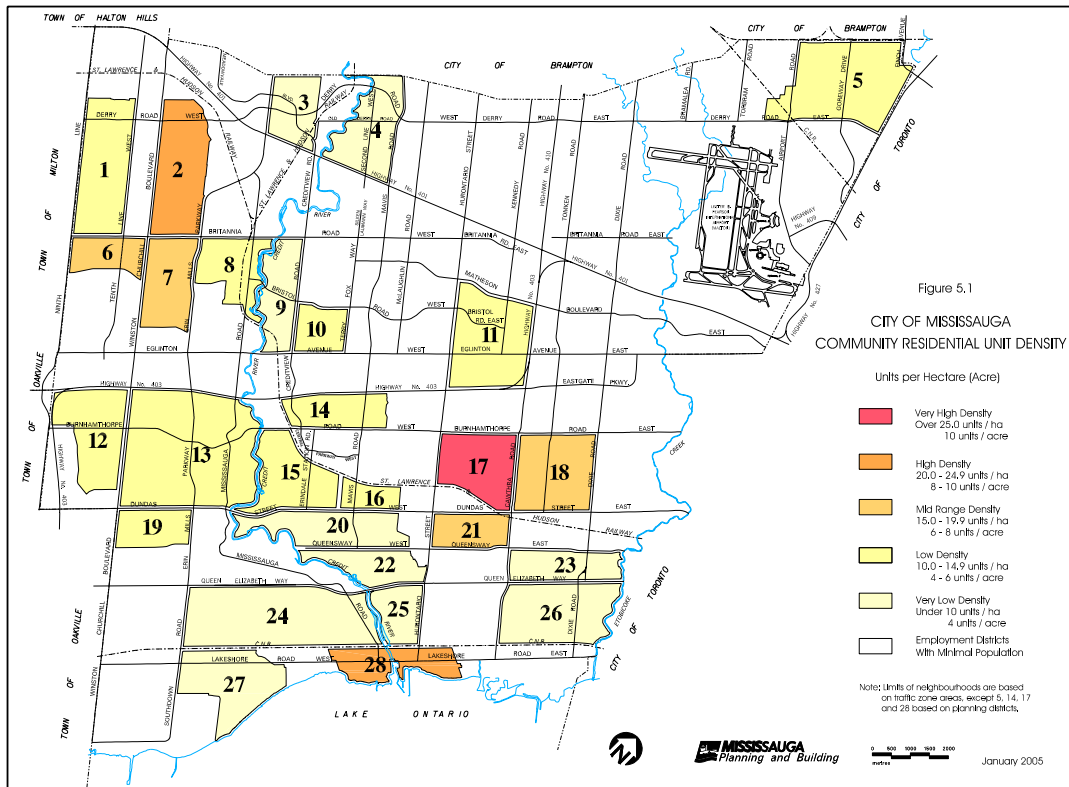
The urban form was also changing. Increasing personal mobility, affluence and residential space per capita contributed to residential units on generous lots. Communities were organized based on the assumption of universal car ownership within an expanding road network. Distances also increased between residences and other land uses such as places of employment and commercial centres.⁴²



Building began to take on a form that would come to characterize growth in the next half century. Lands were no longer developed in small, piecemeal increments but rather in the form of planned residential subdivisions. The 'new town' concept gained prominence and communities were planned to provide employment, homes, schools and recreational facilities.

The economic and demographic trends in the province reverberated in Mississauga. There were a number of communities developed during this time that illustrate the expansion in Mississauga in these two decades:

- Applewood Acres in Lakeview;
- Central Clarkson Lorne Park;
- Munden Park and Gordon Woods in Cooksville;
- Erindale Woodlands;
- Central Lakeview;
- West Mineola;
- Malton;
- Port Credit;
- Sheridan Homelands; and,
- South Streetsville.



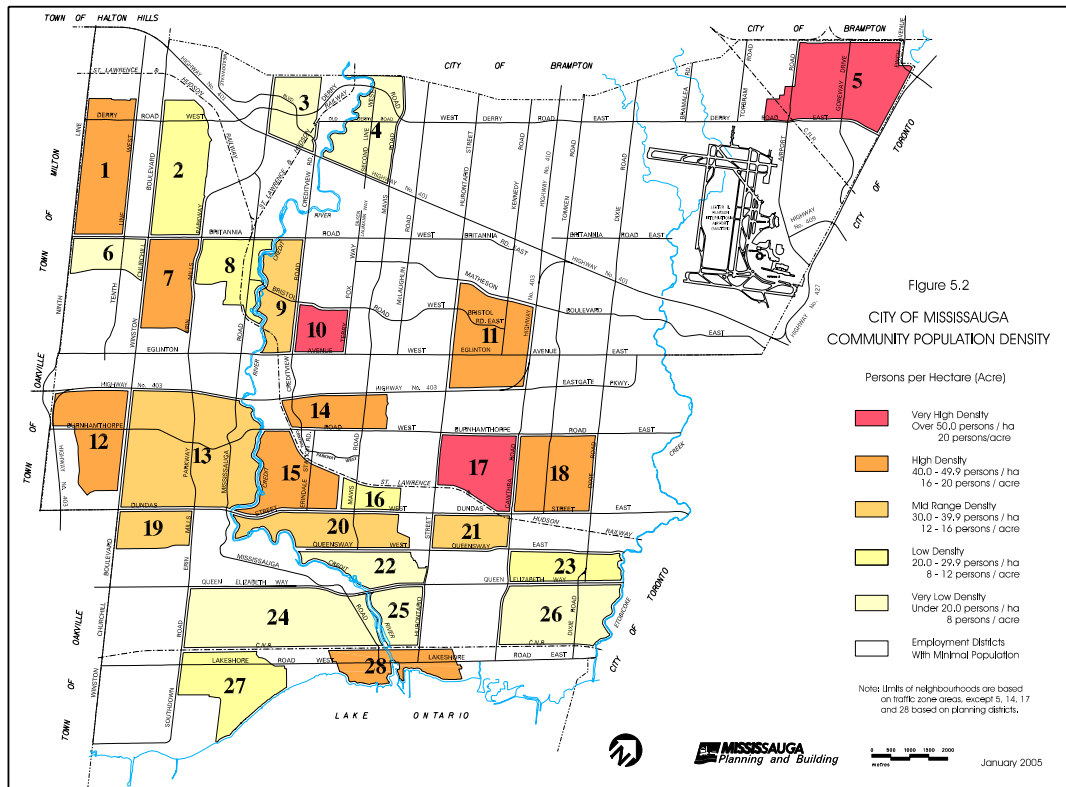
Note: Numbers in figure refer to community profiles in Appendix C. Table 5.1 and 5.2 summarize densities and land use and provide the community names.

The densities in the communities developed in the 1950s and 1960s are a reflection of the increasing affluence. The majority of the densities in the communities that developed during the 1950s are below 15 uph (6 upa). Many are established residential neighbourhoods, such as West Mineola and Central Clarkson-Lorne Park and have homes on large lots typical of the time.

In West Mineola, for example, average lot sizes for single detached units are 1,533 m² (16, 498 sq.ft.) as compared with 361m² (3,881 sq.ft.) in North Churchill Meadows. (Table 5.1 has average lot sizes for profiled communities.)

Port Credit is the exception. It has densities in the high range. This is likely due to the fact that it is a historic community that has been developed and re-developed over a longer period of time.

Applewood Acres was among Mississauga's first subdivisions. It is an early master planned community with a mix of land uses, characteristic of the 'new town' concept that gained prominence. The mix of land uses is not as diverse as some of the later master planned communities such as Erin Mills.



Note: Numbers in figure refer to community profiles in Appendix C. Table 5.1 and 5.2 summarize densities and land use and provide the community names.

During the 1960s, the majority of the densities are from 10 uph (4 upa) to 18 uph (8 upa). The exception is the established community of Gordon Woods which has a density of 3.2 uph (1.3 upa) and the lowest residential density of all the communities profiled. Typical residential densities can be found in Sheridan Homelands (13.3 uph, 5.4 upa) and Malton (14.6 uph, 5.9 upa).

5.3 1970s and 1980s: Change and Economic Adjustment

As the 1970s approached issues relating to rapid urbanization were unfolding and provincial authorities developed the *Toronto-Centred Region Plan* to facilitate balanced development for the province.

Land prices were escalating rapidly that an increasing number of people were facing great difficulty in financing a home of their own; or alternatively were having to live long distances away from their place of work and commute for several hours a day. Congestion, pollution and noise were increasing at an alarming rate, accompanied by a deterioration in certain neighbourhoods and a loss of the highly valued sense of community identity.⁴³

Public sector interventions included: the establishment of regional and municipal governments to manage growth; the purchase of parkland; the establishment of GO Transit in 1967; and the construction of roads and subsidization of highways.⁴⁴ The transportation expansions facilitated greater access to outlying communities although urban development was concentrated around Metropolitan Toronto. The structure of the region was strongly oriented towards the Lake Ontario shoreline. The province was looking to decentralize growth and develop strong regional centres. Forecasts estimated that population of the Toronto Centred Region would increase to approximately 8 million by 2000 from a population of 3.6 million in 1966.⁴⁵

Overall development patterns were exhibiting aspects of unstructured sprawl as agricultural land was removed by speculative land holdings.⁴⁶

A rapidly changing way of life marked by the trends that had prevailed since World War II including continued increases in affluence, per capita space requirements and mobility combined with an aging population and decreasing household size to continue the growth of low density suburbs.⁴⁷

Peel was identified as one of North America's fastest growing regions. Mississauga was developing as a strong regional and major employment centre. The Toronto-Centred Plan noted residents of the area had a wide variety of jobs and high-level services available to them and supported the development of the City of Mississauga.⁴⁸

Public perceptions may be that Mississauga's expansion was haphazard and thoughtlessly consumed agricultural land. What is not well known is that the area was planned to become a fully urban municipality thirty years ago after Mississauga's incorporation as a City. This decision was endorsed by the Province and supported by the Ontario Municipal Board.

By the mid-1980s, population growth was highest in the central communities. Erin Mills and Meadowvale had also developed and were acclaimed as master planned communities that included businesses, recreation and a variety of housing forms. The communities that developed during this time are:

- Creditview;
- Rattray Marsh - towards the southern part of Clarkson-Lorne Park in the 1970s;
- Bristol in East Credit developed in the 1980s;
- Huron Park in Erindale;
- Erin Mills (East) in the 1970s and Erin Mills West in the mid-1980s;
- North Lisgar including the Trelawney development which featured six detached dwellings on oblique angled lots fronting onto a 10 m (33 ft) cul-de-sac off a conventional road;
- East Meadowvale in Meadowvale began in 1960s as part of an ambitious plan for the northwest part of Mississauga. It was one of "two contiguous planned communities (along with Erin Mills) that would each form a community within a community"; and,
- Mississauga Valleys - beginning in the 1960s and completed in the 1970s, 290 hectares (acres) were planned as detached, semi-detached, townhomes, apartment dwellings and commercial development.

The highest density in the community profiles is found in Mississauga Valleys, (27.0 uph, 10.9 upa) a community developed along a major east-west corridor of the City. It was influenced by both its location and the concern for alternative, reasonably-priced housing.

East Meadowvale, also developed during this time, has the third highest density (20.0 uph, 8.1 upa) among the communities profiled. The variety of housing in this master planned community contributes to the existing density in the area.

Some of the communities with lower densities in this period are the result of the incorporation of the mix of uses such as the University of Toronto in Erin Mills East (10.3 uph, 4.2 upa).

The environmental protection movement also resulted in less land for development. This grew in strength in the 1970s and is evident in the density of the Rattray Marsh community (8.4 uph, 3.4 upa). The density in Huron Park (9.6 uph, 3.9 upa) reflected the demand for ground-related units that would increase over the next decade.

Densities of communities that developed during the 1980s are between 8 uph (3 upa) and 12 uph (5 upa). Demand for housing was dominated by the baby-boom generation which was well into its household formation years during this time.

Characteristics of these housing consumers include continued affluence, mobility and demand for space. These are reflected in the housing types and lower densities of these neighbourhoods.

5.4 1990s to Present

The prolonged recession in the early 1990s, as well as, the economies and inefficiencies in the post-war suburban structure, brought about changes in residential development in both densities and design.

The recession had a strong impact on the real estate market. The growth period and speculative investment in real estate from the middle of the 1980s onward drove up real estate prices. Cost of housing became an issue. Consumers were demanding more affordable housing. Through the Provincial Policy Statement, the Provincial government required that at least 25% of housing in subdivisions needed to be affordable. Reducing lot sizes was one method which attempted to increase affordability and the efficiency of servicing.

These issues combined with an emerging interest in the design of neo-traditional communities that were comparable to many pre-war, inner city neighbourhoods.⁴⁹ This pattern was also referred to as “new urbanism”. In the later half of the 1990s, the movement against sprawling residential development had taken hold and the newer communities of Churchill Meadows and Meadowvale Village, exhibit some of the characteristics of the neo-traditional planning principles that became prominent at this time. These include smaller lots and or set backs, homes closer to the street, garages at the rear or flush with the homes and grid road patterns.

In addition, the aging of the building stock in the urban region, changes in markets and in the manufacturing process or business decisions resulted in the under-utilization or abandonment of properties. Many of these properties are well located in urban areas. As a result, the disposition of brownfield sites began to emerge as an issue. This has become particularly relevant in communities with limited greenfield development potential. Brownfields represent redevelopment opportunities which better utilize land and infrastructure resources.

As well, concerns regarding growth management and better utilization of existing resources have resulted in an interest in infill development. Opportunities for intensification through infill are greater in areas not dominated by subdivision development. The division of land in subdivisions leaves few remnant or irregular parcels to intensify and large scale land assembly is difficult to achieve.

The 1990s and 2000s will be the last period of greenfield development in Mississauga. The following communities are underway or recently completed:

- North Central Erin Mills;
- North Churchill Meadows - one of two remaining greenfield sites;
- Cooksville Quarry;
- East Credit South - development completed during the 1990s;
- Highland Golf Community in Hurontario developed in the late 1980s, 1990s;
- South Lisgar; and,
- Levi Creek and Central Meadowvale Village in Meadowvale Village.

During the 1990s and into the 2000s, the lowest typical density is 14.4 uph (5.8 upa).⁵⁰ Densities lower than this range are the result of environmental protection issues in communities such as Levi Creek and Central Meadowvale Village and the re-use of brownfield land in Cooksville Quarry and the Highland Golf Community, both incorporate recreational uses on former fly ash pits.

North Churchill Meadows reflects “new-urbanism” design and has a residential unit density of 18.5 uph (7.5 upa). Densities are also higher in other communities such as North Central Erin Mills, reflecting concerns regarding the efficient use of resources and development patterns.

There are few remaining sites for greenfield development in Mississauga. As a result, infill and brownfield development is emerging in communities with little vacant land remaining. Port Credit has both brownfield and infill development.

5.5 Net Plus Roads Density

The density figures discussed in the preceding pages are influenced by the mix of land uses. Areas with a large proportion of non-residential land uses will result in lower density values. Cooksville Quarry is an example. The community density variable of 10.3 uph (4.2 upa), is, in large part due to the high proportion of commercial, school and open space land use. The net density plus roads figure is a more accurate reflection of the densities achieved by the residential unit mix in this area. The net plus roads density of 19.7 uph (8.0 upa) would place this community in the moderate density range.

Figures 5.3 and 5.4 rank profiled communities based on net plus roads density illustrate the effect of the residential unit mix and road area on density. Mississauga Valleys and Port Credit are the communities with the highest ranks. Many communities built in the 1990s and later such as North Churchill Meadows and Highland Golf Communities, figure among the top rankings. Erindale Woodlands, which has a large component of open space is also ranked relatively high. The opposite is true in Levi Creek. The large road area places this community lower in the ranks.

Net plus roads population density illustrates the influence of household size on densities (Figure 5.5). Communities in this figure are sorted from highest to lower. The ranking order has some similarity to the residential unit densities, but larger household sizes in Malton and East Credit South cause these communities to be second and third highest.

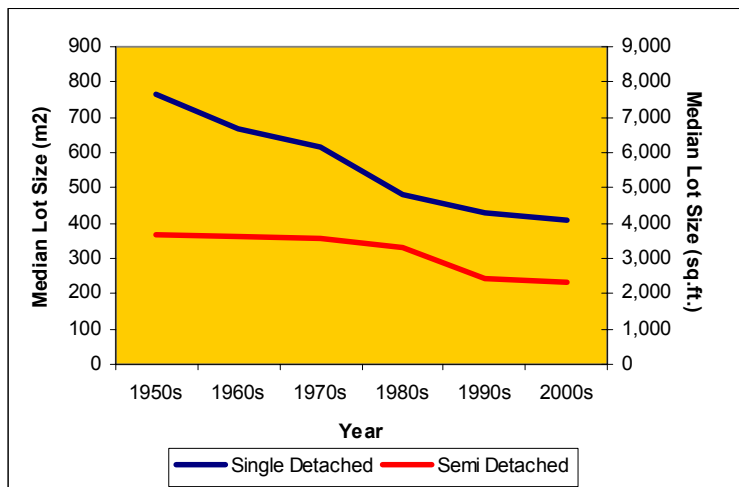


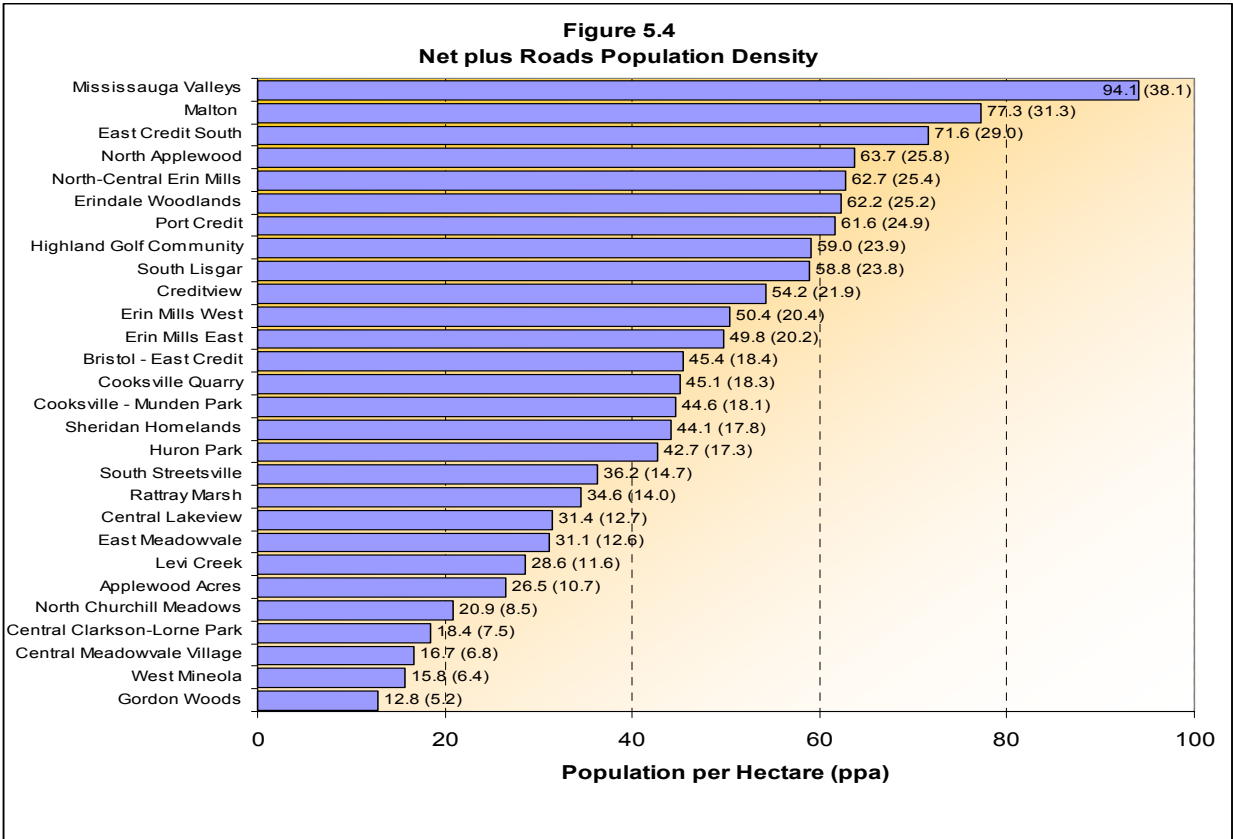
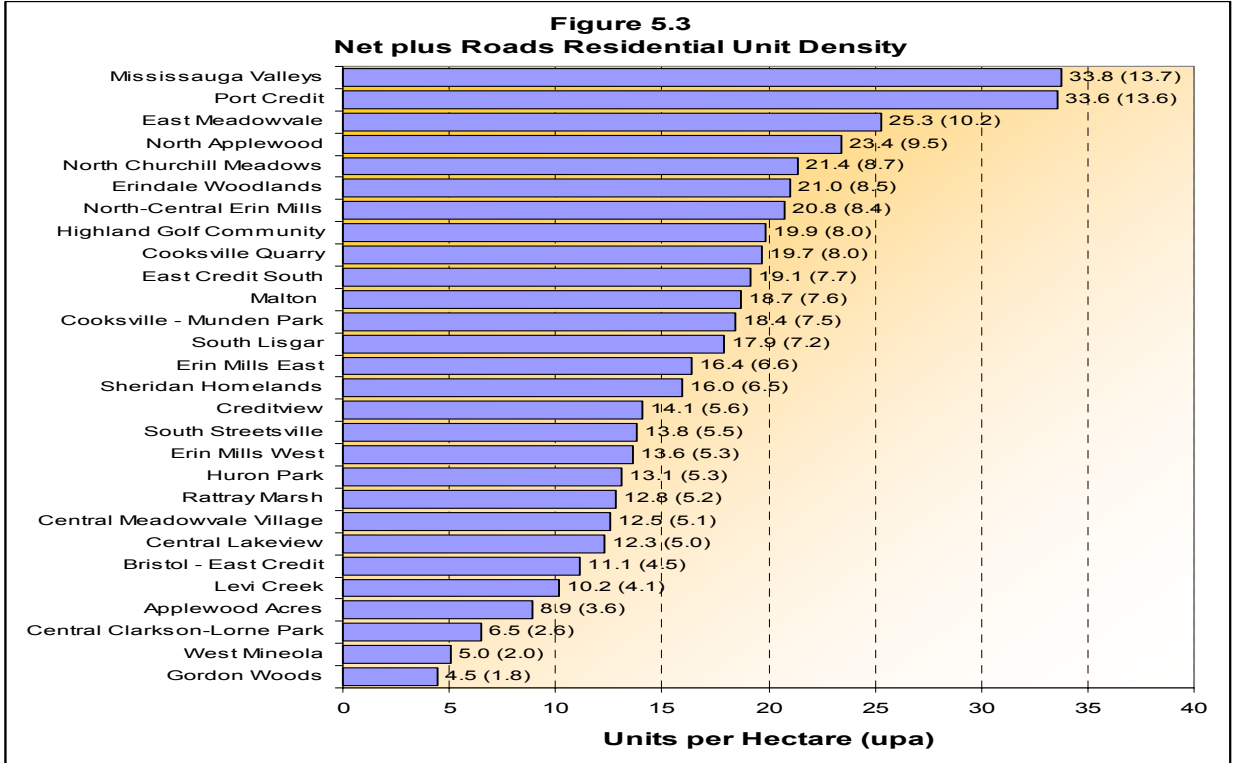
Figure 5.5: Median Lot Size

5.6 Median Lot Sizes

The overall median lot size in the City of Mississauga is 565 m² (6,082 sq.ft.) for single detached units and 351 m² (3,778 sq.ft.) for semi-detached units. Lot sizes in the City have decreased over time.

Figure 5.5 illustrates the median lot size by decade in Mississauga. From a median size of 766 m² (8,245 sq.ft.) for single detached lots in the 1950s, median single detached lot sizes have decreased nearly 50% to 408m² (4,392 sq.ft.) since 2000.

Semi detached have a similar trend and range from a median size of 365m² (3,929 sq.ft.) in the 1950s to 235 m² (2,350 sq.ft.) from 2000. Table 5.1a compares typical lot areas with associated lot dimensions.



5.7 Conclusion

The past five decades have seen a great deal of change in the densities and objectives in relation to the development of the communities within Mississauga. The lower range of densities in communities has increased over time, particularly in relation to typical communities with no significant land use issues. As well, the median lot size has decreased over time. The numerous variables included with this study are intended to serve as benchmarks in the current discussion of growth management. This review of density illustrates the influence of land use and housing mix on density.

Land use has varied considerably. It is dependent on site issues, the existence of natural features and the context of non-residential opportunities such as the development of regional commercial or employment facilities. The incorporation of a range of other land uses to serve the needs of residents and the presence of regional facilities has been reviewed for this study. The variety of land uses and number of unique communities in the City contradicts the homogeneous image often associated with Mississauga.

The mix of units is one of the most important factors in the densities achieved. The residential mix of units has in large part been influenced by consumer preferences for ground-related units. While Mississauga's housing stock offers a range of ground-related housing options, in one-third of the communities profiled there are no high density units.

Table 5.3 illustrates the effect of unit mix on densities for four hypothetical scenarios. Scenario A is 100% single detached units and achieves a gross density in the low range. The townhomes in Scenario B increases the gross density to the mid-range. Scenario C with some apartment units results in a somewhat high gross density. Scenario D achieves the highest gross density, is comparable to many pre-war inner city densities, and begins to approach densities that support efficient transit service. Given the influence of a small proportion of land devoted to apartment units on overall densities, the remaining higher density sites will be critical to increasing density levels.

When reflecting on Mississauga's development history, Mayor McCallion stated, "Mississauga started out as urban sprawl. There's no question about it. I've never denied it. But it wasn't only the City of Mississauga...Toronto had it too. It was the way things were done."⁵¹ The challenge for the future will be to make effective use of remaining vacant lands and opportunities for infill development and redevelopment.

**Table 5.1:
Community Density and Average Lot Size for Profiled Communities**

Map #	Community	Density				Average Lot Size			
		Units per		Persons per		Single Detached		Semi Detached	
		Hectare	Acre	Hectare	Acre	m ²	Sq. ft	m ²	Sq. ft.
1	South Lisgar	14.4	5.8	47.3	19.1	439	4,724	249	2,682
2	East Meadowvale	20.0	8.1	24.6	10.0	622	6,692	425	4,577
3	Levi Creek	6.6	2.7	18.5	7.5	477	5,129	289	3,107
4	Central Meadowvale Village	8.3	3.3	11.0	4.5	633	6,812	258	2,775
5	Malton	14.6	5.9	60.2	24.4	579	6,232	387	4,170
6	North Churchill Meadows	18.5	7.5	18.1	7.3	361	3,881	244	2,628
7	North-Central Erin Mills	16.5	6.7	49.7	20.1	469	5,054	286	3,076
8	South Streetsville	10.0	4.0	26.2	10.6	803	8,647	363	3,905
9	Bristol-East Credit	7.9	3.2	32.3	13.1	641	6,904	1,124	12,098
10	East Credit South	14.5	5.9	54.4	22.0	457	4,923	278	2,991
11	Highland Golf Community	13.9	5.6	41.1	16.6	424	4,566	244	2,630
12	Erin Mills West	11.9	4.8	44.1	17.9	505	5,436	-	-
13	Erin Mills East	10.3	4.2	31.3	12.7	675	7,266	387	4,167
14	Creditview	12.1	4.9	46.6	18.9	419	4,510	306	3,290
15	Erindale Woodlands	14.7	6.0	43.6	17.6	719	7,736	394	4,239
16	Cooksville Quarry	10.3	4.2	23.7	9.6	318	3,419	294	3,159
17	Mississauga Valleys	27.0	10.9	75.3	30.5	657	7,072	402	4,332
18	North Applewood	17.9	7.2	48.5	19.6	694	7,469	388	4,178
19	Sheridan Homelands	13.3	5.4	36.7	14.8	680	7,317	392	4,224
20	Huron Park	9.6	3.9	31.3	12.7	802	8,634	364	3,914
21	Cooksville - Munden Park	15.1	6.1	36.5	14.8	890	9,585	-	-
22	Gordon Woods	3.2	1.3	9.1	3.7	1,841	19,811	-	-
23	Applewood Acres	7.1	2.9	21.0	8.5	749	8,057	373	4,014
24	Central Clarkson- Lorne Park	5.5	2.2	15.7	6.4	1,218	13,110	-	-
25	West Mineola	4.4	1.8	13.9	5.6	1,533	16,498	-	-
26	Central Lakeview	6.3	2.6	16.1	6.5	758	8,155	417	4,483
27	Ratray Marsh	8.4	3.4	22.6	9.2	1,194	12,848	375	4,034
28	Port Credit	23.4	9.5	42.9	17.4	692	7,446	319	3,434
	City of Mississauga*	12.7	5.3	36.3	15.0	650	6,997	336	3,616

* Note: The City of Mississauga figures are based on a combined review of residential planning districts and residential traffic zones as in Table 4.2.

Table 5.1a: Standard Lot Sizes

Lot Area (m ²)	Lot Dimensions (metres)	Lot Area (sq.ft.)	Lot Dimensions (feet)
327 m ²	9.75 x 33.53 m	3520 sq.ft.	32 x 110 ft
429 m ²	12.8 x 33.53 m	4,620 sq.ft.	42 x 110 ft
1,115 m ²	18.29 x 60.96 m	12,000 sq.ft.	60 x 200 ft

**Table 5.2:
Community Uses for Profiled Communities**

Map #	Community	Residential	Road	Commercial & Office	School & Institutional	Open Space	Community Uses & Place of Religious Assembly
1	South Lisgar	55%	26%	1%	5%	13%	0%
2	East Meadowvale	56%	23%	3%	5%	12%	1%
3	Levi Creek	27%	38%	12%	5%	18%	0%
4	Central Meadowvale Village	41%	26%	0%	3%	30%	0%
5	Malton	55%	23%	5%	7%	9%	1%
6	North Churchill Meadows	54%	33%	3%	2%	8%	0%
7	North-Central Erin Mills	58%	22%	1%	6%	12%	1%
8	South Streetsville	49%	24%	5%	7%	13%	2%
9	Bristol-East Credit	51%	20%	2%	4%	18%	5%
10	East Credit South	54%	22%	2%	7%	13%	2%
11	Highland Golf Community	40%	31%	4%	3%	20%	2%
12	Erin Mills West	52%	35%	1%	3%	8%	1%
13	Erin Mills East	41%	22%	6%	12%	17%	2%
14	Creditview	48%	38%	2%	3%	9%	0%
15	Erindale Woodlands	50%	19%	3%	6%	21%	1%
16	Cooksville Quarry	28%	24%	18%	10%	20%	0%
17	Mississauga Valleys	57%	23%	2%	4%	12%	2%
18	North Applewood	55%	21%	5%	6%	11%	2%
19	Sheridan Homelands	60%	24%	3%	5%	7%	1%
20	Huron Park	51%	22%	1%	4%	20%	2%
21	Cooksville - Munden Park	53%	28%	9%	3%	6%	1%
22	Gordon Woods	55%	16%	1%	0%	27%	1%
23	Applewood Acres	52%	28%	3%	3%	14%	0%
24	Central Clarkson- Lorne Park	63%	22%	1%	4%	9%	1%
25	West Mineola	67%	21%	2%	2%	8%	0%
26	Central Lakeview	35%	17%	4%	5%	37%	2%
27	Ratray Marsh	47%	18%	3%	2%	29%	1%
28	Port Credit	44%	26%	11%	4%	13%	2%
	City of Mississauga*	29%	19%	6%	9%	10%	1%

*Note: The City of Mississauga figures are based on total land area for City of Mississauga. Percentages may not add due to rounding.

Table 5.3: Hypothetical Housing Mix Scenarios					
	Assumptions	Scenario A	Scenario B	Scenario C	Scenario D
Gross Land	100 ha (247 ac)				
Non Residential Land	45 ha (111 ac)				
Net Land	55 ha (136 ac)				
Unit Mix by %					
Singles/Semis		100%	60%	60%	50%
Towns		0	40%	30%	30%
Apartments		0	0	10%	20%
Unit Type – Land Area					
Singles/Semis		55 ha (136 ac)	33 ha (82 ac)	33 ha (82ac)	28 ha (68 ac)
Townhouses		0	22 ha (54 ac)	17 ha (41ac)	17 ha (41 ac)
Apartments		0	0	6 ha (14 ac)	11 ha (27 ac)
Number and % of Units					
Singles/Semis	25 uph (10 upa)	1,375 (100%)	825 (43%)	825 (38%)	688 (26%)
Townhouses	50 uph (20 upa)	0	1,100 (57%)	825 (38%)	825 (32%)
Apartments	100 uph (40 upa)	0	0	550 (25%)	1,100 (42%)
Total Units		1,375	1,925	2,200	2,613
Net Density		25 uph (10 upa)	35 uph (14 upa)	40 uph (16 upa)	48 uph (19 upa)
Gross Density		14 uph (6 upa)	19 uph (8 upa)	22 uph (9 upa)	26 uph (11upa)

Note: Numbers may not add due to rounding.

6.0 Node Profiles

The development of the City of Mississauga is based on a structure characterized by residential communities, employment districts, major open space corridors and the lands associated with Pearson Airport. That structure includes City Centre and nodes which are to accommodate a greater variety and concentration of uses than the surrounding areas. These act as a focus for more compact, mixed use and higher intensity transit-supportive development.⁵²

Establishing nodes or centres of activity is a major theme in planning literature and growth management strategies. The mixed use nature of these areas is intended to allow people to live, work, be entertained and enjoy access to services without excessive commuting times. They are often the most dynamic and vibrant areas of a community. The intensity of land use and accessibility promotes transit and the efficient use of infrastructure resources.

Land use, densities and function of the nodes are examined in this section in relation to official plan and efficient growth management objectives. Figure 6.1 illustrates the residential nodes in the City of Mississauga; Tables 6.1 and 6.2 summarize the node densities and land use; and, Appendix D contains profiles of these nodes. A review of the employment nodes is not included in this report.

6.1 Node Land Use

Node land use is a mix of residential and non-residential uses including commercial, office, school, institutional and open space. The highest proportion of residential land is in the Hurontario Node (51%). This node also has the highest residential unit density with 63.7 uph (25.8 upa) and population density of 158.5 pph (64.1 ppa). Residential land, as expected, is present in each of the nodes and, on average, consists of approximately one-quarter of the land use in primarily high and medium density apartment and townhouse forms.

All of the nodes have commercial facilities that serve the local community and some of these facilities such as Square One Shopping Centre or Erin Mills Town Centre have a regional draw. Commercial land use as a function of total land area is highest in the Sheridan Node. Although commercial land uses are central to the functioning of the node, particularly in relation to providing services to the local community, many of these centres are large consumers of land.

Community facilities such as libraries and community centres are also found in some of the nodes including Erin Mills and Malton. Meadowvale has the highest proportion of community uses and places of religious assembly.



Employment opportunities are found in all of the nodes either through commercial, institutional, office, school or community facilities. City Centre has the highest proportion of office uses, a result of the 65 office buildings, in both highrise and townhouse form, in this district. Schools and institutional uses are highest in the Central Erin Mills Node because of the Credit Valley Hospital and spin-off medical offices and services which serve a large catchment area. The residential unit density is the lowest in this node with 15.0 uph (6.1 upa) and 35.1 pph (14.2 ppa).

Open space tends to figure less prominently in nodes. The largest of proportion of open space is in Malton. This is the result of the Mimico Creek and valley lands in the area.

The nodes reflect their planning and development. Despite the mix of uses, in many of the nodes there are also large distances between buildings, some of this is used to satisfy the demand for parking and some reflects current development standards. Many of the nodes are focused around regional centres, which are large consumers of land. This situation can act as a deterrent to a pedestrian environment. In nodes such as Port Credit and Streetsville, the pedestrian orientation of the node is linked to its historic development pattern.

Selected nodes are in the process of intensification through de-malling, which involves dismantling indoor space and developing box type stores on the site. Others are developing some of the parking facilities. Meadowvale Town Centre and South Common mall are examples of where de-malling has taken place. In City Centre, some of the Square One surface parking has been converted to structured parking to allow for expansion of the retail building area. These represent some of the opportunities applicable to many nodes.

6.2 Node Densities

Densities in the nodes are higher than those found in the community profiles reflecting the intensity of uses and activities in these areas. This is also in accordance with the official plan objectives. With the exception of Central Erin Mills and Streetsville, all residential unit densities in the nodes are above 25 uph (10 upa), the highest, as mentioned is the Hurontario Node. The net densities achieved in the nodes correspond with the High Density ranges in the City of Mississauga official plan.

6.2.1 Employment Density

Employment densities in nodes range from 105.1 eph (42.5 epa) in City Centre to 12.2 eph (5.0 epa) in Erin Mills. In many of the nodes, the population to employment ratio is as high as three-to-four residents to one employment position. Hurontario, Sheridan and Streetsville have population-to-employment ratios that are more balanced. They are below the two-to-one ratio, that is, two residents to one employment position and have high employment densities.

6.2.2 Density Targets

Mississauga City Centre has been identified as a Priority Urban Centre in the *Places to Grow – A Growth Plan for the Greater Golden Horseshoe* discussion paper. This paper establishes targets of 60 eph (24 epa) and 60 pph (24 ppa) in Priority Urban Centres. City Centre has a node employment density of 105.1 eph (42.5 epa).⁵³ According to 2003 forecast data, City Centre has a population density of 46.6 pph (18.8 ppa). However, based on current activity and development applications, City Centre will achieve a gross potential population density of 144.4 pph (58.4 ppa).⁵⁴ In addition, City Centre has significant development capacity which would further increase densities. Therefore, the City Centre now exceeds the target for employment density and will be able to meet and eventually greatly exceed the proposed population density targets.

The City of Portland is often presented as the model to emulate because of their adoption of smart growth objectives. Their density targets which are expressed in units rather than population are quite aggressive with minimum residential densities of 36 uph (15 upa) within one-quarter mile of main streets, town centres and transit centres and 62 uph (25 upa) within one-half mile of light rail stations and regional centres. There are two nodes (Cooksville and Port Credit) that meet the town centre density and one (Hurontario) that meets the density for regional centres. When the current units under construction and application are occupied, City Centre will have a gross unit density of 63.6 uph (25.7 upa) which meets the target for regional centres.⁵⁵ And, as stated above, the City Centre has significant development capacity, beyond what is currently under construction and subject to application.

6.2.3 Transit-Supportive Density

Two-thirds of the nodes meet the transit-supportive densities of 30 uph (12 upa) for rapid transit during peak times.⁵⁶ City Centre does not yet meet these guidelines, however, based on current development activity levels, the City Centre will easily achieve the needed density levels.

City Centre meets the transit-supportive density goal for Priority Urban Centres of 3,000 persons per sq. km (7,770 per sq. mile). The City Centre's 2003 forecast population was 3,632 persons per sq. km (9,407 per sq. mile).

6.3 Conclusion

While the City of Mississauga nodes and City Centre do meet some of the objectives outlined in planning policy, particularly in relation to intensity of land use, opportunities remain to improve the overall functioning of these areas. The population-to-employment ratio is weighted toward residential uses and could be brought, to a more balanced ratio. Some of the nodes have regional facilities, which are large consumers of land. In other nodes, the property fabric, distance between uses and scale of development, remain as issues. Selected nodes are in the process of intensification by de-malling and reducing surface parking. The Port Credit and Streetsville Nodes have a stronger pedestrian orientation that promotes an attractive, compact urban environment. These opportunities, if acted upon, could see the full potential of the nodes realized.

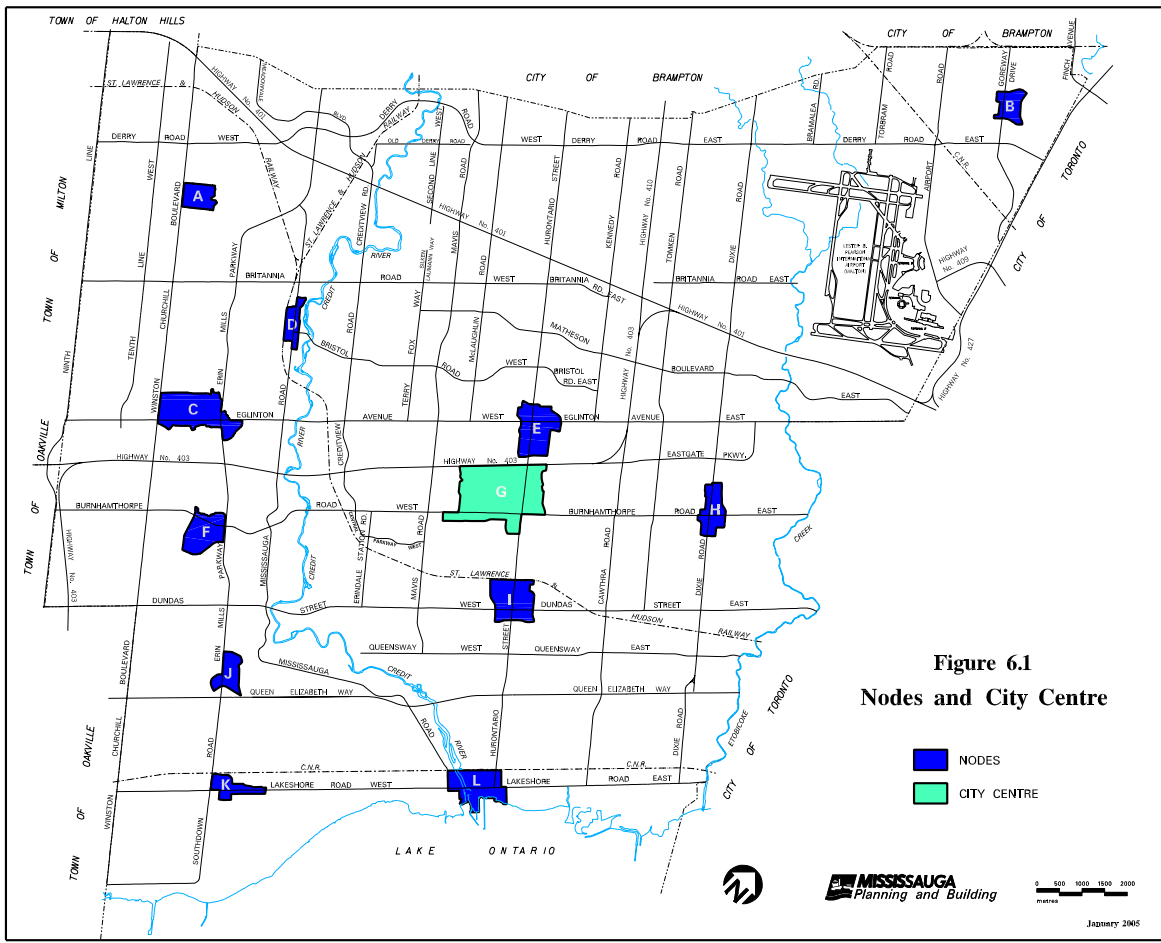


Figure 6.1
Nodes and City Centre

Table 6.1: Node Density for Profiled Nodes									
Map #	NODES	Units per		Persons per		Employment per		Population & Employment per	
		Hectare	Acre	Hectare	Acre	Hectare	Acre	Hectare	Acre
A	Meadowvale	31.6	12.8	77.8	31.5	20.5	8.3	98.3	39.8
B	Malton	26.9	10.9	65.8	26.6	17.7	7.1	83.4	33.8
C	Central Erin Mills	15.0	6.1	35.1	14.2	50.9	20.6	86.0	34.8
D	Streetsville	24.6	10.0	59.4	24.0	48.0	19.4	107.4	43.5
E	Hurontario	63.7	25.8	158.5	64.1	32.6	13.2	191.1	77.3
F	Erin Mills	29.7	12.0	77.3	31.3	12.2	5.0	89.6	36.3
G	City Centre	27.7	11.2	46.6	18.8	105.1	42.5	151.7	61.4
H	Applewood/Rathwood	31.2	12.6	76.6	31.0	18.8	7.6	95.4	38.6
I	Cooksville	56.0	22.7	127.8	51.7	49.7	20.1	177.5	71.8
J	Sheridan	35.1	14.2	83.7	33.9	56.8	23.0	140.5	56.9
K	Clarkson Village	30.2	12.2	76.5	30.9	23.3	9.4	99.8	40.4
L	Port Credit	54.4	22.0	130.3	52.7	31.3	12.7	161.6	65.4
	Node Average	31.2	12.6	78.2	31.7	51.7	20.9	130.0	52.6

Table 6.2: Node Land Use for Profiled Communities								
Map #	NODES	Residential	Road	Commercial	Office	School & Institutional	Open Space	Community Uses & Place of Religious Assembly
A	Meadowvale	34%	10%	38%	3%	0%	1%	14%
B	Malton	25%	6%	35%	2%	0%	23%	9%
C	Central Erin Mills	12%	16%	46%	0%	23%	1%	2%
D	Streetsville	21%	20%	42%	4%	5%	2%	6%
E	Hurontario	51%	22%	19%	8%	0%	0%	0%
F	Erin Mills	38%	6%	16%	1%	11%	17%	11%
G	City Centre	6%	38%	31%	19%	0%	3%	3%
H	Applewood/Rathwood	30%	20%	27%	3%	4%	8%	8%
I	Cooksville	29%	18%	19%	10%	16%	8%	0%
J	Sheridan	33%	11%	55%	1%	0%	0%	0%
K	Clarkson Village	35%	23%	31%	2%	0%	4%	5%
L	Port Credit	30%	21%	15%	3%	5%	22%	4%
	Node Average	24%	21%	30%	7%	6%	7%	4%

Note: Percentages may not add due to rounding.

7.0 Conclusion

Mississauga has often been criticized for the residential densities and the development within its boundaries. It has acquired an image of being a sprawling suburban environment. The reality is quite different. By reviewing growth management discussions, taking a critical look at densities and examining the context of issues and trends over the last few decades, this study evaluates the City of Mississauga's development pattern.

7.1 Density and Historical Development

Where does Mississauga stand? Mississauga has the third highest density in the GTA-Hamilton region and is second in terms of the number and diversity of its housing units. Its densities, which are lower than densities in Toronto and Hamilton, are a reflection of the standards of the time. The older dense communities such as the former City of Toronto or lower Hamilton would not be permitted to be built the same way today because of creek preservation, storm-water management and park, road and school standards.⁵⁷ In addition, Mississauga reflects the historical context within which development took place. "Cities, throughout history, have been shaped by the state-of-the-art transportation device of the time."⁵⁸ Mississauga was developed during the automobile age, and, in large part, the landscape of the City reflects this.

7.2 Land Use and Character

The variety of land uses and number of unique communities contradicts the homogeneous image often associated with Mississauga. Over the last fifty years, communities have been developed with a variety of uses. Some of these uses are small library and community centres to serve the local community. Others such as the University of Toronto at Mississauga and Credit Valley Hospital serve the larger regional context. The diversity of land use and facilities is reflected in the character of the communities.

The profiles and review of development trends illustrate the influences on the communities within the City. There are some communities dominated by single detached units that typify the type of landscape smart growth advocates criticize. However, Mississauga also has some densely developed communities, historic mainstreets, prestigious upscale neighbourhoods and areas with neo-traditional designs. The City's nodes are focal points of residential and employment activity that will continue to evolve as Mississauga matures.



7.3 Growth Management

Among the objectives of growth management are direction of growth in the existing urban envelope and the protection of environmentally sensitive and agricultural lands. In the mid-1970s, the Toronto Centred Region's population was anticipated to increase two-and-a-half times and Provincial directives were looking at decentralizing growth and developing strong regional centres. Mississauga was identified as a strong regional centre. Over the past twenty years, the City of Mississauga has accommodated approximately 18% of the population growth in the GTA.⁵⁹

Often, the perception about growth in Mississauga is that agricultural lands were thoughtlessly removed. What is not commonly known, however, is that farming is being used as an interim measure. Since its inception as a City, Mississauga was planned to be a fully urban municipality that would accommodate growth in the GTA.

7.4 Sprawl

One of the basic characteristics of sprawl is where the proportion of land developed outpaces the proportion of population growth.⁶⁰ Between 1990 and 2003, the population growth in Mississauga (45%) exceeded the total residential land area developed (24%).

	Residential Land Developed ⁶¹		Population*
	Hectares	Acres	
1990	6,564	16,221	445,500
2003	8,160	20,163	645,800
Difference	1,595	3,942	200,300
% Increase	24%		45%

*Note: 1990 and 2003 population estimates based on 1991 and 2001 Census. Population data do not include census undercount.

7.5 The Challenge

Mississauga is a young city. It is undergoing a shift from being a fast growing suburb to a mature urban community. Mississauga will need to do its share to accommodate growth, as it has in the past. The challenge for "the future" is to incorporate growth that retains and enhances the high quality and liveable urban environment that has been achieved. Undoubtedly, housing densities in Mississauga will increase. The challenge will be to accommodate additional housing in a manner that achieves the benefits of a more compact urban form while retaining and enhancing the characteristics of the residential communities that make them unique and desirable places in which to live.

Endnotes

1. Mississauga was incorporated as a City thirty years ago but many of the contemporary communities within its boundaries can be traced to around World War II and therefore this study looks at development over the last fifty years.
2. The Greater Golden Horseshoe includes the Regions of Niagara, Haldimand, Brant, Hamilton, Waterloo, Wellington, Halton, Dufferin, Peel, Simcoe, York, Toronto, Durham, Kawartha Lakes, Peterborough and Northumberland as defined in the Province of Ontario, Ministry of Public Infrastructure Renewal. Places to Grow – A Growth Plan for the Greater Golden Horseshoe. July 2004, p.1.
3. Ibid.
4. Greater Toronto Services Board. Draft GTA Countryside Strategy. November 2001, p.5.
5. Ontario Smart Growth. Shape the Future: Central Ontario Smart Growth Panel, Discussion Paper. February-March 2003, p.2.
6. The GTA-Hamilton includes the Regions of Peel, Halton, Durham, York and the cities of Toronto and Hamilton.
7. Blais, Pamela, M. Inching Toward Sustainability: The Evolving Urban Structure of the GTA. March 2000, p.14.
8. These conditions were much more prevalent in European cities, although industrial development also saw overcrowding and unsanitary conditions in North American cities. The reaction to these cities in the form of the way cities were designed also influenced Canadian cities.
9. Lehman & Associates. Urban Density Study: Technical Report. Prepared for the Office of the Greater Toronto Area. March 1995, p.3.
10. www.smartgrowthamerica.org/health.
11. Lehman & Associates. Urban Density Study: Technical Report. Prepared for the Office of the Greater Toronto Area. March 1995, p.3.
12. From GTA 2021 – The Challenge of Our Future as found in Shaping Growth in the G.T.A. (Revised Draft). Prepared for the Greater Toronto Coordinating Committee by Berridge Lewinberg Greenberg Ltd. July 30, 1992, pp.1-7.
13. Ontario Ministry of Municipal Affairs. *Greater Coordination and Integration of Services in GTA*. Press Release. June 25, 1998.
14. Central Ontario area included Brant, Dufferin, Durham, Haldimand, Haliburton, Kawartha Lakes, Niagara, Northumberland, Peel, Peterborough, Simcoe, Toronto, Waterloo, Wellington and York.
15. Central Ontario Smart Growth Panel. Ontario Smart Growth. Shape the Future: Central Ontario Smart Growth Panel, Final Report. April 2003, pp.2-6.
16. D.S.O'Brien. City Manager. "City of Mississauga's Response to the Province of Ontario's Initiatives for Smart Growth". June 6, 2001, p.2.
17. Ibid.

-
-
18. Ewing, R., Pendall, R. Chen, D. Measuring Sprawl and its Impact. Smart Growth America, p.3.
 19. Gross residential density is defined in the literature as the number of residential units divided by the total amount of primarily residential land - that is lands used for residential lots, streets, parks and other infrastructure and other uses included in the plan of subdivision such as commercial, industrial or other uses (Blais, 2000, p.11).
 20. Density information is found in: Blais, Pamela, M. Inching Toward Sustainability: The Evolving Urban Structure of the GTA. March 2000, p.12-13 and Gurin, D. Understanding Sprawl: A Citizen's Guide. Prepared for The David Suzuki Foundation, 2003, pp.4-5.
 21. Office for the Greater Toronto Area. Urban Density Study: Technical Report. Prepared by Lehman & Associates, IBI Group, Hill & Knowlton/Decima Research, March 1995, p.30.
 22. Priority Urban Centres are the hubs of employment and residential growth and development. They are key centres that attract industrial and commercial activity and the public and private institutions of a thriving urban region.
 23. Office for the Greater Toronto Area. Urban Density Study: Technical Report. Prepared by Lehman & Associates, IBI Group, Hill & Knowlton/Decima Research, March 1995, pp.19-20.
 24. Blais, Pamela, M. Inching Toward Sustainability: The Evolving Urban Structure of the GTA. March 2000, p.11.
 25. The densities discussed in this chapter are based on existing residential units as of the end of 2003 and population as per the 2001 Census. All land area in this study is derived from the Planning and Building Department's Integrated Development Monitoring System Land Use Core Database (2003).
 26. Net Residential Hectare means: (a) for detached, semi-detached, duplex, townhouse and other dwelling types with individual frontages, a net residential hectare includes the land for residential lots and common element roads, but excludes public and other forms of private roadways. (b) for condominium units and apartment blocks, a net residential hectare includes the land for residential units, private internal roads and parking, landscaped areas, private open space and other associated amenities.
 27. Gross densities for the City of Mississauga are a blended average of densities from the planning districts and traffic zone analysis which are densities for lands in residential districts (as discussed in Section 4.2). They do not include lands in employment districts or airport lands.
 28. The road area for any given study unit (traffic zone or planning district) is the area for the entire unit and does not isolate the area with residential fronting.
 29. All of the above comparative densities are based on plans of subdivision rather than land use on a city-wide scale and may be higher than the city-wide densities in this study.
 30. Blais, P. M. Inching Toward Sustainability: The Evolving Urban Structure of the GTA. March 2000, pp.11-12.
 31. Net density is the number of units divided by the area of residential lots only. (Blais, 2000, p.12)
 32. Blais, P. M. Inching Toward Sustainability: The Evolving Urban Structure of the GTA. March 2000, p.12.

-
-
33. Population and employment forecasts to 2021. City of Mississauga Planning and Building Department. Mississauga Growth Forecasts, Population Growth. November 2003. and Planning and Building Department. Mississauga Growth Forecasts, Employment Growth. November 2003- Revised July 2004.
 34. Urban Development Institute. Malone Given Parsons Ltd. Analysis of Land Supply in the GTA - Hamilton Area. July 2004.
 35. Canada Mortgage and Housing Corporation. Canadian Economic Observer. 2004, p.5.
 36. This process involved the inclusion of 85 out of the 128 traffic zones in Mississauga. Employment lands and lands in traffic zones where 50% of the district is not *net residential land* represents 39% of the land in the City.
 37. As there is no indication if transit density targets represents gross or net density, it is assumed that they represents gross density and are compared with the community density value in this study.
 38. Ministry of Municipal Affairs. Ministry of Transportation. Transit Supportive Land Use Planning Guidelines. 1992. Institute of Transportation Engineers and Curran, D. Leung, M. Smart Growth: A Primer. Smart Growth British Columbia, 2000.
 39. The Planning Partnership. Royal LePage Advisors. Labour Force Needs Study: Housing and Other Issues. June 2001, p.i.
 40. These would become the City of Mississauga.
 41. This was the result of both immigration and natural increase, which would become known as the baby boom.
 42. Filion P.; Bunting, T.; Gertler, L. "Cities in Transition: Changing Patterns of Urban Growth and Form in Canada. Canadian Cities in Transition. Second Edition. Don Mills: Oxford University Press, 2000, pp.6-12.
 43. Government of Ontario. Design for Development, A Status Report on The Toronto- Centred Region. August 1971, p.2
 44. MacNaughton C. (Treasure of Ontario, Minister of Economics) *Presentation of Design for Development: Toronto-Centred Region*. May 5, 1970. p.10.
 45. The GTA had a population of just over 5 million in 2001, much less than the projection. These estimates might not have foreseen the drop in fertility rates. As found in Province of Ontario. Design for Development: The Toronto-Centred Region. The Queen's Printer and Publisher. May 5, 1970, p.2.
 46. MacNaughton C. (Treasure of Ontario, Minister of Economics) *Presentation of Design for Development: Toronto-Centred Region*. May 5, 1970. p.9.
 47. Province of Ontario. Design for Development: The Toronto-Centred Region. The Queen's Printer and Publisher. May 5, 1970, p.12.
 48. Ibid. p.13.
 49. These communities contained such design features as porches to facilitate interaction on the street, garages in the side or rear of the home, some accessed through a lane, residences closer to the street and less distance between units.

-
-
50. This excludes neighbourhoods with lower densities due to larger open space as a result of environmental protection issues.
 51. Monserbraaten, L. "A Hurricane named Hazel" in Toronto Star. Thursday March 11, 2004, p.K4.
 52. City of Mississauga. Planning and Building Department. Mississauga Plan. June 2004. Section 3, p.18.
 53. Employees per hectare are based on 2003 Employment Profile information.
 54. Based on existing units, units under construction and development applications as of December 2004.
 55. Ibid.
 56. Ministry of Municipal Affairs. Ministry of Transportation. Transit Supportive Land Use Planning Guidelines. 1992. Institute of Transportation Engineers and Curran, D. Leung, M. Smart Growth: A Primer. Smart Growth British Columbia, 2000.
 57. Hemson Consulting Limited. Growth and Urban Land Need in Central Ontario. Submission to Central Ontario Smart Growth Strategy Sub-Panel. Prepared for: The Greater Toronto Home Builders' Association. February 25, 2003, p.15.
 58. Garreau, J. Edge City: Life on the New Frontier. Anchor Books, Doubekday: New York, 1992, p.106.
 59. Hemson Consulting Ltd. Growth in Maturing Community: Population Household and Employment Forecasts 2001-2031. November 2003, p.7.
 60. Ewing, R., Pendall, R. Chen, D. Measuring Sprawl and its Impact. Smart Growth America, p.3.
 61. The 1990 land area estimate used the 2003 land area, less the land area associated with development from 1991 to 2003. Land areas for townhouses and apartments were taken from the City's multiple unit inventory, where land area data were available. Land areas for detached and semi-detached houses were estimated using the number of building permits issued, times estimates for median lot size - 427 m² used for detached, and 238 m² used for semi-detached.