A PROFILE OF CANADA'S RESIDENTIAL LAND DEVELOPMENT INDUSTRY

RESEARCH REPORT

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Colour Plates – Photography by Spurr Research Associates

Introduction

This study profiles a very large subject – the industry that develops the land for Canada's new housing.

Land development is the organizing force that, during the last 35 years, built about one-half of the residential space in today's cities. This massive undertaking transformed the way typical Canadians live:

- In 1971 there were 22 Million people living in 6 Million housing units, an average of 3.6 persons in each unit. Cities contained about three-quarters of the national population and occupied nearly 16,000 km² of land;
- By 2001, the national population had grown by about 40 per cent and the housing stock swelled by 92 per cent, so average home occupancy dropped to 2.6 people per unit. Urban areas became home to 80 per cent of the population, and occupied 31,000 km² [1]of

[1] In 1980 the Federal Interdepartmental Task Force on Land-Use Policy projected urban growth would require an additional 0.53 Million hectares of land by 2000 (see Environment Canada, Land Use in Canada. Ottawa: Lands Directorate, Environment Canada, January 1980. p.17.) The actual consumption from 1971 to 2001 was 1.5 Million hectares, which was over twice the predicted rate.

land. The gross residential density of cities fell from an average of 10.4 persons per hectare to 7.7 persons per hectare[2];
- Overall, development transformed 1.5 Million hectares of land to urban uses, (an area almost three times the size of Prince Edward Island).

The residential land development industry designed the communities and created the building sites that met this enormous demand for housing, accommodating 7.5 Million people. In doing this, the industry has been engaged in a complex interaction with governments, in which the industry contributed skills, resources and initiative, while governments added regulatory and political abilities, knowledge, and the infrastructure on which the developments were constructed.

The industry ranged from small companies that produced a few dozen lots at a time, to large multi-national corporations that bought and developed huge tracts of land, built suburban housing, constructed urban condominiums, and also created shopping malls, offices and other real estate. The recent generations of urban expansion were a remarkable accomplishment entailing a degree of land consumption that, as this study shows, is not likely to occur again.

In order to profile the residential land development industry, this study will consider its significance and then will present the results of a large survey of residential developers. As background to this investigation, the previous research on the industry was examined and is summarized as Appendix B. Much of the research on this topic took place during and after the “housing boom” of the 1970s, and the study will refer to findings from that period, as well as from the scant research from the 1980s and 1990s, and the sparce contemporary literature and data sources. Using the survey, the project will describe the industry, with some contextual information about the regulatory environment in which it operates. It will also discuss its structure and conduct, and concludes in a consideration of challenges that will shape the industry in the near future. Land development is intertwined with the economy, the environment and society, so the report will cover a wide range of topics.

Purpose of the Project

The objective of this project is to profile the residential land development industry in Canada. This entails profiling the industry today and also considering the past, the changes that have occurred, and the factors which have brought about these changes.

The project was designed to produce these profiles in spite of the lacking in thorough and accurate information in this industry and regulatory environment. It employs two research elements. The existing literature concerning land development was examined, summarized and assessed, and in addition, relevant aspects of the much more extensive literature in related subject areas

[2] For additional detail and sources, see Appendix A.

(housing, urban planning, sustainable development) were brought into the project report. The heart of the research plan is original research, a major survey in which a large number of residential developers, in a nationwide selection of urban areas, completed a comprehensive questionnaire that was developed with industry and academic input.

This research approach has strengths and weaknesses. It produces a large number of observations about many aspects of the industry that will be of interest to a wide range of readers. The various sections of the report end in summaries which highlight the most prominent findings, and in turn, the summaries are rolled up to produce the overall findings of the report. This process produces broad findings, and important individual findings may have been overlooked. It is intended that the "raw" information provided in the tables and charts of this report allows readers to bring their expertise and interests to bear on the relevant facts, and thereby produce their own specialized, localized, nuanced, conclusions.

Definition of the Industry

Land developers are the agents that bring about land use change.

Following World War II, there was strong and consistent demand for urban housing which was met by the regular production of new houses at scale, and with this growth and industrialization of housing, a new industry, land development, gradually evolved.

No definition of the land development industry has been found. This is a long-standing weakness. In 1972, a study for the U.S. Department of Housing and Urban Development reported:

> *"…we regret that no common definitions of such terms as "urban", "rural land", "vacant land", "developed", and "undeveloped land" exist in the lexicon of professionals. We recommend a federal effort to define these as well as other terms and subsequently, that these new definitions be used in all federal agencies aggregating data on the use of land. Only then will we attain comparable and usable data on the urbanization process"*[3]

The present study examined the following key sources and has determined that thirty-five years later this problem remains unresolved. (Industry Canada, Statistics Canada, Canada Revenue Agency, Strategis, Canada Mortgage and Housing Corporation, Canadian Institute of Planners, Urban Land Institute (USA) and National Association of Home Builders (USA)[4]).

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[3] Urban Growth and Land Development – The Land Conversion Process. Report of the Land Use Subcommittee of the National Academy of Sciences-National Academy of Engineering Advisory Committee to the Department of Housing and Urban Affairs. (Washington: HUD) 1972. p. 42.

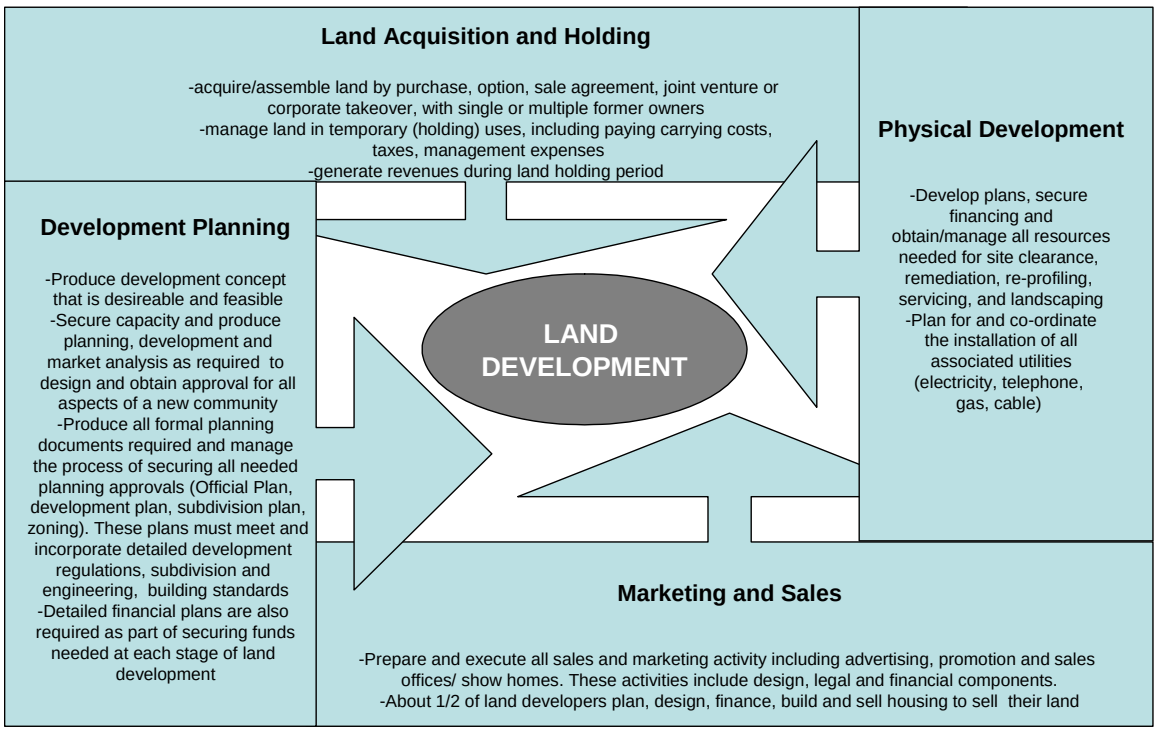
[4] NAHB referred to its publication entitled "Land Development". This 368-page book, now in its 10th edition, does not contain a specific definition of land development. See Kone, Daisy Linda. Land Development, 10th Edition, (Washington: BuilderBooks), 2006.

As no definition has been found, in order to explain what is meant by the term "land development industry" in the present report, the following is offered as a basic, working definition:

> **the residential land development industry is the businesses that acquire, plan, develop and sell the land on which new housing is constructed**.

The four components in this definition are each quite complex. Chart 1 introduces the range of work associated with the respective components, and later in this study many of the sub-tasks in each component will be described further.

Chart 1: The Four Tasks in Residential Land Development



There is not a definitive description of land development in the Canadian literature. A publication of the Alberta Land Use Forum in 1974 contained a lengthy consideration of the development process, which provides a valuable introduction but is not a comprehensive description.[5] It is difficult to fully describe land development because there are many variations in the way the business of land development proceeds. Land developers do not have to own the land they

[5] See "The Process of Urban Residential Land Conversion", pp. 28-63 in Herchak, Roman. Urban Residential Land Development. (Edmonton: The Alberta Land Use Forum Technical Report No. 4), 1974.

develop, although most do. They probably contract out most of the tasks entailed in development planning, and particularly the process of securing formal planning approvals, although some firms may undertake this work in-house. The physical work of clearing and servicing (developing) sites is normally contracted, although a few firms have their own construction staff and/or equipment. Some developers employ realtors to sell their lots, while most have their own sales staff. Many residential land developers produce lots and sites for sale to home builders, although most are also builders who produce lots for their own home building operations. In the course of developing residential land, developers may also produce land for other uses, such as public streets, school sites, neighbourhood parks, and commercial, industrial or institutional land uses. Residential land developers are primarily small, private businesses, although they include some government-owned enterprises and some large corporate enterprises. One characteristic that seldom varies among land developers is that they are entrepreneurs who initiate and manage all of these activities, and drive the decisions required to change the use of land.

A succinct, informative introduction to contmporary land development is provided on the Internet page of the Calgary Chapter of the Urban Development Institute. This describes the range of tasks and concerns of developers, the relationship between developers and municipalities, and the various components of new communities that are paid for by developers. See: www.udicalgary.com/Developing A Community.htm.

There is a vital difference between land development and a similar term, urban development.[6] Urban development refers to the entire process associated with creating improvements on land in urban areas, and in an aggregate sense, it refers to urbanization. Land development is a component of urban development, being that part of the process that concerns the land itself, not the buildings constructed on the land. However, it is difficult to distinguish where land development activity stops and other aspects of urban development begin. Most land development is performed to allow a particular building or type of buildings to be created, and there is often a continuous process from land development through building development activity. It is significant that the planning component of land development entails securing authorization for the future land use (the zoning) on the site, and this authorization sets the parameters which control future decisions about building design, construction and marketing.

[6] A clear understanding of the term "land development" is needed because in the Canadian literature the term "developer" has been used to describe house building rather than land development. An illustration of this ambiguity is the series of influential studies published through the 1970s which consistently referred to house builders as developers, and referred to land developers as "subdividers". This series included: Goldberg, Michael A., "Residential Developer Behavior: Some Empirical Findings" pp. 85-89 in Land Economics, Vol. 50, No. 4, 1974.; Goldberg, M.A. and Daniel Ulinder, "Residential Developer Behavior 1975: Additional Empirical Findings", pp. 363-370 in Land Economics, Vol. 52, No. 3, 1976; and Goldberg and Ulinder, "Residential Developer Behavior: 1975", pp. 241-382 in Housing: It's Your Move, (Vancouver: Urban Land Economics Division, Faculty of Commerce and Business Administration, University of British Columbia, 1976).

Residential land development is not readily identifiable in the data and analytical publications of the main government bodies which study industries. Statistics Canada and Industry Canada do not treat residential land development as a unique industry. Their classification which is most closely related is "the real estate development industry", which:

> *"…is comprised of firms that do any combination of land assembly, development, financing, building and the lease or sale of residential, commercial and industrial property*."[7]

This is clearly too broad a definition for residential land development. Statistics Canada/Industry Canada has another industry classification, a sub-class within the real estate development industry entitled "land subdividers" which more closely approximates the activities of land developers, but it does not differentiate residential developers.[8]

The weakness in data and government classifications is also a long-standing problem. In 1971 the prominent U.S. scholar in urban planning and land economics, Marion Clawson, observed in the first chapter of his best-known textbook:

> *"…suburban land conversion is a field notably lacking in solid data of clear meaning. Time and again, anyone who deals with this subject must use data that are considerably less than perfect"*[9]

In a context of weak descriptions and inadequate data in the literature, this research project is studying the land development industry and within the industry is focusing on the producers of sites for more land-intensive forms of residential use. It concentrates on the development of land for low to medium density housing and contains minimal examination of site development for high rise apartments. The firms that construct high rises do perform land development activities but these firms do not consider themselves to be land developers. For the purposes of this study, individual owners or builders that develop single sites in order to construct one home are not considered part of the industry.

Industry Associations

Another approach to describing the land development industry is to consider the organizations that represent the interests of residential developers, today and in the past.

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[7] Industry Canada, Service Industries Overview Series. Real Estate Development Industry, September 2003, http://strategis.ic.gc.ca/epic/internet/indsib-fsib.nsf/en/Home.

[8] This problem of classification, and the data available from the existing classifications, is described further in Appendix C.

[9] Clawson, Marion. Suburban Land Conversion in the United States. (Baltimore: Resources for the Future and Johns Hopkins Press) 1971. p. 3.

Two national organizations of the home building industry have close relationships with residential land development. The Canadian Home Builders Association (CHBA) has 316 firms identified as land developers in its member lists, including 128 in British Columbia (mainly in Vancouver), 53 in Calgary and Edmonton, and 85 in Ontario.[10] L'Association provinciale des constructeurs d'habitations du Québec (APCHQ) promotes the interests of the housing industry in Québec, including residential land developers.[11] Two other organizations represent the development industry generally, although their interests are not exclusively residential. The Urban Development Institute (UDI) has chapters in some of the largest cities to represent the interests of urban and land developers.[12] The Real Property Association of Canada (REALpac) includes public land development firms, crown corporations, pension funds, individual owners and real estate investment trusts, and its focus is generally urban and building development subjects rather than land development or the residential sector in particular.[13]

While residential land developers make use of several organizations to represent their interests when needed, it appears they are not an industry with issues or other needs that have been sufficiently distinct to cause them to establish their own, exclusive association.

[10] In 1943 the Housing and Urban Development Association of Canada (HUDAC) was founded to represent house builders, developers and associated suppliers and service providers. It grew to have chapters in all major cities, and is now the Canadian Home Builders Association (CHBA). Over the years CHBA has represented various specific interests of the residential land development industry to local, provincial and federal governments. Many of the land developer-members of CHBA belong to its "Urban Council" which holds meetings on urban topics, and is effectively a cadre of interest in residential land development. The land developer members of CHBA are listed in Appendix F.

[11] In 1961, l'Association provinciale des constructeurs d'habitations du Québec (APCHQ) was founded to promote the interests of the housing industry in Québec. It has grown to 15 regional chapters across the province with a quite central position in residential construction. It has never had a particular focus on land development, although over the years it has, like CHBA, engaged in activities to represent the interests of land developers.

[12] The Urban Development Institute (UDI) was founded in Calgary in 1958, and it soon added chapters in several other large urban regions across Canada. UDI has commissioned research and publicly advocated for various interests of the development community, including residential land developers' concerns. It is a particularly strong representative of land development in Alberta, British Columbia, Manitoba and Nova Scotia. Since the 1990s, UDI's national office has been located within local chapter offices, and it is currently in the Pacific Regional office in Vancouver. Recently, in the vital Greater Toronto Area, UDI Ontario amalgamated with the Greater Toronto Home Builders' Association, forming the Building Industry and Land Development Association (BILD).

[13] In 1971 the Canadian Institute of Public Real Estate Companies (CIPREC) was created to represent those large firms in the building and development business whose stocks were publicly traded. In 1999 it became the Canadian Institute of Public and Private Real Estate Companies to better represent the makeup of its membership, and in 2005 it evolved into the Real Property Association of Canada (REALpac), reflecting a membership which includes crown corporations, pension funds, individual owners and real estate investment trusts. Although some public land development firms belong to REALpac, the organization's focus is generally urban and building development subjects rather than land development or the residential sector in particular.

Introduction to the Survey of Land Developers

In order to profile the industry today, this research project undertook a large national survey of residential land development firms. The survey was conducted in 16 urban regions selected to include the major housing markets in all provinces (see Table 1).[14]

Table 1: Housing Starts, 2005, in 16 CMAs Covered by Survey of Land Developers

Census Metropolitan Area	Housing Starts in 2005 Single-Detached	Semi-Detached	Row	Subtotal (Low /Medium density)		Apartment		Total Starts	
	No.	No.	No.	No.	% Canada	No.	% Canada	No.	% Canada
Halifax	1,216	146	169	1,531	1%	920	1%	2,451	1%
St. John's	1,096	140	31	1,267	1%	267	0%	1,534	1%
Charlottetown	305	89	19	413	0%	35	0%	448	0%
Saint John	403	38	26	467	0%	34	0%	501	0%
Saguenay	267	22	6	295	0%	169	0%	464	0%
Montreal	8,544	970	793	10,307	7%	15,010	22%	25,317	11%
Ottawa	2,350	300	1,578	4,228	3%	754	1%	4,982	2%
Toronto	15,979	3,375	6,516	25,870	17%	15,908	23%	41,778	19%
Hamilton	1,502	204	1,002	2,708	2%	437	1%	3,145	1%
Winnipeg	1,756	34	104	1,894	1%	692	1%	2,586	1%
Saskatoon	751	102	8	861	1%	201	0%	1,062	0%
Edmonton	7,623	1,154	755	9,532	6%	3,762	5%	13,294	6%
Calgary	8,719	988	1,155	10,862	7%	2,805	4%	13,667	6%
Kelowna	1,205	112	NA	1,317	1%	1,232	2%	2,549	1%
Vancouver	4,935	714	3,281	8,930	6%	9,984	14%	18,914	8%
Victoria	974	94	111	1,179	1%	879	1%	2,058	1%
				0					
Subtotal 16 CMAs	57,625	8,482	15,554	81,661	52%	53,089	76%	134,750	60%
Canada	**120,463**	**13,477**	**22,134**	**156,074**	**100%**	**69,407**	**100%**	**225,481**	**100%**

Source: CMHC Market Analysis, Housing Starts

The survey was conducted by a national team of researchers between April and August of 2006. The survey questionnaire entailed the following main elements:

- contact and descriptive information
- land development features
- land development operations
- land market conditions
- questions for builders

The survey is described fully in the introduction to Chapter Three, "The Residential Land Development Industry Today".

[14] Sixty percent of Canada's 2005 housing starts took place in these 16 CMAs, including over one-half of all low and medium density starts.

Summary

Residential land development has transformed urban Canada over the last two generations. The land development industry which brought about this transformation is not clearly defined in the academic literature or government statistics, and it is not represented by a single organization. This lack of information and formal organization means that the industry has a relatively low profile. Individual firms and particular developments may be prominent locally or for a brief period, but there is little attention directed to the whole industry. This report is presenting the findings of a survey of land development firms in those markets where over one-half of Canada's low-to-medium density housing construction occurred in 2005, and this survey affords a valuable insight into this relatively unstudied industry.

Understanding Residential Land Development and Its Importance

Introduction

The importance of residential land development has many dimensions. This Chapter will address social and economic measures of the importance of land development, as well as exploring other dimensions of the industry which also contribute to its significance.

A crude but meaningful description of the importance of the land development industry is to observe that however important the residential construction industry is considered to be, residential land development is about one-quarter that important.[15],[16] It might also be noted that without the sites produced by land developers, home builders could not begin their activity and would not have a context for their products.

[15] From 2001-2005 over one-half of new residential construction was single-detached houses, and the value of developed sites averaged about one-quarter of the value of new single-detached houses.

[16] As a measure of the importance of the residential construction industry, a recent press release by the Ontario Home Builders' Association argued: "The Residential Construction Industry is the Engine that Drives Ontario's Economy". See OHBA Press Release dated 23 July 2006.

Estimate of Dollar Value

The total dollar volume transacted by the residential land development industry in 2005 is not known, but a minimum estimate can readily be produced. In 2005, the value of building permits issued for new single-detached dwellings in Canada was $25.2 Billion[17], and as the proportion of lot value in new house prices averaged 24.5 percent[18], it can be inferred that the value of land development associated with new house construction was $8.2 Billion. A lesser proportion of the value of multi-family dwellings goes to land, so the $13.5 Billion in multi-family building permits implies perhaps $3.4 Billion in land development.[19] Taken together, this indicates that residential land development transacted about $11.5 Billion in 2005. This is a minimum estimate, as it does not include sales of land for non-residential uses, or sales of housing, and this industry sells both of these.

Roles and Functions of Residential Land Development

A more comprehensive consideration of the importance of this industry recognizes that it performs at least four important roles in the economy and development of cities. These four roles are:

- producing sites for new housing
- providing the largest structural element of cities
- producing new communities for people to live in
- transforming land into new residential uses

Land developers are also employers in the labour market, however, as is demonstrated in Chapter Three, this is a relatively small role.

Each of the four preceding roles involves significant functions which warrant inclusion in the profile of this industry. There is some overlap among the roles and functions, and each contributes to the overall importance of the industry. Thirteen functions are outlined in Table 2, following which they are discussed in more detail, including some assessment of the significance of each function.

[17] Statistics Canada. "Building Permits" in The Daily, February 6, 2006.
[18] Proportion factor provided by Prices Division, Statistics Canada.
[19] This assumes that land represents 20 percent of the value of new multi-family residential properties. The proportion would be higher for row houses, which comprise one-quarter of new multiples, and it would be higher in situations of heightened demand, and in redevelopments where site demolition and clearance may factor into the land cost. The use of 20 percent for this purpose produces a minimum estimation of the value of land for multiples.

Table 2: Important Roles and Functions of Residential Land Development

Roles	Functions	Outline
Producing Sites for New Housing		The housing industry requires sites, and by definition, those sites are produced by land developers. If the right land is not available, in terms of qualities and quantities, developers have to find the right locations and produce enough of the right residential sites at those locations to meet the requirements of builders and buyers.
	Volumes produced	The best measure of the output of residential land development is the volume of sites produced for housing. All new housing is constructed on developed lots. Canada has built over 200,000 new housing units every year since 2001.
	Locations of development	Development must occur where there is demand, nationally, and where the local market and public policy want it to occur at the local level. The location of land development within urban regions is a matter of critical importance. Urban spatial expansion is seen to have negative environmental consequences, to require excessive amounts of private transportation, and to consume excessive resources such as agricultural land.
	Qualities of the lots produced	The changing qualities of the sites produced by land developers define much of the design and function of contemporary housing.
	Land prices	An important measure of the production of the residential development industry is the price of the developers' main product, serviced residential lots. Lot prices generally move with housing prices, because land values are determined on a residual basis (the value of a new house less the cost of producing it is the land value). While the historical data shows some short-term volatility in residential lot prices, and some local variations, the predominant trend has been a gradual increase. The national average annual rate of increase, over the last 35 years, has been just under 5 per cent, which is similar to the increase in the Consumer Price Index.
Providing the Largest Structural Element of Cities		The output of this industry is land in residential use, and this is the largest component of the land use structure of cities.
Producing New Communities for People		Land developers design and produce communities in which people will want to live for generations. Urban planners study and advocate various features that might be desirable in communities, and the local development approval process sets standards and has the authority to make formal decisions about what development may proceed. Developers bring all factors together and decide what features to actually incorporate in new projects, how to blend features, locations and prices in combinations that are acceptable to the approval process and successful in the marketplace, and how to actually create new communities and provide them to buyers.
	Providing housing mix	Although many voices in society advocate housing mix, the land development industry is the institution that either does, or does not, create mix. A mix of housing types, sizes and other qualities, including prices, is essential in order to allow the variety of households with different sizes, tastes and incomes, to be able to access housing that suits their needs.
	Adaptation to new lifestyles, technologies	The contribution of developers to the adoption of new technologies and adaptation to new lifestyles can be seen by considering the evolution of the typical lot for a suburban home over the past few generations. There are many examples of developers designing subdivisions around special technological or lifestyle features that they incorporate within their physical developments, market extensively, and require that builders implement within individual houses
	Providing land use mix	The development industry has been increasingly involved in creating a mix of land uses in their projects.
	Producing more sustainable forms of development (smart growth, brownfields, greyfields)	Canada considers that more sustainable forms of development are very important, because they are widely advocated by governments and major organizations associated with urban growth. While governments have a role in regulating these forms of development that are being promoted, the primary instrument of actually perfoming the development that all of these institutions are encouraging, is the land development industry.

Table 2: Important Roles and Functions (Cont'd)

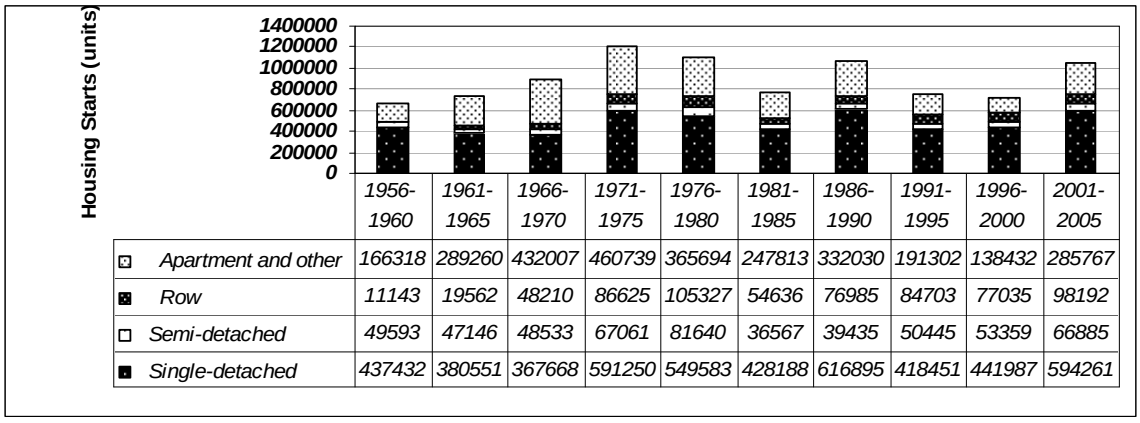
	Producing special forms of development such as new urbanism	A subject that is closely associated with smart growth and that is particularly relevant to Canadian land development is termed "new urbanism". Neo-traditionalism and traditional neighbourhood developments (TNDs) are terms that are generally interchangeable with new urbanism. New urbanism is important across the Canadian land development community. New urbanist projects and ideas are being created at differing scales, and to varying degrees in many locales. There are tens of thousands of homes being built each year in Canada that respond to some of the new urbanist principles.
Transforming Land for Residential Use	The aggregate effect of developing land and successfully selling it through builders to new residents is a land use transformation. Transforming land is important in itself, as it involves impacts on other aspects of the urban environment.	
	Reduction of urban sprawl	Sprawl is the spreading out of a city and its contiguously developed suburbs over rural land at its periphery, entailing the conversion of rural land into built-up developed land. The residential land development industry is closely involved with sprawl as it is the primary agent of land conversion. It is vitally involved in accommodating both population growth and per-capita sprawl, and the form and location of the projects they create can either aggravate or diminish the amount of sprawl.
	Conservation of agricultural land	The conservation of agricultural land, and particularly of high-quality agricultural land, is perhaps the most important dimension of the overall need to limit land consumption in the growth of cities. The land development industry has important functions in helping to address this objective. It seems evident that conservation of agricultural land must involve opening up new supplies of space for urban growth through intensification, which implies substantial up-zoning of existing cities, either on a broad scale or in targeted growth nodes.
	Restoring contaminated sites to productive use	Re-using of contaminated sites is a highly valuable means of intensifying the existing developed area of cities. The primary instrument of actually perfoming the redevelopment that many governments, organizations and people are advocating, is the land development industry.

Volume of Residential Land Development

The best measure of the output of residential land development is the volume of sites produced for housing. All new housing is constructed on developed lots.

Chart 2 depicts the volumes of developed sites consumed by new housing starts, by type of lots developed, in five-year increments from 1956 to 2005 inclusive. For the last four years (2002 to 2005 inclusive) single-detached production has exceeded 120,000 lots per year, a level of production which matches previous all-time records. At the same time, medium densities (semi-detached and row houses) are being built at the rate of over 30,000 each year, which is the highest rate since the late 1970s. Apartment construction has increased each year since 1996, and is approaching the record levels of the 1970s. Added together, this production has resulted in Canada building over 200,000 housing units every year since 2001.

Chart 2: Housing Starts, Canada, 1956 to 2005 inclusive



	1956-1960	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005
Apartment and other	166318	289260	432007	460739	365694	247813	332030	191302	138432	285767
Row	11143	19562	48210	86625	105327	54636	76985	84703	77035	98192
Semi-detached	49593	47146	48533	67061	81640	36567	39435	50445	53359	66885
Single-detached	437432	380551	367668	591250	549583	428188	616895	418451	441987	594261

Source: CMHC Market Analysis

The land development industry is clearly capable of operating at the present, high level of production, because it has done so several times in the last two generations. It has also experienced some volatility over this long period. Since World War II the industry had one major boom in production and several smaller booms. The boom occurred in the ten year period 1971-1980, when sites for over 2,300,000 units were developed, lead by lots for single-detached houses[20]. Apartment units were also strong contributors to this peak in production. In the 1981-1985 period production of detached houses soared to nearly 617,000 units, leading another mini-boom in housing overall. The period following 2001 has been another boom, and once again it is led by the soaring construction of detached houses.

Two other broad trends in land development can be seen in these figures. Medium-density development, which is generally semi-detached and row housing, is about 15 per cent of all development, and the volumes of medium density that are being produced have increased steadily since the early 1980s. Across Canada densities have declined from the 1971-1975 period (when 38 percent of development was apartments) through to the 1996-2000 period (19 per cent apartments). This long-term trend may be shifting again, as the most recent period (2000-2005) shows apartments increasing to 27 per cent of total starts. When the volume of new housing declines, the industry has usually produced a higher proportion of lower densities relative to the production of apartments.

The significance of this level of production may be seen by comparison with another industry. The car industry is universally regarded as highly important, its

[20] The boom peaked in 1976, at 273,000 starts including 134,000 singles, and both declined every year for the next four years.

behavior is closely watched by economists, investors, governments and voters, Statistics Canada maintains data about many aspects of its activities, and the education system caters to developing its workers. The volume of sales of the land development industry is at least one-quarter as large as the automobile industry.

It is clear that there is a large and quite flexible land development industry supplying the sites for new housing. Production volumes are now in the 200,000 units per year range, primarily of lots for detached houses, although there is also a long-term trend towards creating greater proportions of sites for medium-density housing.

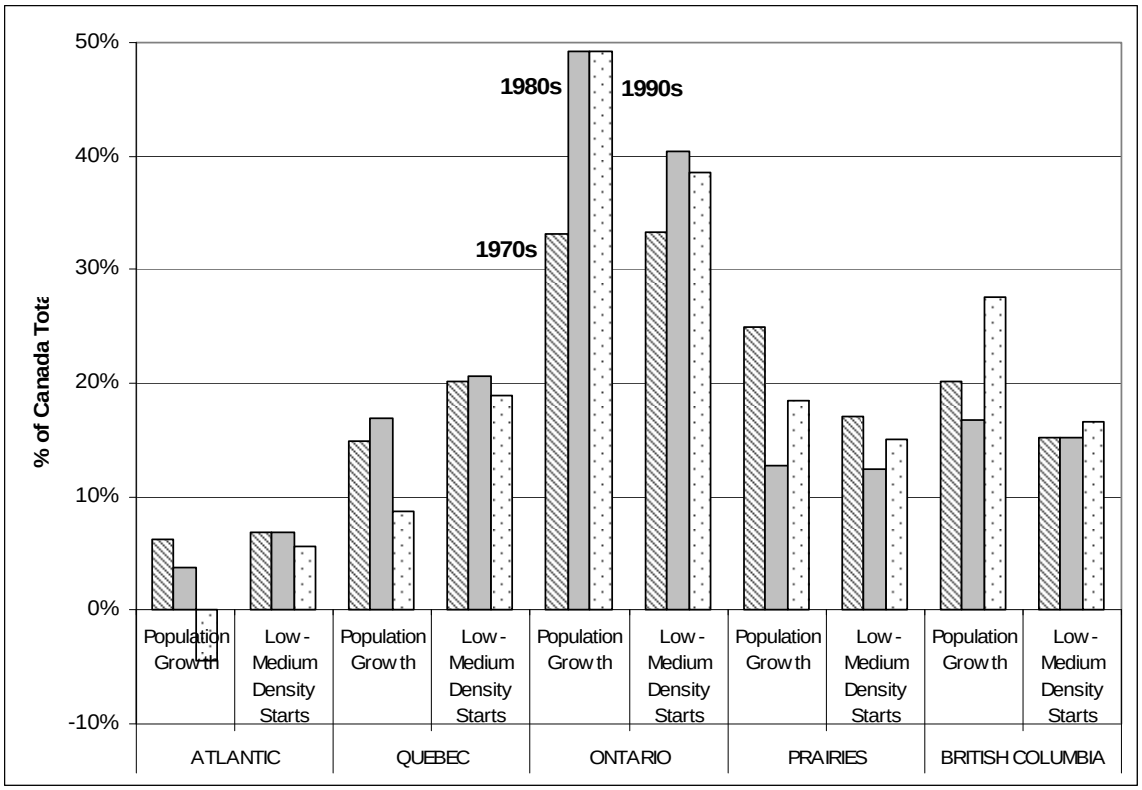
Locations of Development

Another dimension of the importance of land development is the locations where the development occurs, both at the national level, and within urban areas. Development must occur where there is demand at the national level, and where the local market and public policy want it to occur at the local level.

Chart 3 depicts the relationship between the growth of the national population and the distribution of the production of low-medium density land development, in the five main regions over the last three decades. Overall, the region's shares of the industries' production for low-medium density housing generally follow their shares of national population growth. In Ontario the low-medium density land and housing production matched the population share in the 1970s, and fell back in the 1980s and 1990s as population growth soared and apartment condominiums took off in the region's large cities. Similarly, low and medium densities nearly matched population growth in the 1970s and 1980s in British Columbia, but did not keep up with the booming growth of these cities in the 1990s. In the Prairies region the industry has always been quite close to matching population growth. In the Atlantic and Québec regions, the shares of these lower density housing sites slightly exceeded the shares of population growth, reflecting the strength of the traditional preference for lower density housing in these older regions.

The location of land development within urban regions is seen by many as a matter of critical importance. Urban spatial expansion is seen to have negative environmental consequences, to require excessive amounts of private transportation, and to consume excessive resources such as agricultural land. These topics will be discussed further, later in this Chapter.

Chart 3: Shares of Canada's Population Growth and Low-Medium Density Land Development, by Region, 1971-2001



Sources: Population data from Statistics Canada. Housing starts from CMHC Market Analysis.

Qualities of the Lots Produced

The changing qualities of the sites produced by land developers define much of the design and function of contemporary housing. As one Edmonton developer remarked:

> *"Land development is an exciting business. We have the ability to influence how people live, where they shop, how they interact with each other, etc*".[21]

Lot sizes are becoming smaller as residents find they do not make much use of the vacant space surrounding their houses, and societal forces demand more compact settlements. Accompanying the size reductions, traditional rectangular lots have given way to a plethora of shapes, such as triangular lots in cul-de-sacs, narrow lots accompanying smaller homes, and most recently, wide and shallow lots which allow large houses with varied streetscapes on less land.

[21] Survey input from Rob Fink, Edmonton Manager, Daytona Land Corporation.

As well as size, developers make use of other lot amenities to differentiate their products and provide more variety in their projects. The relationship of a lot to adjacent lots is significant from the perspectives of sun and light shadowing, of the vistas available, and of the visual and noise privacy of residents. Standing trees can have similar functions. Developers often retain future design control over the lots they sell by using devices like deed restrictions, restrictive covenants or statutory building schemes to ensure that buyers cannot impact property values in their neighbourhood by changing the exterior appearance of their property. Topographic features like changes in elevation, ravines and rock outcrops are used as design elements which are often accompanied by special features in house plans, and premium prices.

The survey of firms reported in Chapter Three describes many of these features in land developments today, and how they are changing.

Prices of Developed Lots

Another important measure of the production of the residential development industry is the price of the developers' main product, serviced residential lots. Lot prices generally move with housing prices, because land values are determined on a residual basis (the value of a new house less the cost of producing it is the land value[22].

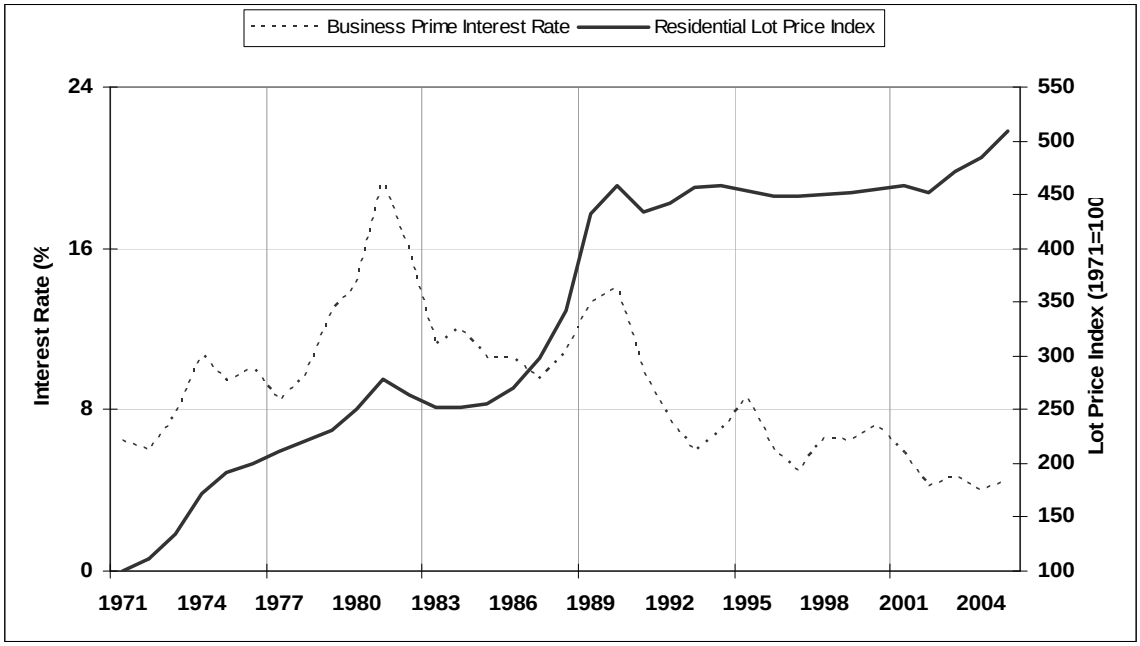
Urban lot prices rose gradually from the 1970s to the present, with a few centers having periods of rapid increases and declines. Chart 4 tracks the movement of Statistics Canada's national index of the price of land for new housing since 1971. This figure also shows the average annual prime interest rate, which is a critical cost element to land developers and home buyers.

Land prices rose quickly during the boom in housing construction of the early 1970s[23], then declined in the face of soaring interest rates in the early 1980s. As interest rates dropped back, land prices began rising again in the mini-boom in construction in 1986. When interest rates rose 1988-1990 lot prices leveled off and were fairly static from 1990 through 2002. In the face of the current boom in housing production, in 2003 land prices began rising quickly again.

22 A recent long-term econometric study on the causes of Canadian house prices contained a quite different perspective [see Fauvel, Yvon. Housing Price Variations in Canada. (Ottawa: CMHC, 2006)]. It concluded that "…unanticipated variations in land costs are probably a major determinate of housing prices", and estimated a 25 per cent contribution to the causation. This finding is inconsistent with the residual nature of land values. The valuation of residential land is discussed in the historical review (Appendix B).

23 Average lot prices doubled between 1971and 1976, then increased by one-third between 1976 and 1981.

Chart 4: Residential Land Price Index and Prime Interest Rates, Canada, 1971-1005



Source: Average Annual Business Prime Interest Rates from CANSIM Table 176-0043, Residential Lot Price Index from Prices Division, Statistics Canada

Chart 5 shows movements of the lot price index in eleven metropolitan regions, from 1977 to 2005. The price of average lots more than doubled in most of these regions during the period.[24] Most regions' prices rose quickly from 1977 until the early 1980s, then continued rising at a lower rate until the 1990s when they leveled out. After about 2000 they began increasing more rapidly. The regions exhibiting this general pattern were: St. Johns', Ottawa-Gatineau, Hamilton, Winnipeg and Saskatoon.

There were notable variations in this general pattern:

- In Montréal, lot prices rose steadily from 1977 until 1994, then they were stable for a few years and resumed increasing in 2000[25]. Over the period, the prices quadrupled.
- In Toronto, prices stayed flat from the 1970s until the mid-1980s, then rose quickly until 1990-91, and have matched the national pattern thereafter.
- In Vancouver prices rose sharply in 1980-1981, and fell back sharply in 1982. Another spike occurred from 1989-1991.
- Victoria had two price spikes paralleling Vancouver's, and had another spike in 1994. Since then it has loosely matched the national pattern although it lagged the national increases until about 2002, and thereafter its prices grew more quickly than others.

[24] As the land price index begins at 100, prices have doubled when the index value is 200.
[25] Historically, Montréal lot prices have been much lower than those in other major metropolitan regions.

- Victoria and Edmonton experienced price declines from the early 1980s until about 1988. Edmonton's prices rose quickly from 1988 to 1992, then matched the national pattern.
- Calgary prices followed the early national pattern, then spiked upwards with Vancouver and Victoria in 1990 but never fell back, and its prices have risen steadily ever since.

Chart 5: Residential Lot Price Index, Selected CMAs, 1977- 2005 (1977=100)

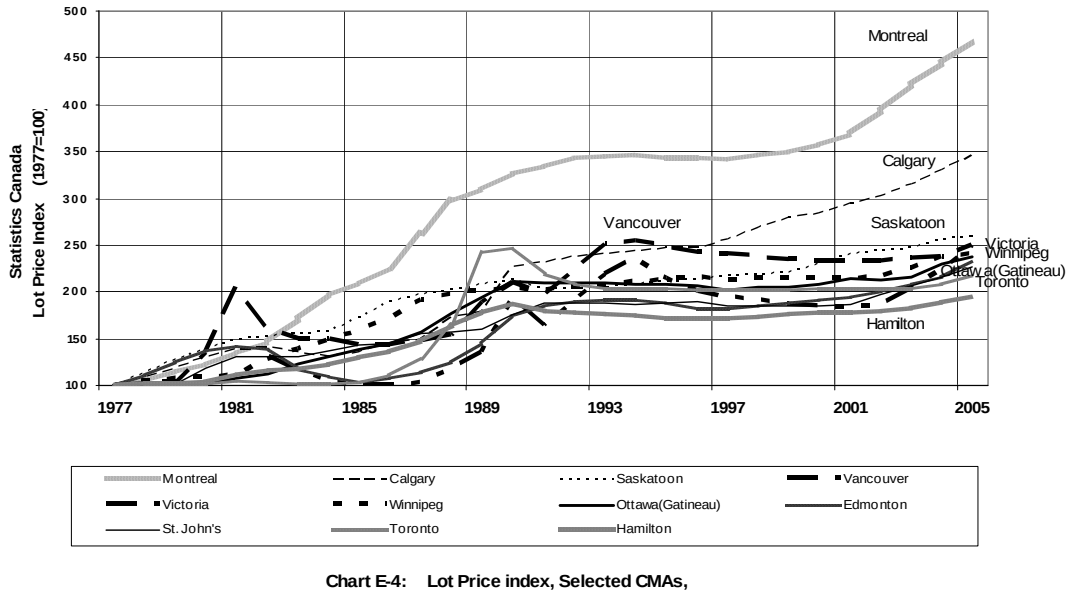


Chart E-4: Lot Price index, Selected CMAs, 1977 to 2005 (1977=100)

Source: Statistics Canada, CANSIM (with several indices recalculated)

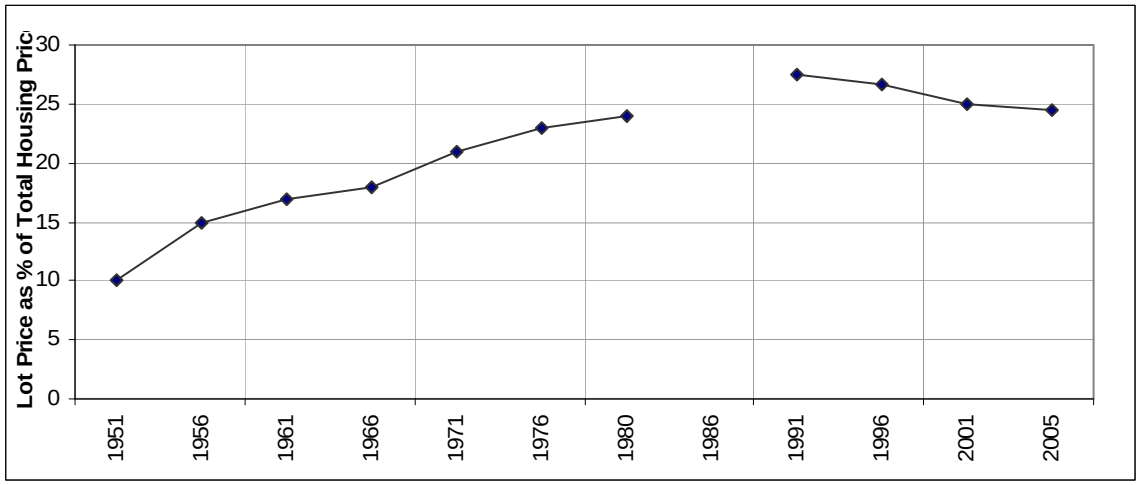
Accompanying the rise of land prices has been an increase in the proportion of the selling prices of houses attributed to land. This is not a fixed relationship, as the land portion of a house price is different from city to city, and rises and falls over time. As seen in Chart 6,[26] the average proportion in Canada was 10 per cent in 1951, then doubled to over 20 per cent in the 1970s, and rose to more than 25 per cent during the 1990s. At present it appears to be stabilizing, with about 25 per cent of the average price of a new house paying for the lot.

The ratio is not consistent across the country, although it is more stable in certain urban regions. As shown in Chart 7, in Halifax and Montréal land prices are about 20 per cent, while in Calgary lots have been about 30 per cent of the total for over a decade.

Toronto and Vancouver have had more volatile proportions. Lots reached 42 percent of Toronto's new house prices in 1991, then gradually came down to 30 per cent in 2003. In Vancouver the proportion was over 35 per cent for most of

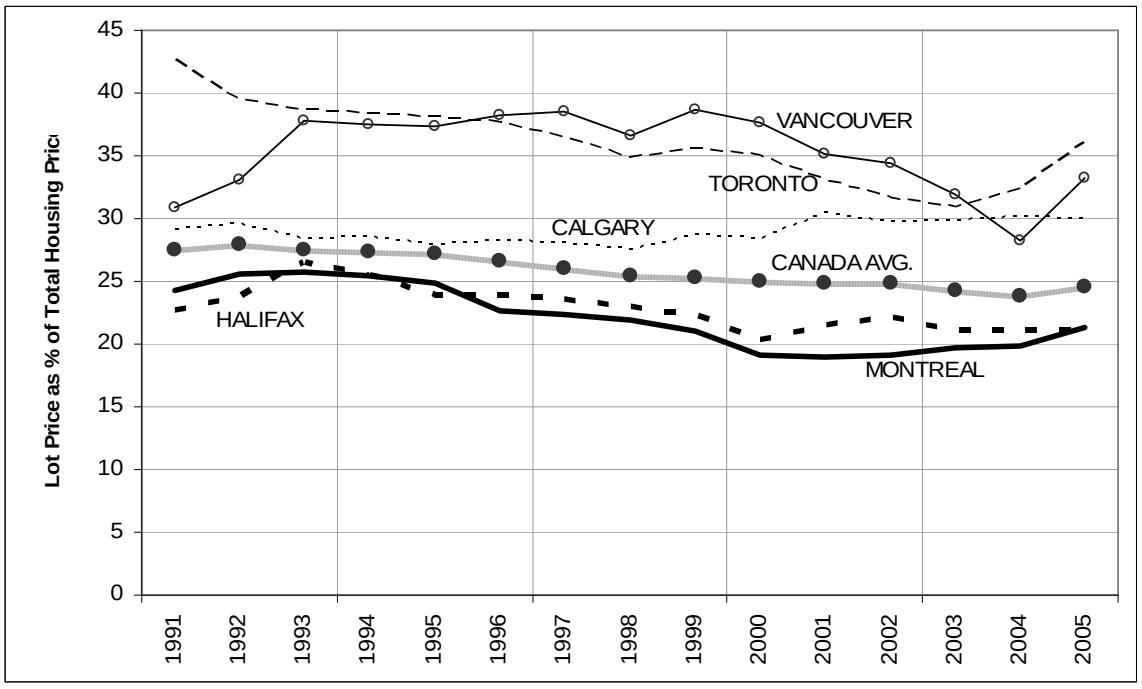
[26] In Chart 6 the break in the plotted line "land to total housing price ratio" occurs because data problems caused Statistics Canada to decline to provide this information for the year 1986.

Chart 6: Ratio of Residential Land Price to Total Housing Price, Canada, 1951-2005



Source: Statistics Canada, Prices Division

Chart 7: Ratio of Residential Land Prices to Total Housing Prices, Selected CMAs, 1991-2005

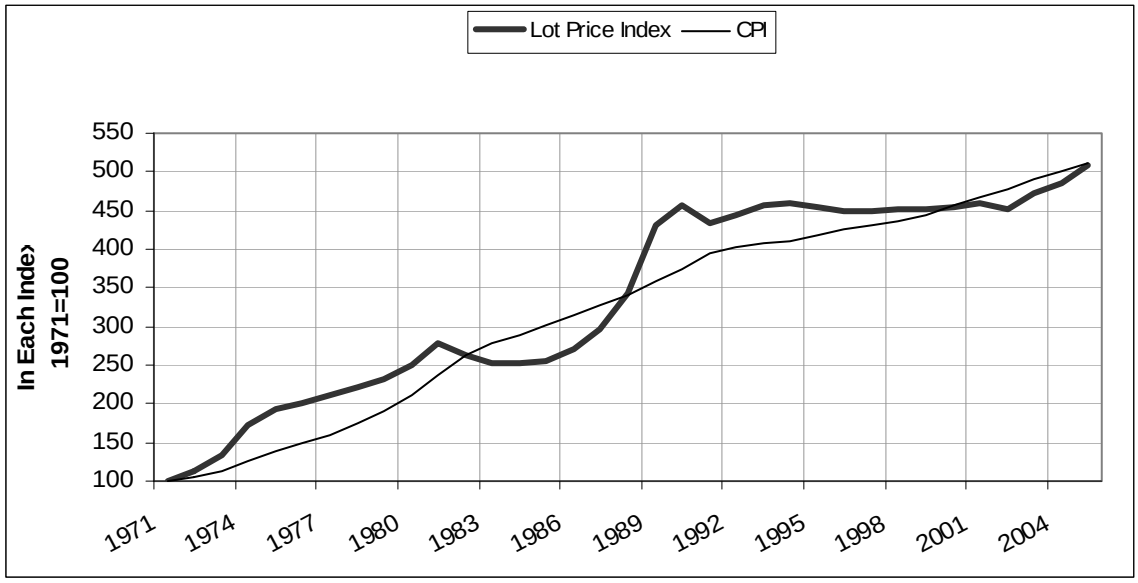


Source: Statistics Canada, Prices Division

the 1990s, then declined to the 30 per cent range in the early 2000s. In all three large and quickly growing metropolitan regions, the average proportion is now rising towards 35 per cent. It appears that in the regions which are growing more quickly, a larger proportion of the price of a house goes to pay for the lot.

While the historical data shows some short-term volatility in residential lot prices, and there have been local variations, the predominant trend has been a gradual increase (see Chart 8). The national average annual rate of increase, over the last 35 years, has been just under 5 per cent, which is similar to the increase in the Consumer Price Index .

Chart 8: Residential Land Price Index and Consumer Price Index, Canada, 1971-2005



Sources: Statistics Canada Prices Division (land price index) and CANSIM 326-0002 (CPI)

Providing the Major Element of City Structure - Residential Land Use

Residential land development produces the most important element of urban land use structure, developed residential land. This importance may be appreciated by comparing residential land use with other forms of developed land in built-up urban areas.

While overall data about the relative significance of the various land uses is not readily available, the following table provides a solid representation[27]. It quantifies land uses in Metro Vancouver and the City of Ottawa, both of which include within their boundaries the entire urban developed area and the

[27] This urban land use information was provided by the respective Planning Departments of Metro Vancouver and the City of Ottawa (Ottawa Counts).

surrounding undeveloped lands of their respective urban regions. These data show that land used for housing comprises 71 percent of the total developed area of these cities.

Table 3: Urban Land Use Data, Vancouver and Ottawa, 2006

Land Uses	Metro Vancouver	City of Ottawa	*Combined*	
	(Areas in hectares)		*in hectares*	*% of Developed*
Residential	40,700	25,674	*66,374*	*71%*
Commercial	4,000	1,461	*5,461*	*6%*
Industrial	7,000	3,174	*10,174*	*11%*
Institutional	4,200	2,705	*6,905*	*7%*
Transportation, communications, etc	1,900	2,101	*4,001*	*4%*
Subtotal - Developed	57,800	35,115	*92,915*	*100%*
Total - Urban Land	57,800	35,270		

Source: Planning Departments, Metro Vancouver and City of Ottawa

The combination of all other uses of land, for offices, industries, stores, roads, schools, institutional and developed recreational facilities, constitute far less than one-half of the area that has been developed as housing.

Similarly, the amount of new residential construction each year far exceeds all other forms of construction. In 2005, the value of residential building permits in Canada was 38.7 Billion, which constituted 64 percent of the total value of permits for all forms of buildings[28].

Providing a Mix of Housing

A mix of housing types, sizes and other qualities, including prices, is essential in order to allow the variety of households with different sizes, tastes and incomes, to be able to access housing that suits their needs. A city must incorporate land that is suitable for and zoned for, greater densities than the present, and new developments must include multiple housing units and smaller lots in order to allow for more affordable housing. If cities do not provide a mix, the result is a growing segregation in urban form and urban society, and at the extreme:

> *"… we see neighbourhoods where the people who provide the services that keep the community functioning – teachers, police, caregivers and others – cannot afford to live there."*[29]

Although many voices in society advocate housing mix, the land development industry is the institution that either does, or does not, create mix. Creating a

[28] Statistics Canada, Building Permits, Op. cit., February 6, 2006.
[29] City of Saskatoon. Neighbourhood Design Options Study. (Saskatoon, City Planning Branch) 2004, pp23-25.

community with a housing mix is useful to land developers, both because the mix constitutes a variety of products they have available for sale, and the manner in which the mix is distributed within their projects is a central aspect of the design of their communities. In some cases developers are compelled, by inclusionary zoning, to create some housing mixes.

For whatever reason they do it, land developers are strongly engaged in creating housing mixes. Chart 2 depicted the housing mix that is being produced by the industry at the national level, and also showed the change that has occurred with this distribution over time. The increase in the proportion of singles in the last five years has been accompanied by a larger increase in the proportion of multiples, an increasing mix. Chapter Three includes much more examination of the mix being produced by developers, including the mix within individual housing types, the mix among housing types, and the mix produced by different size of firms and in different regions.

Providing Land Use Mix

The development industry has been increasingly involved in creating a mix of land uses in their projects. A generation ago, the design of most sizeable subdivisions incorporated school sites in central locations, as this made a successful (as therefore saleable) community. Larger developments also made provisions for neighbourhood facilities like parks and community centres (usually with local government support and, in many cases, direction) and church sites. Today, as well as schools it is becoming more common to include land uses like convenience stores and coffee shops within developments. Developers have also played a progressive role by obtaining, as part of the approval of their subdivisions, zoning for accessory suites, granny flats and home-based businesses. These features then become valuable features in the marketing of the project. Once a development is complete, it is often difficult to obtain zoning changes for these kinds of land uses because of anti-change NIMBY forces within established neighbourhoods.

Adaptation to New Lifestyles, Technologies

The contribution of developers to the adoption of new technologies and adaptation to new lifestyles can be seen by considering the evolution of the typical lot for a suburban home over the past few generations. A postwar residential lot was often just that, a parcel of bare land on a dirt street that a municipality had agreed was suitable for housing. The builder/buyer had to arrange for all services (wells, septic systems, hydro and telephone services), and later the neighbourhood would organize to bring in municipal services, paved roads and other facilities, and the homeowners paid for them on a local improvements basis. Today, all services that a household is likely to require are organized and put into the lot by the land developer, and some developers go much further.

There are many examples of developers designing subdivisions around special technological or lifestyle features. These features are incorporate within their projects, are highlighted in their marketing, and are sometimes made mandatory for builders that buy into the project to implement within individual houses. Some examples are:

- in the 1970s -1980s some developers produced "all-electric" projects which had streetlights (when these were uncommon in residential areas), and in which builders were required to make electric heating a feature in each home;
- recently developers like Mattamy, Minto, the Daniels Group and Remington Homes have created communities which feature energy-saving themes like "Energy-Star Homes". A similar feature, "all R-2000" phases, have been produced in numerous developments during the last decade;
- in the Sun Rivers project in Kamloops, the developer produces a geo-thermal hook-up and a dual water supply system (one potable, one for irrigation and domestic chores) as part of each lot and markets the community accordingly;
- Calgary's largest land developers, Carma and Genstar, make all houses in several of their projects incorporate "structured wiring" to a standard which they specify.[30] The technology and lifestyle implications of the capacity this creates are quite remarkable. These developers also have created intranets within these communities, so that householders, schools, local businesses, sports, church and neighbourhood groups are facilitated in a wide range of electronic interactions within individual homes, and within the new communities[31];
- to encourage more active lifestyle, many developments now include networks of walking/running/cycling paths, co-ordinated with adjoining developments.

More Sustainable Forms of Development (smart growth, brownfields, greyfields)

It is apparent that Canada considers that more sustainable forms of development are very important, because they are widely advocated by governments and major organizations associated with urban growth.

The concept of "smart growth" emerged within the urban planning community in the United States in the 1980s/1990s as an approach to counter sprawl. It is now centered in a private/public organization in Washington, D.C. called the Smart Growth Network. Smart growth is defined as:

> *"Smart growth means using comprehensive planning to guide, design, develop, revitalize and build communities for all that:*
> - *have a unique sense of community and place;*

[30] These developers ensure that the trunk wiring infrastructure needed for an e-community is available throughout the developments concerned, and then require builders to prewire all houses with Cat 5e and RG6 coaxial cabling connecting every outlet within a house to its central distribution panel. This enables homeowners to operate their dwellings as automated "smart houses".

[31] More specific descriptions of these requirements and the capabilities they create are seen in "Carma Connects" at www.carma.com.

- *preserve and enhance valuable natural and cultural resources;*
- *equitably distribute the costs and benefits of development;*
- *expand the range of transportation, employment and housing choices in a fiscally responsible manner;*
- *value long-range, regional considerations of sustainability over short-term incremental geographically isolated actions, and*
- *promotes public health and health communities.*

Compact, transit accessible, pedestrian-oriented, mixed use development patters and land use epitomize the application of the principles of smart growth.

In contrast to prevalent development practices, Smart Growth refocuses a larger share of regional growth within central cities, urbanized areas, inner suburbs, and areas that are already served by infrastructure. Smart Growth reduces the share of growth that occurs on newly urbanizing land, existing farmlands, and in environmentally sensitive areas. In areas with intense growth pressure, development in newly urbanizing areas should be planned and developed according to Smart Growth principles."

This definition goes on to enunciate thirteen principles.[32]

Many Canadian organizations have produced studies encouraging smart growth and advocate it in various forms. The importance of these ideas concerning the form of development is seen in the organizations which are promoting them. Research studies, policy papers, and other publications concerning these topics have been produced during the last decade by Canada Mortgage and Housing Corporation, the Federation of Canadian Municipalities, the National Round Table on the Environment and the Economy, the Canadian Council of Ministers of the Environment, the Canadian Institute of Planners, the Canadian Urban Institute, and many provincial and municipal governments. The terms "brownfields" and "greyfields" refer to particular forms of redevelopment of land that fit within many of the "Smart Growth" criteria, and they are also widely studied and promoted by the aforementioned Canadian organizations.

There are increasing indications that, in spite of the published advocacy of smart growth by many governments, and some supporting program activity, cities are continuing to sprawl.[33]

While governments have a role in regulating these forms of development that are being promoted, the primary instrument of actually perfoming the development that all of these institutions are encouraging, is the land development industry.

[32] From "Policy Guide on Smart Growth", American Planning Association at www.planning.org/policyguides/smartgrowth.htm.

[33] For example, in September 2006 CMHC issued a Request for Proposals entitled "Understanding the Smart Growth Gap" that sought a researcher to "*…determine what accounts for the disparity between stated planning goals that are consistent with the principles of Smart Growth and the observable results which contradict them*".

Special Forms of Development (e.g. new urbanism, transit oriented development)

A subject that is closely associated with smart growth and that is particularly relevant to Canadian land development is termed "new urbanism". This is a movement that began in the USA among architects interested in growth management concepts about twenty years ago, and has quickly grown to the degree that it has its own organization, the Congress of New Urbanism (CNU), with chapters across the USA. As seen in the following description, it shares many similarities with "smart growth":

> *" New Urbanism is an urban design movement that burst onto the scene in the late 1980s and early 1990s. New Urbanists aim to reform all aspects of real estate development. Their work affects regional and local plans. They are involved in new development, urban retrofits, and suburban infill. In all cases, New Urbanist neighbourhoods are "walkable", and contain a range of housing and jobs. New Urbanists support regional planning for open space, appropriate architecture and planning, and the balanced development of jobs and housing. They believe these strategies are the best way to reduce how long people spend in traffic, to increase the supply of affordable housing, and to rein in urban sprawl. Many other issues, such as historic restoration, safe streets, and green building are also covered in the Charter of the New Urbanism, the movement's seminal document*."[34]

Neo-traditionalism and traditional neighbourhood developments (TNDs) are terms that are generally interchangeable with new urbanism. Land development projects can be identified as new urbanist or TNDs by such signature design elements as a generally compact appearance, grid layouts around central, mixed-use squares, street-oriented dwellings with porches, and often, gables. However, these elements are just the "tip of the iceberg" of new urbanism, which has a formal "Charter of New Urbanism" with 27 integrated principles organized in three geographic scales.

Another form of "smart growth" that is often identified with new urbanism is transit oriented development (TOD). While there are many definitions of TOD, a representative example is the following, which was produced by the City of Calgary:

> *"Transit Oriented Development (TOD) is a walkable, mixed-use form of development typically focused within a 600m radius of a Transit Station – a Light Rail Transit (LRT) station or Bus Rapid Transit (BRT) stop prior to the arrival of LRT. Higher density development is concentrated near the station to make transit convenient for more people and encourage ridership. This form of development utilizes existing infrastructure, optimizes use of the transit network and creates mobility options for transit riders and the local community. Successful TOD provides a mix of land uses and densities that create a convenient, interesting and vibrant community for local residents and visitors alike."*[35]

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[34] This description was produced at the 2004 annual Congress for the New Urbanism and reported by Duncan Campbell in "RIBA Goes to Town on Radical Revival" in The Guardian, July 31,2004.

[35] City of Calgary. Transit Oriented Development Policy Guidelines. (Calgary: City of Calgary Land Use Planning and Policy Department), October 2004, p.1

While transit oriented development addresses many new urbanist principles, all TOD projects would not necessarily be new urbanist projects. New urbanism involves more criteria than TOD, but a project with TOD features would satisfy many of the most important qualities of new urbanism.

New urbanism is important across the Canadian land development community. New urbanist projects and ideas are being created at differing scales, and to varying degrees in many locales. The diverse aspects of new urbanism elicit interest from all across the urban community, including from builders, developers, urban planners, municipal officials, environmentalists and conservationists, as well as by home buyers and renters. New urbanist content can be found in the trade and professional literature and conference programs of these groups, as well as in the housing columns of popular magazines, newspapers, and even in Hollywood movies[36]. There are tens of thousands of homes being built each year in Canada that respond to some of the new urbanist principles.

There are about a dozen land developments that are widely-known as new urbanist, and most contemporary projects have some new urbanist features. Some notable projects are:

- Carma Developments's McKenzie Towne on the southern fringe of Calgary was Canada's first new urbanist community. It has a 20-year development plan to produce a 4-neighbourhood, 6,000-7,000 unit community with mixed-density and land uses, and a town centre. It is over one-third complete and is growing steadily. In 2002 it was one of 26 developments featured in an Urban Land Institute publication entitled "Great Planned Communities".
- Cornell is a suburban "new town" in Markham with a target size of 8,500 homes. It is about one-third built and is currently growing quickly. It began as a project of the Ontario government, and has morphed into a private development. It has, along with other new urbanist projects in Markham, strongly influenced land development across Southern Ontario over the last few years.
- Bombardier Corporation's Bois Franc in Saint-Laurent will contain 6,000 residences within 20 years. It is about one-third built, and is growing steadily.
- The Village of Kettle Valley in Kelowna (which won CHBA's SAM award for 2004 as the best community in Canada), now has 250 homes of a target total of about 1,000.
- Parkland Homes' East Fraserlands is being planned for about 10,000 residents on Fraser River frontage in Southeast Vancouver.
- There are 8-10 other large new-urbanist developments in different cities.

An aspect of new urbanism that is particularly important to land developers, yet has received little examination in the literature, concerns the market response to new urbanist features. The CNU cites findings that 15-30 percent of home buyers indicate a preference for walkable, compact neighbourhoods over large homes on large lots. The characteristics of these buyers were not provided but CNU does state that the demand is four times higher from the wealthiest and most influential demographic - empty nesters and retirees - than the demand among

[36] An early new urbanist community in Florida, Seaside, was both the setting and the central subject of an Oscar-nominated film in 1998 entitled "The Truman Show".

young people[37]. It is not clear whether these findings would apply to urban Canadian markets. McKenzie Towne is more affordable than most TNDs in the USA, and it is segregated into separate starter, move-up and estate areas.[38]

Other important financial questions concerning new urbanism concern the marketability of new urbanist developments relative to more conventional subdivisions, and their relative re-sale values. It may be doing exceptionally well. One planner in Markham reports that the first phases of Cornell appreciated by 30 per cent 1998-2002 while other housing in Markham grew by 15 percent.[39]

It is also notable that while new urbanism is a broad topic, one U.S. urban planning firm, Duany Plater-Zyberk (DPZ), is prominent in designing and promoting new urbanist communities, particularly in Canada. The two principals of DPZ were founders of, and are on the Board of, the Congress of New Urbanism, and they are frequent presenters on new urbanist topics at professional conferences and other urban events. Popular writing often equates DPZ and new urbanism. Notably, DPZ were the planners of McKenzie Towne, Cornell and Bois Franc, as well as the emerging East Fraserlands community in Vancouver (and perhaps other new urbanist ventures in Canada). While this one high-profile firm attracts a great deal of attention, the new urbanist movement now comprises 2,300 members worldwide, is quite open and democratic, and the ideas promulgated from its Charter are becoming central design principles for land developers in many countries.

Reduction of Urban Sprawl

In order to consider the relationship between sprawl and the residential land development industry, it is useful to have a clear definition of the concept of urban sprawl.

Sprawl is the spreading out of a city and its contiguously developed suburbs over rural land at its periphery, entailing the conversion of rural land into built-up developed land. As observed by the City of Saskatoon,

> "*sprawl is characterized by pockets of disconnected "leapfrog" development within a city, with a predominance of low-density, single-family houses, and sharply segregated land uses such as multi-family dwellings, shopping and parks".*[40]

In the literature, analysts distinguish between sprawl caused by the growth of the urban population, and sprawl caused by increasing consumption of land, per capita, by urban residents. Assessment of data from the U.S. Census Bureau over the last generation found the two factors cause approximately equal

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[37] These findings are reported in the FAQs on the main internet page of the Congress of New Urbanism, www.cnu.org.
[38] "McKenzie Towne Scales Back TND Plan", New Urban News, March 2003, p.5.
[39] Daniel Leeming reported in "The Devil in the Details", New Urban News, October/November 2002, p.6.
[40] City of Saskatoon. Neighbourhood Designs Options Study. (Saskatoon, 2002), p.15.

quantities of rural land to be urbanized.[41] Both can occur within a given urban region and both occur in Canada. As was highlighted in Chapter One and Appendix A, from 1971 to 2001 Canada's urban population grew 46 percent, the average number of people per housing unit dropped from 3.6 to 1.9, and the built-up urban area increased 96 percent.

The residential land development industry is closely involved with sprawl as it is the primary agent of land conversion. However, the industries' involvement differs significantly among the two types of sprawl. Residential land developers do not cause population growth in an urban region. They are vitally involved in accommodating both population growth and per-capita sprawl, and the form and location of the projects they create can either aggravate or diminish the amount of sprawl. Developers can help limit sprawl, and particularly the per capita component of growth, by in-filling leapfrogged sites and producing more compact communities in locations that are not dispersed across rural areas. As Jane Jacobs' observed:

> *"Sprawl can become less wasteful only by being used still more intensively (…densely enough occupied to support mass transit)"*[42]

Chapter Three contains considerable information about the form, location and features in land developers' projects which indicate the industries' progress in limiting land consumption while providing sites to accommodate urban growth.

Conservation of Agricultural Land

The conservation of agricultural land, and particularly of high-quality agricultural land, is perhaps the most important dimension of the overall need to limit land consumption in the growth of cities. The land development industry has important functions in helping to address this objective.

The expansion of cities on high-quality agricultural land is returning to public attention. It is estimated that between 1971 and 2001 the amount of urban land occupying dependable agricultural land (Canada Land Inventory classes 1-3 inclusive) rose from 6,900 square kilometers to 14,300 square kilometers, and this agricultural land now comprises 46 percent of all urban space.[43] In particular, this conversion of agricultural land is seen as problematic in Ontario, where 11 percent of all Class 1 farmland is now urban. In British Columbia 5,680 hectares,

[41] The subject of sprawl is assessed extensively on a website maintained by a group on academics whose research has been focused on this topic. Entitled "Sprawl City", it is at www.sprawlcity.org.
[42] Jacobs, Jane. Dark Age Ahead. (Toronto: Random House), 2004. p. 147.
[43] Hoffman, Nancy, Giuseppe Filoso and Mike Schofield, "The Loss of Dependable Agricultural Land in Canada". Rural and Small Town Canada Analysis Bulletin Volume 6, Number 1, (Ottawa: Statistics Canada), January, 2005.

net, was lost from the Agricultural Land Reserve within the Metro Vancouver alone since 1974, leaving a total of 64,700 hectares under protection in 2000.[44]

As the urban growth of the last generation has consumed much of the vacant land inside the boundaries of agricultural zones, it can be expected that the development industry will encounter increasing tension concerning the preservation of agricultural land. Land developers will use the best land available to them for conversion to urban uses, and that is often farms. The need to conserve farmland is societal, partly to foster self-sufficiency in the food supply, partly to reduce the transportation cost component of food, and partly to maintain a vital primary industry.

Public policy is directing renewed attention to the protection of agricultural land across Canada. Three current examples are Ontario's "Places to Grow" Act, the reconsideration of the operations of British Columbia's Agricultural Land Commission[45], and the current discussions concerning further annexations by the City of Calgary. Developers cannot be expected to be societies' conservers of agricultural land, but they are the land transformation specialists that can produce the development needed for urban growth in alternative locations. If society wants agricultural land near urban settlements, the development of farmland in these locations must be prohibited and alternative places must be provided for the spatial expansion of cities. It seems evident that conservation of agricultural land must involve opening up new supplies of space for urban growth through intensification, which implies substantial up-zoning of existing cities, either on a broad scale or in targeted growth nodes.

Restoring Contaminated Sites to Productive Use

A function of land developers which is increasingly important in contemporary Canada is taking sites that were contaminated by previous uses and transforming them to productive use. Many organizations advocate this type of land transformation, and "brownfields" and "greyfields" are two common forms of this redevelopment. As it becomes increasingly important to accommodate growth by the intensification of the existing developed area, the potential to re-use contaminated sites becomes more significant. The primary instrument of actually perfoming the redevelopment that these organizations are encouraging, is the land development industry.

Summary – Important Functions of Residential Land Development

This discussion has outlined the main dimensions of the importance of this industry, beginning with the conventional measure of importance, the dollar value

[44] Smith, Barry E. and Susan Haid, "The Rural-Urban Connection: Growing Together in Greater Vancouver" pp36-39 in Plan Canada, Spring 2004.
[45] The BC Minister of Agriculture, who is responsible for the Agricultural Land Commission, indicated that the Commission was being strengthened. Times Colonist, September 16, 2006 p.A5.

of the industries' sales. As the federal government does not maintain statistics on this industry, an estimate was produced that in 2005 the gross sales of residential land developers was at least $11.5 Billion. It was observed that its sales are about one-quarter of the sales of the residential construction industry, and that most house-building could not occur unless land developers produced sites. In aggregate, developed residential land comprises nearly three-quarters of each city, far eclipsing the combined amount of land in other uses (industrial, commercial, institutional, transportation, etc). The volume of land development has generally followed the rise and fall of economic activity and population growth, nationally and regionally. Land developers have changed their production over the years in response to consumer and societal needs, adding more features and technological capacities in the individual lots and in the communities they create. Developed lot prices are clearly important, and have changed in step with changes in the economy and local markets. These prices have generally tracked with the consumer price index. The mix of both housing and land uses produced within new developments is what ultimately produces affordable forms of housing and more sustainable forms of settlement. In areas of urban, social and environmental policy such as controlling sprawl, conserving agricultural land, and rejeuvenating brownfields and greyfields, the residential land development industry is the institution within the society and economy that actually accomplishes the goals that many others espouse.

Land Development, Residential Land Development, and Statistics Canada

There is no data series on the residential land development industry in Canada. Statistics Canada produces information about some activities related to land development generally, but it does not cover all land development and it does not distinguish residential developers. The Statistics Canada data that is most closely related to this industry has many limitations, which are examined in Appendix C. It is unfortunate that Statistics Canada/Industry Canada does not separate the data concerning the dominant, residential land developers from the minority of developers that produce land for non-residential purposes.

While there is weakness in Statistics Canada's present approach to the industry, it would not be a simple task to design a method of producing better information. In order to develop a new classification which would differentiate the residential, commercial and industrial land developers, it would be necessary to determine how to deal with firms that develop for more than one land use or that develop mixed-use projects. There are practical difficulties in determining whether a developer/builder firm is classified a "land subdivider" because it develops lots for housing, or a "constructor of buildings" because it builds houses for sale on some of these lots. It would add to the paper burden on the industry to segment income statements and balance sheets in a manner that isolates land development activity, although there are likely sound business cases for such segmentation.[46]

[46] Many public companies segment land activities in their financial reporting, although the manner of the segmentation is not consistent among firms, or historically within an individual firms' reports.

Despite these difficulties, since the residential land development industry is important and there are problems in the present classification that severely compromise the data it produces, an improved system that provides a workable statistical series on this industry is needed.

The minimum improvement that would make this national data series more useful would be for Statistics Canada/Industry Canada to separate the data concerning the dominant, residential land developers from the minority of developers that produce land for non-residential purposes.

Key Themes in Modern Land Development – Technological Change & Urban Intensification

Two other themes contribute to this discussion of the importance of land development, because while they have been studied this research is not usually associated with the land development industry. Widespread technological change has occurred in the operations of the industry over the last half century, and there is change underway today in its materials, techniques, and other qualities. In particular, as land development shifts from lower density expansion at the edges of cities to urban intensification, the industry can be expected to undergo considerable evolution. There is valuable literature concerning intensification, infill and redevelopment which can contribute to this important aspect of change.

Technological Change in the Industry

The technical aspects of land development have undergone continual and considerable change, and this subject has been a sub-genre in the sparse literature concerning the industry. CMHC produced a few publications in the 1990s which described the postwar evolution of housing from a technical perspective, focussing on the evolution of the technology of building construction, and these provided some information about land development[47]. The discussions in these reports about the emergence of big builders in the 1960s and the consequent larger-scale production of housing, applied equally to big land developers and in most cases the new “big” firms were actually big developer/builders. From the mid-1970s to the present there have been occasional technical studies of land development standards conducted in Alberta

[47] This series included: Clayton Research Associates and Scanada Consultants. The Housing Industry – Perspective and Prospective, Working Paper One – The Evolution of the Housing Industry in Canada, 1946-86. (Ottawa: CMHC, 1989); Clayton Research Associates and Scanada Consultants. The Housing Industry – Perspective and Prospective, Working Paper Two – The Evolution of the Housing Production Process, 1946-86. (Ottawa: CMHC, 1989); CMHC. 50 Years of Innovation, 1943-1993: The Canadian Housing Industry (Ottawa:CMHC), 1993; Clayton Research Associates and D.G. Wetherell and Associates. Two Decades of Innovation in Housing Technology: 1946-1965. (Ottawa: CMHC) 1994; Scanada Consultants Limited and Clayton Research Associates. Three Decades of Innovation in Housing Technology: 1966-1996. (Ottawa: CMHC) 1996.

and Ontario, in some cities, and by CHBA and some of its chapters.[48] These have usually been directed to reducing development costs as a means to lower overall housing prices – a questionable assumption but nevertheless a useful consideration of cost factors.

Changing Technical Aspects of Land Development – 1950s to the 2000s

Residential lots gradually changed from the 1940s when they were usually a parcel of land on a street with minimal services (a dirt or paved street, with or without municipal water, but usually with electrical and telephone service on poles, and an open ditch for drainage). Over time, most streets became paved with concrete curbs and often paved sidewalks and ornamental plantings. The streets came to contain municipal water and sewer pipes, storm sewers, underground electrical, telephone, gas and cable service.

- Where street services were originally installed long after the houses were built, and paid for by homeowners on a local improvements basis, gradually it was made the responsibility of developers and utilities to create these services before house construction begins, often in a coordinated, single-trench installation, with the costs front-ended by developers and utilities.
- Sanitary and storm sewers evolved to combined sewers in many places during the 1950s and 1960s, then went back to separated sanitary and storm sewers a generation later. Drainage evolved from open ditches and swales, to closed storm sewers, to storm sewers augmented by swales, retention ponds and rainwater discharge management systems.
- There were changes in land development materials and standards, like ductile iron water pipes giving over to PVC pipes, concrete storm sewers evolving to plastic pipe, raised concrete curbs evolving to rolled curbs, and 66 foot road allowances decreasing to less-costly, smaller dimensions.
- The technology of physically installing services in land evolved greatly. Examples include improving the practices, materials and standards associated with rock-drilling, grading, bedding, compaction, roadbeds and asphalts.
- Workplace conditions have improved with safer tools like as trench shoring equipment and machine-mounted compactors, and devices like warning claxtons attached to the reverse gears of construction machinery.
- Environmental requirements have evolved to lessen site contamination and limit erosion during construction.
- Earlier technologies using drafting boards in the office and paper plans, theodilites, transits, levels and measuring tape on-site have given way to computerized land development planning software and GIS management systems being used in both in the office and in the field, and GPS and laser-equipped instruments and machinery on-site.

There has been significant improvement in land supply monitoring and management in many urban regions. With the widespread use of computerized data systems in municipal planning, and particularly GIS systems, most municipalities have the capacity to readily monitor and assess land supply. Many of them do so – regular land supply reports are produced in Ottawa[49], Toronto[50],

[48] Examples include: Ontario's Urban Development Standards (Toronto: Queens Park) 1977; K2C Zoning in Kitchener (Kitchener: City of Kitchener), 1975; Alberta, Hotson, N and GVRD, A Qualitative Checklist for Compact Housing (Vancouver: Canadian Housing Design Council) 1975; Affordable Residential Land Development; A Guide for Local Government and Developers. (Washington: NAHB National Research Centre), 1987; Residential Site Development Design Guidelines , (Ottawa: CMHC) 1981.

[49] Ottawa's annual land supply report, entitled Vacant Urban Residential Land Survey , monitors the supply of vacant land for Greenfield development, estimate unit potential by housing type and density, assesses the supply of land with trunk services, total supply and registered/draft approved units against Official Plan objectives, and compares supply with future demand.

[50] Each year the land supply in the Greater Toronto Area (Burlington to Clarington) is published by the Ontario Ministry of Municipal Affairs and Housing, entitled The GTA Residential Land Inventory Survey, based on data gathered from all municipalities in the region by a private firm, PMA Brethour Inc. The data used are the numbers of potential housing units, by type, that are proposed in four stages of active development applications. Surveys were completed in 1994-1998 inclusive, 2000-2001, and 2003-2005.

Regina[51], Edmonton[52] and Calgary[53] while periodic reports are produced in Winnipeg, Richmond, and other municipalities. These land monitors allow everyone involved or interested in the land supply process to have accurate information, and the regular reports impose a requirement on local officials to take stock of the overall adequacy of the supply. Unfortunately, there are also municipalities which have not yet begun to systematically their manage land supply.

Land Development Within the Built City – Urban Intensification

While land development was primarily a suburban activity in the 1970s, it now occurs increasingly in the form of urban infill and redevelopment, including greyfields and brownfields redevelopment. This conclusion was highlighted in CMHC's study of the housing industry in 2002:

> *"…In the 2000s, as population growth continues, it is anticipated that sustainable development practices will become increasingly common and increasingly expected. The move to sustainable urban development generates opportunities for creative design for infill and higher density housing, and was supported by increasing use of innovative regulatory tools."*[54]

The City of Toronto affords an illustration of the extent of infill now occurring in Canadian cities. In 2005, Toronto received 331 applications for major development projects (in which "major" is defined as containing six of more residential units or over 1,000 square metres of non-residential space). These 331 projects were proposed for development as 39,009 housing units, including 82 condominium projects with 19,558 units[55]. In comparison, in the entire Census Metropolitan Area of Toronto, there were 42,115 housing starts in 2004.

Studies which examine infill and redevelopment, or which help conceptualize such projects, or which concern the assembly of suitable sites, are important contributions to the understanding of contemporary land development. These are topics which have received little study for a generation, yet which provide concepts and knowledge that are highly relevant to urban intensification today.

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[51] Regina's annual land supply report, entitled Monitoring of Housing and Land Development, brings together a lot inventory by subdivision, a lot inventory within community association areas of the inner city, and detailed information about housing starts trends, vacancy rates and absorptions.
[52] The City of Edmonton's annual land monitor is called Status of Suburban Residential Land in Edmonton. It includes, for each subdivision in each Suburban Plan Area, lots registered, lots serviced, and lots built up.
[53] The City of Calgary publishes its land monitor and management approach each year under the title Suburban Residential Growth in the Monitoring Growth and Change. Using the City's GIS system, it combines information produced from the City's approval process with a vacant residential lot inventory produced by the Calgary Chapter of the Urban Development Institute, and a survey of developers intentions.
[54] CMHC. Housing Construction Industry. Ibid., p.4.
[55] See Toronto City Planning Department, Development Portfolio of Major Projects – 2005, City of Toronto web page. www.toronto.ca/planning.

Studies Dealing with Intensification, Infill Forms of Land Development

- Studies of sensitive infill studies by Peter Barnard Associates in Ontario in the 1970s provide useful information about different methods of in-city land assembly and redevelopment. These examinations describe land development of four infill "land types": large vacant lots; small vacant lots in combination with end lots; back lot land assemblies, and redevelopment sites. The research considered the development of each of these land types with several mixes of residential land uses, and looked at development cost factors, costs to the municipality, and personal costs associated with living in each land/house type, and also compared the in-fill locations with conventional suburban locations. See Peter Barnard Associates. Sensitive Infill – Process Analysis and Full Cost Comparison. Ottawa: Ministry of State for Urban Affairs) 1977.

- During the same era, Vancouver area governments encouraged housing on infill sites, and improving the neighbourhood environment. This British Columbia theme, known as "compact housing", has been developed and elaborated since the 1970s, with publications and workshops to assist potential developers, special zoning, land use contracts, designated redevelopment districts, bonusing and other financial incentives. Publications by the GVRD in the early 1970s illustrated key qualities of more compact forms of in-fill housing, and remain models in this field. This theme has continually evolved in the Lower Mainland as architects, builders and planners in both municipal and private practice have specialized in creating compact projects, and public policy has accommodated and sometimes lead this activity. New housing forms which are particularly suited for infill situations are being produced and studies of them are available to assist developers. Some examples include: GVRD. A Qualitative checklist for Compact Housing: Considerations for Those Concerned with the Design of Medium Density Residential Development. (Vancouver:GVRD), 1973; Aplin and Martin Consultants. Innovative Housing for Neighbourhoods: Triplex and Quadruplex Infill Design Guidelines. (Nanaimo: City of Nanaimo) 1995; City of White Rock Planning Department. Small Lot Sensitive Infill: A Neighbourhood Concept Plan, South of the Hospital Lands. (White Rock: the City) 2000.; District of Maple Ridge. Compact Housing Infill Policies (Vancouver:GVRD Planning Department) 2000.

- In recent years the term ground-oriented medium density housing (GOMDH) has been used to describe many of the compact housing initiatives, and the GVRD Housing Subcommittee has produced best practices guides which illustrate the variety and extent of the region's GOMDH initiatives. The 2000 series describes 21 examples of innovations which have been encouraged the production of GOMDH housing within the region, organized in 7 categories (official community plans, zoning, design guidelines, infill and small lot projects, greenfield or comprehensive development projects, and mixed use projects). GVRD's 2003 series includes 25 ground-oriented housing projects in the planning stages, under construction, or built within the last three years. These examples demonstrate continuing innovation by local governments in partnership with design professionals and both market and non-profit developers. See See GVRD's GOMDH series' online at http://www.gvrd.bc.ca/growth/GOMDH.htm.

- One current GOMDH initiative is freehold tenure row houses, which show promise as an alternative to detached singles and to the conventional strata row housing in Vancouver. See GVRD Policy and Planning Department. Freehold Tenure Row Housing – An Examination of Development Potential and Constraints in the Greater Vancouver Region. (Vancouver:GVRD), 2003.

- Today, according to Vancouver planners *"… more residents live in compact neighbourhoods in Vancouver than in any North American city they have studied."* City of Vancouver Planning Department, cited in Montgomery, Charles, "Futureville", pp 44-60 in Canadian Geographic Vol.126 no. 3, May/June 2006, p. 52.

- A study published by Alberta's Innovative Housing Grants Program in 1983 identified thirteen specific innovative concepts in infill in Calgary that had achieved cost savings: laneless subdivisions, reduced lot sizes, utility corridors outside the street ROW, modified zero lot line, flag lotted subdivisions, single trench service connections, cluster concept, Planned Unit Development, narrow lots (25' split title), dished pavement, cross-fall carriageway, asphalt curbs. (see Community Planning Consultants and Peter Pratt Architects. Cluster In-Fill Concept. (Calgary: Alberta Department of Housing) 1983.

- The City of Calgary published a thorough aid for single lot infill. (see City of Calgary Building and Planning Department. Single-Detached Infill Housing Guidelines for Established Communities. (Calgary, the City) 1988. It systematically described and illustrated a wide range of consideration for developers looking at sites for detached houses. By 1992 this had been superceded by a more-inclusive and sophisticated document which dealt with several low density building-types and various typical infill sites, as well as public and neighbourhood participation processes, and the development approval process. See City of Calgary Planning and Building Department. Low Density Residential Infill Housing Guidelines in Established Communities. (Calgary, the City) 1992.

- A study by Robert Crane at the University of Calgary in 1984 considered policy alternatives for intensifying an inner city neighbourhood, using various housing forms, mixes and densities. He simulated various development scenarios in this neighbourhood to meet the policy objectives, without large modifications to existing zoning and infrastructure. This revealed that if policy seeks to accomodate families, the greatest combination of density and family housing is obtained by stacked townhouses. This maximizes the number of families but the total number of units and the total population housed remained relatively small. A policy favouring high-density building forms produces an overall increase in population density but houses a smaller proportion of family accommodation. Crane found that careful attention to the attributes of individual sites allows development to achieve more density than the pure "promote families" policy, but still produce more family accommodation and less overall population density than the high-density buildings. See Crane, Robert A. Increasing Residential Density in the Inner City: Three Development Scenarios. Masters Thesis. (Calgary: University of Calgary Faculty of Environmental Design), 1984.

Urban Intensification Research in the ACT Program

The research program entitled Affordability and Choice Today (ACT)[56], deals with many land development topics, and has been particularly attuned to redevelopment for residential use. Since it began in 1985 over 200 studies have been supported by the program, and are available for study from any of the ACT partners or from the Canadian Housing Information Centre at CMHC. An annotated listing of 21 of the ACT projects concerning reurbanization and intensification are provided as Appendix E.

Several other research projects have been completed recently which provide capsule case studies of a wide range of contemporary urban infill projects, including both design and financial perspectives. Between them, these describe nearly one hundred residential intensification projects.[57] Other examples can be found in the literature under the themes of new urbanism and of smart growth.

Intensification Through Brownfield and Greyfield Redevelopment

A land development topic of growing importance in the last decade is brownfield development, the redevelopment of sites which have been contaminated by previous industrial uses. It is estimated that there are as many as 30,000 brownfield sites awaiting redevelopment across Canada.[58] An associated topic is greyfield development, which concerns redevelopment sites that were formerly in commercial or institutional uses.

There has been increasing attention directed to brownfield and greyfield developments, as befits their growing importance for the future growth of our cities. The professional and public attention paid to brownfields began growing in the 1970s, coinciding with some large residential developments that were carried out with strong public support on previously contaminated sites (the St. Lawrence neighbourhood in Toronto and the original False Creek/Granville Island project in Vancouver). Through the 1980s, opportunities were identified in cities across Canada for dramatic innovations in city-building if derelict, contaminated sites could be successfully redeveloped. In the early 1990s, the Canadian Council of Resource and Environment Ministers took on the topic, joined by the National

[56] The Affordability and Choice Today program is sponsored by Canada Mortgage and Housing Corporation and jointly managed with the Canadian Home Builders' Association, the Canadian Housing and Renewal Association, and the Federation of Canadian Municipalities (which carries out program administration on behalf of the partners). See www.actprogram.com.

[57] The studies are: CMHC. Residential Intensification Case Studies: Built Projects. (Ottawa:CMHC), 2004. ; Canadian Home Builders' Association. A Selection of Innovative Residential Developments Undertaken by Canadian Builders and Developers. (Ottawa:CHBA), 2005.; and CHBA. Developer Perspectives on Project Success: CMHC Intensification Case Studies Summary. (Ottawa:CHBA), 2006.

[58] CMHC. Removing Barriers to the Redevelopment of Contaminated Sites for Housing. (Ottawa: CMHC), 1996. p.3. This estimate was later reinforced by the National Round Table on the Environment and the Economy. Cleaning Up the Past, Building the Future: A National Brownfield Redevelopment Strategy for Canada. (Ottawa: NRTEE), 2003, p.ix.

Round Table on the Environment and the Economy in the late 1990s, the Federation of Canadian Municipalities' Green Municipal Enabling Fund since 2000, and the Canadian Urban Institute's administration of the annual "Brownie Awards" since 2001. The Canadian Brownfields Network was formed in 2004 to connect practitioners and help enable the work of the more policy and research oriented organizations.

CMHC has been an active partner with most of these initiatives, and has case studies of numerous successful brownfields and greyfields projects on its Internet page.[59] Canada Lands Company has been a leading developer of brownfields sites, rejeuvenating many contaminated railway and dockyard sites in some of Canada's major cities. Most provinces and larger municipalities have a central brownfields office with information about regulatory requirements, local experience with remediation and financing, aids for financing, managing risk, and project management processes. Overall, it is estimated that thousands of previously-contaminated sites have been redeveloped, and technical and policy studies, conferences, legislative changes and various types of funding programs have supported this growing activity.

A professional site remediation industry is now established across metropolitan Canada to support this form of land development. This includes the actual remediation firms as well as associated legal and insurance specialists. Case studies of existing brownfield projects show that in many cases their overall costs, including site remediation, are greater than greenfield developments but the magnitude of that difference is not great (in the range 14-34% more). Government supports like Québec's Revi-Sols program and the City of Hamilton's ERASE fund are available to off-set the difference.[60]

Brownfield and greyfield sites present opportunities for the land development industry to rebuild cities in ways that remove problems from desireable locations and create valuable environments with catalytic impacts on surrounding lands. These factors make brownfield projects desirable from the perspective of sustainable development, and are valuable attributes when a developer approaches public authorities seeking approval on a brownfield proposal. A study comparing greenfield and brownfield development in a sample of U.S. cities showed that 4.5 acres of greenfield would be required to accommodate the same development that occurs on one brownfield acre.[61] An input-output analysis by the National Round Table on the Environment and the Economy showed that every $1 spent on brownfield redevelopment in the Canadian economy generates approximately $3.80 in total economic output of all industries

[59] CMHC's brownfields case studies are at: www.cmhc-schl.gc.ca/en/inpr/su/sucopl/sucopl_004.cfm; and its greyfields cases are at: www.cmhc-schl.gc.ca/en/inpr/su/sucopl/sucopl_005.cfm.
[60] NRTEE, Cleaning Up the Past …, Op. Cit., p.x.
[61] Regional Analytics Inc., A Preliminary Investigation into the Economic Impact of Brownfield Redevelopment Activities in Canada. (Ottawa: The National Round Table on the Environment and the Economy) 2002. p. 40.

(including direct, indirect and induced effects),[62] which is arguably a larger multiplier effect than could be obtained in any other sector of the economy.[63]

Additional information about land developers' current activities on brownfield sites is provided in Chapter Three.

Summary - The Importance of Residential Land Development

The importance of the residential land development industry does not lie in any single dimension, as this is an industry which has many important dimensions. The discussion in this Chapter and its Appendices has outlined these dimensions, beginning with the conventional measure of importance, the dollar value of the industries' sales. As the federal government does not maintain statistics on this industry, an estimate was produced that in 2005 the gross sales of residential land developers was at least $11.5 Billion. Its sales are about one-quarter of the sales of the residential construction industry, and most house-building could not occur unless land developers produced sites. Residential land comprises nearly three-quarters of the developed space in each city, eclipsing the land in other uses. The volume of land development has generally followed the rise and fall of economic activity and population growth, nationally and regionally. Developed lot prices are clearly important, and have changed in step with changes in the economy and local markets, and have generally tracked with the Consumer Price Index. Land developers have changed their production over the years in response to consumer and societal needs, adding more features and technological capacities in the individual lots and in the communities they create. The mix produced within new development projects, of both housing and land uses, is what ultimately produces affordable forms of housing and more sustainable forms of settlement. In areas of urban, social and environmental policy such as controlling sprawl, conserving agricultural land, and rejeuvenating brownfields and greyfields, the residential land development industry is the institution within the society and economy that actually accomplishes the goals that many others espouse.

Unfortunately, this important industry is not identifiable in the data maintained by Statistics Canada. The classification system used by Statistics Canada identifies land subdividers, a mixed grouping that includes a minority of industrial, commercial and other land developers along with residential subdividers, and it excludes land developers whose activity does not conclude with the physical subdivision of land. This excludes developers that sell block land, and developers that build housing or other improvements on their sites. A better classification is needed in order to produce official statistics that can be used to properly monitor and assess the residential land development industry.

[62] Ibid., p.41
[63] NRTEE, Cleaning Up the Past …, Op. Cit., p.A-15.

A number of factors are shifting land development from the urban fringe to the intensification of built-up parts of cities. This can be expected to involve technological change in the industry, and will require increasing expertise in site redevelopment. In particular, it will require a growing capacity to undertake redevelopment of brownfields and greyfields sites. There was valuable research on intensification carried out in the 1970s and 1980s, and studies of brownfields and greyfields redevelopment conducted since1990, all of which can assist the industry in building the expertise in redevelopment that it will, increasingly, need.

This Chapter has introduced the land development industry today, and has provided some basic facts about its evolution since the 1970s. It has identified several periods of booming production, followed by declines to pre-boom levels. This is a dynamic industry that has altered production from primarily detached houses to a considerable mix in residential land uses. During times when, or in regions where, growth is swelling, the proportion of detached houses traditionally rises, and the price of developed lots becomes a larger proportion of new house prices. The industry's production is booming again today, and as prices have also risen the output mix of the industry is beginning to broaden again. These appear to be supportive conditions for a spatial shift in the industries' primary focus from the periphery of cities to the urban intensification that will be help improve sustainability.

The Residential Land Development Industry Today

The information presented in this Chapter was obtained from the nationwide survey of land developers conducted in the Spring/Summer of 2006.

The Survey of the Land Development Industry

The survey was conducted by a national team of seven researchers, and entailed the following main elements:

- The survey questionnaire was formulated and pre-tested in early April of 2006, then revised and translated. The actual survey began in late April (see Appendix I for the questionnaire).
- In each region the researchers developed a list of land developers with assistance from: the Canadian Home Builders Association (both the National Office and many chapters); APCHQ, and chapters of the Urban Development Institute in Victoria, Vancouver, Calgary, Edmonton, Toronto and Halifax.
- Through May and June, telephone contacts were made with senior officials in 270 development firms, 76 new home builders and 60 planners or associations. Each firm was introduced to the project and invited to complete

the questionnaire in either an online version, or on paper using an e-mailed PDF document.[64]

- Also in June, APCHQ provided the lists of its membership, not necessarily land developers, in Montréal and Saguenay. The researchers contacted these 165 firms in Montréal and 12 in Saguenay by e-mail, and each was provided with the PDF questionnaire in French, and invited to participate.
- As many as three follow-up contacts were made to remind or convince recipients to participate in the survey.
- The surveyors were able to obtain representation from the main sub-markets within each of the target 16 Census Metropolitan Areas. In Ontario, the Prairies and British Columbia responses were secured from some of the most prominent land developers.

A minority of the people and firms that completed the questionnaire were not land developers. In each region a senior municipal planning official and some local chapters of industry associations were asked to complete the parts of the questionnaire dealing with land development features and land market conditions. Planners or associations completed 20 questionnaires. Also, a few builders were invited to participate in order to obtain their perspective on land development. There were 4 responses from firms who only built new homes.

When the survey was closed on August 18, 132 questionnaires had been started, including 109 in online form and 23 in hard copy form. There was no substantive information in 26 of the online responses. As summarized in Appendix G[65], the 106 completed responses[66] were entered into a data base for analysis.

The 106 completed questionnaires provide a solid representation of the land development industry, and particularly, of the developers of low to medium density housing. Table 4 illustrates that the land development of these 106 respondents represents a strong coverage of the housing starts in the survey CMAs. These respondents produced the sites for over 28,000 housing units, including one-quarter of all single-detached and row starts, 21 percent of all semi-detached units, and about 15 percent of all land for apartment units. The lower proportion of apartments occurs because few firms that only build large apartment buildings participated in the survey.[67]

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[64] The PDF version of the questionnaire was provided in both English and French, while the online version was only available in English. In a few cases the questionnaire was administered on the telephone.

[65] Appendix G summarizes the response by three classes of respondents (land developers, new home builders and planners/associations), in each of the 16 urban regions.

[66] Only 77 of the 106 questionnaires in the data base reported actual volumes of residential land developed in 2005. The completed questionnaires that did not were submitted by builders, planners or organizations, or developers who did not disclose their production.

[67] "Urban development" firms who mainly build apartment towers do not see land development as a separate part of their business, and accordingly, when approached to participate in this survey, they tended to decline to complete the questionnaire on the grounds that it was more appropriate for "land developers". Other developers who produced land for low and medium density housing as well as for apartment towers, were more likely to complete the questionnaire.

Table 4: Land Development Industry Survey – Indicators of Representativeness

Indicators	Regions					
	Atlantic	Quebec	Ontario	Prairies	BC	16 CMAs
Number of Respondents[1]	13	8	23	34	28	106
Number of Housing Starts in 2005 (within the 16 survey CMAs)						
Single-Detached	3,020	8,811	19,831	18,849	7,114	57,625
All Low/Medium Density	3,678	10,602	32,806	23,149	11,632	81,867
All Housing Types	4,934	25,781	49,723	30,609	23,727	124,774
Land Development by Respondents in 2005 (within the 16 survey CMAs)[2]						
Single-Detached	481	164	2,396	10,361	1,019	14,421
All Low/Medium Density	656	425	4,158	12,720	2,205	20,164
All Housing Types	1,416	1,000	6,832	14,702	4,079	28,029

Notes: (1) This row reports respondents regardless of whether they developed land.
(2) This section reports all land developed in 2005 by firms responding to the survey.

The land developers' production was a solid share of the starts in four regions, and was strongest in the Prairies, where it constituted over one-half of the housing starts. The response was a smaller proportion of starts in Québec.[68]

The significance of the survey response is also seen by considering the relationship of the respondents in the CMAs studied, to the CHBA membership classified as "land developers", and APCHQ members.

Table 5: Response to the Land Development Industry Survey, and CHBA/APCHQ Membership

	Atlantic	Québec	Ontario	Prairies	B.C.
Survey response	13	8	23	34	28
CHBA members classified "Land Developers", and APCHQ members	18	177	86	84	128

The survey response is a robust sample of CHBA's developer membership in the various regions, and a lesser sample of APCHQ members in Québec.

Overall, the survey process and response indicate that the survey content is a good representation of the residential land development industry.

[68] It was difficult to convince Québec firms to participate in this survey. The list of firms provided by APCHQ was an unclassified mixture of home builders and land developers. All firms on the APCHQ lists were contacted by e-mail and provided with the questionnaire in PDF form, in French. About 25 firms were contacted by telephone and were offered the opportunity to complete the questionnaire on the telephone or in the PDF form. A few English-speaking developers were invited to complete the English questionnaire in its various forms. The end result was that the responses are a lower proportion of APCHQ members than the response rates in other regions. It is notable that previous studies had determined that the industry in Québec is mainly small firms, and smaller firms are often unwilling to spend time completing surveys.

Characteristics of Land Developers and the Industry

The data provided by the survey reveals characteristics of typical land development firms, and the structure of the industry.

The Industry Overall, Types and Sizes of Firms

There are significant differences between land developers who have one or two small projects, and firms that are constantly working on an array of larger land development projects, often involving multiple land uses and multiple phases. In order to reveal these differences, in most cases the information from the survey is assessed by firm size, based on the volume of lots and parcels of land produced by the respondents. Residential land development firms have been classified by size according to their production of land for low to medium density forms of housing.

- Those developers whose production of lots for low to medium density housing was less than 50 units in 2005 are classified as “small” firms. The threshold of 50 was selected because beyond this size it is likely that firms require more than one development manager.
- The size threshold for large firms was selected as 200 units per year, as beyond this level of production a firm likely requires several land development specialists with a highly sophisticated support organization.
- Firms producing lots between these thresholds were classified as “medium” size.

Types of Firms

Firms that both develop land and build housing on it are said to be vertically integrated. Table 6 reports whether firms only develop land or both develop land and build housing, and describes the nature of the corporate ownership of these businesses. The survey was completed by 84 land developers of which, 46 (55 percent) also built new houses, while 45 percent only developed land.

Most land developers are incorporated private firms (53 of 84 firms – 63%). Ten percent are partnerships (8 firms), 5 percent are publicly-traded (4 firms), and 6 of the 84 land developers are sole proprietorships (7 percent). It is notable that 13 of the 84 land developers (15%) are public agencies, such as municipal housing or land development corporations or federal agencies like CMHC and the Canada Lands Company.[69]

[69] It is likely that this proportion of public agencies in land development is overstated because public developers were more likely than private developers to agree to participate in the survey.

Table 6: Survey of Land Developers -Type of Firm and Type of Work

Nature of Firm	Type of Work			
	Land Development		Other	
	Land Development Only	Both Land Development and New Home Building	New Home Building	Neither Land Development Nor New Home Building
Private Firms				
- Incorporated	18	35	2	3
- Partnership	5	3	2	
- Public (publicly traded shares)	3	1		
- Sole Proprietorship	1	5	2	
Public Agency	11	2		4
TOTAL - No.	38	46	6	7
- % all	*39%*	*47%*	*6%*	*7%*

Source: Survey of Land Development Industry

Most land developers operate as a single firm. Table 7 describes how the three sizes of land developers are organized, from a corporate perspective:

- Most small firms are single corporate entities as land developers (64 percent). When small development firms are also builders, they usually use other corporate names (57 percent). This is the typical corporate organization of a vertically integrated builder/developer. The firms buy and develop sites in their main corporate name, and create subsidiaries to build the housing in individual subdivisions, once the land has been developed.
- This pattern is similar for the large firms (62 and 58 percent respectively).
- Medium-sized firms exhibit a different pattern. Equal proportions of medium firms undertake land development under their main corporate name, or under several names. And, unlike the small and large firms, nearly nine out of ten medium-sized firms build housing under their main, corporate name only. This pattern occurs because many of these firms are established builders who have built their business under one corporate name, and are gradually expanding into vertically integrated land development operations.

Most firms have not changed the type of work they do, since in the 1900s. As seen in Table 8, of 46 firms that are both developing land and building new homes today, 74 percent were also doing this in the 1990s, while a few had been exclusively land developers (9 percent), or exclusively builders (6 percent).

Table 7: Survey of Land Developers – Organization as Single or Multiple Companies, by Size of Firm

Size of Firm	Single, Corporate Name	Multiple Names	Not Applicable	All responses
	As Land Developer			
Small Firms (Under 50 lots)	18	10	5	33
Medium Firms (50-199 lots)	11	11	1	23
Large Firms (200 lots and over)	17	11	0	28
	Expressed as percentages of applicable responses			
Small Firms (Under 50 lots)	*64%*	*36%*		
Medium Firms (50-199 lots)	*50%*	*50%*		
Large Firms (200 lots and over)	*61%*	*39%*		
	As New Home Builder			
Small Firms (Under 50 lots)	9	12	6	27
Medium Firms (50-199 lots)	14	2	1	17
Large Firms (200 lots and over)	7	9	2	18
	Expressed as percentages of applicable responses			
Small Firms (Under 50 lots)	*43%*	*57%*		
Medium Firms (50-199 lots)	*88%*	*13%*		
Large Firms (200 lots and over)	*44%*	*56%*		

Source: Survey of Land Development Industry

Similarly, of 38 firms that were pure land developers in 2006, 82 percent have done the same in the 1990s, and another 8 percent had been builder/developers. Another ten percent had not been in the residential business at all.

Table 8: Survey of Land Developers – Change in Work Done, 1990s and 2006

Type of Work in 2006		Type of Work in 1990s					
	Number of Firms Responding	Both Land Development and New Home Building		Land Development		New Home Building	Neither Land Development Nor New Home Building
		No.	% of 2006	No.	% of 2006		
Both Land Development and New Home Building	46	34	74%	4	9%	3	5
Land Development	38	3	8%	31	82%		4
New Home Building	6	1	17%			4	1

Source: Survey of Land Development Industry

These aspects of corporate organization[70] will be explored further in examinations of firms' organization of their work, including more detailed consideration of land acquisition, planning, servicing and sales/marketing activities.

Production of the Residential Development Industry

Table 9 provides a general profile of the production of the residential land development industry. It summarizes the number of lots, by type, that were produced in 2005, by development firms of various sizes.

Table 9: Survey of Land Developers – Production by Housing Type, Size of Firm

Type of Land Development	Quantity of Land Development, by Firms of Different Sizes									
	Lots/Units Developed			No. of Firms				Average Production		
	Small Firms	Medium Firms	Large Firms	Small Firms	Medium Firms	Large Firms	All Firms	Small Firms	Medium Firms	Large Firms
Single Detached Lots (in Lots)	184	1,737	12,500	9	24	28	61	20	72	446
Semi-Detached Lots (in Units)	2	212	1,601	1	7	13	21	2	30	123
Row Housing Sites (in Units)	176	996	2,757	8	17	19	44	22	59	145
Apartments Sites (in Units)	3,707	685	3,473	12	10	17	39	309	69	204
All Land Development (in Units)	**4,068**	**3,630**	**20,331**				**77**			

Source: Survey of Land Development Industry

Note: Small firms developed land for under 50 units of low-to-medium density housing in 2005, medium firms developed 50-199 units, and large firms developed over 199 units

An examination of this response provides a profile of the industries' overall production.[71] Most land development is performed by the larger developers.

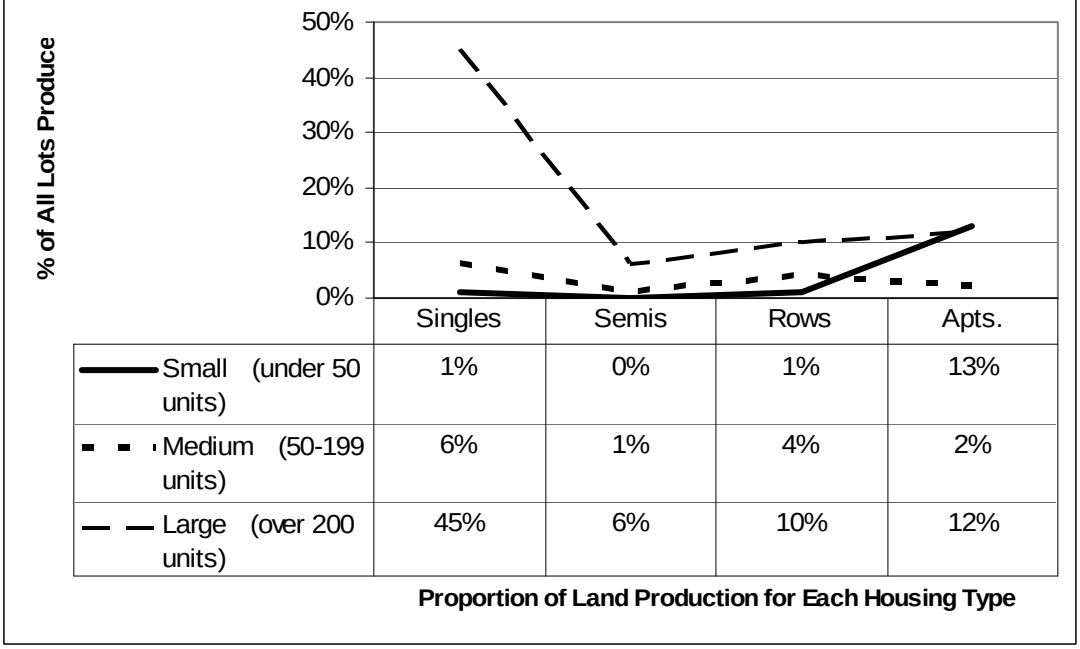
- nearly 80 percent of land developers produced lots for single-detached housing in 2005 (61 out of 77 firms);
- nearly 60 percent of developers produce sites for row housing;
- about one-half of firms produce sites for apartments and
- about one-quarter produce lots for semi-detached housing.

The development of land for different types of housing varies among firms of different sizes. Chart 9 shows the proportions of residential land development, distributed among the three sizes of firms, and four types of housing units.

[70] There are other aspects of corporate organization in the land development industry that are not covered by this survey. These are outlined in Appendix I.

[71] In Table 9 the numbers of firms developing land of various types cannot be added to produce a total. The production reported by individual firms is not exclusively one type (e.g.: a firm may both produce lots for singles and sites for row houses). The numbers of firms can be added across size groups within a single type of development, as all production data concerning each firm was assigned to a single size group.

Chart 9: Survey of Land Developers – Production of Developed Land by Housing Type, and by Size of Firm



Source: Survey of Land Development Industry

The overall importance of producing lots for single-detached housing stands out as a characteristic of the industry, as singles account for 52 per cent of all lots or other land produced for housing:

- The largest firms produce 86 percent of all lots for singles.
- Large firms also dominate the production of land for two of the other types of housing, with 86 percent of the lots for semi-detached housing and 67 percent of all row housing. Large firms produce 44 percent of all land for apartments.
- Of all land developed, 73 per cent was produced by large firms.
- Medium-sized firms have 46 percent of their development for singles and 31 percent for rows. They account for 13 percent of all land developed, and over one-quarter of all land for row housing.
- Small firms are the largest developers of sites for apartments, (48 percent of all such development) and this activity is 87 percent of the total development by small firms. Small firms account for 15 percent of all land produced.

Regional Patterns, Specialization, and Product Mix

The product mix of residential land developers varies widely, both across the entire industry, and within individual regions. This section reports on the basic mix of land for various housing types, and later sections provide information

about the more fine-grained mix such as sites for condominiums or rentals, and low-rise or high-rise configurations.

Table 10 summarizes the proportions of survey respondents who produced each of the 14 possible combinations of housing mixes, and also includes the regional dimension. Most developers produce mixes. Fifty-eight percent of firms developed some sort of mix in 2005, while 42 percent specialized in developing a single type of residential land.

Table 10: Survey of Land Developers – Product Mix by Region

Mix of Land Developed, by Housing Type	Percentage of All Land Developed					
	Atlantic %	Quebec %	Ontario %	Prairies %	BC %	16 CMAs %
Single-Detached	1%	1%	2%	2%	5%	10%
Single-Detached Semi-Detached			2%	6%	2%	10%
Single-Detached Semi-Detached Row			1%			1%
Single-Detached Semi-Detached Row Apartments	1%	1%	1%	3%		5%
Single-Detached Row		1%	3%	2%	3%	10%
Single-Detached Row Apartments	1%		1%	4%	2%	7%
Single-Detached Apartments		1%	2%		1%	3%
Semi-Detached		2%	3%	1%	5%	11%
Semi-Detached Row	1%		2%	5%	2%	10%
Semi-Detached Row Apartments			1%			1%
Semi-Detached Apartments			2%	4%	2%	7%
Row	1%	2%	1%	2%	2%	7%
Row Apartments	1%	1%	1%	3%		5%
Apartments		1%	5%	3%	5%	14%
Regional Totals	**3%**	**8%**	**24%**	**35%**	**29%**	**100%**

Source: Survey of Land Development Industry.

Note: Percentages inexact due to rounding.

Forty-six percent of developers produce lots for singles while 36 percent also produce land for other types of housing, so land developers are producing 78 percent of singles as part of a housing mix. The most common mixes are lots for singles and semis (seen in Ontario, Prairies and British Columbia), and for singles and row houses[72] (seen in the foregoing three regions plus Québec).

Three non-mixed forms of land development are notable:

- The most common form of non-mixed land development is to develop sites for apartments. This is the specialization of 14 percent of all developers, nationally, and of 16-20 percent of firms in the BC and Ontario regions, respectively. As noted above, most of these developers are small firms.

[72] The row housing in this mix is further sub-divided among fee simple, condominium/strata title, and rental rows, and is further examined later in this study.

- The next most common product, produced by 11 percent of firms, is lots for semi-detached housing. In British Columbia, 17 per cent of firms had this specialization, as did 12 percent of Ontario firms.
- 10 percent of developers specialize in producing lots for singles, and they are more prominent in the Atlantic and Québec regions.

The varied compositions of their product add to the evidence that this is a complicated industry, and clearly demonstrate that the traditional image of monolithic, single-family oriented development is not descriptive of contemporary land development.

This finding of complexity is reinforced by other information from the survey. In addition to the information about the form of their production, developers were asked about phasing in their developments. The distribution of all development is seen in Table 11, as follows:

- Multiple phased projects with a mix of housing types - 34%
- Multiple phased projects with a mix of land uses - 28%
- Multiple phased project with mainly one housing type - 15%
- Single phased project with a mix of housing types - 10%
- Single phased project with mainly one housing type - 8%
- Single phased project with a mix of land uses - 6%

Only 23 percent of developments were mainly one housing type, while 44 percent contained a housing mix and over one-third involved a mix of land uses.

While it may be perceived that these mixed developments and complicated production patterns are a new phenomenon, they are not that new. Many firms were involved in quite similar activities in the 1990s, however, there have been some quite dramatic changes (Table 11):

- 35 percent of developers were involved in many multi-phased projects with mixed land uses in the 1990s, which is a larger involvement that the 28 percent indicated today. Similarly, while 40 percent had many single-phased projects with mixed uses through the 1990s, only 6 percent of their projects in 2005 are this type.
- There were more multi-phased projects of one housing type in the 1990s. Nearly 6 in 10 developers say they were involved in many such projects at that time, compared to just 15 percent today.
- The most drastic change is seen in the decline of homogenous, one-phase projects, as 78 percent of developers were involved in a few or many such projects in the 1990s, and only 8 percent are today. Similarly, while all developers reported working on many or a few homogeneous, multi-phase projects in the 1990s, only 15 percent do today.

Table 11: Survey of Land Developers – Product Mix in Developments of the 1990s

Frequency of this Mix in Developments of the 1990s	Types of Product Mix					
	Single Phase Developments			Multiple Phase Developments		
	Mainly one housing type	A mix of housing types	A mix of land uses	Mainly one housing type	A mix of housing types	A mix of land uses
Few	38%	33%	19%	44%	37%	30%
Many	40%	33%	40%	56%	26%	35%
Never	22%	33%	40%	0%	37%	35%

Source: Survey of Land Development Industry

The extent of these changes may be exaggerated because in one case the respondents are reporting on what occurred over a ten-year period, and in the other they are describing 2005. Regardless of this limitation, the survey is establishing that the monolithic subdivisions of the past are giving way to more complex, multi-dimensional projects.

Characteristics of Selected Large Land Developers

Before proceeding with more detailed examinations of the findings of the survey, it is useful to observe a few prominent development firms more closely, to obtain perspective on individual firms and their operations.

One perspective is provided by Table 12, which is a summary of some financial highlights of 14 large Canadian corporations with significant land development operations.[73] The information in the table was extracted from annual surveys of Canada's largest businesses, produced by two national business newspapers,[74] in 1998/1999 and 2005/2006.

The two surveys ranked the Toronto's Brookfield group of companies 56th or 57th among all businesses in Canada in 2005/2006. Dundee Realty, also Toronto-based, was ranked 177th. Six other development firms are currently ranked among the "Top 1000" businesses:

- Consolidated HCI Holdings of Toronto (at 398th)
- Melcor Developments of Edmonton (at 367th or 787th, depending on survey)
- Revenue Properties of Toronto (at 490th)
- Polygon Properties of Vancouver (at 529th)
- Genesis Land of Calgary (at 715th)
- Killam Properties of Halifax (at 734th)

[73] While the table lists 18 firms, the three Brookfield firms are actually in one ownership which also owns Carma, and the two Dundee listings are effectively the same developer, so it contains 14 different development businesses.

[74] The surveys are the "Top 1000 Companies in Canada" by the Globe and Mail Report on Business, and the "Top 500 + 300" in the National Post's Financial Post.

Table 12: Selected Financial Data – Canadian Companies with Significant Land Development Operations, 1997/1998 and 20004/2006

Name of Firm, H.O.Location	Revenue (in $Millions)				Assets (in $Millions)			Number of Employees				Rank Among Cdn Co's Report on Business "Top 1000"		Financial Post "Top 500 + 300"	
	1997	1998	2004	2005	1997	1998	2005	1997	1998	2004	2005	1998	2005	1999	2006
Brookfield Homes/BPO, Toronto	365.3		259		1,335							146	185		
Brookfield Properties, Toronto	1,506	2,271	442		9,145	11,711		2,500	2,500	1,300		86	57	71	
Brookfield Asset Mngt, Toronto				6,365			30,305				6,000				56
Dundee Realty, Saskatoon	65.4	175.3	822.3		216.4	1,075		630	400	49		411	177	513	
Dundee REIT, Toronto			189.4	221			1,508				246		594		690
Consolidated HCI Hldgs, Toronto	66.2		47.2		209.9			11		9		319	398		
Melcor Developments, Edmonton	51.2		89.9	163.4	128		396.1	50		143	53	359	367		787
Revenue Properties, Toronto	129.3	200.4	59.8		930.2	1,336		142	127			925	490	485	
Tridel Enterprises, Toronto	389.9				437.4			600				897			
Abbey Woods Devts, Toronto	2.508				34.3			8				718			
Apex Land Corporation, Calgary		87.4				137.6			60					691	
King George Devts, Vancouver	15.2				54.7			10				612			
Grilli Property Group, Montreal	30.9				50.2			21				281			
Monarch Developments, Toronto	325.9	388.6			454.1	571.9		285	330			222		330	
Killam Properties, Halifax			19.1							160			734		
Genesis Land Devt, Calgary			13.6							24			715		
Polygon Properties, Vancouver				375							176				529
Carma Devt Ltd, Calgary	149.8				255.3			80				(Listed without any ranking)			

Sources: 1997 from "The Top 1000" The Globe and Mail Report on Business magazine, July 1998
1998 from "The Top 500" The Financial Post Business, June 1999
2004 from "The Top 1000" The Globe and Mail Report on Business magazine, JulyAugust 2005
2005 from "The Top 500" The Financial Post Business, June 2006

Six other developers in the table were ranked in the 1998/1999 surveys, but are no longer included among the top-800 or top-1000 businesses in Canada. One observation that may be made about this table is that it demonstrates that very few land developers are ranked among the nation's biggest businesses. This observation is reinforced if it is noted that while all the firms in Table 12 develop residential land, most of them are not primarily land developers.

There is considerable volatility in the business of the large firms. This is reflected in the inconsistency in their rankings. Of the 10 development firms ranked in 1998/1999, only 5 are still included in the top ranking. Three firms are ranked now that were not ranked five years ago. Annual revenues are remarkably variable. Of the six instances where the table shows year after year revenues, two show increases of about 20 percent, two show increases of about 50 percent, one shows an 80 percent increase and one increased by 170 percent (perhaps due to a reclassification). In the four instances where the table contains year to year asset values, all annual changes exceeded 25 percent.

Many of these firms have small staffs in relation to the size of their business. One firm with assets valued at $55 Million has 10 employees, another with $34 Million has 8 people, while a third has over $200 Million in assets and 9 people.

This volatility of land developers' business, and the small staffs dealing with large assets, are not the normal or straightforward patterns of financial performance seen in most industries. These indications about the largest, presumably the most successful developers, are characteristics that demonstrate the land development industry is not typical of other businesses.

The complexity in land development businesses can be seen more clearly in Table 13, which contains more detailed profiles extracted from the Annual Reports of two of Canada's largest land developers. These firms are both public corporations from Alberta, and each has dozens of different types of land development projects in many cities in Canada and the USA.

- Melcor Developments is a $400 Million firm based in Edmonton whose management and stock ownership is controlled by the Melton family that founded it. It began as a brokerage firm in the 1920s and is now predominantly a land developer.[75] From its base in Edmonton it expanded to several Alberta cities, then to neighbouring provinces and the USA. It grossed $161 Million in 2005 and has a five-year average annual gross margin of 39 percent.
- Carma Development Corporation is a limited partnership based in Calgary that is majority-owned by Brookfield Asset Management, a public company headquartered in Toronto. In 2005 Brookfield had international assets valued at $US 26 Billion and grossed $US 5.3 Billion, and its ownership is closely associated with the Bronfman family of Montréal. Carma was founded as a cooperative to provide a supply of developed lots for a group of Calgary home builders, and grew to build homes itself, expanded to multi-city and international operations, and became a public company. Its two housing divisions now build on over one-half of the land it develops, and Carma is known as an "early adopter" with successful innovations. In 2005, Brookfield's return on assets from Alberta operations was 30 percent.

While these are both large, prominent companies and their land development projects have much in common, there are significant differences between them. Their ownership and lineage are widely varied, and Melcor emphasizes well-executed communities and business while Carma is known as a leader in successful innovation.

[75] While land development dominates Melcor's business, the firm also owns and operates some income property.

Table 13: Profiles of Two of Canada's Largest Land Developers

Dimension	Melcor Development Corporation	Camra Developers L.P. (Brookfield Properties subsidiary)
Head Office	Edmonton	Calgary (Brookfield Properties Head Office is in Toronto)
Status	Public company since 1968.	Private corporation since 2000.
Ownership	Majority controlling owner is T.C. Melton – the Melton family.	Carma is a wholly-owned subsidiary of Brookfield Properties Corporation (BPC). Brookfield's parent is Brookfield Asset Management (BAM), which is owned/controlled by Brascan – associated with the Bronfman family
Business	Land development, some commercial, golf courses, rental residential. Melcor reports developments in Edmonton, Calgary, Lethbridge, Red Deer, Kelowna and a building in Regina.	Land development, home building. Carma has 2 subsidiaries - Heartland builds housing on Carma land - Hawthorne builds multi-family (since 1999) Carma reports it is developing/building in Calgary, Edmonton, Toronto, Denver, Kansas City and Austin
Assets -Total **- Land**	$CDN 396.1 Million (2005) $CDN 201.4 Million (2005)	BAM assets $US 26.1 Billion. BAM residential lots $US 382 Million (2005).
Land Assets – Raw Land	31/12/04 – 6159 ac. Purchased 2005 - 993 Developed 2005 - 609 Sold 2005 - 429 31/12/05 - 6117 ac	BAM reports it owns over 36,000 lots in Calgary, Edmonton and Toronto, (these include registered lots, serviced lots, and anticipated lots), of which approximately 4,100 were under development on 31 Dec 2005. It builds and sells homes on its lots and is a major supplier of lots to other homebuilders. In 2005 it sold 3,173 lots in Alberta, and 391 lots in Ontario.
Land Assets – Lots	31/12/04 -779 Developed 2005 -1509 Sold 2005 - 1676 31/12/05 -612	
Other Assets	Watergrove manufactured home community (Calgary), 3 golf courses (2 in Edmonton, 1 in Kelowna), buildings in Edmonton, Calgary and Regina	BPC claims that it's 58 major properties "define the skyline of major metropolitan centres", including New York (ie.: World Financial Centre), Boston, Washington, Toronto, Calgary and Ottawa,. BAM has additional major downtown properties in London (UK) (Canary Wharf) Rio de Janeiro, Sao Paulo, Minneapolis, Denver and Vancouver.
Revenues	$CDN 161.5 Million (2005)	BAM - $US 5.3 Billion (2005)
Gross Margin	39% (2005) 5-Year average – 39% (2005)	BAM reports residential operations produced 30% Return on Assets (Alberta) (2004), 38% ROA (Ontario)
History	L.T. Melton founded the company as a real estate brokerage in Edmonton in 1923. It evolved into a major land developer in the postwar housing boom, and went to the market as a public company in 1968. It has expanded operations to Calgary, Red Deer, Lethbridge, Regina, Kelowna, Phoenix and Tucson. Melcor predominantly develops mixed-use residential communities, with associated services. About 40% of its land acquisitions are financed by vendor takeback loans. Most of its lot sales occur through sales agreements with builders. Melcor's published reports have always provided considerable detail about its land and development operations. Melcor' Municipal Art Collection of Spruce Grove provides residents with easy access to works of art.	Carma was created as a cooperative in the late 1950s by a group of Calgary builders that wanted to have a land developer that would assure their supply of lots. Within 20 years it had become a builder/developer, and had expanded to Edmonton, Red Deer, Regina and Toronto/Hamilton. It went public in the 1970s, and became a private firm when it was purchased by BPC in 2000. Its product lines have steadily widened in scope and detail, including many technological innovations. McKenzie Towne emerged in the mid-1990s as Canada's first new urbanist development. Carma's initiative and support established the Carma Centre for Excellence in Home Building and Land Development at SAIT in 2000 to support innovative education in residential construction, including apprenticeship training. In some projects Carma requires builders to include smart wiring, and provides an intranet for residents of its communities. Customers and builders can view and buy lots online through a builders' portal. In 2003, according to Alberta Business Edge, Carma was the 11th largest builder in the province. According to Brookfield Properties, in 2005 Carma had 24% of Calgary's housing market and 10% of Edmontons'.

(Table Continues over …)

Profiles of Two of Canada's Largest Land Developers (Cont'd)

Dimension	Melcor Development Corporation	Camra Developers L.P. (Brookfield Properties subsidiary)
Projects /Communities	Overall – 31 subdivisions in 18 communities (2005) Edmonton – Magrath Calgary – Chestermere – Westmere - Airdrie -Kings Heights -Kingsview (industrial) Lethbridge – Legacy Ridge - Paradise Canyon - Willow Ridge Red Deer Kelowna - Black Mountain Tucson (AZ) Denver (CO)	Edmonton - Lake Summerside (manmade lake) - Terwilligar Town (new urbanist) - Parkland - Gateway Business Park - Land bank south of Edmonton (unspecified) - Infill site (multi-family) Calgary – McKenzie Towne (new urbanist) - New Brighton - Cranston - Auburn Bay (lake community) - Valleyview Estates - Tuscany - Aspen Hills - Seton (commercial, mixed uses) - Infill projects (several parcels) Toronto (GTA) (Brookfield Homes (Ontario)) - Bradford - Brantford - Niagara Falls - Aurora - Richmond Hill - Oshawa – Manor Heights - - Ravine Estates - Pickering – Watermark Denver - Tallyn's Reach - Brighton Crossing - New Communities (Solterra, Bayshore) Austin - Blanco Vista
Sources	Melcor Annual Report, 2005 and various other years	Brookfield Asset Management Annual Report, 2005 and various other years. Brookfield Properties Annual Report, 2005. Carma website - www.carma.ca.

This brief consideration of some large individual firms has highlighted variety and complexity as characteristics of the land development industry. As this Chapter continues the examination of the survey of developers, it is important to recognize that as much as the analysis of the survey responses reveals varied patterns in the industry, it masks some of the enormous variety among the individual firms.

The Products of the Land Development Industry

This section provides a more detailed examination of the different types of land development, and the sizes of the firms that perform the development.

Lots for Single-Detached Houses

Single-family lot development is clearly a business for large firms. The average developer of lots for single-family housing produced 236 lots in 2005. Nearly 90 percent of lots were developed by less than one-half of the firms, who produced 200 lots or more. Developers producing less than 50 lots only accounted for one percent of total production, although they comprised 15 percent of all firms.

Land Development for Single-Detached Dwellings				
	Lots Developed/Size of Firm			
	Small	Medium	Large	All Lots
	Less than 50 Lots	50-199 Lots	More than 199 Lots	
Proportion of Firms	15%	39%	46%	100%
Proportion of Lots	1%	12%	87%	100%
Average Lots Per Firm	20	72	446	236

Table 14 is a summary of the production of over 14,000 lots for single-detached housing, reported as five types of lots, by region and by firm size. It shows the dominance of homogeneity in the market for singles, as 49 percent of production in the form of “regular” lots.

Table 14: Survey of Land Developers – Types of Lots for Single-Detached Houses, by Region and by Size of Firm

Region/Size of Firm	Major Sub-Groups of Lots for Single Detached Houses					
	Small Lots	Regular Lots	Large Lots	Estate Lots	Other Singles (e.g. cottage, custom etc.)	All Singles
	(Share of All Lots for Singles)					
Regions						
Atlantic	1%	2%	1%	0%	0%	3%
Quebec	0%	1%	0%	0%	0%	1%
Ontario	5%	10%	2%	0%	0%	16%
Prairies	25%	33%	10%	5%	0%	72%
BC	3%	4%	0%	0%	0%	7%
Subtotal	34%	49%	13%	5%	0%	14,421 lots
	(Share of Singles Lots by Firms of Various Sizes)					
Sizes of Firms						
Small Firms (Under 50 lots)	7%	57%	34%	2%	0%	100%
Medium Firms (50-199 lots)	23%	49%	20%	8%	0%	100%
Large Firms (200 lots and over)	36%	48%	11%	4%	0%	100%

Source: Survey of Land Development Industry

Note: Totals inexact due to rounding

One in three singles are "small lots" in most regions,[76] and in British Columbia the proportion appears significantly higher (75 percent). Large firms are more likely than other sizes of firms to develop small lots (36 percent of their singles).

Large lots constitute about one-eighth of all development of singles, and in the Atlantic region they were one-third of the respondents' production. Small firms reported 34 percent of their singles were large lots, while they were only 20 percent of the singles produced by medium firms, and 11 percent of large firms' production.

One lot in twenty was classified "estate", and these were developed by all sizes of firms, mainly in the Prairies. There is probably some overlapping between the development classified as "large" and that termed "estate".

It is interesting that no lots were reported in the category "other lot types (eg.: wide/shallow lots, cottage lots, custom lots),(please specify)". Some developers have reported that wide/shallow lots, square lots, and irregular configurations like panhandles and "L-shapes", have sold strongly.

The survey asked developers to report the size of their typical "regular" lots, and "small" lots, in 2005.

Table 15: Survey of Land Developers – Dimensions of Lots for Single-Detached Housing, 2005 and 1990s

Region	Average Dimensions of Lots Developed in 2005 (in metres)						*Average Dimensions of Lots Developed in 1990s (in metres)*			
	Regular Lots			Small Lots			*Regular Lots*		*Small Lots*	
	Frontage	Depth	Area	Frontage	Depth	Area	*Frontage*	*Depth*	*Frontage*	*Depth*
Atlantic	30.7	47.6	1,461	11.1	27.8	308	*20.7*	*38.0*	*9.0*	*26.5*
Québec	22.0	33.0	726	15.5	36.5	566	*18.3*	*30.0*	*12.7*	*33.3*
Ontario	12.8	32.6	418	9.9	29.7	293	*14.0*	*35.0*	*9.7*	*32.4*
Prairies	12.5	34.4	429	9.8	33.8	333	*13.7*	*34.7*	*10.7*	*34.1*
B.C.	18.2	35.5	648	13.1	30.8	403	*20.4*	*40.4*	*14.3*	*32.2*

Source: Survey of Land Development Industry
Note: The averages in Atlantic and Québec regions are each based on less than 10% of total number of respondents that provided lot dimensions

[76] The lack of small lot singles in Québec is likely a reflection of the small survey response in that region.

Table 15 reports the responses, averaged within each of the five main regions[77],[78]:

- there is not a "standard" lot in Canada. There are significant variations in lot dimensions between regular and small lots within each region, and among all regions.
- in Ontario, Prairies and British Columbia regions (each of which reported on over 1,000 lots), the lot areas were 418, 429 and 648 square metres respectively. Developers in Ontario and Prairies produce smaller lots with average frontages less than 13 metres.
- the largest lots were reported in the Atlantic and Québec regions, averaging 1,461 and 726 square metres respectively. However, these averages reflect the small number of respondents in these regions, and they likely over-state the actual regional averages.
- there was not as much variation across the regions in the depth of lots as there was in the frontages.
- according to the survey respondents, regular lots are smaller now than they were in the 1990s, in the same regions.
- regular lots in British Columbia today are approximately the size of regular lots in the Prairies in the 1990s. In the Prairies today regular lots are about 10 percent smaller than they were in the 1990s.

The semi-annual PULSE survey conducted by CHBA also produces data about average lot sizes. As seen in Table 16, the dimensions it reported during the last three years[79] are quite similar to those reported in the survey (Table 15).

Table 16: Average Dimensions of Lots for Single-Detached Housing, CHBA PULSE Surveys, Summers of 2004-2006

Region	Frontage	Depth	Area
	(in metres)		
Québec	19.3	31.5	608.0
BC	17.6	34.0	598.2
Atlantic	17.1	31.5	537.6
Manitoba/Saskatchewan	14.2	35.6	505.8
Ontario	14.7	33.0	486.5
Alberta	12.2	34.5	421.2

Source: CHBA PULSE Surveys, 2004-2006.

[77] The averages in the Atlantic and Québec regions should be treated with caution as each was calculated from small numbers of responses.
[78] When examining this Table, it is relevant that Table 4-9 showed the relative proportions of small and regular lots in the respective regions. Generally, the ratio is about 2 small lots to every 3 regular lots.
[79] PULSE findings were converted from feet to metres and averaged over the last three years.

Lots for Semi-Detached Houses

The production of lots for semi-detached housing units is more balanced, although the large firms predominate. The lots for nearly 90 percent of semi-detached units were developed by 62 percent of the developers who produced 200 units or more. About one-third of all firms who develop semi-detached units are medium-sized, yet they only account for 12 percent of the production of these lots. The average developer of land for semis produced 86 units.

Land Development for Semi-Detached Dwellings				
	Lots Developed/Size of Firm			
	Small	Medium	Large	All Lots
	Less than 50 Lots	50-199 Lots	More than 199 Lots	
Proportion of Firms	5%	33%	62%	100%
Proportion of Lots	0%	12%	88%	100%
Average Lots Per Firm	2	30	123	86

Sites for Row Housing

Large developers produced most of the sites for row housing (70 percent of the units), and they comprised 43 percent of the firms developing land for rows. Looking at the converse, nearly 60 percent of the small and medium firms which developed land for row housing, produced under one-quarter of the sites. The average row house developer produced sites for 89 units.

Land Development for Row Housing				
	Lots Developed/Size of Firm			
	Small	Medium	Large	All Lots
	Less than 50 Lots	50-199 Lots	More than 199 Lots	
Proportion of Firms	18%	39%	43%	100%
Proportion of Lots	4%	25%	70%	100%
Average Lots Per Firm	22	59	155	89

Table 17 reports on land development for row housing in more detail. It depicts the distribution of sites for about 3,800 row units among three market categories (fee simple, condominium or strata title, and rental).

Table 17 shows:

- 58 percent of all land developed for row houses was for strata title units.
- small firms accounted for 5 percent of all development for row units, and almost four-fifths of their production was for condos;
- About 60 percent of the row sites developed by medium and large firms were for condos;
- Over one-third of all row land development was for fee simple dwellings, and these were developed mainly by medium and large firms (about 40 percent of all the row sites they produced).
- A small proportion of row sites was developed for rental (6 percent). In the case of small firms, the rental market comprised about one-fifth of the land developed for rows.

Table 17: Survey of Land Developers – Production of Sites for Row Housing, by Target Market and by Size of Firm

	Row Housing, by Ownership Market				
	Fee simple	Condominium / Strata title	Rental	All Rows	% by Firm Size
Sizes of Firms					
Small Firms (Under 50 lots)	5%	78%	18%	100%	5%
Medium Firms (50-199 lots)	39%	61%	0%	100%	23%
Large Firms (200 lots and over)	37%	56%	7%	100%	72%
All Sizes	36%	58%	6%	100%	100%
All Sites - 16 CMAs					3811

Source: Survey of Land Development Industry

It is notable that other elements add further complexity to the development of sites for row housing. The buildings may take various forms within these categories of ownership (eg.: street townhouses, clusters, stacks, etc)

Sites for Apartment Buildings

Apartment developers were particularly unlikely to participate in this survey. As was described in the definition of the land development industry in Chapter One, firms that develop sites and build apartments on them generally do not consider themselves to be land developers.[80] It is probable that many firms that are reported in this table were developers who produced land for a mix of housing types in their projects, including apartments.

[80] As Concert Properties, one of Vancouver's largest apartment developers said when declining to participate in the survey: "*Your survey is geared to land developers and single family builders which is not our business.*"

Land Development for Apartment Buildings				
	Lots Developed/Size of Firm			
	Small	Medium	Large	All Lots
	Less than 50 Lots	50-199 Lots	More than 199 Lots	
Proportion of Firms	31%	26%	44%	100%
Proportion of Lots	47%	9%	44%	100%
Average Lots Per Firm	309	69	204	202

About one-half of land for apartments was developed by 31 percent of firms, and these were small firms. Forty-four percent of the respondents developing apartment sites were large, and they provided 44 percent of the production.

The respondents that provided information about apartment sites were responsible for developing about 7,700 units, as reported in Table 18.

Table 18: Survey of Land Developers – Production of Sites for Apartments, by Target Market, Building Height, and Size of Development Firm

Sizes of Firms	Sites for Apartments, by Building Height and Ownership Market					
	Apartments Less than 4 Stories		Apartments Greater than 4 Stories		All Apartments	% by Firm Size
	Condo / Strata	Rental	Condo / Strata	Rental		
Small Firms (Under 50 lots)	11%	5%	73%	11%	100%	48%
Medium Firms (50-199 lots)	73%	0%	27%	0%	100%	5%
Large Firms (200 lots and over)	59%	3%	27%	12%	100%	45%
All Sizes	37%	4%	49%	10%	100%	100%
All Sites - 16 CMAs					**7,740**	

Source: Survey of Land Development Industry

- 86 percent of the sites were developed for condominium apartments, and these were divided equally between buildings above and below four stories.
- about one-half of all apartment sites were developed by small firms, and most of the small firms' production was for the high-rise condo market (73 percent).
- large firms, who accounted for 45 percent of all apartment sites, produced mostly lower rise condos (59 percent), although another 27 percent of their production was high-rise condos. These are probably condominiums within large mixed-density developments.
- it is notable that both small and large firms produced about one-sixth of their apartment sites for rental, primarily in high-rise configurations.

Development of Non-Residential Land

Almost one-half of residential developers also produce non-residential land. As reported in Table 19, nearly 70 percent of large residential firms have non-residential products, and surprisingly, so do more than one in four small and medium-sized firms.

Table 19: Survey of Land Developers – Residential Developers that Do, and Do Not, Develop Land for Non-Residential Uses, by Size of Firm

Residential/Non-Residential Production	Size of Firm (Based on Development of Land for Low/Medium Density Housing)		
	Small Firms (Under 50 lots)	Medium Firms (50-199 lots)	Large Firms (200 lots and over)
Firms Developing Residential Land	21	27	29
Residential Developers Developing Non-Residential Land	8	7	20
Residential Developers Developing Both	6	7	20
% of Residential Developers Also Developing Non-Residential Land	*29%*	*26%*	*69%*

Source: Survey of Land Development Industry

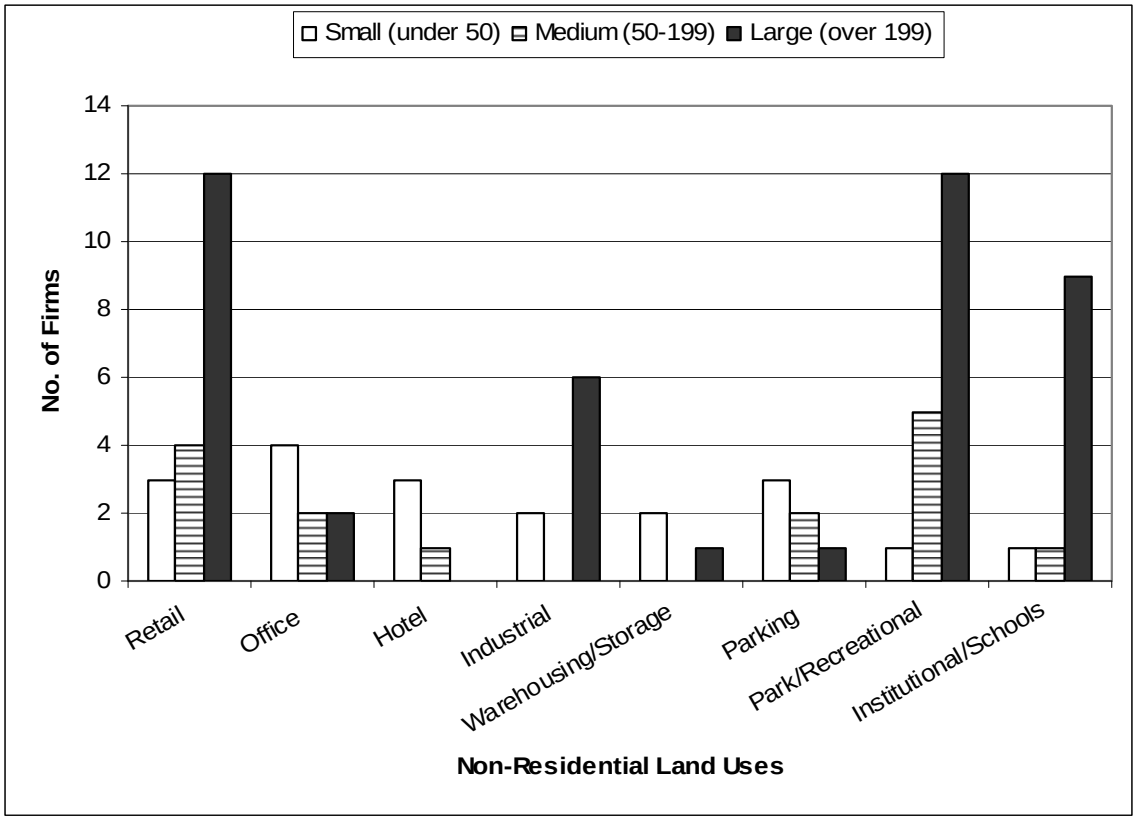
Chart 10 provides the breakdown of the numbers of residential development firms developing each type of non-residential land use.[81] Residential developers are often required to develop schools and parks as a condition of receiving approval for medium to large residential projects, and this probably explains the relatively high proportions of medium and large firms in these land use categories.[82] The numbers of large firms which develop retail is notable, indicative of the increasing inclusion of commercial land uses in larger residential developments.

Chart 11 provides information about the quantity of the non-residential development. A logarithmic scale has been used in this Chart because the quantities involved are either quite large, or relatively small. Significant amounts of non-residential land are being developed by residential developers. The residential developers surveyed also produced, in 2005, 2.6M square metres of industrial sites, 1.8M m² of retail sites, and 1.6M m² of parks and other recreational land uses. While it may not be surprising that big residential developers were also quite active in non-residential land, these quantities illustrate that large amounts of land are involved, particularly industrial land.

[81] A few of the firms which reported non-residential development did not report any residential development in 2005. Their non-residential output was recorded in the survey data base in the "small firms" category.

[82] Developers of small projects may pay a fee in lieu of developing land for these purposes.

Chart 10: Survey of Land Developers – Residential Development Firms Developing Non-Residential Land, by Type of Land and Size of Firm

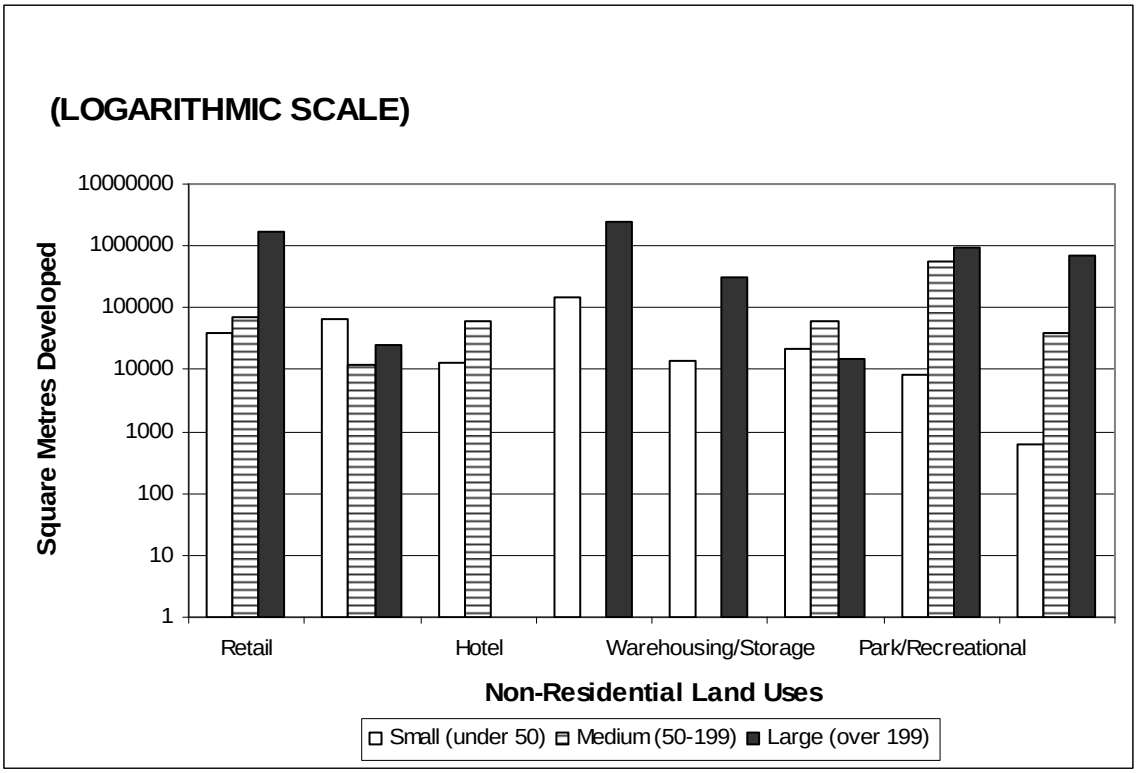


Source: Survey of Land Development Industry

A sizable component of the non-residential production by medium and large firms is likely medium-sized, mixed-use projects in infill locations with retail, office or even light industrial space along with the residential units. Projects like this are appearing frequently in the larger metropolitan centres.

It is notable that medium sized firms reported two-thirds of the land developed for parking, and about one-third of the park/recreational land. The reason for these disproportionate amounts is not known, but it may be another reflection of the medium-scale, mixed-use projects.

Chart 11: Survey of Land Developers – Quantity of Non-Residential Land Developed by Residential Developers, by Type of Land and Size of Firm



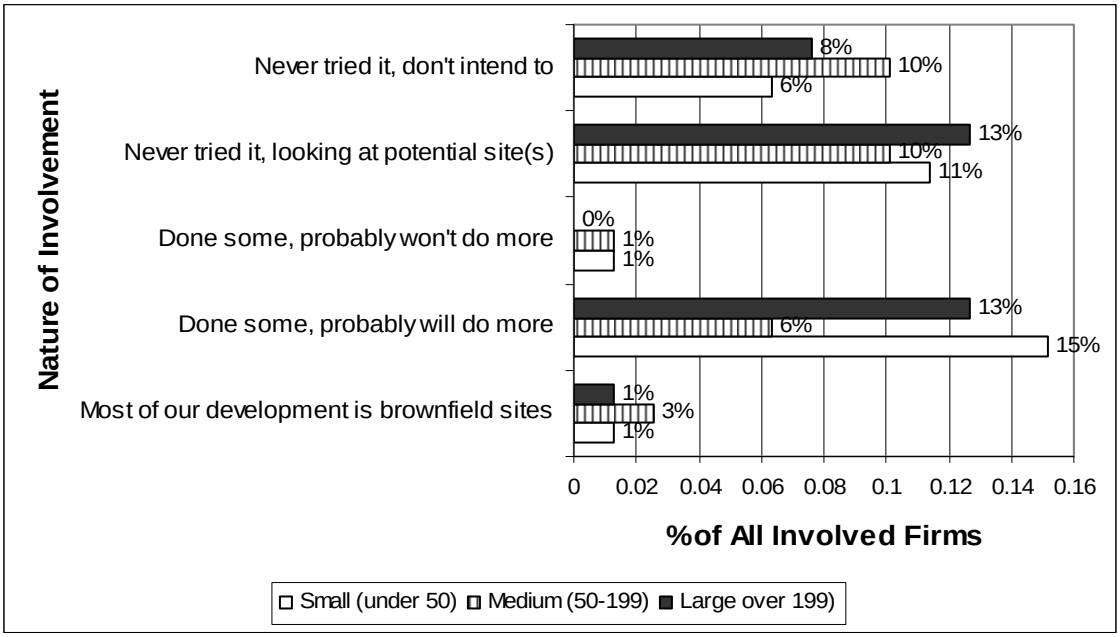
Source: Survey of Land Development Industry

Brownfields

Residential land developers are often involved in brownfield redevelopment. As reported in Chart 12, of the 79 respondents[83] who answered the survey question about brownfields, one-third said that they "had done some, probably will do more" and another one-third said that they "hadn't tried it but were looking at potential site(s)". Another 5 percent of all respondents said most of their developments are on brownfields sites. This response reveals that the land development industry has brownfields experience and probably will do more of these projects.

[83] In addition to the 77 residential developers who answered this question, two of the municipal planners contributed their perspective on brownfield development within their jurisdiction. These planners' responses were grouped with the small developers.

Chart 12: Survey of Land Developers – Involvement with Brownfields Sites, by Size of Firm



Source: Survey of Land Development Industry

Medium-sized firms appear to have more varied experience with brownfields. Sixty percent of the firms that reported “most of their developments are on brownfields sites” were medium-sized, however, slightly lower proportions of medium firms indicate they have done some brownfields developments, or are looking at sites.

A minority of developers indicated dis-satisfaction with brownfields projects.

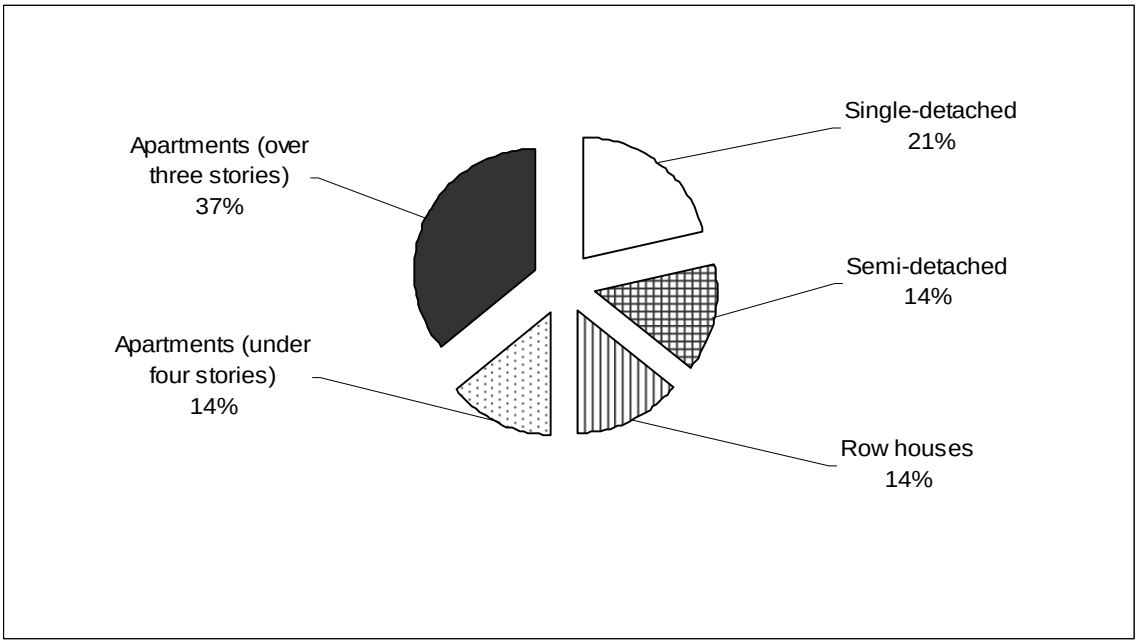
- 2 percent of respondents reported they had developed brownfields sites but probably would not do more.
- one-quarter of respondents said they hadn’t developed brownfields projects and don’t intend to. These included 18 percent of the small firms responding, 33 percent of the medium firms and 22 percent of the large firms. No pattern was seen in the firms indicating this dis-satisfaction.

The survey response has demonstrated that the majority of land developers of all sizes are either involved in, or looking to become involved in, brownfields developments.

Life-Lease Developments[84]

A small proportion of developers have produced sites for use as life-lease residences. Only 3 developers indicated they had life-lease products, and 2 of these were small firms. Three of the municipal planners who responded to the survey provided breakdowns of life-lease developments in their areas. The six responses came from British Columbia, Alberta and Prince Edward Island. Chart 13 depicts the type of life-lease housing that these developers are producing. Although it is based on a very small sample, it indicates that apartment buildings are the more common form of housing to be marketed as life-leases, accounting for about one-half of all life-lease projects. Nearly one in five of the life-lease projects were produced for single-detached houses.

Chart 13: Survey of Land Developers – Proportions of Sites for Life-Lease Residences, by Type of Housing



Source: Survey of Land Development Industry

Summary – Products of the Industry

The examination of development by different sizes of firms has disclosed a strikingly diverse land development industry. Large firms are responsible for the majority of the land development for all but the apartment sites. Large developers

[84] A good introduction to life-lease housing is the paper "Life Lease Rental Housing" prepared by the Residential Tenancies Branch of Manitoba Finance. See www.gov.mb.ca/finance/cca/rtb/lifelease.html.

have a broader range of products than other sizes of firms, and most large residential developers also develop non-residential land, while only a minority of small and medium firms do so. Most developers of all sizes are either involved in brownfields developments or are looking to develop brownfields sites. Few developers produce sites for life-lease housing, and those that do are more likely to be in western Canada or in the Atlantic region

Organization of Land Developers' Work

As outlined in Chapter One, the tasks entailed in land development can generally be categorized under four broad areas of work. They are:

- acquiring and financing land
- development planning
- physical development
- marketing and sales

The section examines the manner that developers organize the work in these broad areas.

Financing Land Acquisition

The first step in land development is securing a site, which requires either cash resources or financing. As seen in Table 20, firms of different sizes exhibit quite different patterns in financing their land.

Table 20: Survey of Land Developers – Methods of Financing Land Acquisition, Alone or in Partnerships, and by Size of Firm

Firm Alone, or in Partnership, by Size of Firm	Method of Financing Land Acquisitions						% of All Financing by Number of Methods Used						Distribution of Survey Responses (211)
	Cash resources	Vendor Takeback	Bank Loan	Public Sector	Offshore Financing	All Methods	1	2	3	4	5	All Methods	
By Itself													
Small Firms (under 50 lots)	42%	22%	28%	6%	2%	*100%*	28%	48%	20%	4%	0%	*100%*	24%
Medium Firms (50-199 lots)	39%	18%	39%	0%	7%	*100%*	31%	63%	6%	0%	0%	*100%*	13%
Large Firms (over 199 lots)	35%	27%	33%	4%	2%	*100%*	32%	28%	40%	0%	0%	*100%*	25%
In Partnership or Joint Venture													
Small Firms (under 50 lots)	39%	14%	25%	14%	7%	*100%*	33%	50%	8%	8%	0%	*100%*	13%
Medium Firms (50-199 lots)	42%	19%	35%	4%	0%	*100%*	31%	38%	31%	0%	0%	*100%*	12%
Large Firms (over 199 lots)	44%	26%	22%	4%	4%	*100%*	23%	46%	31%	0%	0%	*100%*	13%

Source: Survey of Land Development Industry

- most firms use more than one method of financing land purchases (77 percent).

- most small firms, when acting alone, buy land for cash (42 percent), while 28 percent employ bank loans. Over two-thirds make use of 2 or 3 methods of financing.
    - One in five employ vendor takeback financing.
- when small firms buy land in partnerships (one in three small firms), they buy for cash in 39 percent of cases, and 25 percent use bank loans.
    - The use of vendor takeback drops to 14 percent
    - The use of offshore financing rises to 7 percent of all financing methods used
- the pattern for medium-sized firms differs slightly from the small firms. When acting alone, an equal proportion use cash or secure bank financing for land purchases (39 percent), while 18 percent use vendor takebacks. Sixty-nine percent employ 2 or 3 methods. In partnership or joint ventures, medium firms use the same financing methods as when operating alone.
- when large firms are acting alone, (which applies to two-thirds of all large firms), their financing is more balanced among the methods than occurs with small or medium firms.
    - of large firms 35 percent use cash, 33 percent use bank loans, and 27 percent use vendor takeback financing.
    - two-thirds of large firms use two or three methods of financing.
    - in partnerships, large firms use more cash than when they operate alone, (44 percent, up from 35 percent) and use a greater variety of financing methods.

Some forms of financing land are more frequently used by particular sizes of developers:

- Small firms make more use of public sector financing (6 percent when alone, 14 percent in partnerships);
- Medium firms make more use of bank loans (39 percent when alone, 35 percent when in partnerships);
- Large firms make more use of vendor takeback arrangements (27 percent when alone, 26 percent in partnerships). It is likely that many of these partnerships are arrangements with the person/firm that sold the land to the developer.
- There is relatively little use of offshore financing for land, although this method is employed by 1 in 15 medium firms acting alone, and a similar proportion of small developers in partnerships.

Organization of Planning

Developers employ a surprising variety of methods to organize the planning of projects. Table 21 displays the proportions of firms that either plan in-house, secure planning through joint ventures, or contract for planning services.

Table 21: Survey of Land Developers – Methods of Organizing Planning Work, by Size of Firm

Major Tasks in Land Development Planning	Method of Organizing Work (% of Responses)			
	In-house	Joint Venture (partner plans)	Contract	*All Responses*
Concept or Master Plan				
Small Firms (under 50 lots)	50%	8%	42%	*100%*
Medium Firms (50-199 lots)	26%	15%	59%	*100%*
Large Firms (over 199 lots)	32%	6%	62%	*100%*
Outline Plan or Official Plan				
Small Firms (under 50 lots)	53%	7%	40%	*100%*
Medium Firms (50-199 lots)	21%	13%	67%	*100%*
Large Firms (over 199 lots)	37%	3%	60%	*100%*
Development Plan or Subdivision Plan				
Small Firms (under 50 lots)	47%	6%	47%	*100%*
Medium Firms (50-199 lots)	31%	12%	58%	*100%*
Large Firms (over 199 lots)	41%	3%	56%	*100%*
Zoning, Rezoning				
Small Firms (under 50 lots)	58%	6%	36%	*100%*
Medium Firms (50-199 lots)	44%	12%	44%	*100%*
Large Firms (over 199 lots)	55%	0%	45%	*100%*
Development Agreement				
Small Firms (under 50 lots)	71%	11%	18%	*100%*
Medium Firms (50-199 lots)	50%	8%	42%	*100%*
Large Firms (over 199 lots)	72%	0%	28%	*100%*

Source: Survey of Land Development Industry

These proportions are shown for the main planning tasks associated with land development[85]:

- Concept Plan or Master Plan,
- Outline Plan or Official Plan,
- Development Plan or Subdivision Plan,
- Zoning and/or Rezoning, and,
- Development Agreement

At the Concept/Master Plan stage, most planning is done in-house or by contract, with only about 10 percent of projects planned under joint venture arrangements. Smaller firms do more in house (50 percent) while medium and large firms more frequently use contracted planners (59 and 62 percent, respectively).

[85] It should be noted that planning processes which are essentially similar tasks, have different names in different jurisdictions.

The organization of planning for the preparation and approval stages of Official or Outline Plans, exhibit similar patterns to the Concept Plan in the cases of small and large firms, while medium-size firms use contracted planners more often for this purpose (67 percent).

The methods used for organizing planning for Development or Subdivision Plans are effectively identical to the patterns seen for Concept or Master Plans. The use of in-house planners by large firms rises from 32 percent to 41 percent.

In the case of zoning or rezoning, all firms use greater proportions of in-house resources, ranging from about 44 percent to 58 percent.

The greatest proportions of in-house planning are used for development agreements. In large firms 72 percent of development agreements are planned in-house, as are 71 percent of small firms' agreements. Medium firms employ 50 percent in-house planning, and 42 percent contractors.

Overall, the pattern in developers' organization of planning work is quite consistent among sizes of firms and planning tasks. Joint ventures with planners do occur, but they are infrequent (about one in 16 tasks). Generally, planning is done in-house or by contract, and the proportions vary more with the task than with firm size. Firms tend to contract for Concept or Master Plans, and do development agreements and zoning matters in-house, and the other tasks are more varied.

Organization of the Physical Development of Land

Once a firm has secured the necessary planning approvals, the physical development stage may take place. This is usually the largest expense in land development, and consequently, it is normally financed. The survey asked developers whether they, operating alone or in partnerships, employed any of the following methods of organizing physical land development:

- project manager of its own construction forces;
- project manager of contracted construction forces;
- project management and construction contracted out; and
- no physical development involved as firm sells land after planning stage.

The responses are summarized in Table 22. The principal method of physical development used by firms of all sizes (in 55 to 80 percent of all instances) is project management of contracted construction forces. Developers usually employ one method (74-90 percent when developing their own land, 63-79 percent when in partnerships).

Table 22: Survey of Land Developers – Organizing the Physical Development of Land, Alone or in Partnerships, by Size of Firm

Firm Alone, or in Partnership, by Size of Firm	Method of Physically Developing Land					% of All Methods Used			
	Project Manager of its own Construction Forces	Project Manager of Contracted Construction Forces	Project Management and Construction Contracted Out	Firm Sells Land After Planning, No Physical Development Involved	*All Methods*	1	2	3	4
Developing Own Land (66% of Responses)									
Small Firms (Under 50 lots)	14%	60%	23%	3%	*100%*	74%	22%	4%	0%
Medium Firms (50-199 lots)	32%	59%	5%	5%	*100%*	90%	10%	0%	0%
Large Firms (over 199 lots)	7%	72%	21%	0%	*100%*	79%	21%	0%	0%
Developing Land in Joint Venture (34% of Responses)									
Small Firms (Under 50 lots)	0%	55%	27%	18%	*100%*	63%	38%	0%	0%
Medium Firms (50-199 lots)	20%	80%	0%	0%	*100%*	75%	25%	0%	0%
Large Firms (over 199 lots)	11%	58%	32%	0%	*100%*	79%	7%	14%	0%

Source: Survey of Land Development Industry

There are variations from this dominant pattern.

- When large firms develop by themselves they contract out the construction in 93 percent of cases, and this includes the construction management in 21 percent of instances. When they are in joint ventures, they contract the construction management more frequently (32 percent), and one in ten firms manage in-house construction forces (probably those of the partner firm).
- Medium sized firms that develop alone are the most likely to manage construction in-house (one in three firms).
- When small firms develop alone, they display the greatest variety of methods of physical development. One in seven manages in-house construction forces, although no small firms reported doing this in joint ventures. They contract the construction in 83 percent of situations, and in nearly one-third of these, the management is contracted as well. In joint ventures, one in six small firms sell the land once it has received planning approvals, and leave the physical development to the new owner.

Organization of Marketing/Selling Land

The last main stage of land development is the marketing and sale of the developed sites. The survey provided considerable information about the product selected by the development industry for its various markets. The basic information about product selection and mix was provided earlier in this Chapter.

The present section explores the final, marketing stage of land development by reporting developers' organization for seven common methods of marketing/selling their land.

Marketing Approaches

Table 23 summarizes considerable information about land developers' approach to marketing.

Table 23: Survey of Land Developers – Methods of Marketing Land (or Lots), by the Firm Alone or in Partnerships, by Size of Firm

Method of Marketing/Selling Land, by Size of Firm	Stage of Land's Development at Time of Marketing								% of All Methods Used							Distribution of Survey Responses (157)
	Sell Raw Land	Sell Block Land (Official Plan Designation for Development)	Sell Block Land (zoned for development)	Sell Lots Unserviced	Sell Lots Serviced	Sell Lots to Own Home Building Division	Build for rental on Own Land	*All Methods*	1	2	3	4	5	6	7	
Firm Markets/Sells Own Land																
Small Firms (Under 50 Lots)	14%	11%	21%	11%	25%	18%	0%	*100%*	21%	21%	21%	14%	0%	21%	0%	18%
Medium Firms (50-199 Lots)	13%	6%	26%	6%	32%	16%	0%	*100%*	29%	26%	10%	0%	16%	19%	0%	20%
Large Firms (Over 199 Lots)	11%	7%	18%	4%	46%	14%	0%	*100%*	29%	21%	32%	0%	18%	0%	0%	18%
																55%
Within Joint Venture, the Firm Markets/Sells Land																
Small Firms (Under 50 Lots)	9%	9%	9%	9%	27%	9%	27%	*100%*	18%	18%	0%	0%	0%	0%	64%	7%
Medium Firms (50-199 Lots)	13%	13%	13%	8%	25%	25%	4%	*100%*	8%	25%	38%	0%	0%	0%	29%	15%
Large Firms (Over 199 Lots)	5%	5%	10%	5%	38%	33%	5%	*100%*	24%	29%	0%	19%	0%	29%	0%	13%
																36%
Within Joint Venture, Partner Markets/Sells Land																
Small Firms (Under 50 Lots)	0%	33%	0%	0%	33%	33%	0%	*100%*	33%	67%	0%	0%	0%	0%	0%	2%
Medium Firms (50-199 Lots)	13%	13%	25%	13%	13%	25%	0%	*100%*	33%	67%	0%	0%	0%	0%	0%	2%
Large Firms (Over 199 Lots)	13%	13%	0%	13%	38%	25%	0%	*100%*	38%	0%	0%	0%	63%	0%	0%	5%
																9%

Source: Survey of Land Development Industry

The Table displays the proportions of land sold, in terms of seven stages of development, by firms alone or in partnerships. These stages are:

- sells raw land
- sells block land (designated for development in Official Plan)
- sells block land (zoned for development)
- sells lots unserviced
- sells lots serviced
- sells lots to own home-building division
- builds for rental on own land

The survey found:

- In most cases (91 percent), the developer markets the land, while 9 percent of sites are sold by the firms' partner;
- When operating alone, large firms' development is usually sold as serviced lots (46 percent) or zoned block land (18 percent). Another 14 percent is sold to the firms' building division(s);
- Medium firms operating alone sell 32 per cent of their land as serviced lots, and sell a greater proportion as zoned blocks (26 percent) than larger firms;
- Small firms' production is marketed more evenly across the seven development stages than the other sizes of firms.
- When land developers have partnerships or joint ventures
    - o small firms sell 27 percent of their of apartment sites for rental;
    - o Medium firms sell more often to their own building division (25 percent as opposed to 16 percent when acting alone). Also, they sell much less zoned block land than when operating alone (13 percent as opposed to 26 percent);
    - o Large firms sell much more of their production to their building division(s) (33 percent as opposed to 14 percent when acting alone).

Sales Arrangements

Table 24 provides a different perspective on land developer's marketing and sales activities, as it summarizes the methods by which buyers of different sizes acquire lots from developers.

Table 24: Survey of Land Developers – Buying Land from Developers (Purchasing Arrangements) by Size of Purchaser Firm

Method of Purchase	Purchasing Detail	Size of the Firm Buying Land			
		Small Firms (Under 50 lots)	Medium Firms (50-199 lots)	Large Firms (200 lots and over)	All Firms
Buy lots outright	with bank financing	63%	64%	30%	53%
	with other private financing	13%	21%	40%	25%
	for cash	25%	14%	30%	22%
	All - %	100%	100%	100%	100%
	- Number	8	14	10	32
Acquire lots by contract	option, fixed price for a fixed time	50%	58%	43%	52%
	Sale agreement - fixed period	50%	25%	57%	38%
	Sale agreement - payment on house sale	0%	17%	0%	10%
	Sale agreement - several payments related to house sale	0%	0%	0%	0%
	All - %	100%	100%	100%	100%
	- Number	2	12	7	21
Other	Entering into joint ventures or partnerships with developer(s)	67%	67%	43%	58%
	Buy land through other financial arrangements	33%	33%	57%	42%
	All - %	100%	100%	100%	100%
	- Number	3	9	7	19

Source: Survey of Land Development Industry

When reviewing this Table, it should be noted that the information comes from survey respondents that purchased lots from developers, and does not necessarily describe all of the methods used by developers to sell lots. The later was provided in Table 23.

The most common method by which firms buy lots from developers is outright purchase (32 of 72 responses). This is the method used by 61 percent of small firms, 40 percent of medium firms, and 42 percent of large firms.

- Small and medium firms usually buy lots with bank financing (63 percent and 64 percent of outright purchases, respectively)
- 30 percent of outright purchases by large firms entail bank loans.
- Large firms use other private financing for 40 percent of their outright purchases, and the other 30 percent are bought with the firms' cash
- Small firms pay cash for 25 percent of outright lot purchases.

The proportion of purchasers that buy through other methods exceeds the proportions buying through outright purchases. Medium and large firms acquire lots by options or sale agreements almost as frequently as they purchase lots outright.

- Of these purchases by contract, medium firms employ options in 58 percent of cases, while large firms use them in 43 percent.
- Medium firms use sale agreements with a fixed term in 25 percent of contracts, and sale agreements that become due upon the sale of a house on that lot, in 17 percent of cases.
- Large firms use sale agreements with a fixed term in 57 percent of their acquisition contracts.
- Small firms use contracts much less often than other methods of acquiring lots (2 of 13 responses)

Other methods of buying lots are not used as frequently.

- Medium firms reporting using other methods in 9 of 35 responses, mostly by entering into joint ventures.
- Small firms also use mainly joint ventures in this small proportion of their lot acquisitions
- Large firms use other methods for 7 of 24 acquisitions, and in 57 percent of these cases, they employ unspecified other financial arrangements. In the other 42 percent of cases, they enter into joint ventures.

Many firms employ the internet to assist in selling lots and provide a different amenity to their customers. Almost all developers have pages on the internet, and some of these pages include, for each of the firms' projects, a current plan showing the lots available for purchase, a price list, and the coordinates for contacting sales staff. Some developers provide builders with access to

interactive internet sites to allow them to place holds on lots at any time. In Calgary, Genstar permits builders to submit elevations and other design information online, for a semi-automated approval of their community-based design requirements. Carma Developments in Calgary sells most of its lots through an online business portal where builders and homebuyers enter into sales agreements to purchase lots under various arrangements.[86]

Design Characteristics of Land Development Projects

While the product of residential land developers may be viewed merely as sites for new housing, in fact this product is quite complex. The buildable sites must be part of projects that meet community standards and are successful in the marketplace. There is enormous variation in these standards and market demands, and consequently the details of land development practice vary widely within the regions and across the country.

The survey asked developers and municipal planners several questions about the characteristics and features of their projects in 2005, so the responses produce a profile of the land development product today, and allow it to be compared with the product in the recent past and foreseeable future.

Features in Current Land Developments

Table 25 lists15 features that are considered significant components of contemporary developments, and reports the frequency that respondents indicated each feature was contained in their projects, now and in the 1990s.

- about 50 percent of current projects included 6 of the features – walking/cycling paths, stormwater retention ponds, private roads, communal facilities, urban “in-fill” locations and transit-oriented features.
- over 30 percent have 4 other features - a dominant physical/recreational feature, parking away from homes, design for “aging in place”, and “greyfields” locations.
- all of these features had been in the respondents’ projects in the 1990s.
- in each case, the feature is included more often today than it was in the 1990s.
- the greatest increases in incidence occurred with the following features:
    - communal facilities such as recreational centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks (41% increase)
    - design for “aging in place” (40% increase)
    - transit –oriented development features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling (35% increase)

[86] Conversation with Dave Harvie, Senior Vice-President, Planning and Marketing, Carma Developments, September 15, 2006.

- parking separated from homes (33% increase)
- stormwater retention ponds (29 % increase), and
- prepared walking/cycling paths (14% increase).

Table 25: Survey of Land Developers – Incidence of Selected Features in Developments, 1990s and 2005

Feature	% of All Responses		*Increase/Decrease (Greater than 10 %)*
	1990s	2005	
Prepared walking or cycle paths	73%	83%	*114%*
Stormwater retention ponds	59%	76%	*129%*
Private roads	62%	63%	
Communal facilities (such as recreation centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks etc.)	35%	49%	*141%*
"Urban In-fill' locations	45%	48%	
"Transit-oriented development' features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling	35%	47%	*135%*
Dominant physical/recreational feature (such as golf course, marina, artificial lake, or ski hill etc.)	31%	41%	*133%*
Parking separated from homes	36%	39%	
Designed for 'aging in place'	24%	34%	*140%*
"Greyfield" sites (on old commercial land uses, associated parking)	32%	31%	
Shared energy infrastructure (such as central heating or cooling, geothermal etc.)	19%	18%	
Gated projects (gates where access to the project is controlled)	27%	18%	*68%*
Private security or doorman / concierge	19%	18%	
Shared well and/or shared water treatment facilities	10%	10%	
Sales on a fractioning basis (such as time shares, partial shares of ownership other than co-operatives, condominiums, and strata titles etc.)	10%	10%	
Total responses (88)	78	88	

Source: Survey of Land Development Industry

Developers were asked which of these features were likely to be in their projects in the near future. As seen in Table 26, the industry expects a very similar distribution of features to those seen today. Developers also expect there will be strong increases in the use of a few features that are less common today. One important finding is that where 48 percent of projects today are reported to be in "in-fill" locations, the proportion of all developments in in-fill locations is soon expected to rise to 60 percent.

Some of the other projected increases are also striking:

- shared energy infrastructure such as heating or cooling, geo-thermal, etc (126% increase)
- sales on a fractioning basis (times shares, partial shares of ownership other than co-ops, condo/strata title) (117% increase)
- shared well and/or shared water treatment facilities (74% increase)
- gated projects (where access is controlled) (59% increase)

- greyfields sites (old commercial sites, associated parking) (47% increase)
- design for "aging in place" (47% increase)
- parking separated from homes (38% increase)

Table 26: Survey of Land Developers – Features to be Included in Developers' Projects in the Next Five Years

Feature	% of All Responses		*Increase/Decrease (Greater than 10 %)*
	2005	Future	
Prepared walking or cycle paths	83%	84%	
Stormwater retention ponds	76%	79%	
Private roads	63%	70%	*112%*
Communal facilities (such as recreation centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks etc.)	49%	61%	*125%*
"Urban In-fill' locations	48%	60%	*126%*
"Transit-oriented development' features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling	47%	63%	*136%*
Dominant physical/recreational feature (such as golf course, marina, artificial lake, or ski hill etc.)	41%	54%	*133%*
Parking separated from homes	39%	53%	*138%*
Designed for 'aging in place'	34%	50%	*147%*
"Greyfield" sites (on old commercial land uses, associated parking)	31%	46%	*148%*
Shared energy infrastructure (such as central heating or cooling, geothermal etc.)	18%	41%	*226%*
Gated projects (gates where access to the project is controlled)	18%	29%	*159%*
Private security or doorman / concierge	18%	23%	*128%*
Shared well and/or shared water treatment facilities	10%	18%	*174%*
Sales on a fractioning basis (such as time shares, partial shares of ownership other than co-operatives, condominiums, and strata titles etc.)	10%	22%	*217%*
Total Responses (90)	88	90	

Source: Survey of Land Development Industry

It is interesting that many of the features discussed above are similar to the "Smart Growth Principles" advocated as characteristics of improved sustainability.[87] Table 27 relates 10 Smart Growth Principles to 13 of the land development features discussed above, and also provides information about features that developers expect to be more common in the incidence in the future.

It appears that most of the principles of "Smart Growth" are already being incorporated in many current land developments, and their incidence will be increasing in projects that land developers are now planning. The few "Smart Growth" principles that have not been observed in features in the survey are matters that are less related to land development, or are broader concerns than those within the developers' ambit. These include:

- Taking Advantage of Compact Building Design;
- Preserving Open Space, Farmland, Natural Beauty and Critical Environmental Areas; and
- Making Development Decisions Predictable, Fair and Cost Effective.

[87] Smart Growth and Smart Growth principles are discussed in Sections 9 and 10 of Appendix E.

Table 27: Survey of Land Developers – Comparison of Features Reported in Developments and "Smart Growth" Principles

Principles of Smart Growth (From Smart Growth website)[1]	Features Reported by Developers in Survey			
	Feature	Incidence in 2005	Expected Incidence in Future	Expected Growth
Create Range of Housing Opportunities and Choices				
	Housing mix	58% of developments have housing mix		
	Designed for 'aging in place'	34%	50%	*147%*
Create Walkable Neighborhoods				
	Prepared walking or cycle paths	83%	84%	
	"Transit-oriented development'	47%	63%	*136%*
	Parking separated from homes	39%	53%	*138%*
Encourage Community and Stakeholder Collaboration				
	Shared energy infrastructure	18%	41%	*226%*
	Shared well and/or shared water treatment	10%	18%	*174%*
Foster Distinctive, Attractive Communities with a Strong Sense of Place				
	Communal facilities (listed)	49%	61%	*125%*
	Dominant physical/recreational feature	41%	54%	*133%*
Make Development Decisions Predictable, Fair and Cost Effective				
Mix Land Uses				
	Land use mix	69% of large firms include land use mix		
Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas				
Provide a Variety of Transportation Choices				
	"Transit-oriented development'	47%	63%	*136%*
Strengthen and Direct Development Towards Existing Communities				
	"Urban In-fill' locations	48%	60%	*126%*
	"Greyfield" sites	31%	46%	*148%*
Take Advantage of Compact Building Design				

Source: Survey of Land Development Industry
Note: The "Smart Growth Principles" are listed on the site "Smart Growth Online" (www.smartgrowth.org) maintained by the Sustainable Communities Network.

The symmetry between these sustainability goals and the features being incorporated in land development projects warrants recognition by smart growth advocates and the land development industry. It appears to offer promise that increased interaction and collaboration would be beneficial to both groups, whose interests are often seen to clash.

Gated Communities

There is growing interest in the prevalence of controlled-access, gated communities in Canada. A recent research project[88] found 314 gated communities in 6 provinces (mainly in British Columbia), and estimated there may be three times this number.[89]

While the present survey found that 18 percent of respondents reported access-controlled projects, closer examination of these 15 responses found:

[88] The Social Sciences and Humanities Research Council of Canada funds university-based research
[89] Grant, Jill. "Why Planners are Ambivalent About Gated Communities", presentation at CIP Annual Conference, May, 2004. See http://www.cip-icu.ca/english/conference/2004/2004proceedings/grant.pdf.

- 9 of the responses were from British Columbia. Of these:
    - 5 were from developer/builders and concerned multi-unit strata-title buildings
    - 1 was from a firm that employed an stylistic entry gate in its development, but the gate did not actual control access
    - 1 was from the developer of a gated retirement community
    - 2 were from planners, reporting the presence of gated communities in their municipalities.
- 4 of the responses were from the Prairies region.
    - Three were from firms that employed stylistic entry gates, without any access control.
    - The other respondent was a planner, reporting one/some gated community(ies) in the municipality.
- 2 of the responses were from southern Ontario and the Atlantic region, and concerned stylistic entry gates without access control.

A larger proportion of respondents (27 percent) reported they had gated developments in the 1990s than the proportion reported currently, although it is not known whether the 1990s projects were the kind of access-controlling, gated communities found in the previous research.

Overall, it appears that access-controlled gating of low-density residential developments is not a popular feature at present.

Time Sharing

Another uncommon feature that may be of interest is residential developments which are marketed on a time-sharing basis. A closer examination of the 10 percent of respondents who reported developments including time-sharing features, found that of the 9 respondents involved, 6 were planners reporting time-sharing projects within their municipalities. No additional information was provided about types of time-shares they were reporting. The three time-share projects reported by developers are all thought to be resort-type projects. The survey responses concerning time-sharing should not be taken to indicate that time-sharing is used in housing, other than in holiday or resort settings.

E-Communities

Some developers offer “e-communities” to home buyers (and tenants) who locate in their developments. In Calgary, both Genstar (since 2001) and Carma (since 2002) require that all homes built in several of their developments contain “smart” or “structure” wiring which provides greater flexibility to homeowners in their use of cable, telephone, and home entertainment and office facilities, and allows them to use “smart” appliances, security features and controls. In Calgary these

firms also maintain an intranet for each of their major developments, which provide residents and the larger community with the capacity to bring together residents, schools, and other neighbourhood facilities.

Land Development Skills and Staffing

The people that comprise the residential land development industry possess a set of skills that has evolved in recent years, and is expected to change further.

The survey of development firms provides considerable insight on staffing and skills requirements, although it should not be regarded as definitive information about the firms' labour force. The firms were asked to report on how they obtained 14 named skills that were thought to be significant to land development. It should be noted that the number of skills reported by firms do not necessarily equate with the firms' total number of staff. Some staff members are not included in this list of skills, particularly owners or managers. Some staff members are reported under several categories of skills (i.e.: engineers who are also planners or construction supervisors; lawyers who are also accountants).

Table 28 is a summary of the information provided about the permanent staff of land development firms of various sizes. The Table provides an estimate of the average staff complements of 75 firms, by size group.

Table 28: Survey of Land Developers – Permanent Staff, by Size of Firm
(based on reporting of staff having 14 named categories of skills)

	Size Group of Firm			Total
	Small (Under 50 lots)	Medium (50-199 lots)	Large (Over 199 lots)	
Number of Firms Reporting Staff	25	23	27	75
Number of Staff Reported	131	116	157	404
Average Staff per Firm	*5.2*	*5.0*	*5.8*	*5.4*

Source: Survey of Land Development Industry

Development firms have small permanent staffs. The average complement of all firms is 5.4 persons. There is minimal variation among the different sizes of firms, with large firms reporting just 11 percent more staff than the small firms (even though their production is at least four times greater). Even if the survey responses do not account for a few staff (and this would apply to firms of all sizes), it appears that most firms have less than ten staff members. This finding that development firms operate with very few staff corresponds with the information from the financial survey in Table 12, and the examination of land subdividers in Appendix C.

Table 29 provides more detail about the skills of the permanent staff of the average land developer. Two patterns are seen in the firm's use of the 14 skills – the set of skills that are frequently found on a firms' staff, and those that are infrequent on the staffs.

Table 29: Survey of Land Developers – Type of Skills Reported, Permanent Staff, by Size of Firm

Land Development Skills	Number of Skills Reported	*% of All Skills Reported*	Proportion of Skills Reported, by Size of Firm: Small (Under 50 lots)	Medium (50-199 lots)	Large (200 lots and over)	All Firms
Clerical	68	*17%*	32%	28%	40%	100%
Accountant	58	*14%*	33%	29%	38%	100%
Sales	53	*13%*	25%	34%	42%	100%
IT staff - project management	46	*11%*	30%	33%	37%	100%
Construction supervisor	42	*10%*	36%	33%	31%	100%
Planner	35	*9%*	37%	26%	37%	100%
Engineer	19	*5%*	37%	21%	42%	100%
IT staff - graphics	19	*5%*	42%	11%	47%	100%
Draftsperson	17	*4%*	18%	29%	53%	100%
Lawyer	16	*4%*	25%	25%	50%	100%
Construction trades	12	*3%*	25%	42%	33%	100%
Architect	10	*2%*	50%	30%	20%	100%
IT staff - geomatics	5	*1%*	60%	0%	40%	100%
Environmental planner	4	*1%*	50%	25%	25%	100%
All Staff	404	*100%*	32%	29%	39%	100%
Firms Reporting	75		25	23	27	75

Source: Survey of Land Development Industry

Two/thirds of all land developers' permanent staff are made up of just 5 of the skills: clerical staff, accountants, salespersons, information technologists specialized in project management, and construction supervisors. Each of these skills was reported by about one-third of firms, of all sizes. While the other 9 skills were reported on the permanent staff of one or more of the respondents, the numbers involved are too small for further analysis.

Table 30 provides information about how land developers usually obtain each of the 14 development skills. Developers secure some skills by hiring permanent staff, obtain others by contract, and a few skills are obtained through partnership or joint venture arrangements.

As noted above, 5 skills are frequently provided by permanent staff. Of all the clerical staff reported by respondents, 90 percent were permanent positions, 7 percent were contracted and 4 percent were obtained from partnerships. Similar distributions are seen for accounting, sales, IT-project management and construction supervisory staff.

Table 30: Survey of Land Developers – Method of Sourcing Land Development Skills, by Type of Skill and Size of Firm

Land Development Skills	Organization of Work to Secure Skills									ALL SKILLS
	Firm's Permanent Staff			Partnerships, Joint Ventures			Contract			
	Small (Under 50 Lots)	Medium (50-199 Lots)	Large (Over 199 Lots)	Small (Under 50 Lots)	Medium (50-199 Lots)	Large (Over 199 Lots)	Small (Under 50 Lots)	Medium (50-199 Lots)	Large (Over 199 Lots)	
Clerical	29%	25%	36%	4%	0%	0%	4%	3%	0%	100%
Sales	18%	24%	30%	3%	1%	0%	14%	4%	7%	100%
Accountant	25%	22%	29%	1%	0%	0%	11%	5%	7%	100%
IT staff - project mngt	21%	23%	26%	2%	0%	2%	8%	9%	11%	100%
Construction supervisor	20%	19%	17%	0%	1%	1%	17%	7%	17%	100%
Planner	15%	10%	15%	0%	2%	0%	18%	15%	24%	100%
IT staff - graphics	13%	3%	14%	0%	0%	2%	21%	29%	19%	100%
Draftsperson	4%	7%	13%	3%	0%	0%	28%	21%	25%	100%
Lawyer	5%	5%	10%	1%	0%	0%	28%	24%	27%	100%
Engineer	8%	5%	9%	0%	1%	0%	25%	24%	28%	100%
Construction trades	4%	7%	5%	3%	0%	0%	32%	20%	28%	100%
IT staff - geomatics	6%	0%	4%	0%	0%	0%	27%	31%	31%	100%
Architect	7%	4%	3%	0%	0%	0%	33%	23%	30%	100%
Environmental planner	3%	1%	1%	0%	3%	0%	32%	27%	33%	100%
All Skills - % of Total	13%	11%	15%	1%	1%	0%	21%	17%	20%	100%
- Total										1026

Source: Survey of Land Development Industry

Planners are more often contracted (57 percent). In particular, of all the planners reported, large firms hired 24 percent through contracts and employed another 15 percent as permanent staff.

Thirty percent of information technologists who specialize in graphics are permanent staff, and they are located in large and small firms.

The other 6 skills are predominantly contracted. These are: draftspersons, lawyers, engineers, construction trades, IT-geomatics specialists, architects and environmental planners. Less than one in four of these skills are provided by permanent staff.

The numbers of permanent staff having the various land development skills have increased during the last decade. Respondents were asked to report on increases of skills in their firm's staff since the 1990s. Table 31 demonstrates that this growth in permanent positions occurred most strongly for a few of the skills, and this occurred primarily in the large firms.

Seventy-one percent of the increase in skill positions occurred with 7 of the skills. The most frequent growth occurred with planners (12 percent of all staff increases), followed closely by engineers, accountants and clerical staff at 11 percent each. Sales staff and construction supervisors each accounted for 9 percent of the growth, and IT project management staff was 8 percent.

Table 31: Survey of Land Developers – Changes in Land Developers' Skills, 1990s to 2005, by Size of Firm

Land Development Skills	Proportion of All Firms Reporting Increase in Skills				*% of All Responses*
	Small (Under 50 Lots)	Medium (50-199 Lots)	Large (Over 199 Lots)	All Skills	
Planner	30%	25%	45%	100%	*12%*
Engineer	26%	32%	42%	100%	*11%*
Accountant	28%	22%	50%	100%	*11%*
Clerical	28%	22%	50%	100%	*11%*
Sales	20%	20%	60%	100%	*9%*
Construction supervisor	27%	33%	40%	100%	*9%*
IT staff - project management	38%	15%	46%	100%	*8%*
Architect	36%	9%	55%	100%	*6%*
Environmental planner	13%	25%	63%	100%	*5%*
Lawyer	13%	25%	63%	100%	*5%*
IT staff - graphics	14%	14%	71%	100%	*4%*
Construction trades	0%	43%	57%	100%	*4%*
Draftsperson	17%	0%	83%	100%	*4%*
IT staff - geomatics	20%	0%	80%	100%	*3%*
All Responses - Number	42	38	90	170	*170*
- %	25%	22%	53%	100%	*100%*

Source: Survey of Land Development Industry

- 10 of the 14 skills had increased in over one-half of large firms, and the other 4 skills had grown in over 40 percent.
- Among medium firms, about 30 percent increased their construction trades, construction supervisors and engineers. Six other skills increased in one in five firms.
- Among small firms, about 30 percent increased IT project management specialists, architects, accountants, clerical staff and planners, and 20 percent or more increased 4 other skills.

When asked about the prospects for future growth in the various land development skills, over one-half of the developers that responded felt that the numbers of staff would stay the same (see Table 32). This perspective was shared by respondents from all sizes of firms.

About one-third of the respondents expect there will be increased needs for certain skills in the future, although there was considerable variation in the type of skills expected to increase (see Table 33).

Most of the respondents that anticipate growing need for certain skills were from the larger firms. They accounted for over one-half of the expected increase in accountants, environmental planners, IT-graphics specialists, lawyers and planners (in that order).

Table 32: Survey of Land Developers – Requirements for Various Skills Will Stay the Same, by Size of Firm

Type of Land Development Skills	% of Responses by Size of Firm				*% of All Responses*
	Small	Medium	Large	All	
Engineer	40%	27%	33%	100%	*8%*
Planner	42%	27%	31%	100%	*7%*
Environmental planner	39%	30%	30%	100%	*6%*
Architect	48%	28%	24%	100%	*7%*
Accountant	33%	33%	33%	100%	*9%*
Lawyer	35%	35%	29%	100%	*9%*
IT staff - project management	25%	33%	42%	100%	*7%*
IT staff - graphics	36%	36%	27%	100%	*6%*
IT staff - geomatics	39%	39%	22%	100%	*5%*
Draftsperson	41%	26%	33%	100%	*8%*
Clerical	34%	31%	34%	100%	*8%*
Sales	35%	32%	32%	100%	*9%*
Construction supervisor	40%	30%	30%	100%	*6%*
Construction trades	38%	33%	29%	100%	*6%*
All Responses - Number	135	113	112	360	
- %	38%	31%	31%	100%	*100%*

Source: Survey of Land Development Industry

Table 33: Survey of Land Developers – Requirements for Various Skills Will Increase, by Size of Firm

Type of Land Development Skills	% of Responses by Size of Firm				*% of All Responses*
	Small	Medium	Large	All	
Engineer	25%	33%	42%	100%	*8%*
Planner	29%	24%	47%	100%	*11%*
Environmental planner	9%	36%	55%	100%	*7%*
Architect	22%	44%	33%	100%	*6%*
Accountant	30%	10%	60%	100%	*7%*
Lawyer	17%	33%	50%	100%	*4%*
IT staff - project management	44%	22%	33%	100%	*6%*
IT staff - graphics	38%	13%	50%	100%	*5%*
IT staff - geomatics	25%	38%	38%	100%	*5%*
Draftsperson	14%	43%	43%	100%	*5%*
Clerical	27%	33%	40%	100%	*10%*
Sales	27%	27%	45%	100%	*7%*
Construction supervisor	35%	29%	35%	100%	*11%*
Construction trades	42%	25%	33%	100%	*8%*
All Responses - Number	43	44	65	152	
- %	28%	29%	43%	100%	*100%*

Source: Survey of Land Development Industry

- medium firms expect higher need for architects and draftspersons.
- smaller firms see growing needs for IT-project management specialists, construction trades and construction supervisors.

There was little expectation of declines in the requirements for skills (Table 34).

Table 34: Survey of Land Developers – Requirements for Various Skills Will Decrease, By Size of Firm

Type of Land Development Skills	% of Responses by Size of Firm				*% of All Responses*
	Small	Medium	Large	All	
Engineer	0%	100%	0%	100%	*4%*
Planner	0%	100%	0%	100%	*4%*
Environmental planner	0%	100%	0%	100%	*4%*
Architect	0%	100%	0%	100%	*4%*
Accountant	0%	100%	0%	100%	*4%*
Lawyer	0%	100%	0%	100%	*4%*
IT staff - project management	0%	100%	0%	100%	*4%*
IT staff - graphics	0%	100%	0%	100%	*4%*
IT staff - geomatics	0%	100%	0%	100%	*4%*
Draftsperson	0%	67%	33%	100%	*13%*
Clerical	33%	33%	33%	100%	*13%*
Sales	0%	67%	33%	100%	*13%*
Construction supervisor	67%	33%	0%	100%	*13%*
Construction trades	67%	33%	0%	100%	*13%*
All Responses - Number	5	16	3	24	
- %	21%	67%	13%	100%	*100%*

Source: Survey of Land Development Industry

Only a few firms responded that they felt that there would be less requirement for certain skills in the future, and their responses are not seen as revealing any particular pattern.

The Centre for Excellence in House Building and Land Development

An industry group in Alberta lead by Carma Developments[90] created Canada's only special skills development program for the land development industry. In 2000, the Centre for Excellence in House Building and Land Development brought together financial support and participation from the building and development industries with educational programs from the Southern Alberta Institute of Technology and the Calgary Board of Education to help young people learn the skills they will need to find work in these industries. The partnership has hired expert teachers, improved educational resources, brought industry experts into the classrooms and has established valuable teaching programs including

[90] Carma Developments provided $100,000 in seed funding in 1998 to kickstart this initiative.

mentorships, apprenticeships, job banks and summer jobs. Students have the opportunity to meet and work with skilled people and professionals in the industry, and learn about its potentials and their capacities to work in it. Close relationships have been established between individual firms and particular high schools, wherein students work for the firms in co-op arrangements and longer-term training programs. The Province of Alberta designated the Centre as the certification authority for several trades apprenticeship programs. It is notable that land development is identified as a separate stream in the Centre, and thereby it is the only training program for the land development industry in Canada.

Summary - Staffing

The survey has produced more information on skills and staffing in the land development industry than has been available previously. Land development firms of all sizes require a similar set of skills, and this group of skills is evolving as the industry moves to more redevelopment and more features in projects. The firms operate with relatively small complements of permanent staff, augmented by contractors, and patterns were identified in the types of skills associated with permanent and contract work in firms of different sizes. The need for several particular skills will increase in the near future.

Selected Land Development Issues

The survey information provides the capacity to contribute to the examination of several important issues related to the land development industry.

Land Supply

The supply of residential land is often discussed in connection with the analysis of housing markets, the price of housing, and urban growth planning. The discussion often occurs with little precision concerning what, specifically is the land supply and what is the demand for this land. It is important that the market be informed about the land supply with accurate, quantitative data, and examined with suitable benchmarks.

After the experience of the 1970s when lot prices soared and the land supply was suspected to be the cause, governments and industry have operated with better information. As was described in the historical review in Appendix B, land supply monitors and management approaches were initiated in the 1970s and most major metropolitan regions have continued and developed these tools so that, today, there are more deliberate, quantitative approaches to the examination of land supply.

One example of this quantitative approach is the long-standing policy of the Province of Ontario that municipalities are to maintain a land supply that is

adequate to meet housing needs for three years. While there is little publicity given to the monitoring of this policy at the local or provincial level, there is a published, annual assessment of the land supply in the Greater Toronto Area that is carried out jointly by the Ontario Ministry of Municipal Affairs and Housing, CMHC and UDI-Ontario.[91] This assessment compares the supply of land approved for various types of housing with several demand scenarios (absorption), on a municipality by municipality basis, and these comparisons often make reference to Ontario's three-year supply requirement as a benchmark. The City of Ottawa has published a detailed inventory of its land supply in all stages, assessed in relation to demand benchmarks, every year since 1982.[92]

Table 35: City of Edmonton Suburban Residential Land Development Data (Single-Family), 1995-2006

Year	Carry-In, Vacant Serviced Lots	Lots Registered During Year	Lots Serviced During Year		Lots Built Up During Year	
			No.	*% of Carry-In plus Newly Registered Lots*	No.	*% of Carry-In plus Newly Serviced Lots*
1995		413	529		1,217	
1996	2,960	1,109	1,180	*29%*	1,383	*33%*
1997	2,617	1,857	2,163	*48%*	1,770	*37%*
1998	3,405	2,985	2,878	*45%*	1,856	*30%*
1999	3,702	1,761	2,096	*38%*	1,865	*32%*
2000	3,497	2,015	2,161	*39%*	1,880	*33%*
2001	3,816	2,108	2,484	*42%*	2,756	*44%*
2002	2,583	5,325	4,882	*62%*	4,147	*56%*
2003	5,089	4,347	4,968	*53%*	3,410	*34%*
2004	3,069	3,987	3,878	*55%*	3,821	*55%*
2005	3,915	4,354	3,932	*48%*	5,027	*64%*
2006	4,232	3,929	3,847	*47%*	3,880	*48%*
2007	4,521					

Source: City of Edmonton "Status of Suburban Residential Land in Edmonton", various years

Another example is the City of Edmonton's detailed inventory of lots for single-detached housing in several stages of the land supply process, which has been published every year since 1995.[93] Table 35, which is a summary of data in that inventory, shows that the lots taken up by Edmonton's rapid growth of single-family housing construction has increased from under 2,000 in the late 1990s to

[91] This annual study has been conducted since 1994, based on municipal records gathered as of January 1. It is usually titled: CMHC and MMAH. The Greater Toronto Area (GTA) Residential Land Inventory Survey.

[92] The City of Ottawa's Vacant Urban Residential Land Survey is available in printed form or on the internet.

[93] It is understood there are questions about the accuracy of parts of City of Edmonton's inventory, and there are ongoing discussions between the City and UDI-Edmonton concerning these matters.

nearly 4,000 in the 2000-2006 period. While the issuance of building permits has doubled, the number issued has never exceeded two-thirds of the number of serviced lots available, for the last eleven consecutive years. The number of lots serviced never exceeded two-thirds of the number of registered lots available for servicing during the same period. This quantitative monitoring shows that, while Edmonton is growing rapidly, the land supply process has been adequate and has remained adequate throughout the years 2000.

CMHC's quarterly housing market analysis in Edmonton often employs current lot supply information from industry sources similar to the City's monitor for a quantitative assessment of the relationship between builders' demand for land, and developer's production of lots.[94]

It certainly helps the understanding and analysis of land supply issues when a quantitative data base is used in assessments, and when there are widely-understood benchmarks concerning supply adequacy or inadequacy.

Adequacy of the Urban Land Supply

The survey asked land developers for their opinions about the adequacy of the supply of developable land for residential use. The responses, presented in Table 36, varied across the country. Overall, from 40 to 70 percent of developers responded that the supply is "tight", which is a warning about a potential problem, but does not appear to indicate developers consider the problem to be critical. The regions where 70 percent of developers report the supply is tight are Ontario and Québec. A minority of developers reported the supply is "very tight".

Table 36: Survey of Land Developers – Developers' Perceptions of Land Supply and its Adequacy, by Region

Region	Adequacy of the Current Supply of Developable Residential Land					Is Land Supply Impacted by Growth Limits ?[1]			
	Adequate	Tight	Very Tight	All Responses		Slightly	Strongly	All Responses	
				No.	%			No.	%
Atlantic	42%	50%	8%	12	*100%*	25%	75%	12	*100%*
Québec	29%	71%	0%	7	*100%*	50%	50%	6	*100%*
Ontario	10%	70%	20%	20	*100%*	11%	89%	19	*100%*
Prairies	30%	50%	20%	30	*100%*	52%	48%	29	*100%*
BC	27%	42%	31%	26	*100%*	20%	80%	25	*100%*

Source: Survey of Land Development Industry
Note: In the survey growth limits were described as: agricultural land designations, greenbelts, parkway belts, growth designations in Official Plans, etc

[94] In Edmonton and most other major urban regions CMHC issues housing market analysis reports quarterly, semi-annually and annually. The reports for Edmonton usually contain a land supply section which cites data from the City of Edmonton's lot inventory and other inventories maintained by private firms. See, for example, CMHC, Housing Market Outlook – Edmonton, Fall 2005, p.3.

The combination of those developers that reported a "tight" supply with those that reported it is "very tight" indicates developers are finding the land supply is becoming problematic in some regions. In British Columbia 31 percent of respondents consider it "very tight" and 42 percent consider it "tight". In Ontario, in addition to the 70 percent of developers that reported a "tight" supply, 20 percent report it is "very tight". In the Prairies, 50 percent reported a "tight" supply and 20 percent reported it is "very tight". These responses must be recognized as indications that land developers perceive that it is becoming increasingly difficult for their industry to find sites.

Growth Limits

Table 36 also provided information about another factor related to the adequacy of the land supply: growth limits. Limits are established in many ways, sometimes by explicit growth boundaries in Official Plans or Development Plans, sometimes by the establishment of agricultural designations (such as Agricultural Land Reserves in BC or agricultural zones in Québec), sometimes by greenbelts or parkway belts (such as Ottawa's NCC lands and the instruments in Ontario's "Places to Grow"[95] legislation). The survey asked developers whether their land supply is impacted by such growth limits.

- In the Ontario region, where respondents are from Ottawa and the Greater Toronto/Hamilton area, 89 percent said the land supply is strongly impacted, as did 80 percent of respondents in British Columbia.
- In the Atlantic region, where the number of respondents was small, 75 percent said it is strongly impacted.

Urban growth limits are clearly beginning to affect the future land supply, although this appears to be less of an issue in the Prairies region.

Land Availability

Table 37 provides developers' observations about changes in their land acquisition and holding activity during the last decade. Over 90 percent of respondents reported that it now takes them more time to find and acquire suitable parcels of land than it did in the mid-1990s. Almost all medium firms find this takes longer (96 percent), while slightly lower proportions of the smaller firms had this experience (86 percent).

[95] In June, 2005 "Places to Grow" legislation was enacted to allow the Province to plan the growth of urban settlements anywhere in Ontario. Subsequently, a Growth Plan was established in the Greater Golden Horseshoe area which brings together existing instruments such as the Parkway Belt, greenbelts, the Niagara Escarpment and conservation lands as control elements, and designates additional growth limits.

Table 37: Survey of Land Developers – Changing Land Acquisition and Holding Activities, 1990s to the Present, by Firm Size

Size of Firm	It takes more time to find and acquire suitable parcels of land now than it did in the mid-1990s				We hold land longer before developing it now, than we did in the 1990s			
	Yes	No	All Responses		Yes	No	All Responses	
			%	Number			%	Number
Small Firms (Under 50 lots)	85%	15%	100%	26	43%	57%	100%	21
Medium Firms (50-199 lots)	95%	5%	100%	21	45%	55%	100%	20
Large Firms (Over 199 lots)	93%	7%	100%	27	63%	37%	100%	27
All Firms	91%	9%	100%	74	51%	49%	100%	68

Source: Survey of Land Development Industry

Holding Period

Table 37 also provides information about respondents' experience in holding land before it can be developed. Large developers report that they now have to hold land longer before developing it than they did a decade ago. Sixty-three percent of large firms observe this, while about 45 percent of small and medium firms make this observation.

Table 38: Survey of Land Developers – Three Factors Potentially Impacting Land Supply, By Size of Firm

Firm Size	Is this a Factor Impacting Your Land Development Decisions ?							
	Rising house prices making previously undevelopable sites viable (1)		Municipal development moratoria		Public Land Development Projects			
					Municipal		Canada Lands Company	
	% "yes"	% "no"	% "yes"	% "no"	% "yes"	% "no"	% "yes"	% "no"
Small Firms (Under 50 lots)	25%	12%	13%	19%	3%	30%	7%	25%
Medium Firms (50-199 lots)	16%	14%	19%	13%	7%	23%	1%	29%
Large Firms (Over 199 lots)	17%	16%	13%	22%	16%	21%	3%	35%
All Firms								
- as %	58%	42%	46%	54%	26%	74%	12%	88%
- number	44	32	31	37	19	54	8	61

Source: Survey of Land Development Industry
Note (1): The wording in the survey was "rising house prices that have made sites previously thought undevelopable (due to soil conditions such as poor drainage, excessive rock, contamination) now economically viable.

Rising Land Values Improve Development Viability

When asked whether rising house prices were making previously undevelopable sites viable, 58 percent of land developers agreed and a slightly lower proportion, 42 percent, said "no". (see Table 38) Small firms said "yes" more frequently (25 percent out of 37% of all responses). The medium and large firms responded affirmatively and negatively in equal numbers. While higher prices ultimately improve the economics of development, it appears that developers' find some sites require more costly development than can be supported by rising prices in the short term.

Municipal Development Moratoria

Developers were quite equally divided when asked whether they had been impacted by municipal development moratoria. About 60 percent of medium-sized firms said moratoria had impacted their projects, while 60 percent of small and 62 percent of large firms said moratoria had not impacted them.

Public Sector Land Development

Forty-three percent of large developers and 23 percent of medium firms said that municipal land development projects impact them (see Table 38). Notably, 74 percent of all firms reported that municipal land developments did not impact their decisions.

Of the 12 large firms that reported this impact, 9 were located in the Prairies region, and 2 of these were actually municipal land developers.[96] Of the 27 developers in the Prairies region who responded to the survey overall, a total of 8 indicated that public land development projects had a significant impact on their development decisions.

The medium-sized firms that reported an impact were dispersed across Canada, and appear to have been referring to municipal housing operations (as impacts were reported in Montreal, Ottawa, Toronto, Calgary and Vancouver where there are not municipal land development operations).

Canada Lands Company

Eighty-eight percent of developers said they were not impacted by the operations of Canada Lands Company. The developers that reported being impacted by CLC were mainly small, and 2 of the 5 small firms that reported impacts were actually CLC Branches.

[96]There were significant municipal or provincial land developments in 2006 in Winnipeg, Saskatoon, and Edmonton.

Developers' Positions in the Market

Overall, developers are finding the market is more difficult to work in than it was ten years ago (see Table 39).

Table 39: Survey of Land Developers – Assessment of the Changing Market, and the Firms' Positioning, 1990s and Today, by Firm Size

	Overall, the market is more difficult to work in than it was in the 1990s				Our firm was 'well-positioned' in the market in the 1990s				Our firm is 'well-positioned' in the market today			
	Yes	No	All Responses %	All Responses No.	Yes	No	All Responses %	All Responses No.	Yes	No	All Responses %	All Responses No.
Responses Grouped by Size of Firm												
Small Firms (Under 50 lots)	66%	34%	100%	29	71%	29%	100%	24	76%	24%	100%	25
Medium Firms (50-199 lots)	74%	26%	100%	23	60%	40%	100%	20	79%	21%	100%	24
Large Firms (Over 199 lots)	93%	7%	100%	27	88%	12%	100%	26	89%	11%	100%	27
All Firms	77%	23%	100%	79	74%	26%	100%	70	82%	18%	100%	76
Responses Grouped by Region												
Atlantic	71%	29%	100%	7	83%	17%	100%	6	100%	0%	100%	7
Quebec	75%	25%	100%	4	75%	25%	100%	4	75%	25%	100%	4
Ontario	80%	20%	100%	20	69%	31%	100%	16	89%	11%	100%	18
Prairies	78%	22%	100%	27	80%	20%	100%	25	76%	24%	100%	25
BC	76%	24%	100%	21	68%	32%	100%	19	77%	23%	100%	22
All Firms	77%	23%	100%	79	74%	26%	100%	70	82%	18%	100%	76

Source: Survey of Land Development Industry

This is the view of 80 percent of Ontario respondents, 78 percent of those from the Prairies, and 76 percent of British Columbia's developers. Ninety-three percent of large developers reported the market is more difficult today, while two-thirds of small firms held this view.

Generally, developers feel they are well-positioned in the market. Large developers feel well-positioned today (89 percent), and 88 percent felt well-positioned in the 1990s. While 79 percent of medium firms feel appropriately positioned today, this is a significant advance over the 1990s, when only 60 percent did. Three-quarters of small firms feel well-postured today and this is a minor increase over the 1990s when 71 percent did so. While the impact of growth boundaries is changing the land market, and development firms are becoming much more active in what may be new locations of in-fill, brownfields and greyfields development, it appears that only a minority of firms feel that they are not well-positioned in today's marketplace.

Regionally, there have been notable changes in developers' satisfaction with their position in the market. In Ontario, 89 percent feel well-positioned today whereas only 69 percent did so in the 1990s. This implies that a strong proportion of Ontario developers have established operations within the growth limits, or else they are undertaking significant proportions of their activities in

urban intensification situations. In British Columbia 77 percent of respondents indicate satisfaction today, while only 68 percent felt well-placed a decade ago. This is also indicative of an industry which is able to operate substantially within the developed portion of the urban area, and is not pre-occupied with the difficulties posed by growth boundaries. However, in the Prairies region, where 76 percent are satisfied today, ten years ago the proportion that was satisfied was higher, at 80 percent. While this is not a large change, it is different than the findings from Ontario and British Columbia and probably reflects an impact of development boundaries that was not so evident in the 1990s, and perhaps less urban intensification activity than is typical in the neighbouring regions.

Barriers to Entry in the Industry

A problem that has often been considered in the literature concerning land development has been whether there are barriers to entry which restrict the ability of new developers to compete in local markets. If there are barriers to entry, competition is reduced and existing developers may be able to exercise undue power (market power). As discussed in the historical review (Appendix B) the traditional view of economists is that the central barrier which might affect this industry in a local market would be concentrated ownership in the land supply. The historical review also discussed weaknesses in the methods used, historically, to test for this condition.

The survey included questions about the relative openness of the land development industry today. Developers were asked to rate the difficulty that would be presented by several potential barriers for a new firm attempting to get started in their principal market. These barriers are:

- little land available;
- land available but the price is too high;
- both barriers;
- regulatory regime too complex

Table 40 summarizes the responses, for the three sizes of firms.

- 60 percent of small firms, 76 percent of medium firms and 79 percent of large firms consider that the price of land presents a highly difficult barrier to entry.
- lesser proportions considered that “little land available” is a highly difficult barrier today (38 percent of small firms, 56 percent of medium firms and 75 percent of large firms).

Table 40: Survey of Land Developers – Perspectives on Barriers to Entry, By Size of Firm

Size of Firm Responding	Barriers to Entry											
	Land Available but the Price is Too High			Little Land Available			Both Barriers			Regulatory Regime Too Complex		
	No. of Respondents	Barrier Considered Highly Difficult		No. of Respondents	Barrier Considered Highly Difficult		No. of Respondents	Barrier Considered Highly Difficult		No. of Respondents	Barrier Considered Highly Difficult	
		No.	%		No.	%		No.	%		No.	%
Small Firms (Under 50 lots)	40	24	*60%*	37	14	*38%*	37	10	*27%*	40	18	*45%*
Medium Firms (50-199 lots)	25	19	*76%*	25	14	*56%*	25	10	*40%*	25	14	*56%*
Large Firms (over 199 lots)	28	22	*79%*	28	21	*75%*	28	17	*61%*	28	11	*39%*

Source: Survey of Land Development Industry

The proportions of respondents that consider the combination of these two barriers constitutes a highly difficult problem, is somewhat lower. About one in four small firms, and two in five medium firms, consider the limited availability and high price of land combine to present a “highly difficult” problem for new entrants.

Large firms perceive the combined problem as being twice as severe as it is in the judgment of the smaller firms. Sixty-one percent of large firms rate the combined problems of land availability and price as “highly difficult”. It is likely that the difference in the ranking between the smaller and bigger firms reflects the increased difficulty that arises for the later when they look for bigger parcels of land. If they were looking for smaller parcels, the degree of difficulty would decrease.

A quite different view is seen in the response concerning the barrier presented by regulatory system. Forty-five percent of small firms felt this is a highly difficult barrier, as did 56 percent of medium firms, and a lower proportion of large firms, 39 percent.

These responses indicate that developers’ perceive that it is quite difficult to enter the development business today. This indication is reinforced by responses to other questions concerning land development at present compared to the mid-1990s, as seen in Tables 36, 37, 39 and 40. Almost all firms, of all sizes, report that it takes more time to acquire suitable land today (85 percent of small firms, 95 percent of large firms). About two-thirds of large firms report they must hold land longer before development today, and about 45 percent of small and medium firms agree. Ninety-three percent of large firms say that the market is more difficult to work in today than it was ten years ago, and this observation is shared by three-quarters of medium firms and two-thirds of small firms.

Impediments to Land Development Decisions

The survey asked developers to identify the degree to which a number of potential impediments impacted their abilities to produce projects with features like those discussed previously in this Chapter. As was seen in Table 40, most developers do not consider the regulatory regime a highly difficult barrier for new firms. However, regulations may inhibit other aspects of development. Most developers consider regulatory process factors to be strong constraints inhibiting the incorporation of many features in their developments. Table 41 provides some insight into this potential for inhibition.

Table 41: Survey of Land Developers – Developer's Identification of "Strong Impediments" to the Inclusion of Selected Features[1] in Land Developments

Impediments Identified	Impediments Ranked "Strong", by Size of Firm			Number of Times Identified
	Small (Under 50 lots)	Medium (50-199 lots)	Large (Over 199 lots)	
	(as % of All Factors Identified by this Firm Size)			
Cost Factors				
Costs of such features are prohibitive for the economics of most projects	6%	8%	10%	27
Costs related to environmental factors, such as clean-up costs, liability insurance render development uneconomic	9%	6%	7%	26
Risk management insurance is not available	2%	0%	0%	3
Financing too difficult, either due to approval process or cost of capital	2%	1%	1%	5
Number of "Cost Factors" Identified	28	15	18	61
Regulatory Process Factors				
Regulations are too inflexible	9%	9%	12%	34
Approval process is too lengthy	14%	16%	17%	53
Development cost charges and/or lot levies add too much cost	9%	13%	15%	41
Taxes such as GST, property taxes, income taxation make project uneconomic	7%	5%	2%	17
Number of "Regulatory Process Factors" Identified	56	43	46	145
Regulatory Standards Factors				
Standards such as roads, piped services, offsite services, curbs and sidewalks render development uneconomic	6%	7%	6%	22
Land-related standards such as safety and environmental requirements, bonding, damage deposits are too costly	4%	7%	3%	16
Number of "Regulatory Standards Factors" Identified	15	14	9	38
Other Factors				
Public infrastructure is not adequate to allow the innovation	7%	8%	11%	30
Market for the innovation not strong enough	7%	4%	3%	17
Mixture of problems, decision-making process not adequate to assess costs of impediments and benefits of change	5%	5%	4%	17
Neighbourhood resistance, 'NIMBY' Syndrome excessively delay project	14%	12%	12%	44
Number of "Other Factors" Identified	49	29	30	108
ALL FACTORS IDENTIFIED	148	101	103	352
	100%	100%	100%	

Source: Survey of Land Development Industry
Note (1) The "Selected Features" are those features listed in Tables 25 and 26

Regulatory factors accounted for 145 of the 352 impediments that were identified by respondents. The frequency of identifying these factors was similar for all sizes of firms.

Three regulatory factors were identified most frequently:

- length of the approval process
- level of Development Cost Charges (DCCs), and
- inflexibility of regulations.

An explanation for this apparent contradiction is seen in the following assessment of the relations between development and the planning process:

> *" Developers are often portrayed as risk-takers, constantly challenging the boundaries of municipal regulation. In reality, developers are typically risk-adverse, finding security in regulation: rules define what they can and cannot do, and ensure that their competitors are bound by exactly the same constraints. In this way, regulation 'levels the playing field', but it also inhibits innovation."*[97]

Another factor which was frequently identified as impeding the inclusion of these features was resistance from the neighbourhoods surrounding new developments, and more specifically the excessive delays imposed on project proposals by NIMBY[98] attitudes. This impediment was more often cited by small firms than other sizes of firms.

An impediment that was often cited by all respondents, and more often cited by large firms, was the inadequacy of public infrastructure to accommodate the features.

"Smart Growth" proponents may have similar assessments of the problems inhibiting more sustainable development. An illustration of this parallel is seen in the keynote address which opened the 2005 Smart Growth BC Conference "Financing Smart Growth – A Strategic Forum", which began with the quotation:

> *"Housing industry innovators and CMHC staff involved in demonstration projects report constant frustrations and delays when attempting to implement new land use patterns or environmental technology in leading edge innovative housing …"*[99]

While the development industry may be considered antagonistic to regulations, the Smart Growth observation places the relationship between the industry and regulatory processes in a more appropriate perspective. Developers are change agents that attempt to realize many of the goals that are thought to produce environmental improvement. Regulation may be a particularly significant impediment to the realization of these environmentally-desirable changes.

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[97] Jamieson, Walter, with Adela Cossijn and Susan Friesen, "Contemporary Planning: Issues and Innovations", pp. 462- 478 in Bunting, Trudi and Pierre Filion, eds. Canadian Cities in Transition. (Toronto: Oxford University Press), 2000. p. 456.

[98] NIMBY is the acronym representing the objection to new developments that is often heard from community groups - Not in My Back Yard.

[99] Deborah Curran at Financing Smart Growth: A Strategic Forum. Vancouver: Conference organized by Smart Growth BC, June 2005.

Some other factors do not appear to be significant impediments, including securing financing and risk management insurance, and land-related development standards (including those related to environmental requirements). Table 42 provides more information about the "top-5" impediments identified in the previous table.

Table 42: Survey of Land Developers – Top Five Impediments to Selected Development Features[1], by Degree of Impediment and Size of Firm

Impediment	Degree of Impediment	Small Firms (Under 50 lots)	Medium Firms (50-199 lots)	Large Firms (Over 199 lots)	All Firms
Approval process is too lengthy (% of this impediment)					
	Strong Impediment	24%	19%	20%	62%
	Lesser Impediment	14%	6%	11%	31%
	No Impediment	5%	2%	0%	7%
	All Responses (n=85)	42%	27%	31%	100%
	N/A or no response	14	4	3	
Neighbourhood resistance, 'NIMBY' Syndrome excessively delay project (% of this impediment)					
	Strong Impediment	23%	14%	14%	51%
	Lesser Impediment	10%	12%	14%	36%
	No Impediment	7%	3%	2%	13%
	All Responses (n=86)	41%	29%	30%	100%
	N/A or no response	15	2	3	
Development cost charges and/or lot levies add too much cost (% of this impediment)					
	Strong Impediment	15%	15%	18%	49%
	Lesser Impediment	15%	8%	11%	35%
	No Impediment	11%	4%	2%	17%
	All Responses (n=84)	42%	27%	31%	100%
	N/A or no response	15	4	3	
Public infrastructure is not adequate to allow the innovation (% of this impediment)					
	Strong Impediment	15%	10%	14%	39%
	Lesser Impediment	18%	15%	15%	48%
	No Impediment	8%	4%	3%	14%
	All Responses (n=80)	40%	29%	31%	100%
	N/A or no response	18	4	4	
Regulations are too inflexible (% of this impediment)					
	Strong Impediment	16%	11%	14%	41%
	Lesser Impediment	17%	10%	13%	40%
	No Impediment	11%	5%	4%	19%
	All Responses (n=83)	43%	25%	31%	100%
	N/A or no response	14	6	3	

Source: Survey of Land Development Industry
Note (1) The "Selected Features" are those features listed in Tables 25 and 26

- 62 percent of respondents consider that the duration of the approval process is a strong impediment, including two-thirds of the large and medium firms. Another 31 percent of all respondents said it is a lesser impediment. In total then, 93 percent of developers of all sizes, from CMAs all over Canada, responded that the length of the approval process impedes their ability to include the selected features in their developments.

- NIMBY was seen as a strong impediment by 51 percent of respondents, including 56 percent of small firms, and another 36 percent of all firms consider it a lesser impediment. In total, 87 percent of respondents stated they were impeded by NIMBY forces.
- Inadequate public infrastructure was identified as a strong impediment by 39 percent, and almost one-half of respondents (48%) said it is a lesser impediment. In total, 87 percent of respondents consider that infrastructure is impeding the adoption of some of these features in their developments.
- One-half of respondents said high DCCs and lot levies acted as a strong impediment, and another 35 percent said these are a lesser impediment. Seventeen percent of respondents said this is not an impediment.
- The inflexibility of regulations was seen as a strong impediment by 41 percent and another 40 percent said it is a lesser impediment, while almost one in five said it is not an impediment.

While most of the large and medium firms responded to these questions (at least 90 percent), 28-39 percent of the small firms did not respond.

Impediments and In-fill Development

Table 43 shows which of the respondents that identified impediments to development in Table 42 had in-fill projects, and which respondents did not.

Table 43: Survey of Land Developers – Strong Impediments to Selected Features for Developers With, and Those Without, In-fill Projects

Strong Impediments Identified by Respondents	Responses by Location of Their Developments		
	In-fill Developments	No In-fill Developments	% *In-fill*
Mixture of problems, decision-making process not adequate to assess costs of impediments and benefits of change	12	5	*71%*
Costs related to environmental factors, such as clean-up costs, liability insurance render development uneconomic	16	10	*62%*
Financing too difficult, either due to approval process or cost of capital	3	2	*60%*
Neighbourhood resistance, 'NIMBY' Syndrome excessively delay project	24	20	*55%*
Development cost charges and/or lot levies add too much cost	22	19	*54%*
Taxes such as GST, property taxes, income taxation make project uneconomic	9	8	*53%*
Market for the innovation not strong enough	9	8	*53%*
Standards such as roads, piped services, offsite services, curbs and sidewalks render development uneconomic	11	11	*50%*
Land-related standards such as safety and environmental requirements, bonding, damage deposits are too costly	8	8	*50%*
Public infrastructure is not adequate to allow the innovation	15	15	*50%*
Approval process is too lengthy	25	28	*47%*
Regulations are too inflexible	14	20	*41%*
Costs of such features are prohibitive for the economics of most projects	11	16	*41%*
Risk management insurance is not available	1	2	33%

Source: Survey of Land Development Industry
Note (1) The "Selected Features" are those features listed in Tables 25 and 26

A few of the impediments are more frequently reported by in-fill developers. In-fill developers comprised 71 percent of respondents that reported a mixture of problems was a strong impediment, as their decision-making process was inadequate to assess the costs of the impediments and the benefits of change.

- 62 percent of respondents that reported they were impeded by costs related to environmental factors, were in-fill developers
- 60 percent of respondents reporting difficulties in obtaining financing were in-fill developers

A few of the impediments were more frequently reported by respondents that did not develop infill projects:

- 67 percent of respondents reporting the unavailability of risk management insurance were not in-fill developers
- 59 percent of respondents that indicated the costs of the selected features were economically prohibitive were not developing in-fill projects
- Also, 59 percent of respondents that reported regulations were to inflexible were not in-fill developers.

Most of the impediments, including the most frequently reported ones (lengthy approvals, NIMBY and costly DCCs) were reported about equally by in-fill and non-infill developers.

Profits in Land Development

Over the years, indicators of land developers' profitability have often been regarded as evidence of the strength of the industry. The historical review (Appendix B) provided information about about profitability in the 1970s and 1980s (from Clayton Research) and in the 1980s and 1990s (from Professor James McKellar). CMHC's study of the housing industry in 2002 cited data from Statistics Canada and Industry Canada about unincorporated land subdividers, indicating their pre-tax profit from land operations was about 13 percent.[100] In the present survey, residential land developers were asked if their pre-tax profit for land was in the range of 13 percent. Responses were provided by 56 developers, which provides a good indication of profits in the industry.

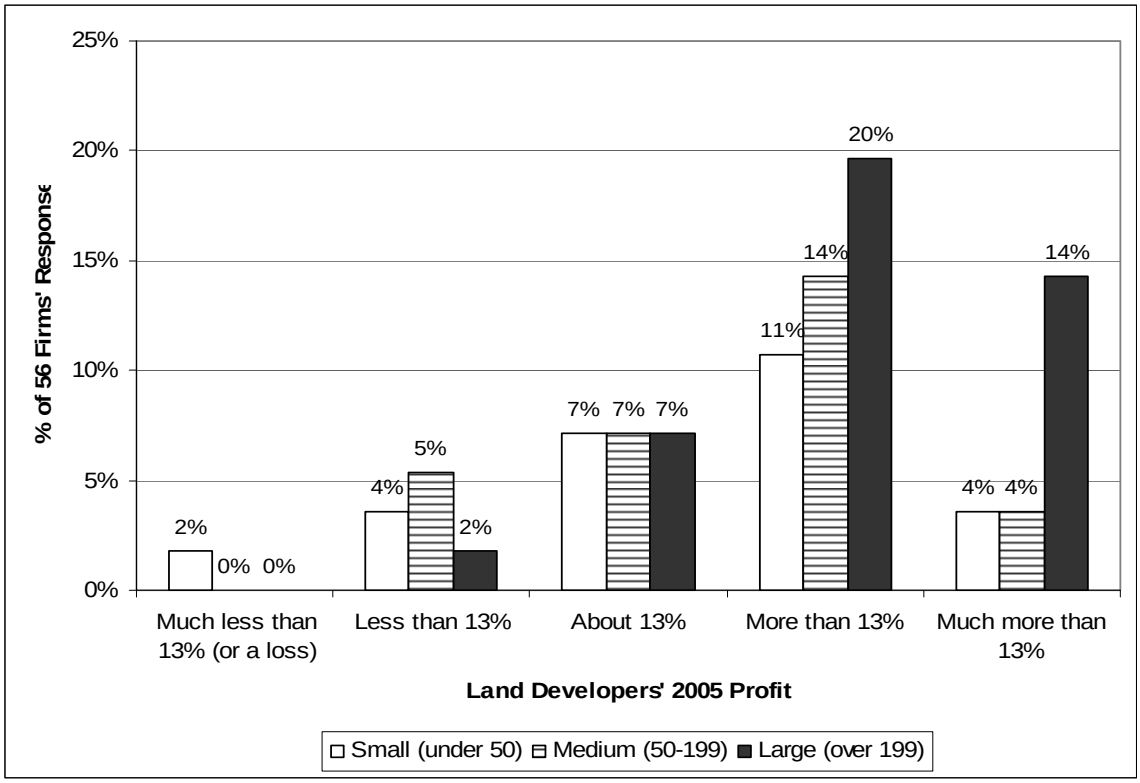
As seen in Chart 14, profits were much stronger in 2005 than in the late 1990s (as reported in the 2002 study).

- 45 percent of developers said their profits were more than 13 percent, and another 22 percent said their profits were "much more" than that. The developers that reported profits higher than 13 percent included:

[100] Urban Aspects et al. The Housing Construction Industry, op.cit., Table 7, p.12. As was discussed in Chapter 2.3 and Appendix E, the data in this study that was said to represent residential land developers was actually data concerning subdividers of land for all land uses.

  - 79 percent of all large firms
  - 60 percent of all medium firms
  - 54 percent of all small firms
- 21 percent of firms said their profits were about 13 percent, and
- 13 percent of firms said their profits were less than 13 percent

Chart 14: Survey of Land Developers – Pre-Tax Profit on Land Operations, by Size of Firm



Source: Survey of Land Development Industry

In total, 34 percent of firms reported profits at or below 13 percent. Three-quarters of these were small or medium firms.

- the profits from developing land appear to be considerably higher for the large firms than those earned by small or medium-sized firms
- the higher profit levels today correspond to the experience reported by the analysts who looked at the 1970s and the late 1980s, when land profits rose during periods of high production.

Table 44 describes the profitability of land development in the various regions.

- 27 percent of small firms reporting pre-tax land profits of 13 percent or more were in Ontario, 21 percent were in the Prairies and in British Columbia.

- most medium firms in British Columbia, Prairies, Ontario and Quebec reported earning over 13 percent profit more frequently than they reported earning 13 percent or less. The highest profit levels for medium firms were in British Columbia. There were no responses to this question by medium firms from the Atlantic region.
- large firms were most profitable in the Prairies. Of all the large firms that responded in the Prairies region, 87 percent had profits over 13 percent. Similarly, in British Columbia, 67 percent of large firms reported profits over 13 percent. No large firms responded from Quebec.

Table 44: Survey of Land Developers – Pre-Tax Profit Levels of Land Developers, By Region and Size of Firm

Region	Size of Firm	Percentage of Firms, by Size and by Level of Pre-Tax Profit from Land Operations						
		Much less than 13% (or a loss)	Less than 13%	About 13%	More than 13%	Much more than 13%	All Reports	
							%	No. of Reports
	Small Firms (Under 50 lots)							
Atlantic		7%						
Quebec				7%	7%			
Ontario				7%	20%			
Prairies				7%	7%	7%		
BC			13%	7%	7%	7%		
Total Survey		7%	13%	27%	40%	13%	100%	15
	Medium Firms (50-199 lots)							
Atlantic								
Quebec					6%			
Ontario			6%	6%	18%			
Prairies				6%	12%			
BC			12%	12%	12%	12%		
Total Survey			18%	24%	47%	12%	100%	17
	Large Firms (Over 199 lots)							
Atlantic					8%			
Quebec								
Ontario			4%	4%	8%			
Prairies				8%	25%	29%		
BC				4%	4%	4%		
Total Survey			4%	17%	46%	33%	100%	24

Source: Survey of Land Development Industry

Profits of Developers that have In-Fill Projects

Table 45 provides information about the profits of firms, by firm size, according to whether or not they reported undertaking in-fill projects. It indicates that in-fill is more profitable for large firms than small ones, with medium-sized firms showing more mixed results.

Table 45: Survey of Land Developers – Profits of Firms With and Without In-Fill Projects, by Size of Firm

Size of Firm	Percentage of Firms, by Level of Pre-Tax Profit					
	13% or Less		More than 13%		All Reports	
	Infill	Non-Infill	Infill	Non-Infill		No. of Reports
Small Firms (Under 50 lots)	47%	0%	7%	47%	100%	15
Medium Firms (50-199 lots)	24%	18%	12%	47%	100%	17
Large Firm (Over 199 lots)	4%	17%	29%	50%	100%	24

Source: Survey of Land Development Industry

Of large firms that reported in-fill projects, 88 percent had profits over 13%, as did 33 percent of medium firms and 13 percent of small firms. Large firms with in-fill are more profitable than large firms that do not have in-fill projects. As James McKellar, Associate Dean of the Schulich School of Business, commented about this finding,

> "*They are going where the business is*".[101]

Land Consumption

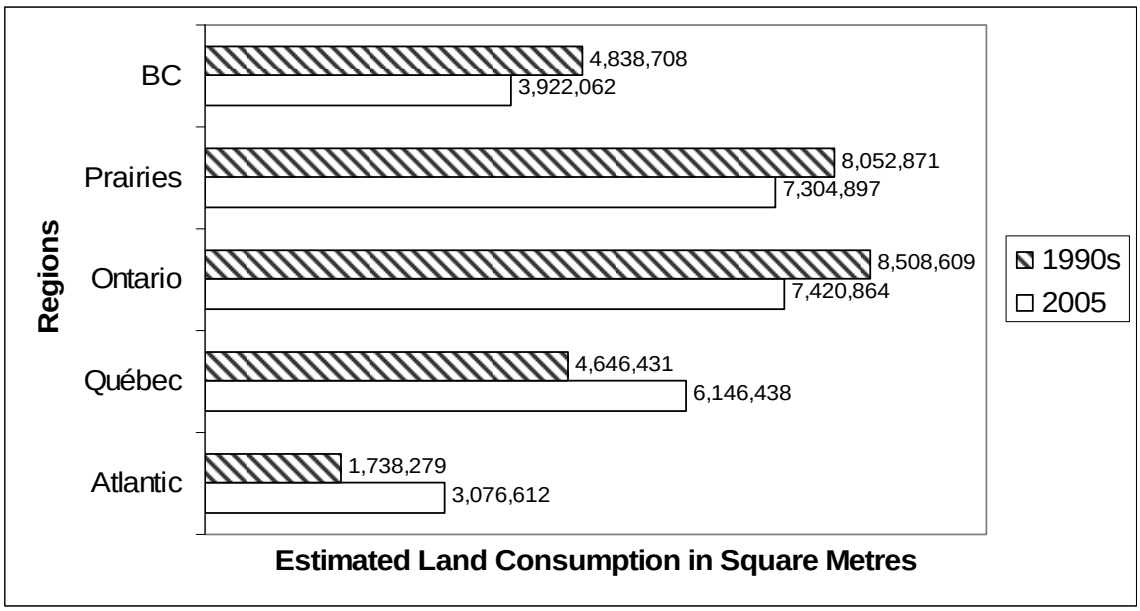
One of the most significant features of land development is the size of the lots that are produced. Smaller lots make higher densities, and higher densities imply that less land is consumed for new housing. This is important from the perspective of preserving agricultural land, enabling the use of mass transit and generally contributing to urban sustainability. Another perspective is that higher densities may produce higher revenues for the developer.[102]

Chart 15 is an illustration of the estimated impact on land consumption of the changes in the average dimensions of lots from the 1900s to the present, in the various regions. It depicts the land used to produce the lots for the 2005 starts of single-detached dwellings in the regions, apportioned in accordance with the survey's findings about the 2005 shares of regular and small lots (Table 14), and then applying the 2005 and 1990's average dimensions for these two types of lots (Table 15).

[101] Conversation with Professor McKellar, September 7, 2006

[102] The notion that higher density equates with higher revenue is an oversimplification of the economics of land development. Different densities both generate different revenues and entail different development costs. The net income produced from a given area of land is termed the "yield", and yields are impacted by many cost and revenue variables, of which only one is development density.

Chart 15: Estimate of Land Consumption for Single-Detached Housing, 2005, Compared to Typical Lot Dimensions of 1990s, Five Regions



Source: Survey of Land Development Industry, see Tables 14 and 15

Total land consumption is greatest in the Ontario and Prairies regions, matching the pattern of housing starts. In both regions, land consumption is estimated to have decreased by about 10 percent since the 1990s. In British Columbia, land consumption decreased by about 20 percent from the 1990s level. Taken together, in the three regions where the survey data is best (Ontario, Prairies and BC), it is estimated that annual land consumption has been reduced to between 81 and 91 percent of 1990s levels, a reduction of about 2.7 square kilometres.

Summary - The Residential Land Development Industry Today

The survey of land developers has provided information about the industry today and how it has changed during the last decade. The survey covered firms from 16 Census Metropolitan Areas in all of the southern provinces, and these firms produced sites for at least 28,000 housing units in 2005 (when there were about 125,000 housing starts in those CMAs). The survey response was weaker in Québec, and in the coverage of land development for apartments.

Some of the key findings included:

- 55 percent of land developers also build new housing;
- large firms (which develop land for over 199 lots per annum) produce nearly 90 percent of lots for single and semi-detached houses, 70 percent

of rows and 44 percent of apartments. Sixty-nine percent of large residential land developers also produce land for non-residential uses;
- medium firms (which develop 50-199 lots per year), produce 12 percent of the sites for singles and semis, 25 percent of rows and 9 percent of apartments;
- small firms (developing under 50 lots per year) produce under one percent of the land for singles and semis, 4 percent of rows, and 47 percent of apartments.
- most land is developed as mixes of housing types, in multiple phases. Mixed land uses are also common.
- 34 percent of lots for single-detached housing are “small” lots;
- the reduction in typical lot sizes has reduced land consumption by 10-20 percent over 1990s levels, saving about 2.7 square kilometers per annum in Ontario, Prairies and British Columbia regions;
- 58 percent of sites developed for row houses are built up as condominiums/strata title projects;
- 39 percent of developers have produced brownfields projects;
- land developers of all sizes require the same set of skills, and this set changed slightly during the last decade. It is expected to change further in coming years;
- most development firms have a small permanent staff (less than 10 people). They contract the other skills they require.

Information was provided about many of the operational characteristics of the industry, including how land is acquired, planned and physically developed, as well as the approaches to marketing and sales.

The inclusion of a set of new features associated with change in land development was studied in the present, as well as in the past and the anticipated future, and developers provided their views on impediments to these features.

Developers’ responses to several questions indicated their assessment that the land supply is becoming quite tight, that it is impacted by growth boundaries, that the price of raw land is becoming quite high, and that it will be difficult for new firms to enter the suburban land market.

Land development is quite profitable.
- 79 percent of large firms indicate their pre-tax profit on land operations was more than 13 percent;
- So did 60 percent of medium firms and 54 percent of small firms;
- About 1 in 5 developers said their profit is “much more than 13%”;
- 88 percent of large firms with in-fill projects had profits over 13 percent.

Developers reported regulatory factors impede their adoption of new features in their projects, but do not inhibit overall participation in the industry. A particular

problem is seen to be development cost charges, which appear to be applied inconsistently, and are not designed to shape urban growth.

> *"The NIMBY syndrome is predominant in smaller areas and it can sway Councillors who are voted into place to be very difficult towards development"*
> Greg Hammond, President, Destiny Homes, Halifax

> *"Development land is very difficult to acquire at a price that makes economic sense. The development process is more complex and slower each year"*
> Gino L. D'Ambrosio, Land Development Manager, Andrin Homes, Toronto region

> *"there is a lack of political will to permit the densification of existing neighbourhoods"*
> Dana Westermark, President, London Landing Development Corporation, Vancouver

> *"We have strong NIMBY and status quo forces at play, within an urban containment boundary"*
> Henry Kamphof, General Manager, Capital Region Housing Corporation, Victoria

Change in the Residential Land Development Industry – A Discussion

Introduction

This Chapter focuses on the dynamics of the industry. It reviews the changes that have been observed in residential land development, considers the drivers of the changes, and concludes with a discussion of the overall conduct of the industry.

Industry Structure

The residential land development industry is not well known, and it has received little study over the years. It is not easily studied, nor is the housing industry overall, as neither exhibit the structures typical of a manufacturing or a service industry. It has some similarity to the manufacturing model in which specialized firms produce components which a manufacturer buys and assembles into a

product.[103] In house building, many firms are characterized by owner/managers with vans and pick-up trucks who organize resources and assemblers and send them to lots they have purchased where they put together houses. However, the industry is also made up of huge vertically-integrated firms that may own and develop land, own lumber stores and cement plants and truss factories, have staff planners, architects, assembly crews and sales staff. But generally the people who do the work at each stage of making housing, in each type of firm and all the variants of firms between these extremes, are specialized skills that move back and forth between the firms and in and out of the business. These people create subcontracting businesses that actually produce most of the components and perform most of the house building, and they gain knowledge from one other and train new workers. The foregoing description of residential construction bears little resemblance to manufacturing in a factory or providing a service to the public. However, it does fit the model of an industrial district, in which the urban region is the basic geography in which production occurs.

Professor Michael Buzzelli of Queens' University has recently contributed a new conceptual model to the understanding of the residential construction industry. After extensively assessing literature and analyzing Ontario's home warranty program data, he has published a series of articles[104]which consider the structure and workings of the housing industry. Following are several extracts from one of his articles, which together produce an overall description of residential construction.

> *"Most builders are small, relying on numerous suppliers and subcontractors; apprentices learn on the job, tradesmen aspire to be subcontractors, and subcontractors to become builders; boundaries between firms blur and shift; inter-firm relations are socially embedded and depend on trust. Firms affiliate to wider provincial and national organizations that provide pipelines of information, but daily bind themselves within local networks that are articulated through local associations. …."*[105]

> *"… Local builders buy from local suppliers and employ local contractors, who in turn hire local tradesmen. Together they make business for local professionals, including*

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[103] This view, that land development has received little study because it does not fit the common paradigm of a manufacturing or service business, is shared by two of the most experienced housing researchers in Canada. This opinion emerged in separate conversations with Professors James McKellar and Stanley Hamilton, who head the real estate programs of Schulich School of Business and the Sauder School of Business, respectively. Land development is an intensely personal, idiosyncratic and variable form of business endeavour.

[104] Buzzelli's research on this industry includes: Buzzelli, Michael. "Firm Size Structure in North American Housebuilding: Persistent Deconcentration, 1945-98", pp. 533-550 in Environment and Planning Volume 33, 2001; Buzzelli, Michael and Richard Harris. "Small is Transient: Housebuilding in Ontario, Canada, 1978-98" pp. 369-386 in Housing Studies, Volume 18-3, 2003; Buzzelli, Michael. "Exploring Regional Firm-Size Structure in Canadian Housebuilding: Ontario, 1991 and 1996", pp. 241-263 in Urban Geography, Volume 25-3, 2004; Buzzelli, Michael. "What Explains Firm Transience in House-Building ? A Regional Analysis of Ontario, Canada, 1991 and 1996" pp 699-712 in Regional Studies. Volume 39-6, 2005; and Buzzelli, Michael, and Richard Harris. "Cities as the Industrial Districts of Housebuilding" International Journal of Urban and Regional Research. (publication forthcoming)..

[105] Buzzelli and Harris, "Cities as the Industrial Districts of Housebuilding", Page 4 of 51 pages.

> *architects and brokers. The autonomy and tight organization of these networks suggests that urban centres function like industrial districts of house building. …"*[106]
>
> *"…At any time, firms in industrial districts frequently do business with one another, communicating, negotiating and shipping goods. Interaction is frequent because firms are small and specialized: economies of scale are limited, production chains are fragmented and subcontracting is common, and many entrepreneurs operate 'virtual' businesses from a desk and a phone. Production, then, is managed through the market rather than internal hierarchies or, more precisely, through network forms of organization. …"*[107]

To this description, Buzzelli might have added that larger building firms employ many of the same subcontractors and are intimately plugged into the same networks.

This residential construction industry is the milieu of the residential land developer. It is a constantly shifting network of skills and functions and capabilities. The land developer is not the supplier of a part of a house, but instead is the master entrepreneur who designs the communities in which the developers' selection of houses will be put, and in over one-half of cases the developer also organizes the building and selling of the houses. It is a personal business, wherein the ingenuity of many thoughtful men and women who are Canada's residential land developers make their money in different parts of the production process.

Structural Change

While research of the early 1970s implied that there were equal numbers of small, medium and large land developers, by the later 1970s it was clear that large developers were the dominant producers in the major metropolitan markets. The Statistics Canada data about land subdividers and the current survey indicate that a relatively small proportion of the firms in the industry, the large firms, now dominate the production of land for all house types except apartments. The survey found that the proportion of land developers that are also builders is about 55 percent and this has not changed since the 1990s.

What changes have, and have not, occurred in the structure of the land development industry? There are powerful forces acting on land developers which likely have structural impacts. As was observed in Dr. Clayton's research in the 1980s, this industry has high front end costs, is highly leveraged, and is highly susceptible to fluctuations in interest rates. The shrinking of the land supply that developers are reporting places financial pressure on small firms and newcomers who must always find new sites. These pressures include the difficulty in finding developable land, the high prices of raw land and the lengthening of the holding period. The finding that larger firms are earning higher profits than small or medium firms adds another restructuring influence. The

[106] Buzzelli. op.cit., p. 14.
[107] Loc.Cit.

finding that barriers to entry are rising in the suburban areas means that new entrants cannot readily start up to alter this concentrating structure. The survey found that large firms are “well-positioned” with sizeable land holdings, so they less vulnerable to the shrinking suburban land supply in the immediate future.

To the extent that developers are shifting from greenfields development toward urban intensification, smaller firms may become better able to compete with the large firms, and the pressures leading towards concentration in the industry can be offset. However, there are impediments to having an enlarged supply of sites for urban intensification. This would require that plentiful supplies of in-city land be designated or up-zoned for development or more likely, redevelopment. Also, there has to be adequate infrastructure serving these sites, including capacity in sewers and transportation arteries, in order for the supply to be authentic and not just a potential. It would also contribute to the supply if there was better knowledge in the public about the sites, processes and capacities which together will produce the urban redevelopment land supply of the future. Finally, it must be observed that anti-change, Not In My Back Yard (NIMBY) forces that often arise in urban neighbourhoods, and that command considerable attention in municipal councils, present formidable barriers to creating these supplies.

Changes in Land Markets and Land Supply, 1970s- 2006

Drivers of Change

A “driver” of change is a factor that has the potential to bring about change in the industry. Change drivers are often the interaction between structural features like economic and market conditions, institutions like regulatory frameworks, and agents like developers.

The following discussion describes areas where change has been identified in the industry, and considers the drivers that have been associated with that change. The discussion of drivers provides some indication of the forces that can be expected to shape the industry in the future.

Land Prices

This period saw a rapid rise in land prices in most cities during the 1970s, and again in the 2000s. There have also been localized spikes in land prices, where a market became “hot” and prices increased, then declined.

The Federal/Provincial Task Force on Land Supply in 1978 established that land prices are driven by the change in house prices, which reflect general economic conditions and particularly, localized demand for housing. Demand for housing can be decreased by rising interest rates, as was demonstrated in the 1980s when interest rates elevated rapidly. The HUDAC study of 1974, the Federal/Provincial Task Force report of 1978, and the Clayton Research report of

1988, all established that supply side factors like land development costs and lot levies cannot decrease the market values of houses in the short term, although they may influence values over the long term. The role of the land supply in housing prices is unclear, as land shortages are said to exacerbate price rises, yet Flood's research in 1976 demonstrated that plentiful land supplies were insufficient to mitigate price increases.

Land Consumption, Especially of Agricultural Land, and Sprawl

The period saw urban regions double in size, gross densities decline, and a doubling of the amount of dependable agricultural land which became built up as urban space. This land consumption is generally described as sprawl[108].

Analysts distinguish between sprawl caused by population growth and sprawl caused by increasing consumption of land per capita.

- two important drivers of population growth are immigration and internal migration. Both have focused national growth at a few urban regions (e.g.: Toronto, Montréal, Calgary, Edmonton and Vancouver and certain smaller urban areas of British Columbia), and this has caused atypical expansion of these places. If this population growth had been more dispersed, it would likely have entailed more land consumption.
- the consumption of land per capita has increased in all settlements. As the population has aged over the study period, families have upgraded to larger houses, and older households have downsized to smaller units, both of which have created demand for new construction. In recent years, a large proportion of elderly "empty nesters" have been staying on in highly over-housed circumstances, which also contributes to the overall per capita sprawl.[109] In most communities, urban planning continues to segregate land uses and this requires more sprawl per capita than more integrated developments.
- the land development industry made adjustments during the study period which reduced land consumption. When housing, energy and transportation costs were high in the 1970s and early 1980s, new construction shifted to higher density row housing and apartments. The industry also reduced the consumption of land associated with individual housing units by producing smaller lots, and involving more housing mix in developments.

The location of development within an urban region is another driver of land consumption. Greenfields development consumes more land per capita than urban intensification. Also, greenfields development consumes more farmland

[108] The term "sprawl" is used here in an aggregate sense, as meaning excessiveness in the spatial expansion of cities. Technically, sprawl is expansion in a specific form (ie.: it is scattered, disconnected, unplanned development).

[109] These housing consumption patterns associated with aging were examined in 2001 Census data for British Columbia in Ryan Berlin, Andrew Ramlo and David Baxter. Seniors' Housing Demands in British Columbia over the Next Thirty Years. Urban Futures Report Number 65. (Vancouver: Urban Futures Institute), 2006.

than land development within the built city (as in some cities there is agricultural land within urban areas). The protection of agricultural land, and the reduction of land consumption, requires that more development shift to in-city locations.

Land supply shortage

The study period saw concerns about land supply shortages at several times and locations. Shortages were widely reported during the housing boom of the 1970s. The survey has found the supply is tighter now than it was in the 1990s and a further tightening is expected.

The expansion of cities is being impacted by growth boundaries, which brings about a relative decrease of the land supply for developers. Developers are finding that it now takes longer to locate and acquire sites, that land prices are higher, and that it is becoming more difficult to do business. This situation cannot be resolved by designating more expansion areas on the urban fringe as this would create more sprawl.

Some public policies are redirecting development towards urban intensification. One prominent example is the Growth Plan for the Golden Horseshoe, which aims that by 2015 intensification will account for 40 percent of all growth. The survey found developers are experiencing other "pull factors" which support the impetus towards more development within existing urban areas, including:

- rising property values that are making previously uneconomic sites in inner areas more viable;
- greater profitability of in-fill development than greenfields development.

Inner area sites are seen to be more sustainable and socially-responsible locations for new development, even though development in existing neighbourhoods entails a different regulatory environment and is vulnerable to anti-change NIMBY forces.[110]

The survey's finding of a tightening land supply is also an indication that the supply of sites in in-fill and redevelopment locations may not be adequate to offset the decreasing supply on the urban fringe. The weakness in the land supply may be partially an inadequacy in the knowledge about what is available, and perhaps a mistaken emphasis on greenfields areas as the only locale for assessing supply. It would help the adequacy of the in-city supply if greater attention was paid to the capacity for intensification, such as the production of

[110] The survey of developers and other aspects of this research have disclosed that the land development industry is redirecting itself towards urban intensification. Some indications of this geographic change have been observed, however, this study should not be considered an examination of the relative advantages and disadvantages of greenfields development versus urban intensification. Such an examination would require a comparative analysis of many complex subjects, including the taxation of developments in the two locations, the respective development approval processes and regulatory environments, and the relative availability and costs of public services.

public information about the extent of new construction at in-city locations; the capacities available in up-zoned sites in various sectors of the built city; and development techniques that are useful in in-city locations.

Misinformation and the appearance that the regulatory environment is somewhat helter-skelter, contributes to the perception of a supply shortage. If planning and development control is fractured among different municipalities and agencies within urban regions, it is difficult to have a coordinated understanding about the land supply. If infrastructure and the capacity to provide services to accommodate growth are provided to sites on a piecemeal basis, it is apparent that land supply is not the outcome of an intelligently-designed system. If the impact of development charges rises and falls in a patchwork fashion across urban regions, there is chaos in the economic signals being provided to the market about where to supply land.[111]

In the past, when the land development scene of the 1960s and early 1970s was characterized by poor information, haphazard urban management, and a low profile land supply, a crisis arose and housing and land prices began rising dramatically. Then public attention became focused on the problems and they were corrected. Many of these same problems appear to be emerging again today.

Changes in Developers' Operations

Volume and Mix of Land Development

During the study period there were large variations in both the volume and mix of land development, nationally and within individual urban regions. The volume today, nationally, is similar to that in the 1970s, although there is a lower proportion of apartments in today's housing mix.

The drivers of the volume of land development were described in the preceeding section concerning "Land Consumption".

A number of factors influence different aspects of the mix in land development.

- Clayton Research's work in the 1980s found that rapidly increasing energy, transportation and land development costs caused a shift to developing more combined forms of housing such as semi-detached and row houses.
- government programs of the 1970s specifically encouraged medium density housing (Municipal Incentive Grants, Assisted Home Ownership Grants) as did local government policies like creating special zones, or designations for mixed residential uses in Official Plans. Governments at all levels produced research and design studies to facilitate medium-density development.

[111] IBI Group. Uses of Development Cost Charges . (Ottawa: CMHC Research Highlight 05-021), 2005.

- in-fill and redevelopment locations are usually developed with higher residential densities and more mix in housing types than occurs at suburban sites. These outcomes are influenced by higher land costs, different zoning, and demand for different types of housing at various levels of housing price.
- land developers reported a striking decline since the 1990s in the frequency of single-phase, homogenous projects. The risk associated with large single-phase homogeneous projects is greater than the risk entailed in creating and selling multiple, smaller phases with several types of housing.

Addition of New Features and Technological Change in Land Development

The survey found that during the last decade developers have included many features associated with sustainability, innovation and technological improvement in their developments. Many of these are the same types of changes being advocated as "smart growth".

The reasons for these changes are more varied, as are the changes themselves. Some are driven by demand in the market. There are indications that some new urbanist developments sold better than conventional projects, and that there are strong, well-funded demand segments which want them. Some changes stem from economic opportunities, as they add net value to developments and probably provide efficiencies to the end home-buyer (stormwater retention ponds, dominant physical/recreational features, shared energy infrastructure)[112]. There are indications that some developers have corporate philosophies that favour introducing innovations and perhaps focusing their marketing on the use of innovations. Public policy may be instrumental in encouraging the adoption of some of the features.

Staffing

The survey revealed changes in the type of skills developers have required, and expect to be requiring, in their staff.

The firms' requirements for permanent staff with certain skills have increased. In order of need, these are for planners, engineers, accountants, clerical staff, sales staff, construction supervisors and IT project management staff. These changes

[112] Mattamy Homes' "Green Homes Initiative" is testing the feasibility of many more "sustainability features" for its developments. This builder/developer has constructed two experimental model homes in one of its subdivisions in Milton, Ontario to showcase environmental features (energy efficiency, water efficiency, resource friendly and healthy). As thousands of visitors examine these models, they are able to log their interest in the various features, and thereby Mattamy is learning about the degree of public interest in each sustainability element. Also, Mattamy and the town of Milton are working together to translate this knowledge and other types of innovation into a 20-hectare "Eco-Tech Village that will encompass environmental sustainability, ecological sensitivity, energy efficiency, financial accountability, economic viability and marketability, technological advancement and the principles of smart growth.

appear to be driven by the movement of development to more design-intensive in-city sites, and the increasing number of units that result when firms produce more higher-density land.

Specialist training programs for land development, like the Centre for Excellence in House Building and Land Development, are a promising model for developing the skills needed by the industry in the future.

Operations in the USA

As the housing boom began declining in the late 1970s and 1980s, many larger land developers expanded their operations into the growth markets of the USA.

Several factors influenced developers decisions to expand into the USA. Urban growth in the Sun Belt offered tremendous market opportunities. Big Canadian developers found they had a comparative advantage, as they had experience in large-scale developments, high-growth situations, in operations in multiple markets, and they had established relationships with big Canadian banks. Those banks had operations of national and international scope that was not common in banks in the USA at that time. Also, Canadian developers were faced with a shrinking domestic market so they had to go elsewhere or face decline.

Canadian developers are becoming larger again today in response to the currently elevated housing markets, and it is possible that they may face another shrinking market in the future. However, each of the factors that lead Canadian land developers southward in the early 1980s is less evident today.

Public Awareness of the Industry

The public profile of land development has shifted from the 1970s when it was well-known, to the 1980s and 1990s when it has been less prominent.

What caused the profile of this important industry to decline? One reason is that issues (high prices, apprehended supply shortage, market concentration) which brought the industry to public attention, appear to have diminished in severity. Today there is not a good understanding in the public about what the industry does, perhaps because these issues are not widely thought to be severe, and perhaps because the industry is perceived as being localized in greenfields areas. A critical driver of the low profile must be the lack of accurate information about the industry, including both the weakness in the national data maintained by Statistics Canada, and the lack of publicity given to the land supply information residing with local governments.

A Consideration of Industry Conduct

This section of the profile considers a number of dimensions of the conduct of the residential land development industry, in order to provide an overall view of how developers do business, and how the industry fits in the Canadian economy and society. This consideration is modeled after the approach used by the Department of Finance in the late 1990s in its Task Force on the Future of the Canadian Financial Services Sector. The research outline for the Task Force[113] set out to examine industry conduct by looking at a number of specific qualities. This section employs the same approach while altering some of the qualities because they were particular to the banking business.

A focus in considering the conduct of an industry is the adequacy of ***competition***. In the early part of the study period there were frequent concerns that residential land development was concentrated and that market power was being exercised. In the current environment, municipal land supply monitors contain much better information about the volumes and flows in land supply process than were available in the 1970s, and there are few concerns expressed about competition. However, there are indications that the suburban land supply is becoming tight, that larger firms with long-term land holdings are the pre-dominant producers today, and that it will be increasingly difficult for new developers to enter the suburban market with substantial projects.

The degree of competition in suburban land development is the product of several linked markets. There is competition among the geographic sectors of the surburban market, and there is competition between the suburban areas and new housing in the built city. There is also competition between the various developments within individual sectors. Also, 45 percent of land developers' production is sold to various builders who go on to compete both among themselves and with the housing divisions of the very developers who sold them the lots, as well as with other builders. This is clearly a highly competitive milieu.

The potential for reduced competition is less of a concern today because land development is shifting, geographically, to in-city lands (leap-frogged parcels, in-fill and redevelopment) where the supply is thought to be quite diversified. However, the diversity of, quantities in and other characteristics of the in-city land supply are not well monitored and managed. This is an area for future improvement, and a subject for further research.

Another aspect of market conduct is described as ***disclosure***, meaning the availability of information about the developers' products, and about the firms themselves. Information about a land development project is certainly available

[113] Task Force on the Future of the Canadian Financial Services Sector. Discussion Paper . (Ottawa: Department of Finance). June 1997.

to anyone who seeks it out. Development sites usually are identified by signs with the developers' name and contact information, and often with a lotting plan, from the time they enter the planning process until the lots are sold. Once the lots are available for sale, there is usually an on-site sales office, and it appears that most developers now make plans and descriptions of the key features of their subdivisions available on the internet. Many of the internet sites also provide prices and information about purchase arrangements, design controls, building options and contextual facts about the surrounding community and its services.

The information about the firms themselves is less available. Public firms publish quarterly and annual reports, however, the information about their land development activities is not standardized and is often quite minimal, particularly in the case of firms that both develop land and build buildings, or firms that own a land developer along with other lines of business. There is very little information publicly available about privately-owned land developers. There is no statistical series maintained by Statistics Canada that concerns the residential land development industry.

Distribution channels are another aspect of industry conduct. The industry employs a variety of distribution arrangements and is beginning to innovate in some new channels which make use of internet technology. Although there are exceptions, developers generally distribute their product as wholesalers, and the end consumer of housing must go through a builder who has been approved by the developer in order to buy the developer's product. This constrained distribution maintains a level of quality in the development projects for the benefit of the end consumer and the neighbourhood, as well as the builders and developer concerned. One measure of that level of quality is the value of the properties concerned. It may be argued that this constraint limits the freedom of consumers to buy and sell land, and to use the builders they want to create a dwelling of their choosing. While this argument may have some theoretical validity, in practice the choices concerning housing construction are highly circumscribed by public policy, and the incremental constraint imposed by land developers is relatively slight and is socially beneficial. It is difficult to conceive of an increased benefit to consumers that would be the result of less constrained distribution channels in land development.

The industry's ***responsiveness to individuals*** does not appear to be an area of conduct which causes concern. When land is developed, the lots are sold to individuals with houses on them, and the whole is covered by warranty. The ownership and responsibility for streets and other public lands are turned over to the municipality or other local authority. Individuals having unresolved problems associated with unsatisfactory products, or deficiencies needing to be corrected, have not been identified in the Canadian literature as common problems or issues.

Another market conduct consideration is ***responsiveness to national objectives***. There are aspects of land development that connect with general national concerns, such as helping to house Canadians, protecting agricultural land, supporting sustainable development, helping to provide more affordable housing and providing good employment. The industry operates within a regulatory environment of provincial, municipal and sometimes federal regulations, in which it is sometimes compelled to act in support of a national objective, and sometimes specifically permitted to undertake actions which may not be fully supportive of some national objectives.

The industry's relationship with housing affordability illustrates one of these involvements. More affordable developments can be created by the mix of housing, the sizes and locations of lots, and the buildings and amenities that are created. In some municipalities regulations require that land developers include a certain proportion of affordable housing as a condition of receiving approval for a new residential project. Such regulations may apply to specific parcels of land (inclusionary zoning) or as a policy applied to developments above a certain size, or in a certain district or sector (inclusionary housing policies). For example, regulations may require that 10 percent (or as much as 20 percent) of housing units in a land development must meet affordability criteria. In some cases a project is allowed to develop to a higher density than would otherwise be permitted if it meets affordability criteria (density bonusing). The combination of these qualities of development, and regulatory measures associated with land development, means that this industry is involved in voluntary and involuntary behavior in support of making more affordable housing.

It is beyond the scope of this profile to form conclusions about the overall conduct of the residential land development industry. This discussion has considered key dimensions of industry conduct in relation to land development. It has observed that the industry makes a contribution to national objectives concerning housing affordability, and that the disclosure of information about the industry could be improved. It would require a specific study of the conduct of this industry, and of these dimensions in particular, in order to move beyond these observations to conclusions.

Summary – Changes in the Industry

This consideration of change in the land development industry has described qualities that might not otherwise have been included in this profile.

The industry has received little study historically, and while there is evidence that it has been undergoing change, its structure has never been well understood. It is structurally different from the better-known manufacturing models of industrial organization. Our survey of developers has disclosed that large firms are producing 70-90 percent of the land for the predominant residential uses, low and medium densities. Small firms are more prevalent as producers of land for

apartments. There are indications that the industry became more concentrated in the 1960s and 1970s, then grew more competitive, and that now concentration is increasing again.

The drivers of the changing industry structure were considered and this discussion pointed to the potential for future changes. Society's needs to protect agricultural land and diminish unsustainable urban sprawl have lead to the establishment of growth limits, and as the supply of urban expansion land has become constricted the industry has undergone change. The land developers that have suburban holdings are increasing the densities of their production, and most land developers are beginning to undertake redevelopment and in-fill within the built city. Developers are adjusting their production in other ways, adopting "smart growth" features and technological innovations in their projects, and shifting the skill set of their staffs for producing more housing in in-city locations. Unlike the situation in the 1970s, today there are fewer factors encouraging the industry to redirect its operations to the USA.

The consideration of the conduct of the industry did not disclose problems around its key qualities – competition, disclosure, distribution channels, responsiveness to individuals, and responsiveness to national objectives. It was observed that the industry can contribute to improving housing affordability by the mix of housing it creates, and the sizes of lots, buildings and amenities in its projects. It can be induced to produce affordable housing by incentives like density bonusing, or compelled to by measures like inclusionary zoning. As more land development shifts to in-city locations, the trends in the industry's production have the potential to further contribute to affordability and other national goals.

The vectors of change in land development point to opportunities for complementary actions in public policy. The land supply could be improved by designating more land for redevelopment and better publicizing this supply and monitoring intensification. As well as improving the land supply at the local level, public policy could improve public understanding of this important industry and its work in rebuilding urban settlements. Public policies reinforcing intensification plans and discouraging antisocial NIMBY forces would be helpful. At the national level, the creation and maintenance of an accurate information base on the land development industry will help the emergence of a better understanding of its activities and operations.

The industry appears to be moving into an area where competition can be expected to change. However, it must be recognized that it will also be difficult to develop and redevelop land within built cities, and that it is not clear today that the change in the locale of development assures that the industry's competitiveness will be improved.

The Residential Land Development Industry Going Forward

This review of data, literature and the survey of the land development industry has touched on many topics, and has observed patterns and factors which together constitute the profile of the industry. In this concluding section, some main findings are brought together along with current research on urban settlement, to attempt to identify factors which will lead to the industry's future.

The land development industry is now operating at a near-record level of production. In order to produce this expansion, the numbers of and production by developers has increased in the high growth markets, particularly in Alberta and Ontario, while it has contracted somewhat in places where growth is slower. In these booming conditions lot prices are rising (particularly where growth is higher), and the proportions of new house prices which go to the lots are also rising. Under these conditions, the profitability of land development is high.

For the last generation the land development industry predominantly produced detached houses, accommodating the acquisition of dramatically more houses

per capita than Canadians had ever possessed before. Just as occurred during the housing boom of the 1970s, the industry is expanding its output mix of housing to include higher proportions of the less land-consumptive types. In the process the consumption of land accelerated and the vacant lands located within growth limits in official plans (or not excluded by agricultural or other reserves) has been depleted. The pressures in 2006 to create an effective growth strategy in the Golden Horseshoe Area, to annex more land for Calgary's expansion, and to release more land from the Agricultural Land Reserve in the Lower Mainland of British Columbia, are all illustrations of reactions to this depletion.

Change in the Context for Urban Development

Against this background, some broader urban issues are evolving. Urban geographers, reviewing change in the Canadian urban system, see more fundamental patterns that are driving change in urban land development:

> *"The 2001 Census results suggest that we are entering a new urban era characterized by much slower population growth and wide variations in growth rates over time. The period is also marked by an uneven geographical distribution of that growth and an increasing differentiation between growing places and stagnant or declining places.*"[114]

Our history of nationwide urban growth, rooted in fertility-based natural population increase, has come to an end. Of 140 urban areas that had populations over 10,000 in 2001 (defined by Statistics Canada as CMAs or CAs), more than 40 percent experienced population decreases since 1996. The age structure of the population means that most places which are declining will continue to decline. Over 50 percent of Canada's contemporary population growth can be attributed to immigration from abroad, and between 1991 and 2001, two-thirds of the growth of the working age population was new immigrants. Immigration is increasingly concentrated at a few metropolitan "gateway" centres, and these same places are also proving attractive to previous immigrants who had initially gone to other parts of the country.[115] Demographics and immigration are dividing the country into growing and declining places more sharply than in the past.[116] The development industry, both the corporate industry which follows growth forces, and the smaller entrepreneurial firms at work in the less active places, has the job of serving these very different market circumstances.

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[114] Bourne, Larry S. Beyond the New Deal for Cities – Confronting the Challenges of Uneven Urban Growth. Toronto: University of Toronto Centre for Urban and Community Studies Research Bulletin #21), p.2.

[115] The data concerning immigration is based on Statistics Canada. Canada's Ethnocultural Portrait: The Changing Mosaic. (Ottawa: Statistics Canada 2001 Census Analysis Series), 2003.

[116] This assessment is based on Professor Bourne's "Beyond the New Deal…", Op.cit..

The importance of immigration to future land development may be reinforced by ethno-cultural factors. Statistics Canada estimates that by 2017:

> *"nearly 75% of visible minorities will live in the CMAs of Montreal, Toronto and Vancouver, compared with just over one-quarter of the rest of the population".*

and

> *"Half the populations of Toronto and Vancouver may be visible minorities by 2017" as well as "…between 23% and 28% of the total population in the CMAs of Ottawa, Abbotsford, Calgary and Windsor".*[117]

These rapid population changes, and particularly the growth of visible minority populations, involve evolution in the patterns of settlement within cities. There are already varied ethno-cultural patterns in urban settlement. While there are concentrations of visible minorities in many cities, these are often temporary locations for their current inhabitants within a traditional, multi-stage immigrant settlement process. They are also locales which house people in transitional economic circumstance like students, young families and newly-arrived emigrants from other parts of Canada. In the largest metropolitan areas, some neighbourhoods containing concentrations of visible minorities, often immigrants, are also the locations of problematic, high proportions of low income residents, including people in multi-generational low income situations.[118] The suburban concentrations of ethnic groups in quickly growing metropolitan areas are different from traditional ethnic enclaves. As noted above, immigration is changing, and well-educated newcomers with higher incomes are less likely to settle in the old immigrant landing neighbourhoods. The socio-economic status of many visible minorities continues evolving as younger, better-educated children of earlier immigrants and other people of all colours and ethnic backgrounds are increasingly successful in the workforce. These are consumers who want new homes and communities that are responsive to their cultural preferences e.g.: regarding housing design, size and suitability to accommodate multi-generational households and families, community services and facilities. In Toronto, research indicates that spatial concentrations of ethnic and visible minority groups are greatly influenced by public policy and local housing markets, and are less segregated than some white, non-English minorities.[119] The response to these emerging patterns by public policy and behavior in the marketplace will add a new complexity for land developers in the next generation.

Is the industry prepared for a concentration of urban growth in relatively few cities, with complex ethno-cultural dimensions? Some comments in the survey of

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[117] Bélanger, Alain and Éric Caron Malenfant. "Ethnocultural Diversity in Canada" Prospects for 2017", pp. 18-21 in Statistics Canada. Canadian Social Trends. (Ottawa: Statistics Canada Catalogue No. 11-008), Winter 2005, p. 20.

[118] Walks, R. Alan and Larry S. Bourne, "Ghettos in Canada's Cities? Racial Segregation, Ethnic Enclaves and Poverty Concentration in Canadian Urban Areas", pp. 273-297 in The Canadian Geographer, Vol. 50. No. 3, 2006.

[119] Qadeer, Mohammad A. Ethnic Segregation in Toronto and the New Multiculturalism. (Toronto: University of Toronto Centre for Urban and Community Studies, Research Bulletin #12) March 2003. page 2, pp 4-5.

the industry by an experienced land developer who works in ethnically-diverse Surrey, sound a warning:

> *"Neither public nor private sector are focussed on what Vancouver will be by 2020, and beyond. Politically, planning for the future is myopic, focussed on downtown Vancouver. Planners are caught up in the latest jargon and concept of the day. They don't have long term vision, as technology is moving too fast for them to see what is in the future. Planners play to NIMBYs, environmentalists, and anti-growth forces rather than planning for the population that will require housing/jobs in the future. Planners are not understanding the ethnic characteristics of the population and the intergenerational composition of households."*
>
> (David Keenan, General Manager - Pacific Region, Genstar Development Corporation, Surrey)

Coming changes in the energy economy, the environment, and environmental policy can also be expected to impact future land development. The reducing supplies of conventional energy and rising prices will reinforce the demand for living within the built-up city, and discourage development on the urban fringe. Energy use for the movement of people is closely related to density – the average energy use per capita for moving people in sprawling Atlanta is over ten times greater than in compact Hong Kong, with consumption in the Toronto region about halfway between them. Energy use for home heating and cooling generally follows the size of the house. As energy costs rise, home buyers and the mortgage lenders that finance them, will have less ability to acquire and sustain big houses in car-dependent suburbs.[120] The new energy economy will influence people to adopt smaller, more energy-efficient homes, more compact forms of settlement and increased use of urban transit. As those settlement patterns and transit are being planned and put in place, there will be unprecedented opportunities for public policy and the land development industry to open up the supply of urban land for intensification.

Changes Already in the Industry's Plans

The survey of the industry provided land developers' opinions on several other aspects of the future, in addition to the expectations that were already discussed in Chapter Three.

Land developers plan to continue in their present business. As Table 46 shows, 86 percent of land developers expect they will continue to develop land in 5 to 10 years, and 8 percent expect they will begin building houses as well. Of firms that both develop land and build houses now, 89 percent expect to continue and 7 percent expect to change to land development only.

[120] This paragraph is based particularly on Richard Gilbert's Energy and Smart Growth, Paper prepared for the Smart Growth Secretariat, Government of Ontario, October 2002.

Table 46: Survey of Land Developers – Changes in Land Developers' Work, Now and 5-10 Years From Now

Land Development Firms byType of Work Done Now	Type of Work Firm Will Do in 5-10 Years											
	Land Development		Both Land Development and New Home Building		New Home Building		Neither Land Development nor New Home Building		No Answer		All Firms	
	No. of Firms	*% of Firms*	No. of Firms	*% of Firms*	No. of Firms	*% of Firms*	No. of Firms	*% of Firms*	No. of Firms	*% of Firms*	No. of Firms	*% of Firms*
All Firms, Regardless of Size												
Land Development		*86%*		*8%*				*3%*		*3%*		*100%*
Both Land Devt and Home Building		*7%*		*89%*				*2%*		*2%*		*100%*
New Home Building				*17%*		*67%*		*17%*				*100%*
Neither Land Devt nor Home Building		*14%*		*14%*				*71%*				*100%*
Small Firms (Under 50 lots)												
Land Development	11		1				1		1		14	*34%*
Both Land Devt and Home Building	3		13				1		1		18	*44%*
New Home Building					2		1				3	*7%*
Neither Land Devt nor Home Building	1		1				4				6	*15%*
All Small Firms	15	*37%*	15	*37%*	2	*5%*	7	*17%*	2	*5%*	41	*100%*
Medium Firms (50-199 lots)												
Land Development	8		1								9	*36%*
Both Land Devt and Home Building			12								12	*48%*
New Home Building			1		2						3	*12%*
Neither Land Devt nor Home Building							1				1	*4%*
All Medium Firms	8	*32%*	14	*56%*	2	*8%*	1	*4%*			25	*100%*
Large Firms (200 lots and over)												
Land Development	12		1								13	*46%*
Both Land Devt and Home Building			15								15	*54%*
New Home Building												
Neither Land Devt nor Home Building												
All Large Firms	12	*43%*	16	*57%*							28	*100%*

Source: Survey of Land Development Industry

Each firm that reported it expects to change was a small developer. Of the firms that only build houses today, two thirds said they would not change, and 17 percent said they would both develop land and build houses. A few firms did not indicate their future plans (2 percent), and 3 percent of the firms in the land development or housing business said they expected to leave these industries within 5-10 years.

While the fundamental line of business of land developers will not be changing, the survey found that firms are already committed to a significant course of changes in their production. Table 47 is a summary of some of these production shifts.

- **Smaller Lots** Over the next five years 66 percent of large land developers, 70 percent of medium firms and 53 percent of small developers will produce a greater proportion of small lots than at present. Then, beginning in five to ten years, all sizes of firms will reduce their production of smaller lots.

Table 47: Survey of Land Developers – Coming Changes in Land Development, by Size of Firm (as seen in committed plans of existing, multi-phase projects)

Type of Change	Changes Committed in Various Time-Frames								
	Small Firms			Medium Firms			Large Firms		
	Next 5 Years	5 to 10 Years	Plus 10 Years	Next 5 Years	5 to 10 Years	Plus 10 Years	Next 5 Years	5 to 10 Years	Plus 10 Years
A greater proportion of small lots	53%	24%	19%	70%	27%	25%	66%	50%	50%
A lesser proportion of single-detached lots	39%	44%	31%	48%	67%	50%	54%	67%	50%
More multiples - semis / rows/ low rise apartments	69%	56%	50%	65%	67%	38%	69%	56%	75%
More multiples - high rise apartments	47%	60%	75%	26%	53%	63%	31%	28%	50%
More non-residential (mixed use)	44%	48%	63%	39%	47%	63%	37%	78%	50%
Number of Responses (n)	**36**	**25**	**16**	**23**	**15**	**8**	**35**	**18**	**8**

Source: Survey of Land Development Industry

- **Fewer Singles** Over the next five years 54 percent of large land developers, 48 percent of medium developers and 39 percent of small firms will produce lower proportions of single-detached lots than they do today. Firms of all sizes will further reduce their proportions of singles in 5-10 years.
- **More Semis, Rows and Low Rise** Two-thirds of land developers will increase their production of semi-detached and row houses and low-rise apartments during the next five years. Subsequently, large firms' production of these medium density forms of dwelling will continue at a high rate, and then increase again after ten years. The small and medium land developers will produce less of the medium density forms after ten years.
- **More High Rise Apartments** Forty-seven percent of small land developers will increase their production of multiple-unit and high rise residential buildings during the next five years. This increases to 60 percent of small firms in five to ten years, and to 75 percent after ten years. Similarly, increased production of multiples is also committed by 26 percent of medium firms in the next five years, increasing to 53 percent and on to 63 percent after ten years. For large land developers, the respective proportions are 31, 28 and 50 percent.
- **More Mixed Use** There will be an increase of over 50 percent in the next ten years in the proportion of land developers of all sizes that will have more mixed use in their multi-phase projects. In 5-10 years, 78 percent of large developers will be producing more mixed use projects.

There is a highly significant pattern in the foregoing information about existing, committed land development projects. Developers are already embarked on projects that will aggregate to increased densities for the industry. This will occur initially because of reduced lot sizes and reduced production of singles, combined with an increased production of medium densities and mixed use projects. Then, five years from now the production of medium densities by smaller firms will drop back and small and medium firms will greatly increase their production of high rise residential buildings. The survey showed that small firms are now the main apartment developers so a major increase in their

production will be highly significant. Large firms, who dominate the market today with their production of singles, are moving to increased production of medium density housing immediately, and in ten years this could be the largest portion of their production. The product of the land development industry is about to become considerably more dense.

The information provided by land developers about their future requirements for skills is consistent with the other indications of coming changes in the industry.

The industry is compact, with few firms, and the firms have few staff. As shown in Table 48, when they were asked if their future requirements for skills will increase, decrease or stay the same, most developers said skills will stay the same.

Table 48: Survey of Land Developers – Changing Requirements for Skills, by Size of Firm

Land Development Skills	Will Probably Increase in the Future					Will Probably Decrease in the Future					In the Future, Will Probably Stay the Same				
	% by Size of Firm				*% of All Responses*	% by Size of Firm				*% of All Responses*	% by Size of Firm				*% of All Responses*
	Small	Medium	Large	All		Small	Medium	Large	All		Small	Medium	Large	All	
Planner	29%	24%	47%	100%	*11%*	0%	100%	0%	100%	*4%*	42%	27%	31%	100%	*7%*
Construction supervisor	35%	29%	35%	100%	*11%*	67%	33%	0%	100%	*13%*	40%	30%	30%	100%	*6%*
Clerical	27%	33%	40%	100%	*10%*	33%	33%	33%	100%	*13%*	34%	31%	34%	100%	*8%*
Engineer	25%	33%	42%	100%	*8%*	0%	100%	0%	100%	*4%*	40%	27%	33%	100%	*8%*
Construction trades	42%	25%	33%	100%	*8%*	67%	33%	0%	100%	*13%*	38%	33%	29%	100%	*6%*
Environmental planner	9%	36%	55%	100%	*7%*	0%	100%	0%	100%	*4%*	39%	30%	30%	100%	*6%*
Sales	27%	27%	45%	100%	*7%*	0%	67%	33%	100%	*13%*	35%	32%	32%	100%	*9%*
Accountant	30%	10%	60%	100%	*7%*	0%	100%	0%	100%	*4%*	33%	33%	33%	100%	*9%*
Architect	22%	44%	33%	100%	*6%*	0%	100%	0%	100%	*4%*	48%	28%	24%	100%	*7%*
IT staff - project mgt	44%	22%	33%	100%	*6%*	0%	100%	0%	100%	*4%*	25%	33%	42%	100%	*7%*
IT staff - graphics	38%	13%	50%	100%	*5%*	0%	100%	0%	100%	*4%*	36%	36%	27%	100%	*6%*
IT staff - geomatics	25%	38%	38%	100%	*5%*	0%	100%	0%	100%	*4%*	39%	39%	22%	100%	*5%*
Draftsperson	14%	43%	43%	100%	*5%*	0%	67%	33%	100%	*13%*	41%	26%	33%	100%	*8%*
Lawyer	17%	33%	50%	100%	*4%*	0%	100%	0%	100%	*4%*	35%	35%	29%	100%	*9%*
					100%					*100%*					*100%*
No. of Responses (n)	43	44	65	152		5	16	3	24		135	113	112	360	
	28%	29%	43%	100%		21%	67%	13%	100%		38%	31%	31%	100%	

Source: Survey of Land Development Industry

This response was consistent among the fourteen individual land development skills and the three sizes of firms. Only a few respondents felt that the need for any skills will decrease, and most of these were medium-sized firms.

There is an expectation by many developers that particular skills will increase. The five skills that were most frequently identified as likely to increase were: planners; construction supervisors; clerks; engineers; and construction trades.

A few skills stood out as future requirements that will be particular to certain sizes of firms:

Small firms	IT project managers, construction trades
Medium firms	Architects, draftspersons,
Large firms	Accountants, environmental planners, lawyers and IT graphics staff

Conclusion

This study has provided a profile of a compact, capable land development industry which is facing fundamental forces of change in these early years of the 21st Century. Academic debates which swirled around the industry in the 1970s are lost in the past. Contemporary policies and decisions concerning land development can and should be based on accurate, current information and cooperation between the industry and local planning authorities. This industry is already quite active in infill development, with significant proportions of its work in projects on brownfields and greyfields sites. Sustainable development is a goal that is shared by professionals in the industry and the public sector alike. The industry can readily point to projects it has created that follow principles of “smart growth”, and designs like “new urbanism”. Land developers are already committed to projects that will shift the type of new housing construction to medium and high density buildings, that will produce more mix in land uses, and that should produce increasing urban densities over the next decade. The industry is positioned to be the agent of change needed by Canadian cities.

The emerging challenge for the relatively few firms that comprise Canada’s land development industry is to lead urban society in the intensification of our cities. The need for intensification is not just for greater urban density, it requires sustainability in development with attention to the environment, to social needs and to urban economic demands. For the next few years, the task for land developers will be to secure market acceptance of more sustainable forms of development, at least equal to the acceptance of more conventional projects. This profile has demonstrated that the industry is ready for this task.

Appendices

Appendices

Appendix A: Changes in the National Occupation of Urban Land, Canada

Table A1: Changes in National Occupation of Urban Land, 1971 to 2001

	Population			Housing Stock				Urban Land Use		Gross Urban Density (persons per ha)
		Urban	% urban		Urban	Average Persons per Housing Unit	Urban	in km²	in hectares (000s)	
1971	21,568,305	16,410,785	76%	6,034,500	4,737,419	3.6	3.5	15,773	1,577.3	10.4
2001	30,007,094	23,908,211	80%	11,562,975	12,527,610	2.6	1.9	30,941	3,094.1	7.7
1971-2001	8,438,789	7,497,426	89%	5,528,475	7,790,191			15,168	1,516.8	
% increase	39%	46%		92%				96%		

Sources:
National population and urban population from Statistics Canada, Census of Population, 1851-2001.
National and urban housing stock for 1971 from 1971 Census of Canada, Vol. II Part 3, Catalogue 93-727, Table 4.
National housing stock for 2001 from 2001 Census of Canada, topic-based tabulations, housing.
Urban housing stock for 2001 from 2001 Census of Canada, Populations, Dwellings and Geography, CMAs and UAs.
Urban Land Use from Statistics Canada, Urbanization and Agricultural Land, Catalogue 21-006-XIE

Appendix A: Changes in the National Occupation of Urban Land, Canada

Appendix B: Previous Studies of the Residential Land Development Industry

This section summarizes the research that has been produced since World War II about the residential land development industry. As the postwar period began, the industry that exists today was in its infancy. By the late 1960s, land development had evolved to be an integral component of the flourishing housing industry, and several problems had attracted public attention to it, although it had not received significant study. Through the 1970s numerous studies attempted to understand the industry and propose solutions to the issues, simultaneously. For the next twenty years conditions changed in the land and housing markets, the regulatory environment around land development evolved, the land development industry adjusted, the interest in land issues abated and the studies stopped.

The Beginnings of Residential Land Development in Canada

While development of land has had an important role in Canada's history since the arrival of European settlers, the land development industry took on a decidedly new structure following World War II.

From the outset of European colonization, the planning and legal infrastructure for land development was established before settlement. Settlement proceeded deliberately, beginning with legal authorization by early governors and later legislatures, plans for the subdivision of land, and in most cases, the

formalization of these plans in surveys. By 1663 the settlement of New France was underpinned by seigneurial land grants in narrow strips along the St. Lawrence River and in the valleys and harbours of what is now the Atlantic Region.[121] When the great influx of Loyalists arrived in the Maritimes and Great Lakes/Ontario region during the late 1700s, the English system of land surveying had the land organized into townships, and subdivided into concessions and lots.[122] As Upper Canada filled and the wave of settlement began spreading across the prairies, the land was made ready by

> *"a great and uniform land survey in which each township was 6 miles by 6 miles and contained thirty-six sections, each section containing 640 acres and being a square mile in both size and shape".*[123]

In the late 19th and early 20th centuries the arrival of railroads opened up prairie cities for more settlement, and so many urban lots were subdivided on paper that land speculation flourished and "land booms" resulted across Western Canada.[124] In the wake of these booms there were enormous quantities of land shifted to municipal ownership through tax defaults, and many municipalities became active in the land business through the 1930s until as late as the 1950s, to rationalize the land holdings and sell them.[125] The planning and legal subdivision of land has played a central role in Canadian history.

The turn of the 20th Century saw several significant changes begin to emerge in land development. Historically, the predominant pattern of development was the rectangular grid. Grids were the original pattern of survey in rural areas, and as township lots became subdivided into farm parcels these usually became rectangular shapes as well. Similarly, townsites were laid out as smaller scale grids, from the earliest forts through the railroads' regimented prairie villages, and expanding industrial cities After World War I, a few large corporate land developers began creating a new kind of residential projects, with more thoughtful designs incorporating curvilinear streets linked to the topography, larger lots, parks and other forms of green space, and sometimes deed restrictions and zoning to control the type of residents and ongoing appearance.[126]

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[121] Kerr, D.G.G., editor. A Historical Atlas of Canada (Toronto:Thomas Nelson & Sons Canada Limited) 1961. p.25.
[122] Thompson, Don W., Men and Meridians, Volume I, (Ottawa:Queens Printer) 1966. p.220.
[123] Kerr. P. 62.
[124] Land booms occurred in Winnipeg (1881-83), Edmonton (1903-14), Regina (1903-13), Saskatoon (1910-12), Calgary (1010-12) and Vancouver (1905-11).
[125] See McCann, Larry. "A Regional Perspective on Canadian Suburbanization: Reflections on Richard Harris's Creeping Conformity", pp.32-45 in Urban History Review Vol. XXV, No. 1, pages 34, 37.
[126] McCann. op. cit., pages 36 and 41. Some examples include: linked subdivisions in Halifax (1922-Carrick and Company); Town of Mount Royal in Montréal (1910-CNoR); Hampstead in Montréal (1913-CPR and BMO officials); Leaside in Toronto (1912-CNoR); Town of Tuxedo in Winnipeg (1904-Frederick Huebach); Mount Royal in Calgary (1910-CPR); Shaughnessy Heights in Vancouver (1907-CPR); and Uplands in Victoria (1907-William Hicks Gardiner/Franco-Canadian Company).

Also after World War I, governments became more involved in the creation of residential subdivisions. As well as re-working the tax forfeited lands, some cities created housing projects to accommodate the demand for housing by returning soldiers.[127],[128] Town planning legislation was implemented by each of the western provinces, and municipalities began establishing zoning schemes. In the debris of the Halifax Explosion the federal government developed a small replacement community near Halifax's downtown, the Hydrostone project. During World War II Wartime Housing Limited was established, a federal Crown Corporation which planned and built over 50,000 housing units, including one quite extensive land development to house industrial workers at Ajax, Ontario. After that war there was such demand generated by veterans wanting to build or rent housing under the provisions of the Veterans Land Act and the Veterans Rental Housing Program[129] that many cities produced subdivisions that were tailored to support these programs.

In the early 1950s certain federal government projects modelled a new kind of residential land development. Subdivisions known as Permanent Married Quarters (PMQs) were created for military personnel and their families at bases all over Canada. These incorporated several housing types (singles, semis and row houses) in curvilinear layouts that usually integrated schools, churches and parks. Most importantly, they were pre-serviced with roads and sewers. Similarly, the 1950s saw the federal and provincial governments collaborating in public land assembly projects which rapidly spread across Canada, wherein the governments bought land and developed residential subdivisions, including fully-servicing the lots before they were sold. These government-led changes in the conventional manner of developing land were part of a larger initiative in public policy. In order to satisfy the burgeoning demand for housing, the federal government was systematically creating a Canadian housing industry, and improving all aspects of housing production.[130] As described by CMHC's chief advisor on planning at that time, Humphrey Carver:

> *"It was the task of CMHC to develop the Canadian housing industry, practically from scratch, to sow the seed and cultivate the crop."*[131]

In 1953 a Toronto land development that is considered highly influential came into being. Initiated by an industrialist, E.P. Taylor, and designed by a landscape architect and planner, Macklin Hancock, Don Mills was developed over the

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[127] This demand was supplemented by funding provided by the federal government's new Soldier Settlement plan.

[128] One prominent example is Lindenlea in Ottawa, developed in the early 1920s by Ottawa Housing Commission. See Pickett, Stanley. "Lindenlea, Ottawa", pp. 17-17 in Habitat, March-April 1961.

[129] Over 140,000 veterans sought grants or loans under the VLA program.

[130] The federal government's initiative to systematically create a Canadian housing industry is discussed in Marc Denhez, The Canadian Home. (Toronto: Dundurn Press), 1984. pp. 92-120.

[131] Carver, Humphrey. Compassionate Landscape. (Toronto: University of Toronto Press), 1975. pp107-108. The inadequacies of the building industry in the postwar era are also described in Carver's Houses for Canadians. (Toronto: University of Toronto Press), 1948, pp.63-65.

decade 1953-1963. This community was designed to realize five concepts: neighbourhoods; a discontinuous road system; a profusion of green space; new house forms on new lot configurations; and a separation of uses and activities. Neighbourhoods focused on elementary schools, which were a vital institution during the early years of the "baby boom". Instead of the traditional grid pattern, streets curved and looped to enclose the community. The layout protected green spaces to retain mature trees and skirt ravines. Rather than lining up houses in equal distance from the street, houses were sited with either their narrow or wide sides to the street. The community included a mixture of singles, semi-detached houses, row houses, and apartments.[132]

One of the qualities of Don Mills, the PMQs, and the government land assembly projects, marked the beginning of the modern era of residential land development.[133] This was the addition of physically servicing land to the tasks of planning, legally subdividing and surveying it, before selling developed sites to consumers. Homebuyers liked serviced lots because they were more convenient than buying unserviced lots and organizing with other owners and the municipality to retrofit the neighbourhood with roads, sewers, etc on a local improvements basis. Developers found fully-serviced subdivisions were a more complete, attractive product to sell. Municipalities were happy to require developers to produce serviced lots in lieu of the municipalities having to negotiate with neighbourhoods and individual owners in order to organize the construction of services, and to make all the associated financial and construction arrangements. Developer-serviced subdivisions quickly became the norm across Canada, with Québec being the only region that continued to separate land development (by developers) from land servicing (by municipalities). The examples of Don Mills and the various federal residential land projects lead to the widespread adoption of the package of modern qualities in land development - serviced lots, non-grid layouts, residential and land use mix, and neighbourhood designs.[134]

The 1970s – Discovering Problems, Starting Research and Responding with Programs

Through the 1950s and 1960s the housing industry surged, building twice as many units in the 1950s as in the 1940s, then growing by another one-third in 1960s (see Chart A-2). As the 1960s ended the prices of new houses were rising quickly and there was a perception that housing production was held back by problems in the urban land development process.

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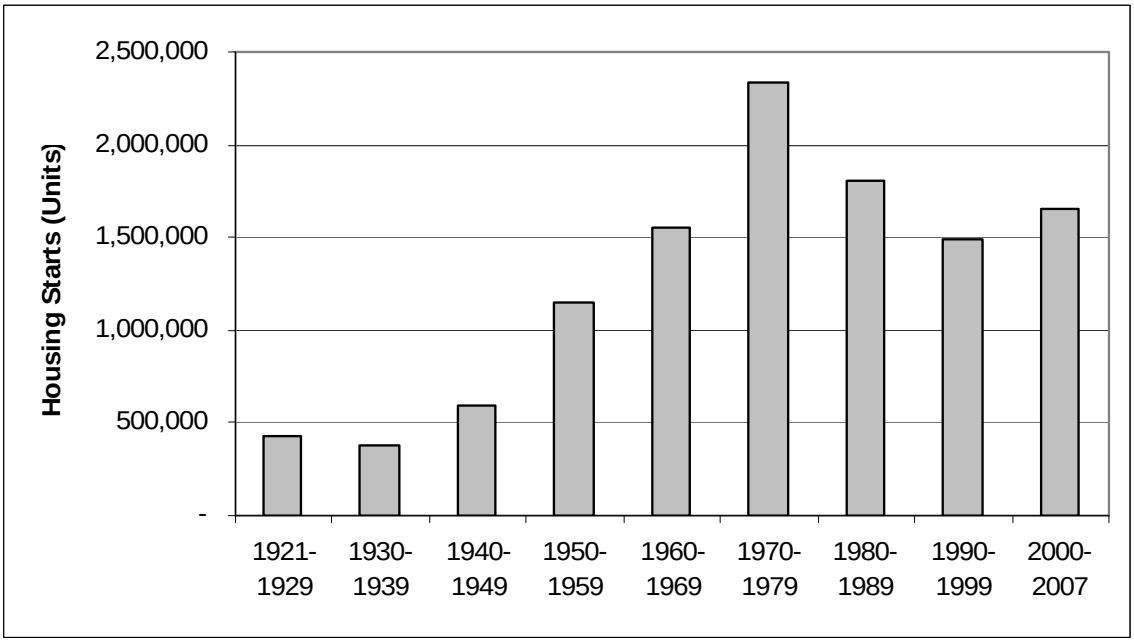
[132] This discussion of Don Mills was extracted from an article in the Autumn 1998 edition of The Heritage Post. See http://www.7thfloormedia.com/resources/canadiana/library/housing.html.

[133] Servicing adds a large expense to land development, which usually requires financing. Lenders require a comprehensive business plan as a condition of considering financing, and the combination of these demands lead to the evolution of a large, corporate, financially-sophisticated land development industry.

[134] The typical land development process of 1956 was described in CMHC's brief to the Royal Commission on Canada's Economic Prospects. See CMHC, Housing and Urban Growth in Canada. (Ottawa:CMHC) 1956. pp 25-29.

Chart B1: Housing Construction by Decade, Canada, 1921-2007



Source: CMHC. Canadian Housing Statistics, various years

The federal government undertook a national study in 1968 known as the Task Force on Housing and Urban Development, lead by a Minister and former house builder, Paul Hellyer. In early 1969 the Task Force reported that land costs were a critical cause of house prices, and

> *"…the very system whereby land is assembled and serviced in this country creates an even more basic problem."*[135]

The report observed the difficulty in assembling parcels of land of sufficient size to provide economies of scale in the development process, the tendency of municipalities to require developers to service land to "gold-plated" or "Cadillac" standards, and the need for a "grand design" that brings together land, trunk services, zoning and subdivision requirements to create better communities at more reasonable costs.[136] It discussed the socially-created increment in land value and debated whether society or the land owner should be able to obtain this increment. It described the municipal program in Saskatoon which held 5,000 acres in a 20-year "land bank", and

> *"…provided land for private development at reasonable prices while at the same time planning the development pattern in a comprehensive sense and retaining, again on a*

[135] Canada. Task Force on Housing and Urban Development. (Ottawa: Queen's Printer), 1969, p.38.
[136] Task Force, op. cit., pp.40-46.

> *planned basis, sufficient land at the proper sites for public uses such as schools, libraries, parks and the like."*[137]

For the next decade a succession of studies elaborated these themes and explored other aspects of land development and urban development.

Key Recommendations for Land Development in the Hellyer Report

- Provinces should establish a system of regional governments, equipped with adequate powers, so urban planning can be done effectively;
- governments should review requirements for registering, servicing and zoning land with a view to simplifying procedures and providing greater flexibility so the market can serve all income groups;
- urban renewal should be re-oriented to limit the destruction of older housing, and to encourage a more precise and effective scale of redevelopment;
- municipalities should assess and tax land to encourage its use to its maximum planning potential;
- all profits from land sales should be treated as taxable income;
- local governments should should acquire, service and sell all or a substantial portion of the land required for urban growth;
- the federal government should make loans to local governments for land assembly and development.

Note: At that time the taxation system treated the profits from land sales as "capital gains" and only 50 per cent was taxed at the normal, business rate

In 1970 Carleton University economist N. H. Lithwick, commissioned by Canada's first federal Minister soley responsible for housing, delivered a wide-ranging examination of urban systems. The Lithwick report, with six accompanying research monographs,[138] included mini-studies of land development and urban growth in 13 urban regions from coast to coast.[139] These brief studies considered each region's land supply for the short and longer term, growth patterns, and land ownership including land in public ownership.

Professor Lithwick advocated a national urban policy which included creating "new communities" on the periphery of metropolitan areas, linked to their core cities by efficient transportation systems.

As the Lithwick report was being finalized, the Federal Government set up the Ministry of State for Urban Affairs to coordinate federal urban activities and policies, in cooperation with the provinces.[140] It recognized that the federal government has huge impacts on cities, including the fact that it was Canada's largest landowner, and that program activities like the TransCanada Highway, the Railway Relocation Act, the Grade Separation Fund and CMHC's housing

[137] Task Force, op. cit., p.40.
[138] Lthwick, N. Harvey. Urban Canada: Problems and Prospects. (Ottawa:CMHC), 1971. Main report and six other monographs.
[139] The following urban regions were discussed in Lithwick's Research Monograph 5 – The Urban Future: Vancouver, Edmonton, Calgary, Regina, Winnipeg, Windsor, London, Hamilton, Toronto, Ottawa-Hull, Montréal, Québec and Halifax.
[140] This initiative was announced in the Speech from the Throne, October 1970.

and development programs were key factors in freeing up strategic land for redevelopment and for transportation corridors, and in rebuilding cities.

Key Findings Concerning Land Development in the Lithwick Report

- In an economy where the price (of land) is based largely on demand, and where there is scarcity, it is doubtful whether minor savings (such as reducing carrying costs by accelerating the processing of subdivision plans) would be passed along to consumers.
- The method of financing the capital works needed to support land development may cause problems. If strained municipal budgets must bear these costs, Councils may delay bringing sewer, water and power to new areas, and this has the effect of aggravating the shortage of land available for building.
- Growth designations and the provision of trunk sewers sometimes have the effect of creating near-monopoly situations in the regional land supply.
- Lot prices were lower in Québec, where land holdings were often small and urban regions were fractured into many municipalities.
- Urban land use and transportation are closely linked, and improvements to urban transport can increase the effective land supply for development.
- Provincial agencies and municipalities were attempting to improve the land supply by banking and developing land, and selling lots at or near market prices. The City of Regina is controlling land prices by marketing 25 per cent of lots for building.

Coinciding with the Lithwick research, two major studies were commissioned by CMHC. A task force headed by Michael Dennis and Susan Fish probed the production of low income housing, while Professor/Architect Glen Milne examined urban assistance and urban renewal activities. The Dennis Report[141] included partial listings of the larger land developers and their land holdings around major cities, and concluded that there was significant concentration in the urban residential land supply that contributed to the rapidly rising land prices. Both the Dennis and Milne studies advocated an increased role for public land assembly and development to aid urban planning, provide lower-cost land to assist other housing programs and improve housing affordability, and to improve the land supply and development process.

The Dennis/Fish Task Force, in conjunction with the national organization of home builders (now CHBA), produced an estimate of the size of the land development industry. A questionnaire was sent to the entire HUDAC membership and replies were received and analyzed from 350 firms. Table B1 uses findings from this sample to estimate that in 1971 the land development industry, nationally, comprised about 1,450 firms.

This is clearly a low estimate, as it is based on the assumptions that there were only 2,450 builder and developers, and that most developers were also home builders. The indication that the industry entailed fairly equal numbers of firms associated with small, medium and large amounts of housing is more robust, as it is a finding which emerges directly from the survey, without projections.

[141] Dennis, Michael and Susan Fish. Programs in Search of a Policy. (Toronto: Hakkert Press), 1972.

Table B1: Estimation of the Size and Structure of the Residential Land Development Industry, 1971

Industry Structure	Home Building Industry (assumes there are 2,450 home building firms in Canada)		Estimates of the Land Development Industry	
	Col. A	Col. B	Col. C	Col. D
	% of all firms (as found in the survey)	Calculated Number of Builders & Developers (2,450 multiplied by Col. A)	% of Builders & Developers that Develop Land (as found in the survey)	Calculated Number of Developers (Col. B * Col. C)
Small Firms (1-25 units per annum)	47%	1,151	38%	437
Medium Firms (26-100 units per annum)	27%	661	67%	443
Large Firms (Over 100 units per annum)	26%	637	88%	561
Totals	100%	2,449		1,441

Source: Derived from Roberts, C.J. B., A Survey of the Canadian Housebuilding Industry. Background study for the Task Force on Low Income Housing. CMHC unpublished draft. 1971. pp.iv. and 13-15.

In 1973 the National Housing Act was amended to implement many of the recommendations of these various studies. It included measures to increase the land supply such as limited forms of urban redevelopment (Neighbourhood Improvement Program) and stand-alone new communities on the urban fringe. Many of the 1973 measures reinforced regional planning, such requiring that a project had to be part of a recognized regional plan in order to be eligibile for financing under the Municipal Infrastructure Program, the Land Assembly Program, the Neighbourhood Improvement Program or the New Communities Program.The measures also included funding for the preservation of the existing housing stock (Residential Rehabilitation Assistance Program); and for builders and buyers of more basic houses at affordable prices (The Affordable Home Ownership Program - AHOP).

The federally-funded residential land assembly program had begun in the early 1950s, grew during the 1960s and then expanded strongly in the 1970s. Government land banking and development activities were seen as a means to simultaneously increase the supply of land, provide for affordable housing, improve urban planning and address any concentration in the land supply. By the mid-1970s, the federally-financed program had purchased over 33,000 acres of land and developed over 14,000 lots in over 150 projects in all provinces and almost every city, and had an annual budget of about $100 Million.[142]

The government land projects entailed considerable controversy, and several researchers studied various aspects of this activity. Donald Ravis examined the origins of Saskatoon's "land banking" program and how it was used in concert with the replot provisions of the Saskatchewan Community Planning Act to produce comprehensively-designed residential neighbourhoods, focused on

[142] Spurr, Peter. Land and Urban Development. (Toronto: James Lorimer and Company) 1976. pp. 275-295.

school sites, with suitable mixes of commercial and industrial facilities.[143] Like Ravis's research, a study by the Bureau of Municipal Research from Toronto described Saskatoon's land activities as being highly beneficial to urban growth planning.[144] This benefit was also found by another analyst, UBC Professor Stan Hamilton, and both Hamilton and Ravis found that the Saskatoon land bank was selling lots to the private house construction industry at prices that were keeping housing prices moderate, yet making a profit for the city.[145] This public land development operation was producing about two-thirds of all lots for new housing in Saskatoon. A study of Red Deer, in which the municipality was developing almost all new lots in the urban region, had similar findings about the purposes, sales practices and effects.[146] Other reports and submissions cautioned governments about real or apprehended problems in public land banking and land development, and recommended that these programs be discontinued.[147]

The first research-oriented, national examination of land development came into circulation in 1974.[148] Known as the Spurr Report, it contained data about 60 of Canada's largest private land developers with activities in 24 metropolitan regions, as well as virtually all land assembly and development activities of the various governments. It looked at the assets, organizational structure and profitability of both private and public developers, and explored market structure and competition in the land development industry. Also, it contained case studies of land markets in many of the major urban regions. Its conclusions refined and sometimes differed from directions seen in the previous studies.

In 1975, the Federal Housing Action Program instituted further measures to increase the land supply. It broadened federal assistance for sewer and water projects, and provided $1000 grants to municipalities for every medium density, modestly priced housing unit started within their jurisdiction. The federal land assembly program was expanded to second generation urban developments, and it made loans directly to municipalities for innovative projects like St. Lawrence in Toronto, and False Creek (and Granville Island) in Vancouver. A land market intelligence unit was begun in all major CMHC branch offices.

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[143] Ravis, Donald. Advance Land Acquisition by Local Government: The Saskatoon Experience. (Saskatoon: Community Planning Association of Canada), 1973.
[144] Bureau of Municipal Research. Land Banking: Investment in the Future. (Toronto: Civic Affairs Bulletin No. 1), 1973. p. 26.
[145] Ravis, op.cit., p.86 and Stanley W. Hamilton, Municipal Land Banks: A Case Study of Saskatoon, Mimeographed manuscript. (Vancouver: University of British Columbia Faculty of Commerce and Business Administration), 1971. pp. 19-22.
[146] Watson, Kenneth F., Landbanking in Red Deer. (Vancouver: Thesis, University of British Columbia School of Community and Regional Planning), 1974.
[147] Examples include: S.W. Hamilton, Public Land Banking: Real or Illusionary Benefits, (Vancouver: UBC Faculty of Commerce and Business Administration), 1974; Fraser Institute, Real Property: The Habitat Debate Continued, (Vancouver: the Institute), 1976.
[148] This research was originally provided to CMHC in 1974 under the title "The Land Problems Problem", and was later published, privately, as "Land and Urban Development". See Spurr, Peter, op. cit. .

Key Findings Concerning Land Development in the Spurr Report

- The price of land is a derivative of the price of new housing, and the later is determined by trading in the whole market for housing, which is dominated by sales in the existing stock. So small changes to the supply of land, or the cost of developing land, won't affect the price of housing, but they do raise developers' costs and may affect land values in the longer term.
- Land markets in most metropolitan areas were becoming concentrated. The concentration was the logical outcome of regional planning channeling growth to locales where expensive public investments in sewer, water, roads and other services were being provided, and well-capitalized investors acquired much of the land. In effect regional growth planning channels the social increment of land value to these well-capitalized land owners.
- The development of lots for new housing was becoming dominated by a few large developers (some private firms, some public land assemblies). It was estimated that 120-140 larger developers account for 75 per cent of metropolitan lot production. It found 47 firms held 119,000 acres of land in 21 regions and 16 of these firms had plans for housing at least 1,000,000 people within a generation. In addition, over 50,000 acres was being held in about 100 public land assembly (or public land banking) projects.
- There did not appear to be a shortage in the urban land supply in most centers as lot production was rising, lot surpluses were frequent, and the major developers held large stocks of future land supply. From the viewpoint of home buyers, builders and small developers, the "land shortage" referred to their desire to obtain non-existent, low-priced lots and acreage.
- 159 public land assembly projects were financed under the National Housing Act between 1950 and 1972, of which 133 sold or leased lots at or near market prices, and 11 sold or leased at a sub-market, cost-based price.
- The report advocated expansion of public land assembly activities in future growth areas to allow for comprehensive planning, and employing private firms for the planning, development and marketing of this land. This would use the skills of entrepreneurs for efficiency in the process, while capturing the social increment in land value for the society at large. It also recommended that an investigative unit be established to monitor urban land markets and development activities in all metropolitan regions.

Also in 1975, the Ontario government introduced a Land Speculation Tax, aimed at reducing the escalation of land and housing prices and recovering for the public a major share of windfall gains from land speculation. It excluded sales of principal residences, vacation property, developed industrial or commercial property, farms owned for at least ten years, and residential investment property owned for at least ten years and containing a structure worth at least forty per cent of its total value. Originally set at 50 percent, it was widely criticized, reduced to 20 percent and gave rise to many legal actions by land developers. Very little revenue was ever collected by the tax, and it was repealed in October of 1978.[149]

In 1976 HUDAC released a study of nationwide land development costs.[150] It examined development costs in 1974 in eleven urban regions, and divided them into fixed cost components (servicing costs, municipal levies, consultants fees and developers overhead) and market-variable components (land costs, carrying

[149] Summary based on Smith, Lawrence B., "The Ontario Land Speculation Tax: An Analysis of an Unearned Increment Land Tax", pp. 1-12 in Land Economics, Vol.52, 1976

[150] Derkowski, Andrzej. Costs in the Land Development Process. (Toronto: HUDAC), April 1976.

charges and profit). This multi-market data revealed that fixed cost components did not vary between urban regions as much as the price-variable components.

Key Findings Concerning Land Development in the HUDAC (Derkowski) Report
• lot prices are correlated with the degree of complexity in development control system; • rapid price increases occurred where the land supply was truncated; • approval processes should be streamlined, development standards should be reduced, and government land development projects should be eliminated; • The increasing difficulties and costs of development which are part of the cause of scarcities of lots, are also the main cause of increasing concentration in the land development industry throughout Canada.

In 1977 the Report of the Winnipeg Land Prices Inquiry Commission (the Bellan report) considered the complex land supply situation in that urban region. For many years four private land developers (BACM/Genstar, Ladco, Qualico, and Metropolitan Homes), and the land development arm of the Manitoba Housing and Renewal Corporation (MHRC), owned most of the land and produced most of the serviced lots.[151] The report found this concentration was impacting lot prices and capturing the social increment in land value, and recommended a managed approach wherein a City Commissioner of Land Development would monitor all aspects of the land supply, and ensure that the City's invests in services to maintain a contiguous expansion of the city in the various sectors. MHRC would be tasked with producing 20 per cent of all newly serviced lots in Winnipeg each year.The City would require a "Capital Installations and Extensions Charge" from landowners for their pro-rata share of the total outlay on capital installations and extensions made necessary by the City's outward spread, and a "Connection Charge" would be calculated to recapture any gains from land sales that the Commissioner found to exceed "fair and reasonable returns".[152]

In 1977 CMHC's new land supply monitoring system, the Land and Infrastructure Mapping Program published its first reports. The program monitored and assessed the major elements of the land supply and made the information available to government and other interested parties. Table B2 summarizes the main outputs of the mapping program's analysis in 1977. In the 17 metropolitan regions it monitored, the supply of land was greater than the estimated demand everywhere (except for the current (one-year) supply in Victoria and Vancouver). The current land supply exceeded demand in 6 regions and was more than double the estimated demand in 9 regions. The supply which was considered

[151] These "Big Four" developers together owned 10,200 acres, the City of Winnipeg owned 2,000 acres, and most of these holdings were close to the built-up area and developable within ten years. MHRC held 3,200 acres and 47 companies owned by 31 "speculators" held 2,600 acres, but these holdings had a longer development horizon. See Bellan, Ruben C.,Report and Recommendations of the Winnipeg Land Prices Inquiry Commission, (Winnipeg: Province of Manitoba, July 1977), Table IV.

[152] Report of the Winnipeg Land Prices Inquiry Commission, (Winnipeg: the Commission, 1977).

developable within five years exceeded demand in 13 of the 17 regions. In Vancouver there was more land considered to be developable within five years than the estimated demand for that period, and in Victoria the five-year supply was more than twice the level of demand.

Table B2: Strength of the Urban Land Supply, Major Cities - 1977

Land Supply Less than Estimated Demand		Land Supply Exceeds Estimated Demand			
		Less Than/Equal to Double		More Than Double	
One Year Supply*	**1-5 Year Supply**	**One Year Supply***	**1-5 Year Supply**	**One Year Supply***	**1-5 Year Supply**
Victoria, Vancouver		Calgary, Edmonton, Winnipeg, Windsor, St. Catharines, Halifax	Vancouver, Calgary, Saskatoon, Windsor,	Saskatoon, Thunder Bay, Sudbury, London, Kitchener, Hamilton, Toronto, Ottawa, Montreal	Victoria, Edmonton, Winnipeg, Thunder Bay, Sudbury, London, Kitchner, St. Catharines, Hamilton, Toronto, Ottawa, Montreal, Halifax

* Note: The one-year land supply is the aggregation of parcels and parts of parcels which possess the following characteristics - approved subdivision plan, sewer and water on site, no drainage problem. Parcels, or parts of parcels, are assigned to future time periods in accordance with the degree to which they lack each of these attributes.

Source: All data from CMHC, Land and Infrastructure Mapping Program, 1977

The mapping program allowed CMHC, and provincial and municipal authorities to assess the overall land supply or individual parts of it, and this allowed for more accurate management of urban growth. In 1978 the program expanded to 28 urban regions and it continued at this level through 1982.

In 1978 a study for the Ontario Economic Council examined the industrial organization of the market for new housing in the general area of metropolitan Toronto. This study, by McMaster economist R. Andrew Muller, remains the most thorough consideration of economic theory applied to land markets in the Canadian literature.[153] Focusing on the Toronto region, it examined local markets, the local industry and many characteristics of individual major land development and house building firms, as well as the economic theory surrounding concentration and the conditions for the exercise of market power[154]. Among its findings, it observed that sub-markets within an urban region are

[153] Muller, Andrew. The Market for New Housing in Metropolitan Toronto. (Toronto: Ontario Economic Council), 1977.
[154] Muller, Op.Cit., pp. 42-50

appropriate definitions of markets, and control of land in various stages of development is more significant than mere ownership of raw land in suburban areas.

In September 1978, the Federal/Provincial Task Force on the Supply and Price of Serviced Residential Land issued a large two-volume report accompanied by a set of 18 background papers.[155] This was the outcome of a major inquiry into the land supply launched by the federal and provincial ministers of housing in October 1976. Lead by a Toronto lawyer, David B. Greenspan, it employed several dozen academics and representatives of the industry, and was tasked with examining the main elements of the land supply and the issues which had arisen concerning prices and land policy.

Key Findings Concerning Land Development in the Greenspan Report

- Lot prices had increased in the 1970s because in the face of a great surge in demand the owners of the housing stock revalued their assets and the prices of the relatively few new houses followed, which therefore increased the price of lots for new houses (with a comparatively larger increase, due to a leverage effect).
- No improvements in supply-side factors like reducing servicing costs of lots, or lowering taxes, levies and imposts, or speeding up slow approval processes, or making government land assemblies sell more lots at low prices, could prevent the increases in existing house prices. However, supply-side factors impacting land development can influence prices over the long term.
- While governments must plan and control urban growth for overall economic and environmental reasons, they must balance this with assuring adequate production of space for expansion.
- As local governments may resist lower cost housing to maintain a high tax base and protect the property values of their residents, senior governments should offset this by compensating municipalities for lower-cost housing.
- When housing is not booming and demand isn't pulling up housing prices, hard servicing costs are the main factor in changing lot prices.
- It is not certain how lot levies (development cost charges, imposts) affect prices in the long term. Most likely they are passed around in a complex way: a portion is passed back to farmers in lower prices for raw land; a portion is passed forward to house buyers in higher prices for lots.

The Task Force studied concentration in the land supply, seeking to determine whether the supply was concentrated, and if it was, whether concentrated owners could exercise market power (ie.: affect prices). It looked at ownership structure in some land development firms, at financial data from some developers, and at overall suburban land ownership. It theorized that if the four largest owners held 50-70 percent of the land within a metropolitan region that is potentially-serviceable within in five years, this would be a sufficient condition for the exercise of market power.

After examining land ownership in thirteen 13 metropolitan areas and finding that four met the concentration criteria, the Task Force noted that each of the four included one large public land owner and concluded that

[155] Greenspan, David B. Down to Earth – Report of the Federal/Provincial Task Force on the Supply and Price of Serviced Residential Land. (Ottawa: CMHC), April 1978.

> *"We have found no evidence that monopoly power exists in either the land ownership or the land development industries".*[156]

This conclusion was not actually supported by the Task Force's Report. The Task Force had not produced an adequate theory for assessing market power nor had it accurately described the land markets of the 1970s. In order for the present review to accurately describe the land development situation in the 1970s, both of these shortcomings must be recognized.

There are at least three inadequacies in the theory behind the Task Force's test for "market power", and there was a large weakness in the Task Force's empirical methodology. According to industrial organization theory, market power is exercised when land sellers extract excessive prices from buyers because the buyers cannot find alternative sellers. In residential land development, this requires that new home buyers must be convinced to pay the excessive price for their lots because they cannot find substitutes.

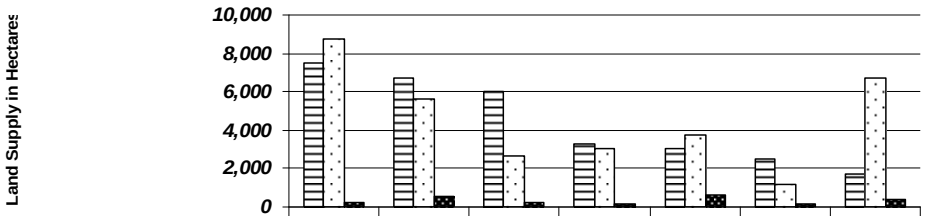
1) The Task Force assumes there is one regional land supply, and tests for concentration in the ownership of land it considers serviceable within five years. This regional approach ignores sub-markets, both geographical and sub-markets for housing of various types, even though the Ontario Economic Council's work in 1977 had just described in detail how market power could be exercised within submarkets. An un-concentrated regional market could contain sub-markets in which market power was being exercised.
2) The Task Force's theory concerning temporal aspects of land supply only establishes that market power would exist under narrowly-defined, implausible circumstances. It posits that 4-5 owners holding 50-70 percent of the regional supply of 5-year serviceable land have market power. What if the other 30-50 per cent of the supply, which is held by non-concentrated owners, is the currently developable land? The non-concentrated owners could be the only sellers interacting with consumers for several years, and the concentrated owners would only be in a position to exercise power in the supply of replacement sites. But if the next influx of serviceable land (the land serviceable in years six and seven) was also in widespread ownership, it could be a long time before the concentrated owners ever got a chance to interact with buyers at all, much less to interact from a position of power. If the ownership of the close-in supply is concentrated, the competitiveness of the future supply, three-five years away, might be immaterial. The Task Force's temporal conditions for market power are not sufficient.
3) The Task Force's consideration of land supply without reference to demand is simplistic. What if annual demand, quantitatively, only amounts to 5-10% of the amount of land considered serviceable within five years?[157] If non-concentrated owners possess the near-term portion of that supply, buyers could interact with non-concentrated owners for between four and ten years before they ever have to deal with the concentrated owners.

The Task Force's empirical work in identifying land serviceable within five years, differed significantly from CMHC land mapping analysis, as seen in Chart A-3. The Task Force used the land mapping information, but added land in some cases, and deleted in others, to produce their own estimates of the quantity of land capable of being serviced within five years. This chart compares the Task

[156] Greenspan Report, Finding 28, p. 72.
[157] It is notable that this condition (annual demand under 10% of the five-year supply) existed in 13 of the 17 metropolitan regions studied in 1977.

Force's estimates with CMHC land mapping of parcels that already had a sewer on site or planned. In most cases the Task Force added parcels to the mapping program lands and the result was estimates of land serviceable within five years that exceed the estimated demand (12-20 demand/years of supply). In Hamilton, Vancouver and Ottawa the Task Force reported less land than the mapping program, even though the parcels they excluded either had sewers on site or planned. These odd empirical judgements compromised the data base so it was not really suitable for calculating concentration in land ownership.

Chart B2: Comparison of the Five-Year Land Supply in Two Data Bases (1977 Data)



	Ottawa	Calgary	Winnipeg	Halifax	Vancouver	Saskatoon	Hamilton
Supply - F/P Task Force	7,515	6,721	6,053	3,303	3,019	2,470	1,718
Supply - Land Mapping Program	8,768	5,634	2,647	3,057	3,780	1,204	6,738
One Year Demand	223	557	235	168	647	119	419

Sources: F/P Task Force Report (Greenspan Report); and CMHC Land and Infrastructure Mapping Program (1977)

Because of these theoretical and empirical inadequacies, the central conclusion that market power did not exist in these land markets, is not supported.

Table B3 is provided to illustrate the size of "top ten" land holdings around major urban regions during the late 1970s. This table should not be considered an assessment of the land supply, but rather, an illustrative listing of the holdings of some important members of the land development industry of that time.

The major firms often had significant land holdings in several urban regions, and the largest land holding belonged to the development arm of the Province of Ontario, the Ontario Land Corporation. As seen in the "Notes" column, some of the major firms from the 1970s are now amalgamated into other firms, a few have become defunct, and many are still major land developers in 2006.

Table B3: Summary of Major Residential Land Developers' Holdings, 1970s (reported in studies of 10 urban Regions)

Name of Firm	Land Holdings in Hectares (That were among the "Top 10" largest holding in an urban region)	Number of Urban Regions (in which the developers land was among the "Top 10")	Comments
Ontario Land Corporation	2,301.9	2	
BACM	1,599.3	3	Now Genstar
Carma Developers	1,468.2	4	
Markborough Properties	904.9	2	Now Ontario Municipal Employees Pension
Bramalea	867.2	2	Now defunct
Great Northern Capital	822.7	4	Now Genstar
Costain	735.3	3	
Nu-West	704.2	3	Now Ontario Municipal Employees Pension
Qualico	650.3	3	
Daon Development Corporation	554.8	3	Now Concert Properties, Bell Canada Enterprizes
Wimpey	537.0	3	Now Ontario Municipal Employees Pension
Abbey Glen Developments	504.6	3	Now Genstar
Cairns Homes	238.4	2	Later Nu-West, now Ontario Teachers Pension
Campeau Development Corp.	1,925.1		Now O & Y Properties
Cadillac Fairview	1,458.1		Now Ontario Teachers Pension Plan
Monarch Construction	228.6		
Melcor Development	211.7		
Subtotal	15,272.1		
101 Other "Top 10" Land Holders	31,464.4		

Notes: Table is summarized from Appendix C. The 10 urban regions are Halifax, Montreal, Ottawa, Toronto, Hamilton, Winnipeg, Saskatoon, Calgary, Edmonton, Vancouver.

Sources: F/P Task Force Report (Greenspan Report); and CMHC Land and Infrastructure Mapping Program (1977)

The Federal/Provincial Task Force's report was the last major land study of the 1970s. The market had changed, as the rapid increases in both low-density housing starts and urban lot prices had peaked in 1976. Accompanying the release of that report, the federal government announced the termination of the Municipal Infrastructure Program, which had been a bulwark of the urban land supply across Canada. Between 1961 and 1978 this program had provided more than $2. Billion to assist over 6,000 projects for trunk sanitary and storm sewers, treatment plants and trunk water mains in almost 1,500 municipalities covering at least 75 percent of the Canadian population.[158] The federal Municipal Incentive Grants program also ended, which had paid out $160 Million to support medium density, modest-cost housing,[159] and the federal government

[158] Among its major projects were: the York-Durham Sewage Scheme which opened up the development of the "second-tier" of the Greater Toronto Area, north of Highway #401; and the systems of treatment plants and interceptor sewers along the waterfronts of the Montréal Urban Community, urban Québec, Halifax-Dartmouth and St. John's which allowed these urban regions to stop dumping raw sewage into the ocean. CMHC Land and Infrastructure Division. Final Report of the Municipal Infrastructure Program (1961-1978), Ottawa:CMHC, 1979. pp. 22-23.

[159] This program was designed to encourage intensification and discourage sprawl. From 1975 to 1978 the federal government paid municipalities $1000 for each medium-density, modest cost housing start within

> *"…decided to stop funding new land assembly projects and to limit future funding to the continued development of the lands already held in partnership with the provinces*".[160]

These decisions indicate the Federal Provincial Task Force's report satisfied the policy needs of the time, and as well, the report provided considerable information about the land development industry.

The Later 1970s - Changes in the Land Development Industry and the Emergence of Land Supply Management

The late 1970s and early 1980s was a period of significant change in housing. As described above, this was the period when senior governments cut back land and urban programs.[161] Interest rates rose to unprecedented levels, housing starts fell back to 1960s volumes, land and house prices declined and defaults swelled, particularly of AHOP and ARP mortgage loans.[162]

The scope of the land operations of some major land developers in the early 1980s can be seen in Table B4, a summary of data provided by a Merrill Lynch Capital Markets. The seven firms in the Table were among the largest development corporations in Canada, with land assets between $100-900 Million. All of them reported steadily increasing land assets through the late 1970s and early 1980s, and an overall increase in land sales. With the exception of Melcor Developments,[163] land became a larger share of each firm's assets through the period, and then dropped back. Land operations were profitable, as profits exceeded 20% of sales in 20 of the 29 instances reported. Land sales were quite inconsistent from year to year, with each firm experiencing huge swings, probably peaking in some years because of sales of sites for multiple unit buildings and/or commercial properties.

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their jurisdiction. An assessment of the program is provided in Carey, Susan. Municipal Incentive Grant Program: An Analysis of Performance . (Ottawa:CMHC Corporate Planning Division), 1978.

[160] CMHC Annual Report – 1978, p.22.

[161] In 1978 the Ministry of State for Urban affairs was terminated. The next year, the federal Task Force on Canada Mortgage and Housing Corporation examined the implications of privatizing that corporation's activities, and proposed that CMHC discontinue its financial operations to focus on social/departmental policy. In the end, CMHC and public mortgage insurance were vindicated by their critics, but the same process was repeated five years later by the federal Neilsen Task Force on Program Review, with the same result. See Anderson, George. Housing Policy in Canada – Lecture Series. (Ottawa:CMHC), 1992. p. 39.

[162] A major increase in claims on CMHC's Mortgage Insurance Fund, largely by defaults on AHOP and ARP loans, began in 1977-78 and by 1980 the Fund was in deficit and had to borrow from the Government. Fees were increased, the economy improved and the deficit peaked near $800 Million in 1984. By 1986 the MIF resumed functioning without external support. Reported in CMHC, Corporate Profile. Ottawa: CMHC Research Report NHA 6065 10/68, pp. 74-93.

[163] Melcor's land was always at least one-half of total assets, and normally about three-quarters of assets, as this firm is primarily a land developer.

Table B4: Selected Financial Characteristics of Large Public Development Corporations, 1979-1986

1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Value of Land Assets, Holdings and Under Development (in $Millions)									
BCE Development		291.5	427.8	844.8	842.5	812.8	556.2	623.0	639.8
Bramalea Ltd		109.7	134.3	155.9	264.8	265.6	307.2	362.2	386.6
Cadillac Fairview		355.5	455.5	563.2	935.0				
Campeau Corporation				482.3	587.5	671.9	628.8	758.2	810.5
Coscan Inc.		121.9	133.1	258.0	285.9	253.7	247.1	266.5	221.8
HCI Holdings								63.0	65.9
Markborough Properties			156.3	247.4	247.5	283.7	273.2	380.2	455.4
Melcor Developments Ltd		58.5	69.2	105.1	99.3	84.9	80.5	100.5	104.5
Capitalized Interest in Land Assets (in $Millions)									
BCE Development				93.5	126.3	71.7	68.8	55.6	35.5
Bramalea Ltd			12.4	14.3	18.5	17.0	13.1	17.6	
Cadillac Fairview			44.5	62.5	113.4				41.3
Campeau Corporation				74.4	69.6	81.3	66.1	54.8	
Coscan Inc.			5.3	18.4	12.4	3.0	2.8	2.7	2.7
HCI Holdings								1.0	1.8
Melcor Developments Ltd		2.5	4.4	7.4	8.2	3.8	3.1	3.1	2.4
Land Sales (in $Millions)									
Cadillac Fairview									18.2
Coscan Inc.		48.2	41.5	64.9	24.3	89.3	82.5	53.5	94.0
HCI Holdings								37.3	51.1
Markborough Properties			57.4	39.0	98.0	74.7	120.8	253.9	121.0
Melcor Developments Ltd		35.4	28.0	13.9	29.7	25.4	17.1	29.2	28.6
Profit from Land Sales (as % of Sales)									
Cadillac Fairview									4%
Coscan Inc.		36%	23%	34%	9%	15%	14%	18%	21%
HCI Holdings								45%	51%
Markborough Properties			20%	30%	17%	19%	23%	26%	25%
Melcor Developments Ltd		43%	59%	56%	38%	34%	33%	26%	23%

Source: Merrill Lynch Capital Markets. The Canadian Real Estate Industry. Toronto: the firm, 1987

It is also notable in this table that the interest capitalized in land assets is a relatively small proportion of the total value of land assets, but it is a large number in relation to land profits. The tax treatment of capitalized interest was a significant issue for land developers through the period, and federal tax policy changed from allowing capitalized interest to be expensed.

Another change in the development industry in the later 1970s was its expansion into the United States. Canadian companies had grown to a size and a level of expertise that lead them to seek opportunities outside of the domestic market. As the Canadian market slowed, developers found the U.S. still provided opportunities for the large scale projects, and the larger Canadian developers had the market advantage in the U.S., of a record of performance with Canadian banks. At that time, Canadian banks were more national in character and more accustomed to operating from coast to coast, than most U.S. banks. A mini-survey in 1979 found six major Canadian developers with extensive U.S. operations had $1.5 Billion in U.S. assets, of their total of $5.5 Billion in assets. Remarkably, the total Canadian dollars invested to finance this U.S. investment

was a little over $100 Million, indicative of the leverage these sophisticated developers were able to command.[164]

The later 1970s saw the beginning of a wide-reaching change in the context for land development, as public authorities created tools to monitor and assess the urban land supply.[165]

The most extensive of these monitoring and assessment tools was CMHC's land mapping program. Table B5 is a summary of information extracted from six years of the reports from this program, from up to 28 metropolitan regions. It shows that, in the 65 region/year instances reported, the one-year land supply was more than twice the demand in 44 instances, and there were only 5 region/year instances when the supply was less than the demand. The amount of land developable within one year which was in the hands of the 5 largest owners, varied from relatively small to large amounts, and varied considerably from year to year. In almost every case, the supply of land 2-3 years from development exceeded demand, and did so by a higher ratio than that seen in the one-year supply. It is clear that by the end of the 1970s the urban residential land supply was strong in cities across Canada.

Many individual municipalities also put land management tools in place during this period. For example, by 1980 residential lot inventories had been created in Calgary, Edmonton and Regina[166], and broader land supply monitoring was carried on in Winnipeg, Kitchener, Peel Region and Ottawa. By the later 1990s the monitoring was extending from the suburban growth areas to the entire urban region. An example is the City of Regina's monitoring report, which contained separate quantifications of the land supply and absorption in three parts of metropolitan Regina – the outer parts of the Regina CMA; the subdivisions on Regina's urban fringe, and the in-fill activity within the built city.[167] These monitoring systems made it possible for municipal authorities to know how adequate their land supply process actually was, in quantitative terms, to precisely identify weaknesses, and to pinpoint where supply must be bolstered.

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[164] "Development in the United States … A Logical Route for Expansion", Proceedings of a Discussion at Canadian Institute of Public Real Estate Companies, February 6, 1979. p.6.

[165] An overall assessment of this situation was seen in DCH Consultants Inc. A Study of Land Supply Management Instruments in Canada. (Ottawa: CMHC Research Division), 1984.

[166] An analytical report recommending an ongoing land supply management program was produced for the Federation of Canadian Municipalities by the City of Regina in 1977, based on the city's lot inventory data. See Clark, R.S., The Supply of Residential Lots in Regina. (Regina:Report to the Federation of Canadian Municipalities, 1977)

[167] City of Regina Community Services Department. "Monitoring of Housing and Land Development – January to December, 1998", (Regina:the City), 1999.

Table B5: Selection of Land Supply Information from CMHC's Land and Infrastructure Mapping Program, Various Years[1]

Metropolitan Region	Ratio of Potential Land Supply to Residential Land Demand[2]						One-Year Land Supply Held by 5 Largest Private Owners (in ha.)	
	One Year			Two-Three Year				
	1977	1979	1982	1977	1979	1982	1979	1982
Victoria	0.6	0.4	0.3	2.9	2.0	0.3	44.6	
Vancouver	0.5	1.5	1.7	3.0	1.2	1.0	1098.0	589.4
Edmonton	2.0	2.5	2.8	5.4	1.8	3.6	1100.4	1037.4
Calgary	1.2	1.1	6.6	6.2	2.0	1.9	771.7	
Saskatoon	3.1	3.6	1.9	5.4	0.6	0.9	262.3	101.1
Regina		2.6	1.7		2.6	4.0	145.4	82.0
Winnipeg	1.1	2.1	3.9	4.9	1.4	4.5	643.0	891.3
Thunder Bay	3.1	1.3	2.2	16.6	5.4	9.7	37.1	55.9
Sudbury	4.2	10.6	33.2	5.1	6.2	31.3	266.2	262.7
Windsor	1.7	1.8	18.8	6.7	1.8	13.8	207.4	355.6
London	4.3	6.8	9.3	12.4	4.4	0.5	611.7	466.3
Kitchener	2.9	5.3		4.5	1.8		489.8	
St. Catharines	1.8	3.2		9.8	7.2		196.6	
Hamilton	3.3	4.1		10.4	4.9		775.3	
Missisauga		3.4			4.9		584.5	
Toronto	2.1	1.7		7.3	1.9		993.0	
Oshawa		3.7			4.2		359.4	
Ottawa	4.4	4.4	2.1	12.8	4.4	8.7	983.8	217.6
Hull		11.6	11.9		3.3	4.3	276.3	276.5
Montreal	9.4	4.8	4.3	34.6	4.1	3.6	1880.7	1882.4
Chicoutimi		3.4	2.1		2.4	9.1	98.1	67.0
Quebec		2.3	2.9		2.7	4.4	330.4	524.0
Fredericton		1.2	11.1		8.7	22.0		106.4
Saint John		14.2			20.8		272.0	
Moncton		38.2	23.0		19.8	72.1	46.0	363.5
Charlottetown			34.2			65.2		405.1
St. John's		1.1	1.3		8.9	6.6	17.2	63.0
Halifax	1.1	0.7	11.6	6.5	4.1	3.6	15.8	808.9

Notes:

1. CMHC operated the land mapping program in Branch Offices from 1977 to 1982. This table was extracted from three published reports containing some of the program's output, each entitled Land and Infrastructure Mapping Program Statistical Summary, dated 1977, 1979 and 1982 respectively.

2. Ratio produced by dividing the amount of land developable within one year by the estimation of demand for various types of housing in the same period, converted into land areas, and then summed

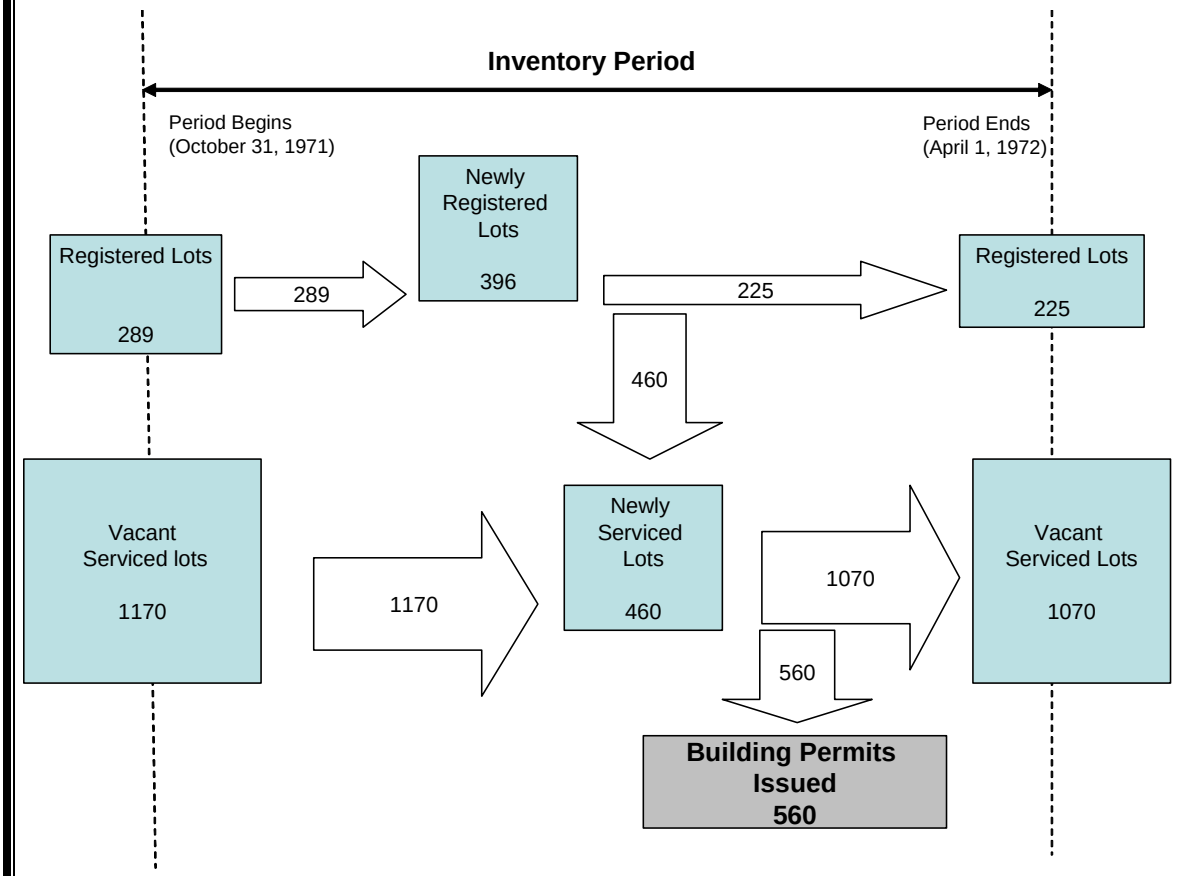
Source: CMHC Land and Infrastructure Mapping Program

In Edmonton, two research studies examined these capabilities. Richard Cook employed the City's land supply data as well as many other sources in a thorough investigation of the land development process and the industry in Edmonton during the housing boom period, 1971-1976.[168]

[168] See Cook, Richard. Lot Prices and the Land Development Industry in Edmonton, Canada, 1971-1976. Masters Thesis. Department of City and Regional Planning. (Berkeley: University of California, Berlkeley), 1977.

Ed Flood examined the land supply specifically, reviewing the City's lot inventory in an integrated study (lots registered, lots serviced and lots built up) covering the various sectors of the urban region.[169] He regrouped the City's quarterly data about lots for single-detached housing into 12 half-year periods from April 1970 to April 1976. Chart A-4 illustrates Flood's findings concerning the flows of lots between the stages in the supply process during a typical six months during that study period.

Chart B3: The Edmonton Lot Supply Process, 1970s



Source: This schematic was reproduced from Ed Flood's 1976 study, Mill Woods and the Edmonton Land Supply.

Although lot prices continually rose throughout the six years covered in Flood's research, he found there was a abundant supply of land in each stage of development, in each consecutive six-months within this study period.

[169] Flood, Ed. "Mill Woods and the Edmonton Land Supply" pp. 26-36 in Living Places Volume 12, No. 4, (Ottawa: CMHC, 1976).

Key Findings Concerning Land Development in the Flood Report
• the supply of registered lots approved for servicing in Edmonton was, on average, 69 percent more than the number of lots than were serviced, with a minimum oversupply of 30-60 percent in seven periods and a maximum oversupply of 75-200 percent in five periods. The planning approval process produced more lots than were used in the next stage of development, consistently, for these six years; • The supply of serviced lots exceeded the number of lots built up as singles by an average of 186 percent, with a minimum oversupply of 90-220 percent in nine periods and a maximum oversupply of 250-400 percent in three periods. There were far more registered, serviced lots ready to be built on, than were needed for construction, consistently, for these six years.

These findings contrast sharply with the conventional wisdoms that: planning was constricting the land supply; not enough land is being serviced to meet demand; and that increasing the supply of serviced lots will control the rise in land prices.

Flood also examined Mill Woods, the public land assembly project which came on stream in Edmonton during his study period. It began selling residential lots two years after it was purchased as raw land, and for the next four years (1972 to 1976) Mill Woods produced 32 percent of all lots for single-detached housing that were serviced in the Edmonton region. Mill Woods was servicing lots following their registration more quickly than competing private developers.

These analyses afforded by land supply monitors brought the understanding of land markets and supply issues to a new level. If there was a constant oversupply of lots at each stage of development, and a public land developer was consistently supplying one-fifth to one-third of the market, why did lot prices keep rising? Previous researchers had provided the explanation that new house prices, and their derivative lot prices, are created in the overall market for housing. The monitoring showed that simple supply-side measures will not insulate against rising prices in the market. It also showed that supply is more sophisticated that previous researchers had thought, as Flood found that individual builders buy groups of lots from developers and hold them in inventory for their continuing production of homes. When lots are being held in inventory by builders there can be, simultaneously, an oversupply of lots being produced, and an apparent shortage of lots available for sale.

Once municipalities were monitoring the land supply, the central issue in the land development literature of the 1970s, the supposed “shortage of serviced lots” which purportedly was “driving up housing prices” was no longer a sufficient analysis of the supply problem. The incomplete theoretical formulation of the problem had to give way to pragmatism, in the form of detailed land supply management systems. How much shortage? What is impeding the supply? What are the temporal dimensions of the shortage? Where is the problem, geographically? In order to be effective these questions had to be answered locally, and in real time. After demonstrating the capacity for land supply

monitoring across Canada, CMHC halted the program in 1983 and concentrated on the monitoring and assessment of housing markets.[170]

The slowing of demand for development, the cutbacks in government programs, the changes within the development industry and the emergence of land supply management capabilities all helped mark the end of the boom period for the residential land development industry. The period 1970 through 1977 had been a period of dramatic growth for the industry, and a period in which it was studied more extensively than it had been before, or than it has been since.

The 1980s and 1990s – An Era of Incremental Change

The next period in the evolution of the industry was studied by the foremost housing economist of the time, Dr. Frank Clayton, in his 1988 research monograph entitled The Housing Industry – Perspective and Prospective[171] This research milestone, a report with five working papers, included several chapters on land development. It described the emergence of the modern land development process as a procession of three eras following World War II.[172]

An overall finding concluded Dr. Clayton's discussion of the industry's evolution (focusing on Ottawa and Winnipeg):[173]

> *"…government actions, particularly those at the municipal level, combined with market forces are primary determinants of the structure of the residential land development industry. Through their imposition of large upfront financial and servicing requirements, lengthy land approval processes and restrictions on the amount and phasing of land permitted for development, municipalities promote large land development firms. Market conditions can reinforce these trends"*[174]

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[170] In all major markets, every three months CMHC provides the housing industry and consumers with the latest statistical information and analysis of housing trends so they can make informed decisions. Its Market Analysis Centre tracks information for local, provincial, regional and national markets, including information about land supply trends that it obtains from local lot inventories maintained by municipalities or in some cases, by private companies.

[171] Clayton Research Associates and Scanada Consultants. The Housing Industry – Perspective and Prospective, Summary Report - The Changing Housing Industry in Canada, 1946-2001. (Ottawa: CMHC, 1988).

[172] The information in the box is extracted from : Clayton Research Associates and Scanada Consultants. The Housing Industry -Perspective and Prospective, Working Paper One – The Evolution of the Housing Industry in Canada, 1946-86. and Working Paper Two – The Evolution of the Housing Production Process, 1946-86. (Ottawa: CMHC, 1989). pp.41-43, and pp. 62-23..

[173] Clayton's source for his examination of Ottawa was a 1979 M.A. Thesis at the Univeristy of Western Ontario by Harold Watson, entitled: The Residential Land Development Industry: Selected Case Studies of Concentration in Local Markets, 1970-1975. The examination of Winnipeg was based on Professor Bellan's 1977 investigation, Report and Recommendations of the Winnipeg Land Prices Inquiry Commission.

[174] Clayton Research Associates and Scanada Consultants. The Housing Industry – Perspective and Prospective, Working Paper One – The Evolution of the Housing Industry in Canada, 1946-86. (Ottawa: CMHC, 1989). p.55.

Key Findings Concerning Land Development in the Clayton Report

1946 to the Early 1950s Land development and servicing were mainly in the municipal domain. Municipalities were holding banks of land they acquired via tax-defaults in the Depression of the 1930s. Faced with the postwar demand for new housing, they installed services to these existing residential blocks, or to new subdivisions which were laid out by city planners. Land was subdivided as large rectangular lots, usually in a grid pattern, and these lots were almost all for single-detached houses. The municipalities sold the serviced lots to builders who constructed houses on them, and then sold the houses.

Early 1950s to the Early 1960s This was a period of transition, as municipalities began running out of land. They were also faced with costly extensions of sewer and water trunks and roads in order to open new land, and with raising taxes to pay for city growth. Builders were faced with having to buy raw land, secure approval to subdivide it, and provide services, in order to have enough serviced lots for their building operations. There was some experimentation with different subdivision layouts, curved street patterns and cul-de-sacs and irregular lot shapes.

Early 1960s to the Late 1980s Municipal and provincial governments substantially increased their involvement in land servicing and development, and particularly, in controlling the process of land development. The actual servicing of residential lots was shifted over to the developers, and developers had to pay special taxes and other levies to repay the costs of bringing trunk services to their sites.

- Increasing costs of servicing land, coupled with rapidly rising energy and transportation costs during the 1970s, caused a shift to developing more combined forms of housing such as semi-detached and row houses. These higher-density forms also introduced smaller lots, and as the 1970s and 1980s proceeded, the mix of housing forms began changing quite noticeably. Where land development in the late 1960s was 70 percent (or more) single-detached, by the late 1970s there were extremes of 40 percent single-detached and 60 per cent other housing forms. Through the 1980s the marketplace gradually moved back to the pre-dominance of singles in new developments, but a variety of lot sizes became the new norm.
- Research that showed: land markets in Toronto, Edmonton and Calgary involved large development firms and entailed some concentration. The Montréal market is characterized by small builder/developers; and land-holding patterns in Vancouver make this region less attractive to large firms.
- The evolution of three builder-owned co-operative residential land development companies was discussed (Carma in Calgary, Ladco in Winnipeg and Buildevco in Kitchener). Each co-operative was formed in the 1950s by builders banding together to assure themselves an adequate land supply. While each co-operative was a tremendous success as a land developer, they *"…did not have long-term survival rates as co-operative land ventures. The short-term time horizons of the builder members appeared to be a major factor contributing to the lack of success…* ".
- The land development industry has high frontend costs (land acquisition, holding and planning) and is highly leveraged, and therefore it is highly susceptible to fluctuations in interest rates. It is also vulnerable to shifts in the demand for land, and this is also quite sensitive to changing interest rates. Land development entails considerable uncertainty, as it requires a lengthy process for developers to find out how much of their land can be developed and what markets it will be allowed to compete in.

Notwithstanding these challenges, Clayton reported research establishing that representative developers' profits were extremely high in the 1970s, then declined to the 20% range or lower in the 1980s.

The context for land development evolved through the later 1980s and early 1990s. Although the demand for land had declined, the stock of serviced land carried in from the 1970s was dwindling. In St. John's, Halifax, Ottawa and Winnipeg the Stage One lands were becoming scarce in Official or Master Plans (sometimes known as Community or Growth Plans). Agricultural land was coming under increased pressure in Québec, Ontario and British Columbia, as development was beginning to reach the inner edges of the agricultural zones established in the 1970s. Transportation improvements like the Ottawa transitway, improvements to Toronto and Montreal's urban expressways, and opening of the LRTs in Calgary, Edmonton and Vancouver all refocussed growth in sectors of the urban periphery. A need was emerging for a new, expensive cycle of planning for and construction of, new sewerage and water treatment and transmission facilities. Also, existing infrastructure required considerable rehabilitation.

This situation was summarized in a paper presented by CMHC to the 1986 Conference of the Canadian Home Builders' Association:

> *"…In a situation characterized by shrinking stocks of development land, huge costs in the creation of additional supply, competing pressure for public spending on existing services, spotty demand, and accurate monitoring systems in place, managers in the public sector and the development industry can be expected to create a steady, incrementalist approach to the construction of new infrastructure and the opening of new development areas. If the 1960s and 1970s can be described as years of "boom and bust" in development, and "crisis management" in infrastructure planning, there is strong potential for describing the 1990s as an era of growth through cooperative planning."*[175]

As the context for land development evolved, the impact on the developer's bottom line was observed by business professor and former developer James McKellar in his 1995 overview of the Canadian housing system:

> *"…profits in land development peaked in the 1970s (as high as 40 percent for some firms), fell below 10 percent during the recession of the early 1980s, and then climbed again during the remainder of the 1980s. The effects of the recession of the 1990s have been particularly harsh on land developers, who have had to carry their costs for land, approvals, capital, and infrastructure during a long period over which revenues have substantially declined."*[176]

The magnitude of the change was also described by the Pacific Chapter of the Urban Development Institute in its 1998 report entitled State of the Real Estate Development Industry. UDI-Pacific reported its residential members' business had declined by 13 percent in 1997, and had dropped another 26 percent during the first three-quarters of 1998.[177]

A topic that grew in importance through the 1990s was Development Cost Charges (DCCs). These are fees collected from land developers and builders by municipalities to finance new external infrastructure for the developers' subdivision. Issues concerning DCCs are often raised by the industry across Canada because of inequities in the way the fees are applied, including:

- the infrastructure covered by DCCs varies, and some items included (or excluded) are controversial;
- methods of calculating DCCs vary (different DCCs for different types or sizes of units, or on an acreage or front foot basis);
- the level of the DCCs often varies among municipalities in a single urban region, and varies between urban regions;
- The cost of the DCCs is often high, sometimes exceeding the costs of the subdivision services installed by the developer.

Studies of various aspects of DCCs have been undertaken by local industry organizations, cities, provincial governments and CMHC, but there has been little

[175] CMHC, Housing Issues in the 1980s and 1990s: Factors Which Will Affect Structural Adjustments in the Residential Construction Industry, (Ottawa: CMHC) 1986. pp.19-21.
[176] McKellar, James. The Canadian Housing System in the 1990s. (Ottawa:CMHC) 1995. pp. 36-38.
[177] UDI Pacific Region. State of the Real Estate Development Industry. (Vancouver: UDI), November 1998.

rationalization of these many variables.[178] DCCs have risen sharply, particularly in British Columbia, as municipalities struggled to provide the infrastructure for new growth in the wake of provincial governments' offloading of these responsibilities. As one CMHC study observed:

> *"A number of municipalities and urban planners are starting to reassess the application of DCCs, not only from the perspective of their impact on urban form … …but also as a revenue generator. Whether DCCs continue to play the role they did in the last decade, or whether alternate sources or means of funding urban infrastructure will emerge, it will have implications for the housing industry in its ability to produce homes priced for consumers in their respective markets."*[179]

Like property taxes, DCCs contribute to directing urban growth, but it appears that the administrations which impose them are not paying enough attention to their vital, and perhaps costly, impact on urban form.

The period saw the sophistication of planning for the future land supply continuing to increase. One illustration is from Winnipeg, where for 30-40 years planners have deliberately maintained a short and long term land supply in four quadrants of the region to foster competition. While the market for detached housing was shared equally between the quadrants in the 1980s, buyer preferences have gradually shifted so the market share in the two southern quadrants is now over 80 percent. Current land supply planning studies cover short and long term land supply and demand in all quadrants, as well as unserviced lots and block land in the vacant land inventory.[180] Another illustration is the land supply analysis being undertaken in the Greater Toronto Area, including Hamilton, to accommodate 2.3 Million new residents over 3 decades, within the territory of six regional governments.[181] By considering such a huge market and time frame, the analysts seek to focus on whether the needed supply can be produced increasing intensification, or whether a major new expansion of greenfields development will be required. In a parallel assessment, the Province

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[178] Some recent examples are: IBI. Uses of Development Cost Charges. (Ottawa:CMHC) 2005; BC Ministry of Community Services, Development Cost Charge – Best Practices Guide. (Victoria:MCS) 2005; Andrejs Skaburskis and Ray Tomalty. "The Effects of Property Taxes and Development Costs Charges on Urban Development: Perspectives of Planners, Developers and Finance Officers in Toronto and Ottawa," pp303-325 in Canadian Journal of Regional Science XXIII:2 (Summer 2000); Energy Pathways and UDI-Pacific. Levying DCCs on a Square-Foot Basis. (Ottawa: FCM, CHBA, CHRA and CMHC), 1997; Andrejs Skaburskis, The Use of Property Taxes and Development Cost Charges to Modify the Environmental Consequences of Urban Growth. (Kingston: Queens University SURP) 1997; UDI-Pacific, Discussion Paper on Development Cost Charges and Levies. (Vancouver: UDI-Pacific) 1990.

[179] Urban Aspects Consulting Group & Langlais et Associés, The Housing Construction Industry: Challenges and Opportunities for the 21st Century, (Ottawa: CMHC), June 2002, p.6.

[180] City of Winnipeg. Residential Land Supply Study. (Winnipeg: the City) October 2004, and ND Lea Engineers and Planners. Waverley West Plan Winnipeg Amendment – Housing and Population Report. (Winnipeg: ND Lea), January 2004.

[181] See Malone Given Parsons. Analysis of the Land Supply in the GTA-Hamilton Area. (Toronto:UDI-Ontario) July, 2004.

of Ontario is considering the plans for land supply by all governments in a huge arc above Lakes Ontario and Erie, termed "The Greater Golden Horseshoe".[182]

The overall state of land development in the late 1990s was described in CMHC's broad study of the housing industry, based on Statcan data and interviews with 60 stakeholders.[183] Like McKellar and UDI-Pacific, this study found developers' gross revenue and profits declined through the decade.[184] The study noted that it is difficult to conduct a comprehensive analysis of the housing industry, partly because of the preponderance of very small firms which enter and exit it, and partly because available data sources are inadequate.

> *"For example, there is no reliable estimate of the number of firms in the industry by number of employees … ... Nor are thorough analyses of profitability available for unincorporated firms, which are very common in the industry… … An inability to understand the operation of the industry because of data availability problems means that it is very difficult to identify and address problems, from both an industry and a government perspective. Discussions and policies are based on anecdotal evidence, which is less reliable than credible data".*[185]

As discussed in Chapter 2 and Appendix C, there has been no improvement in the Statistics Canada/Industry Canada methods of obtaining data concerning the land development industry since these observations were published in 2002.

Summary – Residential Land Development in the Past

The story of land development since World War II is the history of the emergence of a huge industry that has become central to the continuing urbanization of Canada. From its beginnings as an unorganized adjunct to housing in the wake of the war, by the 1970s the industry was producing record volumes of sites for the construction of 250,000 housing units per year. The booming land markets and soaring prices of the 1970s drew attention to land development, some problems were identified, and a series of research reports explored the development industry and considered the various problems. In the later 1970s interest rates spiked upwards, housing and land markets calmed for nearly a decade, and governments withdrew from programs closely associated with the land supply. The large land developers who were seen as problematic for their domination of the markets in the 1970s became less visible, and many expanded into the growth markets of the USA, while some evolved into even larger firms. The initial research of the 1970s gave way to more methodical programs of monitoring and managing the land supply, and the land development industry adjusted to periods of decline and resurgence in markets. Land development

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[182] Ontario Growth Secretariat. A Current Assessment of the Gross Land Supply in the Greater Golden Horseshoe. (Toronto:Ministry of Public Infrastructure Renewal), Winter 2005.
[183] Urban Aspects Consulting Group & Langlais et Associés, The Housing Construction Industry: Challenges and Opportunities for the 21st Century, (Ottawa: CMHC), June 2002.
[184] Average gross revenues declined from $509,600 in 1993 to $473,800 in 1997, while average profits fell from a modest $1400 gain to a $5500 loss. The Housing Construction Industry, Table 7, p.12.
[185] Housing Construction Industry. p.85.

within the built city emerged as an important new theme through the 1980s and 1990s, and a literature grew to transfer knowledge about technological and other aspects of urban intensification.

Appendix C: StatCan's "Land Subdividers" Data About Residential Land Development

This section describes the information maintained by Statistics Canada about the "land subdivision" activity in Canada. It is presented here because this is the only data series in the Statistics Canada/Industry Canada data base that is similar to residential land development. This information does not represent the residential land development industry, although most of the activity it describes is by residential developers. It is considered likely that the patterns seen in this data base and described below are indicative of trends in residential land development.

The Statistics Canada data is entitled "land subdivision", and is defined under the North American Industry Classification System (NAICS 2002). Statistics Canada's definition of "land subdivision" concerns part of the land development industry which is not specifically the residential part. It is partial because it excludes land developers that build housing (or other buildings) on some of the land they develop, and sell most of the developed land without improvements on it. Also, it excludes land developers that subdivide their land legally but sell before it is physically developed. Residential construction firms (or other businesses) that develop land but secure most of their revenues from another aspect of their business, such as building houses or other construction activity, are largely unreported under this classification. It is likely that this definition

excludes as much as one-half of residential land developers. The definition also excludes residential developers that buy sites, clear them, plan them including securing development approval through the Official Plan stage, and perhaps even the zoning stage, and then sell the sites to others for physical development and building housing. Such block land sales are a regular part of some firms' business, and a business decision that many firms occasionally make for corporate, cash flow or tax reasons. Because NAICS 23721 does not differentiate residential subdivision, and mixes housing together with commercial, industrial and probably institutional, transportation and communications and recreational land uses, its usefulness is severely compromised.

Statistics Canada's Industrial Classification for "Land Subdivision"

23721 Land Subdivision

This industry comprises establishments primarily engaged in servicing raw land and subdividing real property into lots for subsequent sale to builders. Land subdivision precedes building activity. The building sites created by land subdivision may be residential lots, commercial tracts or industrial parks.

Servicing of raw land entails some physical improvement, such as land clearing or excavation work for the installation of roads and utility lines. While the extent of work varies from project to project, the establishments classified in this industry are primarily engaged in subdivision activity that includes physical improvement of the land. Establishments that perform only the legal subdivision of land are not included in this industry.

***Exclusion(s)**:Establishments primarily engaged in:*

- *legal subdivision of land without land preparation, classified elsewhere in the classification based on the primary activity of the establishment (--,)*
- *constructing buildings, for sale, on lots they subdivide (236, Construction of Buildings)*
- *installing utilities on a subcontract basis for land subdividers (2371, Utility System Construction)*
- *installing roads on a subcontract basis for land subdividers(23731, Highway, Street, and Bridge Construction)*
- *preparing land owned by others for building construction (23891, Site Preparation Contractors)*
- *constructing buildings, for rent or own use, on lots they subdivide (5311, Lessors of Real Estate)*
- *operating cemeteries or crematoria (81222, Cemeteries and Crematoria*

Source: Statistics Canada, Definitions, NAICS 2002.

It is also worth noting how this classification system is used to capture data about land subdivision. All firms must file descriptions of their various business activities in order to obtain a "business number" for GST purposes. Statistics Canada scans these descriptions to identify firms that meet the "land subdivision" definition in whole or in part. Corporate tax returns are also scanned, for the same purposes. If a firm is identified primarily as a "land subdivider", its tax return is then further scanned to capture data. Firms that are identified as partially meeting the classification are contacted and requested to provide segmented information about their land subdivision activity, and that information is combined with the data from the tax returns to constitute the complete 23721 data base.[186]

[186] This information was provided by M. Ngombo of the Business Register Division of Statistics Canada.

Following is a summary of data concerning "land subdividers" produced by Statistics Canada by the use of the NAICS 23721 classification. It summarizes data about the distribution of these firms among provinces, including their sizes, payrolls, and changes in the numbers of firms since 1999.

The amount of residential land development captured by this classification is not known. Since residential land subdivision greatly exceeds the other types of subdivision, most of the activity reported under NAICS 23721 is likely residential. Since it excludes builder/developers, and developers producing and selling block land, it probably captures less than one-half of residential development. It can be expected that as urban development gradually replaces greenfield development as the predominant form of residential land development, the residential component of the data captured under this classification will decrease.

As of June, 2005, Statistics Canada identified 19,449 firms as land subdividers under its classification NAICS 23721, and reported that they produced nearly $11.4 Billion in gross revenue.[187] Land subdividers contributed 0.9 per cent to Canada's GDP in 2005 (which was $1,157.5 Billion), while the entire construction sector contributed 5.5 per cent ($63.5 Billion),[188] so land subdividers accounted for about one-sixth of all construction. This production was four times larger than that of all oil and gas pipeline constructors, all construction of power and communications lines, and all sewer and water line construction, combined.[189]

Table C1 summarizes numbers and revenues of land subdivision firms in 2005. Most subdividers are in the largest provinces, as might be expected, and the revenues generally follow the distribution of firms. Ontario, for example, had 7,321 subdividers and they produced a total revenue of $4.98 Billion. There are notable variations within the national pattern, as British Columbia had over 5,000 subdividers while a larger province, Québec, had about 3,000. Similarly, Alberta and Nova Scotia had more subdividers than other parts of their respective regions. Revenues per firm in Québec are markedly lower than those in other big

[187] This information was part of a special tabulation by Statistics Canada, from the Statistics Canada/Industry Canada "Business Register". Revenues originated in individual firms' annual filing of their business activities with Revenue Canada. The definition used for the land development industry is NAICS 237210 - Land Subdivision, under the North American Industry Classification System.
[188] Statistics Canada, Provincial and Territorial Economic Accounts Review, 2005 Preliminary Estimates, (Ottawa:Statistics Canada), p. 24.
[189] NAICS 237210 represents almost 80 per cent of all revenues declared by filers in NAICS 237 (Heavy and Civil Engineering Construction), which includes all construction of oil and gas pipelines, all power and communication lines, and all sewer and water lines, and all related structures.

Table C1: "Land Subdividers" by Province/Territory, 2005

Province/ Territory	Number of Firms	Revenues from Land Subdivision							
		Total Revenue (in $000s)	Average Revenue per Firm (in $000s)	Number of Firms by Revenue Range (revenues in $000s)					
				<$100	$100 - $499	$500 - $1,999	$2,000 - $9,999	$10,000 - $49,999	>$50,000
Nfld/Lab	120	$36,431	$304	74	X	X	X	0	0
PEI	72	$7,686	$107	50	X	X	0	0	0
Nova Scotia	517	$143,205	$277	375	95	35	X	X	0
N.B.	303	$50,846	$168	210	67	X	X	0	0
Québec	3,051	$547,290	$179	2,283	526	206	X	X	0
Ontario	7,321	$4,980,891	$680	5,262	1,111	614	253	67	14
Manitoba	396	$151,865	$383	278	84	29	X	X	X
Sask.	209	$101,355	$485	143	40	19	X	X	0
Alberta	2,381	$2,053,724	$863	1,465	511	255	110	X	X
B.C.	5,049	$3,314,297	$656	3,338	974	481	218	33	5
Yukon	13	$1,400	$108	X	X	0	0	0	0
NWT	14	$4,418	$316	X	X	4	0	0	0
Nunavut	3	$490	$163	X	X	0	0	0	0
Canada	**19,449**	**$11,393,898**	**$586**	**13,496**	**3,467**	**1,681**	**633**	**144**	**28**

Note: "0" means no information; "X" means information withheld for confidentiality reasons

Source: Statistics Canada, Business Register. Special tabulation.

provinces,[190] and in the Northwest Territories revenues are much higher than in the rest of that region.

Most subdividers are relatively small businesses. Nearly 13,500 firms grossed under $100,000 in 2005 and 96 percent of the industry, 18,644 firms, had revenues less than $2 Million. The national average gross revenue for a land subdivision firm in Canada in 2005 was $586,000.

Most revenues from the subdivision of land are earned by larger firms. There were 805 firms with revenues exceeding $2 Million, and they were located in all provinces except PEI and the North. However, the higher-revenue firms tend to be located where growth has been greater, and 700 of the firms grossing over $2 Million (87% of them) were in Ontario, B.C. and Alberta. The 28 largest firms, which grossed over $50 Million, were located in Ontario, B.C., Alberta and Manitoba[191].

The subdivision of land is usually performed by highly compact, entrepreneurial firms. Table C2 affords further perspective on the structure of this entrepreneurial group, as it is a summary of the regional distribution of firms according to

[190] Some characteristics of the market in Québec contribute to the lower revenue. Land prices in Québec have traditionally been lower than those in the other large provinces. Also, most of the land subdivision activity is residential, and in Québec, the proportion of higher-density housing is higher than in other provinces, and land value per housing unit decreases with density.

[191] Although the Business Register data doesn't state the number of $50 Million-plus firms in Alberta or Manitoba, the "x's" in their rows of Table F1 denotes that each province had at least one such firm.

whether they were classified as having a staff payroll in 2005. Firms that are said to have no payroll are most likely made up of self-employed individuals and work forces of contracted or family workers. The Table shows that 85 percent of firms subdividing land did not have payrolls, and this pattern is consistent in all regions.

Table C2: "Land Subdividers", by Payroll Status and Region, 2005

Region	Firms Reporting Payroll	Firms Reporting No Payroll	
		Number	% of All Firms
Atlantic	164	848	84%
Québec	342	2,709	89%
Ontario	947	6,374	87%
Prairies	638	2,348	79%
B.C.	903	4,146	82%
North	7	23	77%
Canada	**3,001**	**16,448**	**85%**

Source: Statistics Canada, Business Register. Special tabulation.

Table C3 provides information about the workforces of the minority of firms that did report payrolls (3,001 firms in 2005). Seventy percent of all firms employed less than 10 workers (2,115 firms), and over one-half had less than five employees (1,659 firms). Relatively few firms that subdivide land have large workforces, including 112 firms with 100-500 employees and 24 firms with over 500 on staff. Ontario, British Columbia and Alberta accounted for 2,382 firms with payrolls, about four-fifths of all such firms. Ontario and Alberta stand out as having much larger proportions of firms with 100-499 workers than the other provinces. Some of the smaller provinces (PEI, New Brunswick, Saskatchewan and NWT) had larger than average proportions of their land subdividers with labour forces between 10 and 99 employees.

The final characteristic in this examination is the growth in the number of subdividers over the last decade. Table C4 shows the changes in the total number of subdividing firms, by province, over the last six years. This includes both the firms having payrolls and those that did not. While the number of firms has only changed marginally at the national level, with a growth of one percent from 19,260 to 19,449 firms, in the regions with most firms there have been some significant changes. In Alberta, the number of subdividers grew by almost one-quarter since 1999, and now includes nearly 2,400 firms. In Ontario, where there are 7,321 firms, 433 had been added during the period. The numbers also grew strongly in Nova Scotia, Prince Edward Island and Yukon Territory. The large groups of firms in British Columbia and Québec declined by 6 percent and 14 percent, respectively.

Table C3: "Land Subdividers" That Report Payroll Workforce by Size, by Province, 2005

Province	Number of Firms, By Size Range of Payroll						All Firms Reporting Payroll
	1-4	5-9	10-19	20-99	100-499	500+	
Nfld/Lab.	15	2	2	2	0	0	21
PEI	8	0	3	1	0	0	12
Nova Scotia	61	8	9	6	2	0	86
N.B.	25	8	6	6	0	0	45
Quebec	238	49	26	26	3	0	342
Ontario	459	151	110	162	49	16	947
Manitoba	39	9	5	3	3	0	59
Sask.	25	7	10	4	1	0	47
Alberta	288	82	65	68	26	3	532
B.C.	498	140	115	117	28	5	903
Yukon	0	0	0	0	0	0	0
NWT	3	0	3	0	0	0	6
Nunavut	0	0	1	0	0	0	1
Canada	**1,659**	**456**	**355**	**395**	**112**	**24**	**3,001**

Source: Statistics Canada, Business Register. Special tabulation.

The subdivision of land, of which residential land development is an unspecified but probably dominant part, is a significant industrial sector, with at least $11 Billion in annual revenues and accounting for nearly one per cent of GDP. Most of these firms are small businesses which do not have permanent payrolls, but most of the revenues are earned by the minority of firms which have payrolls. There have not been dramatic changes in the number of firms engaged in this work in recent years.

The limitations of the classification used by Statistics Canada sharply reduces its usefulness to represent residential land development, and it has the further weakness that it is susceptible to misinterpretation. In 2002, CMHC published a major assessment of the residential construction industry in which NAICS 23721 data was used to represent the residential land development industry.[192] In 2003, Industry Canada and REALpac combined the NAICS 23721 data with data on all building construction and all real estate operators in a two-page descriptive publication entitled "Real Estate Development Industry"[193]. The usefulness of such a broad conception of an industry is not apparent.

[192] Urban Aspects Consulting Group Ltd. & Langlais et Associés. The Housing Construction Industry: Challenges & Opportunities for the 21st Century. (Ottawa:CMHC), June 2002.
[193] See Industry Canada and REALpac. Real Estate Development Industry. Service Industries Overview Series. September 2003.

Table C4: Number of "Land Subdividers" , by Province, 1999 and 2005

Province	Number of Firms		
	1999	2005	Change 1999-2005 (as % of 1999)
Ontario	6,888	7,321	106%
British Columbia	5,348	5,049	94%
Quebec	3,528	3,051	86%
Alberta	1,926	2,381	124%
Nova Scotia	471	517	110%
Manitoba	391	396	101%
New Brunswick	295	303	103%
Saskatchewan	205	209	102%
Newfoundland/ Labrador	115	120	104%
Prince Edward Island	64	72	113%
Northwest Territories	14	14	100%
Yukon Territory	11	13	118%
Nunavut	4	3	75%
Canada	**19,260**	**19,449**	**101%**

Sources: 1999 from Statistics Canada, Canadian Business Patterns CD-ROM, 2005 from Statistics Canada, Business Register, special tabulation

While there is weakness in the Statistics Canada classification, it would not be a simple task to design a method of producing better information. In order to develop a new classification which would differentiate the residential, commercial and industrial land developers, it would be necessary to determine how to handle firms that develop for more than one land use or that develop mixed-use projects. There are practical difficulties in determining whether a developer/builder firm is classified a "land subdivider" because it develops lots for housing, or a "constructor of buildings" because it builds houses for sale on some of these lots. It would add to the paper burden on the industry to segment income statements and balance sheets in a manner that isolates land development activity, although there are likely sound business cases for such segmentation.[194] Despite these difficulties, since the residential land development industry is important and there are problems in the present classification that severely compromise the data it produces, an improved system that provides a workable statistical series on this industry is needed.

[194] Many public companies segment land activities in their financial reporting, although the manner of the segmentation is not consistent among firms, or historically within an individual firms' reports.

This data series would be more useful if Statistics Canada/Industry Canada separated the data concerning the dominant, residential land developers from the minority of developers that produce land for non-residential purposes.

Appendix D: Top Ten Land Holdings & Holdings of Selected Major Developers, by City

Urban Region	Name of Firm	Land Holding (as reported) in hectares	Source of Information[1]	Notes
Halifax	Public Service Commission	1,319	Task Force	
	NS Housing Corp	895	Task Force	
	Hogan	129	Task Force	
	Whebby	98	Task Force	
	Glen-Steed Developments	87	Task Force	
	LE Shaw Ltd	85	Task Force	Now Clayton Developments
	Sunset Subdivision	62	Task Force	
	Stevens	53	Task Force	
	Bedford Village Properties	51	Task Force	
	Maple Ridge Realty	40	Task Force	
	Glendale Building	34	Task Force	
	MacCullough and Co.	32	Task Force	Now Clayton Developments
	Rocca Leaseholds	25	Task Force	
	Rockingham Ridge	20	Task Force	
	13	1,610		
Montreal	Les enterprises Rock	427	Task Force	
	Mun. of Longueuil	336	Task Force	
	Monarch Construction	229	Task Force	
	Rose Garden Corp.	202	Task Force	
	Suissa Corp.	200	Task Force	
	Sylvestri et al	158	Task Force	
	Central Holdings Corp.	157	Task Force	
	Bramalea	148	LUD	Now defunct
	Great Northern Capital	123	LUD	Now Genstar
	Fairview	95	Task Force	Now Ontario Teachers Pension Plan
	Campeau Development Corp.	87	Task Force	Now O & Y Properties
	11	2,161		
Ottawa	Ontario Land Corporation	2,023	Task Force	
	Campeau Development Corp.	1,925	Task Force	Now O & Y Properties
	Shenkman Corp	686	Task Force	
	Costain	603	Task Force	
	Urbandale	391	Task Force	
	Jockvale	324	Task Force	
	Minto Construction	253	Task Force	
	Tartan Developments	174	Task Force	
	Wimpey	161	LUD	Now Ontario Municipal Employees Pension
	Great Northern Capital	106	LUD	Now Genstar
	Cadillac-Fairview	92	Task Force	Now Ontario Teachers Pension Plan
	Assaly	87	LUD	
	CMHC	83	Task Force	
	MacDonald Homes	81	Task Force	
	Limebank Holdings	77	Task Force	
	Queenswood Land	75	Task Force	
	16	7,138		

Cont...

Appendix D: Top Ten Land Holdings and Holdings of Selected Major Developers, by City (as Reported in Research Studies of the 1970s)

Toronto	Cadillac Fairview	1,458	Task Force	Now Ontario Teachers Pension Plan
	Markborough	751	Task Force	Now Ontario Municipal Employees Pension
	Bramalea	720	Task Force	Now defunct
	Focal	487	Task Force	
	Great Northern Capital	499	LUD	Now Genstar
	Revenue	445	LUD	Now defunct
	Glen Ash Developments	399	Task Force	
	S.B. McLaughlin	364	Task Force	
	Wimpey	272	Task Force	Now Ontario Municipal Employees Pension
	Pinetree	263	Task Force	
	Consolidated	212	Task Force	Now HCI
	Monarch	203	Task Force	
	Costain	160	LUD	
	Runnymede	159	Task Force	
	14	6,392		
Hamilton	Ontario Lands Corporation	278	Task Force	
	Winnipeg Homes	203	Task Force	
	A. Cope	143	Task Force	
	Carma Developers	138	Task Force	
	Clock Investments	109	Task Force	
	Abbey Glen Developments	93	Task Force	Now Genstar
	Costain	72	Task Force	
	McNally Bros.	52	Task Force	
	Rosart Properties	49	Task Force	
	Greater York Group	42	Task Force	
	10	1,037		
Winnipeg	City of Winnipeg	955	Task Force	
	Metropolitan Properties	665	Task Force	
	BACM	586	Task Force	Now Genstar
	Manitoba Housing & Renewal	550	Task Force	
	Ladco	441	Task Force	
	Qualico	241	Task Force	
	A. Matheson	83	Task Force	
	Peerless Distributors	55	Task Force	
	Winfield Developers	48	Task Force	
	Tuxedo Land Developments	45	Task Force	
	10	3,439		
Saskatoon	City of Saskatoon	1,477	Task Force	
	CMHC	354	Task Force	
	Embassy Properties	129	Task Force	
	Boychuk Developments	127	Task Force	
	Saskatoon Land Developments	113	Task Force	
	Great Northern Capital	95	LUD	
	Blair Giles Enterprises	85	Task Force	Now Genstar
	H.A. Riddell	65	Task Force	
	Cairns Homes	32	Task Force	Later Nu-West, now Ontario Teachers Pension
	W. Lilly	32	Task Force	
	10	2,477		

Cont...

Appendix D: Top Ten Land Holdings and Holdings of Selected Major Developers, by City (as Reported in Research Studies of the 1970s)

Edmonton	Carma Developers	475	Task Force	
	MacLab	369	LUD	
	Abbey Glen Developments	250	Task Force	Now Genstar
	Daon Development Corporation	185	Task Force	Now Concert Propeties, Bell Canada Enterprizes
	Qualico	135	Task Force	
	Western Realty	118	Task Force	Now Genstar
	Wimpey Western	104	Task Force	Now Ontario Municipal Employees Pension
	City of Edmonton	100	Task Force	
	Nu-West	85	Task Force	Now Ontario Municipal Employees Pension
	Costain	61	Task Force	
	Allarco	60	Task Force	
	Melcor Development	53	Task Force	
	12	1,993		
Calgary	Carma Developers	819	Task Force	
	BACM	795	Task Force	Data corrected by CMHC, now Genstar
	Nu-West	571	Task Force	Data corrected by CMHC, now now OMERS
	Daon Development Corporation	324	Task Force	Now Concert Propeties, Bell Canada Enterprizes
	United Management Ltd	316	Task Force	Now Genstar
	Qualico	274	Task Force	
	Melcor Development	212	Task Force	
	Cairns Homes	206	Task Force	Later Nu-West, now Ontario Teachers Pension
	Abbey Glen Developments	161	Task Force	Now Genstar
	Markborough Properties	154	Task Force	Now Ontario Municipal Employees Pension
	Sterling Real Estate	129	Task Force	Now Qualico
	Bramalea	85	LUD	Now defunct
	Jager	65	Task Force	Now Qualico
	13	4,112		
Vancouver	N. Vancouver District	369	Task Force	
	BACM	218	Task Force	Now Genstar
	District of Burnaby	121	Task Force	
	British Pacific Properties	107	Task Force	
	Community Builders	63	Task Force	
	City of Port Moody	61	Task Force	
	Nu-West	48	Task Force	Now Ontario Municipal Employees Pension
	S. Spetifore and Sons Ltd	48	Task Force	
	Marathon Realty	47	Task Force	
	Daon Developments	46	Task Force	Now Concert Propeties, Bell Canada Enterprizes
	Carma Developers	36	LUD	
	Engineered Homes	35	Task Force	Now Genstar
	11	830		

Note: Data identified as "Task Force" is from Federal/Provincial Task Force on the Supply and Price of Serviced Residential Land, Background Paper - Concentrated Ownership of Undeveloped Land, (Ottawa: CMHC), 1978, Tables 9-1 to 9-12 inclusive. Data identified as "LUD" is from Spurr, Peter. Land and Urban Development. (Toronto: James Lorimer and Company) 1976. Table 4-7.

Appendix D: Top Ten Land Holdings and Holdings of Selected Major Developers, by City (as Reported in Research Studies of the 1970s)

Appendix E: Urban Intensification Research in the A.C.T. Program

Reurbanization & Densification

(provided by the ACT Program, Federation of Canadian Municipalities)
cs = case study; sol = solution sheet

Infill, Small-Scale & Plex Projects

Small-Scale Infill: The Stacked Fourplex: Capital Region Housing Corp., Victoria, BC (cs Oct 1996)

Developed a one- and two-bedroom, side-by-side, stacked fourplex concept for a typical single-family lot. Created a new zoning bylaw, development agreement, approval process and design and site guidelines, but unable to find a suitable site for a demonstration building.

Small-Lot Single Family Infill Housing: Victoria, BC (cs 1997)

Developed design, site and parking guidelines that ensure homes are compatible with the surrounding neighbourhood. Award winning houses were built.

Mount Pearl Residential Intensification Study: Mount Pearl, NF (cs Nov 1996)

Developed process to reduce approval time necessary for infill housing on small lots.

Small Lot Housing: City of Charlottetown, PEI (cs May 1998)

Developed process to reduce approval time necessary for infill housing on small lots.

Zoning and Innovative, Affordable Infill Housing: Sevag Pogharian Design, Montréal, QC (cs June 1995)

Determined how the City of Montréal's zoning bylaw presents obstacles to affordable housing.

SPROUT: Infill Housing for Young, Middle-Income Families: Sevag Pogharian Design, Montréal, QC (cs Aug 1997)

Designed and built an innovative starter home that can be altered and expanded to accommodate the changing needs of a family and which included an accessory apartment for an extended family or to generate income.

Project to Encourage Triplex & Quadruplex Housing: Nanaimo, BC (cs Nov 1998)

Intent was to implement regulatory changes to allow a prototype triplex compatible with existing and future single-family zones. Nanaimo HBA initially very involved and wanted to build a triplex for its 1993 show home project. Ran into strong community opposition.

NHBA scaled back its participation and cancelled plans to construct a triplex. Nanaimo did, however, introduce a new triplex and quadruplex zone in 1998.

Zoning Standards and Design Guidelines for Infill Housing and Redevelopment: Saint John, NB (cs Mar 1997)

Streamlined the City's development process for infill housing and redevelopment projects in the older areas of the city.

Backyard Infill Housing: Habitat sur mesure, Montréal, QC (sol Mar 2005)

Documented existing examples of laneway housing; developed site selection criteria, five design variations and design guidelines; and proposed regulatory changes. Habitat sur mesure has since built successful laneway developments, although the City has not adopted the suggested changes.

Developing Small Lot Zones: Surrey, BC (sol Mar 2006)

Expedited the development approval process by creating zones and standards for small lot housing.

Evaluation Guidelines for Residential Development: District of Central Saanich, BC (sol Apr 2006)

Developed clear, easy to follow evaluation guidelines and a checklist to promote affordable housing for young families, new rental housing and housing for independent seniors. The guidelines spell out what is and is not encouraged in terms of density, tenure types, access to services and achieving community acceptance. Non-profit housing, seniors housing, guaranteed rental housing and designs that fit well with the existing character of the neighbourhood are encouraged.

Laneway Housing: Jeff Stinson, Terence Van Elslender, Toronto, ON (sol sheet in progress)

Documented the potential for laneway housing in the inner city area (pre-1940 city limits—conservative estimate is 6,150 dwellings); identified design considerations for sustainability (embodied energy, operating energy, and green roofs and walls), social benefits (neighbourhood, property values) and planning issues (design, scale, window areas, open space, privacy and parking); developed prototype designs; and estimated construction costs for 4 lot configurations.

Subdivisions, Small Communities & Mixed Use

Subdivision Regulation: Meeting Small-Town Needs; Town of Sackville/Tantramar Planning Commission (cs May 98)

Developed a subdivision bylaw that is innovative, flexible and sensitive to the unique needs, structure and values of small towns.

Alternative Development Standards for Affordable Housing in Ottawa-Carleton; Ottawa, ON (cs 1994)

Preliminary research indicated that alternative planning and engineering standards for such aspects as right-of-way width, lot dimension, house-to-house separation and infrastructure provision could result in savings in site-servicing and land costs of up to approximately $12,500 per unit for single-family homes and $5,500 per unit for multi-family homes. This project demonstrated the feasibility, cost savings and marketability of alternative engineering and zoning standards.

Farmington Village: Truro, Farmington Development Ltd., Truro, NS (cs 2004)

Developed a community using alternative planning and development standards and convertible house designs to reduce housing costs.

Ryder Lake "Urban Village": Development Plan for a Sustainable Community, Chilliwack, BC (cs Apr 98)

Developed a new planning framework for Ryder Lake that would enable the implementation of a more compact, sustainable community with a variety of affordable housing.

Review of Performance-Based Zoning Standards: Morinville, AB (cs Mar 98)

Developed a performance-based planning and development approval model to facilitate the implementation of an innovative subdivision development that is being planned with home-based business in mind.

Subdivision Introduces Innovative Lot/Design Concepts that Sell; Nexus Solar (sol in progress)

Developed innovative lot and design concepts that resulted in 24 homes being built in an area that would have only permitted 19 dwellings using traditional development standards.

Sustainable Development: UBC School of Landscape Architecture, Vancouver, BC (sol in progress)

Developed standards and bylaws and demonstrate a sustainable community development that may reduce housing costs by 30%. The project addressed regulations related to storm water management, street widths, habitat and stream protection (salmon), utility servicing, and small lot sizes.

Affordable Housing in Small Communities in Mountain Terrain: District of Hope, BC (sol in progress)

Undertook broad consultation on a municipal housing strategy through public and housing industry workshops. The goal was to revise the zoning bylaw and residential development guidelines to provide guidance on developing housing in mountainous terrain, sustainable development, innovative servicing and environmental sensitivity.

Brownfields

Reusing Industrial Sites for Residential Development: A Municipal Review Procedure; University of Windsor, Windsor, ON (cs in progress)

Developed a 16-step procedure to evaluate an industrial site's potential for conversion to residential use. Includes a checklist municipalities can use to assess viability for conversion, and Official Plan draft policies on handling potentially contaminated sites.

Appendix F: C.H.B.A. – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																				
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
ACC Services Inc.																			Eastern Newfoundland
Adera Development Corporation		Greater Vancouver																	
Affinity Custom Home & Contracting Inc.												Greater Windsor							
Am-Pri Construction Ltd.		Greater Vancouver																	
Ambros Constructors Ltd.		Greater Vancouver																	
Amicone Design Build Inc.												Greater Windsor							
Anthem Properties Group		Greater Vancouver																	
Apex Limited Partnership						Calgary Region													
Appel Estates Ltd.					South Okanagan														
Aragon Development Corp.		Greater Vancouver																	
ARAL Construction Ltd.	Victoria																		
Armco Communities																		Central Nova Scotia	
Artiscraft Developments Inc.					Kelowna														
Aspac Developments Ltd.		Greater Vancouver																	
Aspen Builders												Greater Windsor							
Atria Development Corporation														Greater Toronto					
Augusta Developments Ltd.						Calgary Region													
Avalon Master Builder								Central Alberta											
Avatar Development Group Ltd.															Ottawa-Carleton				
Ballantry Homes														Greater Toronto					
Bart Digiovanni Construction Ltd.												Greater Windsor							
Bayridge Builders	Victoria																		
Beaverbrook Developments							Edmonton Region												
Beeman Real Estate Corp.				Kamloops															
Beiramar Development Corp.						Calgary Region													
Benchlands Developments Corp.				Kamloops															
Berkshire Homes														Greater Toronto					
BFW Developments Ltd.		Greater Vancouver																	
Bianco Developments Ltd.				Kamloops															
Birkshire Developments Inc.																		Central Nova Scotia	
BK Cornerstone Design Build Ltd.												Greater Windsor							
Blais Construction												Greater Windsor							
Boffo Construction Group		Greater Vancouver																	
Bosa Ventures Inc.		Greater Vancouver																	
Boychuk Construction Corporation									Saskatoon										
Bradley Construction					South Okanagan														
Brandy Lane Corporation														Greater Toronto					
Breco Development Corp.						Calgary Region													
Bri-more Property Management Ltd.						Calgary Region													
Brimar Homes Ltd.												Greater Windsor							
British Pacific Properties Limited		Greater Vancouver																	
Brody Development (Homes) Ltd.		Greater Vancouver																	
Bucci Developments Ltd.						Calgary Region													
Buchmann Built Inc.		Greater Vancouver																	
Bungalow Group												Greater Windsor							
C. Kelos Homes Ltd.																Thunder Bay			
Cachet Estates Homes														Greater Toronto					
Callahan Construction Company Ltd.			Kelowna																
Canada Lands Company						Calgary Region													

Appendix F: Canadian Home Builders Association – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																				
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
Canada Lands Company							Edmonton Region												
Canada Lands Company		Greater Vancouver																	
Carma Developers LP						Calgary Region													
Carma Developers LP							Edmonton Region												
Casol Designs/Contracint Ltd.				Kamloops															
Cavalier Homes Ltd.		Greater Vancouver																	
Cedar Development Corporation		Greater Vancouver																	
Century Holdings Ltd.		Greater Vancouver																	
Charlton Developments Ltd.							Edmonton Region												
Chrisdale Homes Ltd.		Greater Vancouver																	
Christenson Developments							Edmonton Region												
Clair Hills Development Inc.																Waterloo Region			
Coco Homes												Greater Windsor							
Concert Properties Ltd.		Greater Vancouver																	
Concord Pacific Group Inc.		Greater Vancouver																	
Concordia Homes Ltd.		Greater Vancouver																	
Consor Developers Inc.							Edmonton Region												
Cordovado Developments Inc.		Greater Vancouver																	
Coster & Singer				Kamloops															
Clayton Development Limited																		Fredericton, Central Nova Scotia	
Craftsman Ventures (CR) Ltd.				Kamloops															
Cressey Development Group		Greater Vancouver																	
Crystal Lake Estates Inc.								Grande Prairie											
D. Coulson Design-Build												Greater Windsor							
Dalron Homes Ltd.																Sudbury & District			
Daytona Homes Inc.						Calgary Region													
DCM Projects Ltd.		Greater Vancouver																	
DCP Developments		Greater Vancouver																	
Delta Land Development Ltd.		Greater Vancouver																	
Denro Holdings Ltd.										Regina								Central Nova Scotia	
Destiny Homes Inc.																			
Dimax Developments Inc.								Lethbridge											
Dior Homes												Greater Windsor							
Dojco General Contactors												Greater Windsor							
Domus Developments (London) Inc.																London			
Dor-Ann Homes Ltd.																Quinte			
Downhome Construction Ltd.																			Eastern Newfoundland
Dreamwood Homes Ltd.						Calgary Region													
Dryden Smith & Head Planning Consultants Ltd.																Waterloo			
Dundee Development Corporation						Calgary Region													
Dundee Development Corporation									Saskatoon										
Dundee Developments							Edmonton Region												
EcoCite Developments															Ottawa-Carleton				
Edilcan Development Corporation														Greater Toronto					
Elkos Planning Inc.		Greater Vancouver																	
Encore Developments Ltd.			Kelowna																
Evans Development Group Inc.										Regina									
Fairwest Construction Co. Ltd.	Victoria																		
Fall River Village Ltd.																		Central Nova Scotia	
Fernwood Builders												Greater Windsor							
Field & Marten Associates Inc.		Greater Vancouver																	
First National Properties Ltd.								Lethbridge											
Flame Engineering & Construction		Greater Vancouver																	
Focus Corporation										Regina									
Fox Hollow Development Ltd.																		Annapolis Valley	
Frank Davies Contracting Ltd.			Kelowna																
Fugro SESL Geomatics (Sask.) Ltd.										Regina									
Gallagher's Canyon Construction			Kelowna																
Garden of Eden Estates										Regina									
Geiger Developments Ltd.										Regina									

Appendix F: Canadian Home Builders Association – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																				
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
Genesis Land Development						Calgary Region													
Genex Development Corp.		Greater Vancouver																	
Genstar Development Company						Calgary Region													
Genstar Development Company							Edmonton Region												
Genstar Development Company		Greater Vancouver																	
Genstar Development Company																Waterloo Region			
Gety Enterprises Inc.		Greater Vancouver																	
Gibraltar Development Ltd.																			Eastern Newfoundland
Gintar Contractors Ltd.												Greater Windsor							
Glendaval Holdings Ltd.																	Greater Moncton		
Grand Pacific Construction Ltd.		Greater Vancouver																	
Graystone Development Group																London			
Gulf Homes Ltd.												Greater Windsor							
H.T. Reaume Construction Limited												Greater Windsor							
Habib Homes												Greater Windsor							
Hage Enterprises Ltd.																		Central Nova Scotia	
Handmade Development Corporation		Greater Vancouver																	
Hanna's Homes Inc.												Greater Windsor							
Hanrose Development Corporation																London			
Harrigan Builders																Sudbury & District			
Harvard Developments Inc.										Regina									
Henderson Development Ltd.		Greater Vancouver																	
Heritage Pointe Lake Developments Ltd.						Calgary Region													
Homes by Bellia Inc.						Calgary Region													
Homeward Bound Development Inc.		Greater Vancouver																	
Homex Developments Corp.				Kamloops															
Hopewell Residential Communities						Calgary Region													
Insight Group Development Corporation					Nanaimo														
Intracorp Developments Ltd.		Greater Vancouver																	
Intrawest Placemaking		Greater Vancouver																	
Intrawest Placemaking		Sea to Sky																	
Isle of Mann Construction Ltd.		Greater Vancouver																	
J. Corsi Development Inc.																Sudbury & District			
J. Evola Builders												Greater Windsor							
J. Rauti Custom Homes Ltd.												Greater Windsor							
Jack Moceri & Sons Contracting Ltd.												Greater Windsor							
Joe Ostojic & Son																St. Thomas & Elgin			
Josh Construction														Greater Toronto					
Jung Developments		Greater Vancouver																	
K.F.L. Construction (Windsor) Inc.												Greater Windsor							
Kallista Group of Companies		Greater Vancouver																	
Kenalex Development Inc.																North Bay			
Kent Homes Limited																	Greater Moncton		
Kentland Homes			Kelowna																
Kiel Developments Ltd.																		Central Nova Scotia	
Kimberly Homes												Greater Windsor							
Kingma Bros. Development					Upper Fraser Valley														
Kirschner Mountain			Kelowna																
Kolody Homes												Greater Windsor							
Kooney Homes Ltd.		Greater Vancouver																	
L. Mailloux Construction (2000) Inc.												Greater Windsor							
L.S. Bock Development Inc.																Sudbury & District			
Laebon Developments Ltd.								Central Alberta											
Lake Placid Developments			Kelowna																
Lakeway Landing Management Ltd.								Central Alberta											
Lakewood Group Developments Ltd.		Greater Vancouver																	
Lamont Development Inc.						Calgary Region													
Landmark Pacific Homes Ltd.					Upper Fraser Valley														
Landrex Developers Inc.							Edmonton Region												
Landstar Development Corp.						Calgary Region													

Appendix F: Canadian Home Builders Association – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																		
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
Landstar Development Corporation											Manitoba								
Lanterna Group Ltd.														Greater Toronto					
Laurel View Homes Inc.																Waterloo Region			
Laurier Homes Ltd.														Greater Toronto					
Legend Resorts Ltd.			Kelowna																
Legendary Developments Ltd.		Greater Vancouver																	
Lexis-Bayview Developments														Greater Toronto					
Lost Creek Village Inc.																		Central Nova Scotia	
M.T. Johnstone Construction Ltd.																London			
Macalgary Developments (Alberta) Inc.						Calgary Region													
MacKenzie Properties Ltd.		Greater Vancouver																	
Maclab Enterprises							Edmonton Region												
Magusta Development (Alberta) Ltd.						Calgary Region													
Malibu Communities								Central Alberta											
Mandalay Developments (Victoria) Ltd.	Victoria																		
Marco Developments Ltd.									Saskatoon										
Mark Construction Ltd. (Marcon)		Greater Vancouver																	
Marpasco Homes Inc.												Greater Windsor							
Marquis Communities						Calgary Region													
Marwest Development Corporation											Manitoba								
Master Property Consultant Group							Edmonton Region												
Mastercraft Homes Windsor Inc.												Greater Windsor							
Masterpiece Homes (1997) Ltd.												Greater Windsor							
McJane Developments Ltd.							Edmonton Region												
McKinley Masters						Calgary Region													
Meadowridge Properties																Stratford & Area			
Melcor Developments Ltd.						Calgary Region													
Melcor Developments Ltd.							Edmonton Region												
Melcor Developments Ltd.								Lethbridge											
Melcor Developments Ltd.								Central Alberta											
Mercedes Homes													Hamilton-Halton						
Millenium Group		Greater Vancouver																	
MLC Group							Edmonton Region												
Monarch Corporation														Greater Toronto					
Morningstar Homes Ltd.		Greater Vancouver																	
Mosaic Avenue Construction Ltd.		Greater Vancouver																	
Mountain Vista Properties					Nanaimo														
New Horizon Homes Building Corporation													Hamilton-Halton						
Newfoundland & Labrador Housing Corp.																			Eastern Newfoundland
Noah Homes (1552843 Ontario Ltd.)												Greater Windsor							
Nor-Built Construction												Greater Windsor							
North Grassie Properties Inc.											Manitoba								
Novamet Development Corp.											Manitoba								
Onni Group of Companies		Greater Vancouver																	
Orca West Developments Ltd.		Greater Vancouver																	
Padwood Holdings Ltd.		Greater Vancouver																	
Pagebrook Inc.				Kamloops															
Palladian Developments Inc					Nanaimo														
Panorama Estates Div. of Waghorn Estates								Central Alberta											
Paradise Lane Developments Ltd.		Greater Vancouver																	
Pariz Development Corp.		Greater Vancouver																	
ParkLane Homes Ltd.		Greater Vancouver																	
Paul Y. Construction B.C. Ltd.		Greater Vancouver																	
PCC Paramount Construction Corporation		Greater Vancouver																	
Peak Ventures		Sea to Sky																	
Pearce Developments Ltd.		Greater Vancouver																	
Penta Homes Ltd.		Greater Vancouver																	
Perera Development Corp.						Calgary Region													
Phoenix Homes															Ottawa-Carleton				
Platinum Group of Companies		Greater Vancouver																	

Appendix F: Canadian Home Builders Association – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																			
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
Point Grey New Ventures Inc.		Greater Vancouver																	
Point of View Developments		Greater Vancouver																	
Polygon Homes Ltd.		Greater Vancouver																	
Portrait Homes		Greater Vancouver																	
Pritchard Farm Properties											Manitoba								
ProCura Real Estate Services Limited						Calgary Region													
Progressive Construction Ltd.		Greater Vancouver																	
Providence Homes		Greater Vancouver																	
Qualico						Calgary Region													
Qualico Development (Vancouver) Ltd.		Greater Vancouver																	
QuinnCorp Holdings Inc.						Calgary Region													
R.A.B. Properties Ltd.		Greater Vancouver																	
Ralli Estates Ltd.		Greater Vancouver																	
Ray Belanger Builders Ltd.												Greater Windsor							
Raymax Construction Ltd.												Greater Windsor							
Reardon Construction & Dev. Ltd.																			Eastern
Red Wing Resorts Ltd.					South Okanagan														
Resiance Corporation						Calgary Region													
Resland Development Group							Edmonton Region												
Ricciuti Enterprises Inc.					South Okanagan														
Rollins Investment Inc.																Quinte			
Rosati Group												Greater Windsor							
Rose-ville Gardens of Windsor Ltd.												Greater Windsor							
Rosedale Meadows Development Inc.								Central Alberta											
Royal Park Homes														Greater Toronto					
Royal Tartan Developments Ltd.								Lethbridge											
S. J. Szasz Construction																Brantford			
Sam J's Construction Ltd.												Greater Windsor							
Sandhill Development Ltd.		Greater Vancouver																	
Sandpiper Developments Ltd.			Kelowna																
Schandre Estates Inc.										Regina									
SFU Community Trust		Greater Vancouver																	
Sheldon Creek Developments Inc.																Greater Dufferin			
Sherrick Management Limited							Edmonton Region												
Shirebrook Developments Inc.																		Central Nova Scotia	
Silversprings Construction												Greater Windsor							
Solterra Development Corp.		Greater Vancouver																	
Spring Willow Development Corporation						Calgary Region													
Springbank Development Corp.		Greater Vancouver																	
Spruce Tree Resorts Inc.														Greater Toronto					
Stacks & Decker Development Inc.		Greater Vancouver																	
Stanley & Schoel Enterprises Ltd.																London			
Stengar Homes Ltd.		Greater Vancouver																	
Stone Creek Properties Inc.						Calgary Region													
Streetscape Developments Inc.									Saskatoon										
Suburban Homes												Greater Windsor							
Sun Country Developments Ltd.				Kamloops															
Sun Rivers Development Corp.				Kamloops															
T. Feeley Construction Limited														Greater Toronto					
Taggart Investments																Kingston Frontenac			
TAINA Group		Sea to Sky																	
Takaya Developments Limited Partnership		Greater Vancouver																	
Talon Property Developments Ltd.					Nanaimo														
Tercon Services Ltd.		Kamloops																	
Terra Developments Inc.										Regina									
Terramine Development Inc.																	Greater Moncton		
The Eden Group of Companies		Greater Vancouver																	
The Mission Group Properties GP			Kelowna																
The Quigg Group		Greater Vancouver																	
Three Sisters Mountain Village Ltd.						Calgary Region													

Appendix F: Canadian Home Builders Association – Members Classified as "Land Developers" in 2006

Name of Firm	Local Home Builders' Association																		
	Victoria	Greater Vancouver	Kelowna	Kamloops	Other BC	Calgary	Edmonton	Other Alberta	Saskatoon	Regina	Winnipeg	Windsor	Hamilton	Greater Toronto	Ottawa	Other Ontario	New Brunswick	Nova Scotia	Nfld
Timberland General Contractors (Windsor) Inc.												Greater Windsor							
Townline Homes		Greater Vancouver																	
Towsley Construction Co. Inc.												Greater Windsor							
Tri AMM Developments Corporation				Kamloops															
Tridel Development Corporation														Greater Toronto					
Trillium Estates Limited																Waterloo Region			
Unimet Homes Ltd.		Greater Vancouver																	
United Communities						Calgary Region													
United Inc.							Edmonton Region												
University Heights Development Corp.		Greater Vancouver																	
Urban Niche Landscape Design		Greater Vancouver																	
Urban Systems Ltd.				Kamloops															
Valente Real Estate & Development												Greater Windsor							
Valleyview Lands Ltd.				Kamloops															
Vanderbilt Homes Ltd.												Greater Windsor							
Vesta Properties Ltd.		Greater Vancouver																	
Wakefield Homebuilders Inc.		Greater Vancouver																	
Wallmark Homes Ltd.		Greater Vancouver																	
Wesbild Holdings Ltd.		Greater Vancouver																	
Westcreek Developments						Calgary Region													
Westmark Holdings Ltd.						Calgary Region													
Whaling Home Construction																Saugeen Country			
Windward Landtec Inc.							Edmonton Region												
Woodland Hills on the Ridge			Kelowna																
Woodparke Homes Ltd.						Calgary Region													
Yagar Developments Inc.										Regina									
Zulich Construction Inc.																Sudbury & District			
Totals	0	8	1	3	0	4	2	0	0	1	0	4	0	1	0	3	0	0	0

Source: Extracted from CHBA Internet page - www.chba.ca

Appendix G: Summary of Survey Response

Table G1: Summary of Responses Received to Survey of Residential Land Development Industry, as at August 18, 2006

Place Surveyed	Numbers of Firms/Persons Surveyed, and Responses								
	Land Developers			New Home Builders			Municipal Planners, Associations		
	Invited to Respond	Responded	Response Rate (%)	Invited to Respond	Responded	Response Rate (%)	Invited to Respond	Responded	Response Rate (%)
Halifax	9	5	56%	2			6	2	33%
St. John's	10			5			4	1	25%
Charlottetown	6	2	33%	7			6	2	33%
Saint John	5	1	20%	10			2		
Saguenay[1]	4	1	25%	12			3	1	33%
Montreal[2]	11	5	45%	168			6	1	17%
Ottawa	31	7	23%	17	1	6%	1	1	100%
Toronto	71	8	11%	9	1	11%	3	1	33%
Hamilton	17	3	18%	8			2		
Winnipeg	8	4	50%	2			4	2	50%
Saskatoon	8	4	50%	3			1		
Edmonton	20	11	55%	1			8	2	25%
Calgary	18	9	50%	2	1	50%	5	2	40%
Kelowna	16	5	31%	1			2	1	50%
Vancouver	17	10	59%				4	2	50%
Victoria	19	7	37%	6	1	17%	3	2	67%
SUBTOTALS									
Atlantic Region	30	8	27%	24			18	5	28%
Quebec	15	6	40%	180			9	2	22%
Ontario	119	18	15%	34	2	6%	6	2	33%
Prairies	54	28	52%	8	1	13%	18	6	33%
BC	52	22	42%	7	1	14%	9	5	56%
SURVEY TOTAL	270	82	30%	253	4	2%	60	20	33%

Notes #1 and #2: In late June requests for participation were e-mailed to 12 builders/developers in the Saguenay region, and 165 builders/developers in the Montréal region, using lists provided by APCHQ.

Appendix H: Other Aspects of Corporate Organization

It should be recognized that there are other aspects of corporate organization in the land development industry that were not addressed by this survey of development firms. Some of these aspects are:

- **Corporate Ownership** - The survey does not distinguish between land developers that are:
    - private holdings of an individual, partnership, or some form of corporate group
    - wholly or partially a public company, or
    - ownership is domestic or international or both.

- **Singular Enterprise or Part of a Network** – The survey does not distinguish between land developers that are:
    - the single enterprise of their owners
    - part of a stable of companies or investments.

  It does address whether the land development operations are linked to new home building operations.

- **Multi-City or International Operations** – The survey does not provide comprehensive information about multi-city or international operations of land development firms, although it did produce some data on these subjects.
    - For example, a few respondents indicated their firm also operated in particular cities in the USA. This information does not provide insights into the industry overall, because it is not known whether firms that did not indicate this did not have operations in the USA, or whether they declined to provide this information.
    - A similar complication exists around the information about multi-city operations. The survey contacted many branch offices of firms which have multi-city operations. Prominent examples include Carma, Genstar, Minto, Qualico and Melcor, although smaller multi-city firms were also contacted. Some multi-city firms in some cities did participate in the survey while other branches of the same firms did not. Some firms with multi-city operations did not provide permission to cite their firm as an illustration in this report.[195]

    - As the survey did not undertake a systematic sampling of multi-city operations, nor a coverage of all branches of multi-city firms, it does

[195] A further complication is that, when contacted to participate in the survey, or when asked if all or parts of their survey response could be cited, some branch offices of multi-city firms agreed, while other branches of the same firm did not. In such cases, the survey only cites, as illustrations, information about the firm in the city for which approval for citation was given.

not make inferences about the extent of multi-city operations in this industry.[196],[197]

The main reason that the survey does not combine the branches of multi-city firms is that land development occurs within local markets, and much of the analysis in this study is conducted at the local market level. The operations of these branch offices are significant participants at the local level. The fact that each branch is part of a multi-city network, or perhaps part of a huge international and multi-city conglomerate (like Genstar, or the Carma/Brookfield group), is not very important in the context of local markets, and attending to these broader dimensions would not contribute to the analysis at the market level.

[196] It may be noted that of the 77 land developer respondents to this survey, 16 of them are parts of firms that have multi-city operations.

[197] In the survey each respondent is classified as a size of firm according to the volume of development they produced in 2005. Consequently each of the multi-city developers' branches are classified according to their own size, independently of other branches of the firm. If the data for each firm was amalgamated it is likely that most would become large firms, and this would decrease the numbers of small and medium firms in the survey.

Appendix I: Interview Questionnaire - English

CMHC Research – Interviews to Produce a Profile of the Land Development Industry	Interviewee No.

INTRODUCTION – INTERVIEW FORMAT

We are a research team that has been contracted by Canada Mortgage and Housing Corporation to profile the urban land development industry. Our task is to study the industry today and ten years ago, to assess the changes that have occurred, and to consider the changes the industry may experience in the next decade. We are interviewing over 250 leading developers, new home builders and planners in 16 of the largest urban regions, to gather information about the industry and help us understand it.

Our questions are designed to produce characteristics of the industry. **It must be emphasized that we are studying the industry, not your firm. This survey is anonymous. The information you provide will not be attributed to your firm unless you have authorized us to do so.** We expect a major benefit of this research will be to show developers and planners in various parts of the country how their counterparts, (and the regulatory process and overall development system), function in their areas and in other parts of the country. We believe this information will increase public understanding of the land development industry, its present trends and future prospects, and hope that our work will prove valuable to individual firms and to the industry.

This questionnaire is designed primarily for land developers, with some questions that should be answered by others as well. It should be used as follows - Land Developers, including builder/developers (All Questions except 37);
- Home Builders (Questions 1-17, 33-39);
- Planners (Questions 1-2, 7-9, 17-22, 33-36, 38-39).

If you require any clarification about the interview format or any aspect of this research, please contact the researcher who sent the questionnaire to you, or the Principal Researcher of the project, Peter Spurr, who can be reached at the co-ordinates below.

DATE OF INTERVIEW		TYPE OF INTERVIEW		
Initiation:	Completion:	Face-to-Face at:	By Telephone:	By Internet only:

BASIC INFORMATION ABOUT YOUR FIRM/ORGANIZATION

1.	**YOUR FULL NAME:**
	NAME OF YOUR FIRM or ORGANIZATION:
	TELEPHONE NO. (with Area Code and Extension):
	E-MAIL:

2.	**Please indicate whether your firm or organization is a:**	**(please check where applicable)**
	Sole proprietorship	
	Partnership	
	Incorporated private firm	
	Public firm	
	Association	
	Public Agency	

Spurr Research Associates
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CMHC Research – Interviews to Produce a Profile of the Land Development Industry	Interviewee No.

3.	What type of work does your firm do?	(please check one)
	Land Development	
	New Home Building	
	Both Land Development and New Home Building	

4.	If your firm was in business in the 1990s, what type of work did it do?	(please check one)
	Land Development	
	New Home Building	
	Both Land Development and New Home Building	
	Neither Land Development or New Home Building	

5.	What type of work do you think your firm will be doing in the future (ie: in 5 to 10 years)?	(please check one)
	Land Development	
	New Home Building	
	Both Land Development and New Home Building	
	Not in the Development/Housing Business	

6.	Please indicate whether your firm operates under multiple names.		(please check where applicable)
	As a land developer	Main name only	
		Multiple names	
	As a new home builder	Main name only	
		Multiple names	

7.	In which municipality (province/country) is the headquarters office of your organization?

8.	Which is the Principal Market in which you operate ? (Note: For the remainder of this survey, "Principal Market" means the metropolitan area in which your firm is MOST ACTIVE) (Please Check One Principal Market ONLY)					
	St. Johns		Ottawa		Calgary	
	Halifax		Toronto		Kelowna	
	Charlottetown		Hamilton		Vancouver	
	Saint John		Winnipeg		Victoria	
	Saguenay		Saskatoon			
	Montréal		Edmonton		Other	

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9.	In which municipalities within your Principal Market, do you generally operate ?

10.	In which other markets do you operate ? (ie.: Metropolitan areas other than your firm's "Principal Market")

11.	In 2005 what forms of development did your firm undertake in its Principal Market ? (Please indicate all relevant categories)	
	single phase with mainly one housing type	
	single phase with a mix of housing types	
	single phase with a mix of land uses	
	multiple phases with mainly one housing type	
	multiple phases with a mix of housing types	
	multiple phases with a mix of land uses	

12.	In the 1990s what forms of development did your firm (or predecessor) undertake? (Please indicate: Many, Few, Never as applicable)			
		Many	**Few**	**Never**
	single phase with mainly one housing type			
	single phase with a mix of housing types			
	single phase with a mix of land uses			
	multiple phases with mainly one housing type			
	multiple phases with a mix of housing types			
	multiple phases with a mix of land uses			

13.	Generally, what size were most of the lots your firm developed in your Principal Market in 2005 ?		
		Regular Lot	**Small Lot**
	Frontage (in metres)		
	Depth (in metres)		

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14.	Generally, what size of lots did your firm (or its predecessor) develop in the mid-1990s ?		
		Regular Lot	**Small Lot**
	Frontage (in metres)		
	Depth (in metres)		

15.	How many lots of the following types did your firm develop in your Principal Market in 2005 ? (for semis and block land, please indicate unit potential)		
	Single Family	Small lots	
		Regular lots	
		Large lots	
		Estate Lots	
		Other lot types (eg.: wide/shallow lots, cottage lots, custom lots), (please specify)	
	Semi-detached lots (unit potential)		
	Row house parcels (unit potential)	Fee simple	
		Condominium/strata title	
		Rental	
	Apartment parcels (unit potential)	Low-rise condominium/strata title (3 stories and under)	
		Low-rise rental (3 stories and under)	
		High-rise condominium/strata title (over 3 stories)	
		High-rise rental (over 3 stories)	

16.	How much land development for non-residential land uses did your firm undertake in your Principal Market in 2005? (approximately)	
		(in square metres of land)
	Retail	
	Office	
	Hotel	
	Industrial	
	Warehousing/storage	
	Parking	
	Park/Recreational	
	Institutional (including land dedications for schools)	

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17.	How much land did your firm develop for marketing as life-lease residences in your Principal Market in 2005? (please express answer in number of housing units)	
	Single-detached	
	Semi-detached	
	Row houses	
	Apartments under 4 stories	
	Apartments over 3 stories	

LAND DEVELOPMENT FEATURES

18.	In 2005 did your development(s) in your Principal Market include any of the following ? *(would planners kindly report on the presence of these features in their primary area of responsibility)*	
	Projects employing private roads	
	Projects containing prepared walking or cycle paths	
	Projects with parking separated from homes	
	Projects with "transit-oriented development" features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling.	
	Projects containing communal facilities (such as recreation centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks etc.)	
	Projects containing shared energy infrastructure (such as central heating or cooling, geo-thermal, etc.)	
	Projects containing shared well, and/or shared water treatment facilities	
	Projects including a dominant physical/recreational feature (such as golf course, marina, artificial lake or ski hill etc.)	
	Projects containing stormwater retention ponds	
	Gated projects (gates where access to the project is controlled)	
	Projects including private security, or doorman/concierge	
	Projects designed for "aging in place"	
	Projects in "Urban In-fill" locations	
	Projects on "greyfield" sites (on old commercial land uses, associated parking)	
	Projects including sales on a fractioning basis (such as time shares, partial shares of ownership other than co-operatives, condominiums, and strata titles etc.)	

19.	In the 1990s did your development(s) in your Principal Market include any of the following ? *(would planners kindly report on the presence of these features in their primary area of responsibility)*	
	Projects employing private roads	
	Projects containing prepared walking or cycle paths	
	Projects with parking separated from homes	
	Projects with "transit-oriented development" features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling.	
	Projects containing communal facilities (such as recreation centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks etc.)	
	Projects containing shared energy infrastructure (such as central heating or cooling, geo-thermal, etc.)	
	Projects containing shared well, and/or shared water treatment facilities	
	Projects including a dominant physical/recreational feature (such as golf course, marina, artificial lake or ski hill etc.)	
	Projects containing stormwater retention ponds	
	Gated projects (gates where access to the project is controlled)	
	Projects including private security, or doorman/concierge	
	Projects designed for "aging in place"	
	Projects in "Urban In-fill" locations	
	Projects on "greyfield" sites (on old commercial land uses, associated parking)	
	Projects including sales on a fractioning basis (such as time shares, partial shares of ownership other than co-operatives, condominiums, and strata titles etc.)	

20.	In the next few years, will any of your developments likely include any of the following ? *(would planners kindly report on the presence of these features in their primary area of responsibility)*	
	Projects employing private roads	
	Projects containing prepared walking or cycle paths	
	Projects with parking separated from homes	
	Projects with "transit-oriented development" features, such as transit stops on-site, relatively high density (15 units per hectare), mixed uses, design for walking/cycling.	
	Projects containing communal facilities (such as recreation centres, social or meeting centres, workshops, visitor housing, garden plots, communal cars or trucks etc.)	
	Projects containing shared energy infrastructure (such as central heating or cooling, geo-thermal, etc.)	
	Projects containing shared well, and/or shared water treatment facilities	
	Projects including a dominant physical/recreational feature (such as golf course, marina, artificial lake or ski hill etc.)	
	Projects containing stormwater retention ponds	
	Gated projects (gates where access to the project is controlled)	
	Projects including private security, or doorman/concierge	
	Projects designed for "aging in place"	
	Projects in "Urban In-fill" locations	
	Projects on "greyfield" sites (on old commercial land uses, associated parking)	
	Projects including sales on a fractioning basis (such as time shares, partial shares of ownership other than co-operatives, condominiums, and strata titles etc.)	

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21. **It is sometimes said that there are impediments to creating development features like those listed in Questions 18-20. Please indicate the degree to which the following potential impediments have presented difficulty to you, when attempting to create such features, in your Principal Market?**

(would planners kindly report on these conditions in their primary area of responsibility)

	Please indicate as: Strong Impediment - (S) Lesser Impediment - (L) No Impediment - (N) Does Not Apply - (A)			
	(S)	**(L)**	**(N)**	**(A)**
Costs of such features are prohibitive for the economics of most projects				
Standards such as roads, piped services, offsite services, curbs and sidewalks render development uneconomic				
Land-related standards such as safety and environmental requirements, bonding, damage deposits are too costly				
Development cost charges and/or lot levies add too much cost				
Costs related to environmental factors, such as clean-up costs, liability insurance, render development uneconomic				
Taxes such as GST, property taxes, income taxation make project uneconomic				
Risk management insurance is not available				
Regulations are too inflexible				
Neighbourhood resistance, "NIMBY" syndrome, stop projects				
Approval process is too lengthy				
Public infrastructure is not adequate to allow the innovation				
Market for the innovation not strong enough				
Mixture of problems, decision-making process not adequate to assess costs of impediments and benefits of change				
Financing too difficult, either due to approval process or cost of capital				

22. **In the development program for your large, multi-phase projects which are already underway, please indicate which of the following changes in annual production can be expected**

(would planners kindly report on these conditions in their primary area of responsibility)

	Next 5 years	**5-10 years**	**Beyond 10 years**
A greater proportion of small lots			
A lesser proportion of single-detached lots			
More multiples - Semis, Rows, low rise apartments			
More multiples - High rise apartments			
More non-residential (mixed use)			

23.	To what degree is your firm involved in brownfield development or re-development ? (Please check where applicable)	
	Never tried it, don't intend to	
	Never tried it, looking at potential site(s)	
	Done some, probably won't do more	
	Done some, probably will do more	
	Most of our development is brownfield sites	

24.	During the last few years, have your decisions concerning land development been significantly impacted by:		
		YES	NO
	Rising house prices that have made sites previously thought undevelopable (due to soil conditions such as poor drainage, excessive rock, or contamination) now economically viable		
	Municipal development moratoria		
	Municipal land banking or development		
	Projects by Canada Land Corporation		

25.	Has your Land Acquisition and Holding Activity Changed in Your Principal Market Since the 1990s (please check as applicable)		
		Yes	No
	Overall, the market is more difficult to work in than it was in the 1990s.		
	It takes more time to find and acquire a suitable parcel of land now than it did in the mid-1990s.		
	Our firm holds land longer before developing it now, than it did in the 1990s.		
	Overall, our firm was "well-positioned" in the market in the 1990s.		
	Overall, our firm is "well-positioned" in the market today.		

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LAND DEVELOPMENT OPERATIONS

26.	What are the main ways your firm finances land acquisitions? (please check where applicable)		
		By itself, in its own name	In partnerships, or as joint ventures
	With the firm's cash resources		
	By vendor takeback financing		
	With bank loan(s), (or other financial institutions)		
	Public sector financing		
	Offshore financing		

27.	How does your firm execute various land development planning activities? (please check where applicable)			
		Firm does planning in-house	Joint Venture Partner is planner	A contractor is hired for planning
	Concept or master plan			
	Outline plan or Official/Municipal Plan process			
	Development plan or subdivision plan			
	Zoning, Rezoning			
	Development Agreement			

28.	How does your firm execute the physical development of land? (please check where applicable)		
		in developing its own land	in developing land as a joint venture
	As project manager of its own construction forces		
	As project manager, with subcontracted construction forces		
	We contract out project management and construction		
	Firm doesn't do physical development, sells land after planning stage		

29.	What are the main ways your firm executes the marketing of land (or lots)? (please check where applicable)			
		Markets and sells its own land	Within joint ventures, my firm sells the land	Within joint ventures, partner is the marketer/seller
	Sell raw land			
	Sell block land (Official/Municipal Plan designation for development)			
	Sell block land (zoned)			
	Sell lots unserviced			
	Sell lots serviced			
	Sells lots/blocks to own new home building division			
	Builds homes on lots or blocks for rental			

30.	In 2005, how did your firm obtain the various land development skills listed below?			
	Land Development Skills	Member of firm's permanent staff	By forming joint ventures or partnerships	By Contracting for Service
	Engineer			
	Planner			
	Environmental planner			
	Architect			
	Accountant			
	Lawyer			
	IT staff – project management			
	IT staff - graphics			
	IT staff - geomatics			
	Draftsperson			
	Clerical			
	Sales			
	Construction supervisor			
	Construction trades			

31.	Evolution of Firm's Staff Resources				
	Land Development Skills	**In terms of the number of staff in your firm devoted to land development, please indicate areas of growth since the 1990s, and potential areas of future growth (please check where applicable)**			
		Since the 1990s, Has Increased	**In the Future, Will Probably Increase**	**In the Future, Will Probably Decrease**	**In the Future, Will Probably Stay the Same**
	Engineer				
	Planner				
	Environmental planner				
	Architect				
	Accountant				
	Lawyer				
	IT staff – project management				
	IT staff – graphics				
	IT staff – geomatics				
	Draftsperson				
	Clerical				
	Sales				
	Construction supervisor				
	Construction trades				
	Others (Specify)				
	TOTAL				

32.	**According to Industry Canada data, the average, unincorporated land developer had a pre-tax profit, as a percentage of gross revenue, of about 13%. In 2005, would your firm's pre-tax profit from land operations, be … (please check as applicable)**	
	Much less than 13%, or a loss	
	Less than 13%	
	About 13%	
	More than 13%	
	Much more than 13%)	

LAND MARKET CONDITIONS

The following four questions are not about your firm. We are seeking your expert advice about aspects of the land market and land development in your principal market.

33. How adequate was, is, and will be the supply of developable land for residential use in your Principal Market?

(would planners kindly report on these conditions in their primary area of responsibility)

Time Period	Adequacy of the land supply		
	Adequate	Tight	Very tight
1990s			
NOW			
2010s			

34. How much is the land supply impacted by growth limits (such as agricultural land designations, greenbelts, parkway belts, growth designations in Official/Municipal Plans, etc)

(would planners kindly report on these conditions in their primary area of responsibility)

Time Period	Slightly	Strongly
1990s		
NOW		
2010s		

35. What is the nature of the principal land supply constraint(s)?

36. **In your Principal Market, rank the following factors in terms of the difficulty they would present to a new firm in getting started in land development**

(would planners kindly report on these conditions in their primary area of responsibility)

	High	Medium	Low	N/A
Little land available				
Land available but price very high				
Regulatory system too complex				
Strong competition from other firms				
Insufficient demand				

THE FOLLWING QUESTION IS FOR NEW HOME BUILDERS ONLY.

If your firm does not build new homes, OR, if it only builds homes on its own land, just skip this question.

37. **How does your firm normally acquire building sites (lots or buildable block land)?**

	(please check where applicable)
Normally buy lots from same developer	
Normally buy lots in same sector or municipality	
Choice of developer and sector or municipality are not considered critical to your business decisions	
Buy lots outright for cash	
Buy lots outright with bank financing	
Buy lots outright with other private financing	
Acquire lots by option, fixed price for a fixed time	
Acquire lots by sale agreement with payment on house sale	
Acquire lots by sale agreement with several payments related to house sale	
Acquire lots by sale agreement, fixed period	
Acquire lots by entering into joint ventures or partnerships with developer(s)	
Buy land through other financial arrangements	

This interview is now concluded.

38.	**In preparing the report of this research, we will treat the information you have provided as completely confidential, or with the degree of confidentiality which you indicate.** **Are the following treatments satisfactory to you?** **(Please check all that are satisfactory)**	
	My firm can be cited in examinations of a characteristic. *(eg. AcmeOne did its engineering in-house during the 1970s while it now contracts for these services)*	
	My firm can be cited as an illustration, grouped with others. *(eg: The largest developers use in-house sales staff - Alpha in Calgary, Beta in Vancouver and Sigma in Ottawa)*	
	Neither of the above	

39. **This is a totally open-ended question. Do you have any comments you would like to add, concerning the land development industry, the development process in your principal market, or any related topic ?**