THE PLANNED INDUSTRIAL DISTRICT: 
ITS SIGNIFICANCE FOR URBAN DEVELOPMENT IN CANADA

by

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ABSTRACT

The most undesirable side-effect of the Industrial Revolution was the blighting of the surrounding residential environment by smoke and effluvia from the factories. This has resulted firstly, in an attempt by public authorities to curb the excesses of industry and to make it more compatible with the residential environment; and, secondly, in a movement of the factory workers away from their place of work into areas reserved exclusively for residential development. Today, due to technological advances, industrial nuisances have been virtually eliminated and atmospheric pollution is caused mainly by the exhaust fumes from the automobiles of commuting motorists.

In this paradoxical situation interest has increased, for a number of reasons, in bringing the home and work-place closer together. Industry would like to locate closer to its markets and to its labor pool. The worker would like a shorter journey to work, provided the amenity of his home is not affected. The suburban municipality, burdened by the costs of residential development would like to attract industry to strengthen its tax base. The planned industrial district appears to be the most promising tool to accomplish all these aims.

A planned industrial district is essentially an industrial site which is subdivided and developed according to a
comprehensive plan for the use of a community of industries, with streets, railway spurs, and utilities either readily available or installed before the sites are sold or leased to prospective occupants. Usually the district is under one management and the type of tenant admissible is restricted by covenant.

Planned industrial districts in Britain and North America date from the end of the 19th century. In Britain planned industrial districts have been used by the State to control the location of industry in order to develop the depressed areas. Since World War II they have been used to accommodate industry in the New Towns. In America the majority developed since World War II and are frequently sponsored by railroads or other private developers. Transportation and markets are key factors in their location. The concept has undergone some refinement, resulting in the amenity-oriented industrial park, which has been used in some urban redevelopment schemes.

In Canada the process of industrialization has been slow, especially in the area of secondary manufacturing. Though it has power to influence and encourage industrial development at the local level, the Federal government has as yet developed no coherent industrial policies. Some thought has been given to the danger of Canadian industry
being dominated by U. S. investment and control but no solution appears evident. Branch plants of U. S. firms are an important element in Canadian secondary manufacturing industry.

In the absence of Federal or Provincial guidance the burden of directing (or attracting) industry falls on the local authority. To this end it has used zoning, tax incentives, industrial development commissions and, increasingly, planned industrial districts, which have been developed in some of the more progressive communities. Industry is attracted to these districts by their excellent transportation facilities, installed utilities, in fact by the whole "package deal" which allows it to go into almost immediate production. The planned industrial district serves the community because it concentrates a desirable type of industry in a desirable location, minimizes traffic interference, promotes the economical use of services and utilities, eliminates the worst industrial nuisances, enhances the visual appearance of the community, provides better working conditions and strengthens the tax base. All this it will do provided it is properly planned. The conclusion is that Canadian municipalities should promote the use of planned industrial districts to achieve efficient community development.
ACKNOWLEDGEMENTS

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CHAPTER I

THE PROBLEM OF PLANNING FOR INDUSTRY

1. A Statement Of The Problem and Hypothesis

   a) Statement of the problem. Land is the platform of all human activity. Since much of the earth's surface is virtually uninhabitable, the amount of land available for human settlement is severely limited. Throughout history man has settled in the choicest areas and there he has built his cities. While advances in technology have broadened his choice considerably, man's original decisions have proved sound and most human settlements tend to survive in their original locations.

   Land in or near our towns and cities has always been a very valuable commodity. So vital is it to man's well-being that many believe it to be a resource worthy of the most careful conservation. In countries like Britain and Holland, with a limited supply of land available for development, this argument is particularly forceful. With population figures rising throughout the world, most countries would do well to heed it.

   In most western democracies, competition for urban land takes place among the various uses--residential, commercial,
industrial and public. The rules of the competition are laid down by the authorities—zoning, subdivision by-laws and other regulations—and within the framework of these rules the rivals contend. A number of concepts have evolved which are designed to increase efficiency and amenity in the planning and development of these urban land uses. Among these are the neighbourhood concept and the planned subdivision for residential land; for commercial land use the outlying shopping centre with pedestrian malls and ample parking space is the latest trend.

Industry is a major consumer of urban land and as such is of particular interest to planners. Until fairly recently the location of industry was determined almost entirely by such factors as cost, accessibility, and taxation policies. However, because industrial development is not compatible with other types of development, and because the use of land for industrial purposes tends to persist on account of the heavy capital investment involved, planners have become acutely aware of the need to co-ordinate industrial with other types of land development. One of the major tools in accomplishing this purpose has been the zoning by-law, which limits the amount and location of land for industrial purposes. However in many cases industry has ignored these industrial zones and has 'leap-frogged' into the unzoned rural areas beyond the city limits, where the city has no jurisdiction
and the responsibility for development usually lies with a higher level of government. One of the reasons for this decentralization of industry is that zoning of land for industry often meant nothing more than an increase in the cost of land. As a consequence a new tool is evolving which is designed to make zoned industrial land more attractive to industry. This tool is the planned industrial district.

Planned industrial districts take many forms. They can be privately owned, as are many in the United States and Canada, or publicly owned, as in Britain and other countries. They can be large or they can be small. They can range from raw land with few improvements to fully developed sites with complete facilities and even custom-built factories. Interest in the industrial estate has grown considerably in recent years and a considerable body of literature has accumulated so that the role of the planned industrial district in future community development is slowly taking shape.

Because every country has different specific needs and problems in the field of general development, similar tools will have different application from country to country. Here in Canada we have a peculiar situation where British law and tradition exist side by side with the philosophies of American economic development. We are forced with the problem of whether to employ the British methods of tight development control or to rely on our ability to direct spontaneous
development along desired channels with a minimum of public interference. The scope of the present paper embraces an investigation into the role of planned industrial districts in the political-economic climate of Canada.

The proposed investigation includes an examination of the history of industrial estates, the needs which prompted their growth, their present role in the Canadian scene and their possible utility as a tool of planned development in the future. Because the adopted British law and traditions make public ownership both possible and acceptable in Canada, the special role that might be taken by local municipalities in instituting planned industrial districts is examined; and since the problems generated by industrialization are most obvious at the local level, this paper deals with industrial development mainly from the point of view of the local community.

b) Statement of the hypothesis. The hypothesis of this paper is "that Canadian communities should promote the use of planned industrial districts as a tool to achieve efficient community development". Before investigating this theme, however, a general review is made of the development of industry and the origin and use of the planned industrial district.
2. Industrial Development in Perspective

In a world where the threat of mutual destruction has made the assertion of superiority over other nations by force of arms impractical, industrial productivity has become the yardstick by which nations establish their place in the world power structure. The gross national product has become the barometer of a nation's prestige. More than that, an efficient industrial base has become an essential prerequisite to the economic viability of a nation. The exploitation and export of raw materials may enable a developing nation to limp along for many years without going bankrupt, but in the long run such a course can only lead to economic disaster. In a world of soaring population figures industrialization limited to the production of primary products is no longer sufficient, and the development of secondary industry has become the goal of scores of developing nations.

To develop efficiently, industry needs space, not just any space, but the space which is most favourably situated in relation to raw materials, transportation, markets, labour, and all the other factors which enter into the decision-making process of industrial location. In the past, industry was often haphazardly located, but today research into the factors which influence the location of industry has increased the possibility of making correct and rational decisions about industrial location.
Since the lives of people are intimately bound up with industry, the problem of industrial location has many social implications. This has long been recognized in Britain, where a policy of "bringing work to the workers" has led to the promotion of industrial location and growth in areas where these would not normally take place if industry were left to its own devices. Thus the State has taken a hand in the planning of industrial location in a country long admired for its democratic institutions.

This exercise of control is dwarfed by that which exists in the Communist countries and in the developing nations. In such countries industry is too vital a factor in the nation's economy to be left to locate and develop spontaneously. Industrial location is carefully planned where it will do the most good from a social as well as an economic viewpoint.

In the United States and Canada control over the location of industry on the part of the national governments has been limited mainly to advice and persuasion. It has been possible in some areas to stimulate the local economy by the judicious placing of government contracts, and certain fiscal devices have been applied to guide industry in the desired direction. The kind of control found in Britain and other countries does not, however, exist here.

The type of industry which is the main concern of this paper is manufacturing, as opposed to extractive industry.
The latter type of industry is generally restricted in its locational choice by the location and type of raw material with which it is concerned. Manufacturing industries, which may be defined as those industries engaged in the production or distribution of goods for consumption, are generally oriented toward the market and locate in or near large concentrations of population. Because of advances in the technology of power and transportation a wide range of locational choices is open to them. The decentralization of manufacturing industry which has taken place in the United States and Canada since World War II is a result of industrial concerns exercising this choice. The expansion of industrial activity coupled with the phenomenon of decentralization suggest the need for some form of planning to ensure not only that industrial growth will take place in suitable locations in relation to other land uses, but also that these locations will be reserved to accommodate the expected growth.

In the absence of any real national or regional physical planning, the responsibility for dealing with problems associated with industrial development falls on the local authorities. The presumed incompatibility of industrial with other land uses and the actual problems which have resulted where such uses have been mixed has led to a municipal policy by which various tracts of land are zoned for industrial use by the local authorities. In many cases this measure of
control has been too little and too late, and has in itself created problems. The use of the planned industrial district is advanced here as a potential answer to these problems.

The investigation includes a review of the following topics:- the historic evolution of controls over the location and development of industry and the problems thereby created; the origin and concept of the planned industrial district; the economic development and the political and economic climate of Canada; and the experience of Canadian communities with planned industrial districts. Finally an attempt is made to formulate a municipal policy of planned industrial district development for Canadian communities, and the implications of such a policy are assessed.

3. Industry and the State

Since Adam Smith's "Wealth of Nations"\(^1\) appeared in 1776, countless thousands of words have been written about the problems of industry. The invention of the steam engine by James Watt in 1789 opened the flood-gates of the Industrial Revolution and unleashed a powerful force for good or evil on

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mankind. Ever since that time an unceasing struggle has gone on between those who would use this force to enslave mankind and those who would use it to set him free. Bentham, Carlyle, Mill, Ruskin, and Keynes have propounded their social and economic theories to swing the tide of opinion this way or that. Revolutions have come and gone, great nations have risen on the crest of economic power, only to fall before a greater; and still some fundamental questions remain unanswered, so that even to-day the place of industry in the fabric of society is not yet clearly defined. It may be said, however, that this powerful young giant has been tamed sufficiently to become the servant rather than the master of man.

This struggle to tame industry has not been easy and has entailed many sacrifices. The period from 1825 to 1870 was the heyday of Adam Smith's "laissez faire" philosophy, the theory of the "invisible hand" guiding the affairs of industry, and ensuring that what was good for industry was good for everyone. The law of supply and demand was thought to need no other assistance in securing the greatest good for all.

Unfortunately the facts increasingly tended to show that this was not the case. Public inquiries and the observations of private individuals revealed that working conditions existed in mine, mill, and shop that could not be justified on the grounds of any economic theory. Even the laissez faire economists themselves were shocked by the inhuman conditions
spawned by the Industrial Revolution, and troubled men set out on the road to reform.\textsuperscript{2}

Relief came first to the weak and helpless, and by means of legislation women and children were spared the worst kinds of physical labour. In 1867 the franchise was extended to the industrial worker in England, and thereafter the State took an increasing interest in protecting his rights. Factory and Mines Acts were passed, outlawing the worst forms of exploitation, and in addition the State collected and published facts about abuses in industry. It is now an unquestioned principle that the State has the right to interfere in the workings of industry and the only question is to what extent this control should take place. By and large "laissez faire" remains the general rule in Western democracies—but it is liable to large exceptions.\textsuperscript{3}

The theory of Western democracy is that Government expresses and executes the will of the majority of the people, that is, it acts in accordance with public opinion. In this role it may find itself taking a stand which may not appeal to industrialists. As Florence says:


\textsuperscript{3} \textit{Ibid.}, p. 35.
The value judgements of public opinion are likely to differ considerably from those of the persons deciding the policy of firms in particular industries. The State takes action in industry largely to bring industry into line with public opinion.\(^4\)

In its pursuit of profit, industry frequently produces conditions which are obnoxious to a great number of people and it is the public opinion thus created which justifies the State in curbing the offending industry.

The economic importance of industry in a town or a nation can hardly be overstressed.

A town as an economic unit lives largely either by making things or trading in them, or both and all other activities are subsidiary to these. If manufacture or trade decline, fewer houses or schools can be built, and if they decline beyond a certain point, the community starves.\(^5\)

There is no need to belabour this point. An efficient and diverse industrial base is an essential prerequisite for the economic viability of a modern nation.

However, in its pursuit of efficiency industry sometimes produces conditions that are offensive and often dangerous. Air pollution creates health hazards; river and stream pollution destroys aquatic life and renders the water unusable; industrial wastes destroy the amenity of river-banks

\(^4\) Ibid., p. 15.

and beaches; industry's trucks and traffic clog city streets and create a hazard in residential areas; extractive industries leave unsightly pits and slag heaps to mar the beauty of the landscape and render the area unusable except at great expense. These well-known instances of industrial 'nuisances' have led to the principle of the segregation of industry from residential uses, a principle which is sometimes carried to extremes.

On a larger scale the activities and shifts of industry create diseconomies which are of concern to the State. When an industry is discontinued or moves to a new location, unemployment ensues and, if out-migration follows, social capital such as schools and houses are used below their full capacity. Industry may move to a new location which may entail the overloading of public services in the new area, and the responsibility for providing the new social capital to meet the need falls on the local government funds in one form or another.⁶

In times of war and national crisis industry becomes the sinews of the nation. At such times the decisions of private individuals are not sufficient to promote the measures

that become necessary if the nation is to survive. In such circumstances the State, as the guardian of the freedom of all, must take whatever steps are necessary, including curbs on the freedom of industry, for the sake of national survival.

4. Controls for Industry

It is necessary to examine the various types of controls the State has at its disposal in directing industry toward the goals which it considers essential to the well-being of society. The means at its disposal are considerable.

The State...has for its various aims a large totality of tools. If one set of tools fails to achieve a given aim others can be tried; a government should not pin its faith to any one set such as say tariffs or nationalization. The art of State government is to a considerable extent that of considering all the various tools available and finally deciding which tools to use—what procedures to apply—for the various aims public opinion judges of value.7

Stemming from its conception of "the common good" or "the public interest" the State will formulate certain industrial policies which it considers desirable in the general interest and will apply such controls to industry as will result in the adoption of these policies.

It is hardly necessary to say that great care should be exercised in the application of any kind of control to industry. The free market economy is delicately balanced and the application of curbs to certain sections may produce

7 Florence, op. cit., p. 188.
unexpected and entirely undesirable results. For instance, the introduction of rent controls in Britain as a result of World War II led to a cut-back in the private building sector which forced the Government to undertake large scale housing construction. In the same way the introduction of rationing and price controls generally leads to large-scale black-marketeering.

Historically, the role of the State in both Britain and the U. S. up to the time of the Great Depression had been confined to "keeping the ring" around industry, while the laws of supply and demand operated within. In a fashion they "set up" the contestants by providing the legal framework under which companies could sue and be sued and be held to their contracts.\(^8\) In addition the State protected the private individual through the Factories and Mines Act and itself undertook quasi-industrial activities such as road-building and public works. The State also collected and published factual material about industry, purchased its products in peace and especially in war and promoted financial stability by regulating banking and fiscal matters.\(^9\)


Since the Depression of the 'Thirties state 'controls' over industry have multiplied and increased in variety. In many cases it is in no sense controlling industry but rather mediating between parties—between labour and employer, between producer and consumer. It provides information about industry, services to industry, and palliatives against the hazards of industry, and sometimes takes on the direct operation of an industry.  

The real weapons against industrial problems in the armoury of the State are taxation and fiscal policies. Taxes may discriminate against industries; subsidies may encourage others; quotas, rationing, and tariffs are strong physical controls. Thus the Budget is a device which the State can and does use freely to point the economy in the desired direction. The United States no less than Britain makes full use of these controls and government regulation "has been applied generally to a wide range of industrial and commercial life."  

The New Deal of Roosevelt which sprang from the Depression made liberal use of the techniques of spending on public works and deficit financing to stimulate investment in

10 Ibid., p. 165.

the private sector; this method has its theoretical foundation in Keynes' "General Theory of Employment" published in 1935.\textsuperscript{12}

In addition the modern government has a whole host of legal, fiscal, budgetary, and supervisory tools to guide the direction of industrial development, and one might consider the massive government spending on 'defense' as being justified mainly from an economic viewpoint.

At the local level controls are applied to industry mainly with the intention of preserving the amenity of residential, recreational or other areas, and to secure pleasant living conditions. The technique of zoning is used for this purpose. Zoning was first introduced in New York in 1917 and since then it has been widely used throughout the North American continent. Previous to the development of the zoning by-law, or ordinance, segregation of uses had been achieved in some instances by means of home-owners' associations and restrictive covenants; nowadays few communities of any consequence in North America are without a comprehensive zoning by-law.

Typically the comprehensive zoning by-law divides the community into five zones—residential, commercial, industrial, public or institutional, and open space. Within these zones

development is restricted to the designated use, though in some "cumulative" bylaws the so-called "higher" uses are allowed in areas designated for other uses. Residential is considered the "highest" use, followed by public, commercial, and industrial, in that order. This relegation of industry to the bottom of the pile, sometimes judicially recognized,\(^{13}\) has caused grave misgivings on the part of many writers concerned with the problem of industry's place in the community.

Generally speaking, the average U. S. or Canadian community displays a schizophrenic attitude in its treatment of industry. On the one hand it designates for industrial use the poorest, roughest, most ill-drained sites within its boundaries; and if some other use should by chance covet even these, it makes them readily available for non-industrial development. On the other hand it desperately seeks to attract industry into its inventory with a view to strengthening its tax base, frequently offering such inducements as tax exemptions and reduced rents.\(^{14}\) The net result of all


\(^{14}\) Ibid., p. 51.
this is often the flight of industry away from the community into unorganized territory beyond the municipal boundaries, where the loss of the convenience of centrality is balanced by the absence of restrictive controls.

There is some evidence that the attitude of many communities is changing towards industry, though perhaps not quickly enough. There is more need for understanding of the fact that "the community which is efficient to work in will also be pleasant to live in". In the old days industry was indeed guilty of many transgressions against amenity and health, but all this is rapidly changing. Break-throughs in technology have resulted in a vast new range of industries which are in no sense obnoxious, or incompatible with other uses, and the older, nuisance-creating industries have grown less undesirable through the use of electric power and the development of modern transportation and communications facilities. In addition, workers are no longer satisfied with the old working conditions. Modern factory buildings can now be designed to present a visually attractive appearance and can be a positive aesthetic asset to a community. All this points to the need for a re-assessment on the part of local authorities of the value of industry to the community

15 Ibid., p. 52.
and for a new system under which industry, conforming to performance standards, may occupy sites more in keeping with its needs within, or at least closer to, the residential areas and the urban core.

It may be valuable to draw a parallel between the control of industry (in the wider sense) by the State, and the control of industry (in the narrower sense) at the local level. In both cases industry is necessary for economic survival and in both cases control is considered necessary for the common good. At both levels there exists a variety of tools at the disposal of the authorities and success in achieving the desired form and pattern of industrial activity depends on the judicious use of these tools.

There is one other tool which has been used at both the local and national level (the latter in Britain and elsewhere) to influence the location of industry in the community. This tool is the planned industrial district. At the national level, this technique was used by the British Government to "bring work to the workers" in the depressed areas of Britain, beginning in the early 1930's. At the local level, it was used, again in Britain, to provide employment and to create efficient and livable communities in the "Garden Cities" of Welwyn and Letchworth, in the "New Towns" of Britain, and in other communities who saw in it a useful tool to improve their urban environment and their economic
base as well.

The success of the planned industrial district program at the national level in Britain suggests that it might be investigated with profit by any country which harbours regional differences in its rate of unemployment and standard of living. Its success at the local level makes it worthy of study by any local or municipal body that is interested in creating a more healthful, more efficient, and more economically viable community for its inhabitants.

5. The Planned Industrial District

Because a great deal of confusion exists about the nature of planned industrial districts, it is necessary to examine and evaluate a few definitions before moving on to a description of the nature and function of a planned industrial district. Much of the confusion can be ascribed to the fact that planned industrial districts have been known by different names at different times and in different places. For instance, planned industrial districts in Britain are known as "industrial estates" or, alternatively, "trading estates". In the United States, the early industrial districts were simply called "industrial districts"; the words "planned" or "organized" were added to distinguish them from unplanned industrial areas. Finally, as great differences in the type of environment and services offered began to emerge, the more
luxurious type of district became known as an "industrial park". Though there are obviously wide differences among planned industrial districts in the degree of planning, development standards, and administrative control they display, nobody has been able to pinpoint exactly what distinguishes an "industrial park" from an "industrial district". Developers are prone for prestige purposes to label their developments with the term "industrial park", but "in many instances the term is nothing more than a semantic gimmick used to gain community acceptance on the one hand and to promote a piece of real estate on the other". For this reason no attempt is made here to distinguish between "industrial parks" and "industrial districts". It is considered however, that a tract of unimproved land which has been zoned and set aside for industry can under no circumstances be regarded as a planned industrial district. Only sites which have a minimum number of services installed or guaranteed and which can offer a minimum amount of protection to the prospective industrial occupant can possibly lay claim to the title of planned industrial district.

Theodore K. Pasma defines an organized or planned industrial district as follows:

An "organized" or "planned" industrial district is a tract of land which is subdivided and developed according to a comprehensive plan for the use of a community of industries, with streets, rail lead tracks, and utilities installed before sites are sold to prospective occupants.

The comprehensive plan must provide for adequate control of the area and buildings through restrictions and zoning with a view to protecting the investments of both developers of the districts and industries occupying the improved sites.\textsuperscript{17}

A similar but more detailed and descriptive definition was formulated by the Dartmouth College Conference on Industrial Parks, as follows:

An organized or planned industrial district is a tract of land which is subdivided and developed according to a comprehensive plan for the use of a community of industries. The plan includes detailed provision for streets, rail lead tracks and utilities, either installed before the sites are sold or otherwise assured to prospective occupants.

The comprehensive plan must ensure adequate control of the area and buildings through zoning, private restrictions incorporated as legal requirements in deeds of sale or leases, and the provision of continuing management, all with a view to protecting the investments of both developers of the district and industries occupying the improved sites. The management handles negotiations with local authorities on behalf of the tenants, and it may erect buildings prior to sale or lease for speculative purposes.\textsuperscript{18}


It can be seen from these definitions that a planned industrial district as examined in this paper must have certain minimum characteristics. It must be under unified management; it must be comprehensively planned or subdivided (this does not mean that it must be subdivided all at once, but that progressive subdivision should proceed according to pre-conceived planning principles); it should have adequate road, rail, and other transportation facilities; it should have basic services and utilities installed or available; and finally it should be developed only for industry, and the kind of industrial occupant admitted should be controlled.

A typical planned industrial district is between 50 and 500 acres in extent and is operated by a private real estate developer who acquires, plans, and improves the tract, usually with the cooperation of the municipality within which it is situated. Sites in the tract may be either bought or leased and plant facilities may be either leased, built by the developer to specifications, or self-built by the tenant under the developer's architectural control.

The tract is located close to a major highway and often has rail and water transportation available, or both. Sometimes an airport is close by. The district is laid out with well graded and curbed streets, and water, sewers and power are installed or readily available.
There is a great deal of landscaping and the buildings are set well back from the streets and are in architectural harmony with each other. Advertising signs are controlled, offstreet parking and loading is the rule, and unscreened outdoor storage is forbidden. The tenants are divided between manufacturing and non-manufacturing (i.e. wholesaling and distribution) enterprises and the type of industry is restricted by covenant or controlled by performance standards. Site coverage is low in order to provide space for future expansion. Other services such as banks, restaurants, and recreation facilities may be available. The whole is designed for maximum attractiveness to the industrial developer and maximum integration with the total community. By April 1962 there was an estimated total of 1,500 planned industrial districts in Canada and the United States. The causes of the increasing popularity of planned industrial districts have been partially listed by Robert E. Boley.¹⁹ They may be summarized as follows:

1. An increased demand for industrial land.
2. Blight, traffic congestion, and lack of space in the Central City.
3. Lack of suitable zoned industrial land in the Central City.

4. The switch-over to the horizontal production-line.

5. Improved industrial techniques making industry more acceptable from a nuisance viewpoint.

6. The increased use of the automobile for the journey to work.

7. The increasing use of truck transport.

8. The importance of a pleasant working environment.

9. The advertising potential of a handsome plant.

10. The attractiveness of a planned development to institutional investors.

11. The advantages to the tenant of a prepared site.

To these may be added the desire of industry itself to make itself attractive and therefore acceptable to the community (we are all familiar with the glossy brochure) and also the initiative of the private developer who knows a good thing when he sees it. It would appear therefore that the planned industrial district has passed its initial test and is here to stay. It remains for the planner to adapt it to his purposes and to include it among his array of working tools for the benefit both of the industrial developer and the community as a whole.

6. The Approach To The Problem

The foregoing gives a general picture of the development of industry, the need for controls and the measures
devised, and finally the use of the planned industrial district as a tool for influencing the location and development of industry. The bulk of this paper is devoted to an examination of the feasibility of using the planned industrial district in Canada, and specifically at the local community level in Canada to promote efficient community development.

In tackling the problem of planning for industry in Canada some assumptions must be made. It is assumed that government at the federal, provincial and local level in Canada have certain policies with regard to industry. Some of these policies relate to the location of industry but most do not.

It is assumed that the location of industry is mainly the result of the interplay of the various factors affecting costs and profits in a free market economy. These are the factors that have caused the present distribution of industry and it is assumed that they will continue to operate in the future.

It is assumed that the location pattern of industry already established can be modified only to a limited extent. This pattern, however, is constantly changing in the face of new resource discoveries and population growth, so that the opportunities of planning for industry and modifying its pattern of growth are also increasing. It is assumed that because of the problems created by haphazard industrial growth,
as previously described, it is desirable to modify industrial growth in accordance with rational development goals and the demands of public opinion.

The approach taken in this paper is to examine the problem of industrial location at the local level in Canada, referring to regional and national patterns and policies only where these have a bearing on the local situation. It was decided to approach the problem from the viewpoint of the local community because it is at this level that the problems created by haphazard industrial development are most severe and it is at this level also that the absence of industry as it affects the tax base is most keenly felt.

A more enlightened attitude on the part of local communities than has prevailed in the past is assumed. Local authorities are becoming more aware of the importance of industry to the community, especially in suburban municipalities on the outskirts of the large metropolitan areas, where the preponderance of residential development coupled with a high proportion of families with children has put a strain on municipal finances by reason of the demand for schools and services; a strain which can only be eased by broadening the tax base to include commercial and industrial development. Some municipalities are meeting the challenge by means of comprehensive community planning which includes the setting aside of pre-determined sites for industrial development which
will be progressively serviced and developed as required. An example of this response is the suburban municipality of Scarborough, east of Toronto, Ontario, which has allocated suitably zoned and buffered land for industrial development in its official community plan. These industrial areas are suitably located with regard to road and rail transportation and are subdivided and serviced in accordance with the demands of the industries locating in them. They are not true planned industrial districts since sites are generally owned by the industries themselves and the compatibility of industrial development with other land uses is maintained through the municipality's industrial zoning by-law. However the approach does show what can be accomplished by positive planning for industrial development at the local level.

At the present time about 80% of the manufacturing industry of Canada is concentrated in the Great Lakes area, that is, in Southern Ontario and the St. Lawrence Lowland. However, manufacturing is expanding all across the country and several well-defined nodes exist in the Maritimes, the Prairie Provinces, and the Pacific Coast region. The growth of the petro-chemical industry in Alberta and Saskatchewan in

the wake of the discovery of oil in these Provinces is especially noteworthy. As the domestic market increases in size and affluence this growth of manufacturing activity is likely to continue, and will probably cluster around the established nodes. It is in the towns and cities in these nodal regions that the demand for industrial land will be at its highest, and in areas with limited resources of suitable land for industry, such as Southern Ontario and the Lower Mainland of British Columbia, acute problems are likely to arise.

Another noteworthy trend in Canadian industrial growth is the recent practice of American firms, of establishing branch plants north of the international border in order to have duty free access to the Canadian market, to be closer to raw materials, and to enjoy Canada's relatively favourable position with regard to trade with the Commonwealth nations. Canadian municipalities can put themselves in a relatively more advantageous position to "capture" these industries by providing within their boundaries the kind of services that industry has come to expect from local communities in the United States.

Two arguments therefore are put forward to suggest that Canadian communities should adopt a policy of establishing planned industrial districts within their boundaries. Firstly it is argued that by providing such a service to industry they will put themselves in a more favourable position
to attract industry as compared with communities who have not adopted this policy. All other things being equal, industry will choose to locate in a community which has shown concern for the needs of industry by promoting the establishment of a planned industrial district. Secondly it will be argued that a better life will be created for the people living in these communities because (a) the new industries will add to the tax base and lighten the burden on the ordinary taxpayer; (b) more jobs will be available, thus reducing unemployment and raising the standard of living; and (c) the community will be more healthful and pleasant to live in when industry is concentrated in well-planned, well-situated industrial districts and the type of industry locating in them is controlled by restrictive covenant so that noxious industries will be excluded. The more objectionable industries do have to locate somewhere, of course, but even these can be made less undesirable by planning their location and requiring them to utilize every method of reducing nuisance that science has devised. This can be enforced by enacting a bylaw setting up performance standards for industry. It is a fact that many industries refuse to adopt measures designed to reduce such nuisances as air pollution because of the initial cost involved; but it has been shown in many instances that the substances trapped and recovered by such means, mainly chemical compounds, often repay the cost of the equipment and
add another product to the industrial process.

The hypothesis of this paper therefore is "that Canadian communities should promote the use of planned industrial districts as a tool to achieve efficient community development". To support this argument the origin and concept of the planned industrial district are reviewed, the growth of Canadian manufacturing industry and the use of the planned industrial district in Canada are examined, and finally a proposal is made for the effective use of the planned industrial district in Canadian communities. The paper is confined to the impact of the planned industrial district at the local level, and the industry referred to is mainly light manufacturing and warehousing.

Current literature on the planned industrial district is reviewed in the following pages before the origin and concept of the planned industrial district is dealt with.

7. **Review Of The Literature On Planned Industrial Districts**

The origin and growth of the planned industrial district in Britain has not been heavily documented, but during the past decade some fairly intensive surveys have been made of the existing districts in the United States and a body of critical literature has begun to take shape. While a few books have been written on the subject of planned industrial districts, a great deal of the more recent literature is
to be found in journals and periodicals devoted to planning and associated fields.

The British version of the planned industrial district, the industrial or trading estate, has received only incidental treatment in books, articles and pamphlets dealing with industrial location and development. Political and Economic Planning, a voluntary association, dealt with the subject at some length, indicating the range of services provided by trading estates and their advantages to the industrialist. 21 M. D. Methven, at the Town and Country Planning Summer School at Bristol University in 1945, gave an evaluation of the role of trading estates in planning, based on his experience as an administrator of the Team Valley Trading Estate, situated close to Newcastle-on-Tyne, in Britain. 22 The story of British industrial estates after World War II is to be found mainly in the reports of the New Towns Corporations and in British planning and architectural journals.


The significant literature on planned industrial districts in the North American context includes T. K. Pasma's booklet on "Organized Industrial Districts" produced for the U. S. Department of Commerce in 1954. It is intended for the use of local communities contemplating the establishment of planned industrial districts, which are characterized in the sub-title as "tools for community development". The booklet assumes that the decision to establish a planned industrial district has been taken and goes on to discuss many problems connected with new industrial districts: planning, organizing, financing, controlling and marketing. It gives details on twelve existing successful districts and lists many organized districts in the country. It is useful in pointing out the complexity of planning an industrial district and the many aspects that have to be attended to if the district is to be a success.

This work of Pasma's was preceded by a Technical Bulletin of the Urban Land Institute in which a comprehensive survey was made of the planning and development of industrial districts, with details of 17 existing districts.

Several Technical Bulletins of the Urban Land Institute dealing with planned industrial districts followed, culminating in Robert E. Boley's evaluation of the data collected from 272 districts throughout the United States and Canada. This study, published in 1961, places particular emphasis on district sponsorship and its relation to district location, size and occupancy characteristics. The study also compares and contrasts site sizes, building sizes, site coverage ratios, employment per establishment, and employee densities of manufacturing vs. non-manufacturing occupants of industrial districts. The study is not a treatise on how to plan an industrial district or even an evaluation of the merits of industrial districts. Rather it demonstrates in graphic and statistical form the role that the planned industrial district is beginning to take in the free market economy of the United States. One of Boley's major findings is that the planned industrial district can and does change to meet changing conditions and circumstances.

Paul Douglass of the Center for Practical Politics, Winter Park, Florida, has written a 102-page treatise oriented toward the successful development and selling of an

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industrial district. Directed toward the commercial developer, it underlines the fact that the development of an industrial district cannot be undertaken in a half-hearted fashion, but a detailed development program and a full scale promotional campaign must be carried out if it is to prove a success. This points up the danger for any local community attempting to set up an industrial district without first: (a) determining the feasibility of the project by means of a survey of industrial land needs in the area; and (b) establishing the most suitable site for an industrial district by an analysis of the factors governing the location of the industry it hopes to attract.

An interesting and unexpected chapter in Mr. Douglass' work deals with the industrial park in its regional setting. Penalties for what Douglass terms "thoughtless growth" would not seem to be the kind of thing to interest the commercial developer, but if one takes the long view (and some institutional developers of industrial districts do take the long view) this is the kind of thinking that will pay dividends in the future. The forecasting of regional growth is a hazardous business but some of the uncertainty can be eliminated through careful planning of the major region-building components, i.e. transportation corridors and settlement nucleations. Regional Science, through the use of input-output analysis, linear programming and gravity models, may
soon make entirely feasible an accurate estimate of the impact of a proposed industrial district on a region.\textsuperscript{25}

William Bredo has examined the planned industrial district from another point of view—-as a tool for industrialization in underdeveloped countries. He traces the historic growth of the planned industrial district and has some good accounts of the better-known and successful examples in Britain and the United States. He also deals with the use of the planned industrial district in Puerto Rico as an important tool in the national industrial development program of that country. All too often in attempts to aid the economic development of the emerging nations the physical base of industrialization is overlooked. Bredo's book attempts to show how the planned industrial district can be used to rationalize spatially the industrial development policies of the new nations.\textsuperscript{26}

Many recent articles and reports have appeared in various journals devoted to planning and related fields: these will be referred to as the need arises. Research into

\textsuperscript{25} Paul Douglass, \textit{The ABC of Industrial Park Development} (Winter Park, Florida: Center for Practical Politics, 1961), 102 pp.

the phenomenal increase in planned industrial districts is only in the initial stages and the causes as listed by Boley are little more than intelligent guesses. However, the evidence of their success in certain circumstances and locations is plentiful; the object of this paper is to show that they will be equally successful if they are adopted as a tool for industrial location and development by Canadian communities and, in addition, will make those communities more healthful, more attractive, more economically viable, and better places in which to live.

SUMMARY

Modern industry was born in the Industrial Revolution of the 18th and early 19th centuries. In those "bad old days" industry was responsible for many offenses against human dignity and many fell victim to its cruel and unbridled demands. When the common man became enfranchised and public opinion became a force to be reckoned with, the State sought by many subtle (and some not so subtle) means to reduce the excesses of a laissez faire industrial economy. So successful has it been in curbing industry and in forcing it to

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direct some of its energies towards reducing its own noxious and injurious aspects that a modern nation can aspire to become an industrial society without having to pass through the awesome growing-pains which were a feature of the old Industrial Revolution.

One tool which has been used in Britain to influence the location of industry is the planned industrial district, or industrial estate. A planned industrial district is essentially a tract of land which is subdivided and developed according to a comprehensive plan for the use of a community of industries, with streets, rail lead tracks, and utilities installed before sites are sold or leased to prospective occupants. Usually it is under unified management and the type of tenant admissible is restricted by covenant.

To industry the planned industrial district offers the advantage of optimum transportation facilities, installed services, custom designed buildings, pleasant surroundings, financial assistance when necessary, off street parking and freedom from the encroachment of other land uses.

To the community the planned industrial district offers a desirable type of industry concentrated in a desirable location, a minimum of interference with traffic, economical utilization of services, elimination of the worst industrial nuisances, pleasant design of factory buildings and a better working environment for employees.
The device of the planned industrial district has been widely used throughout the world as a tool for community development. It is proposed to show that the device, if adopted as a development policy by local communities in Canada, can create a better living and working environment for the inhabitants and can strengthen the industrial base of the community. In order to do this the historical origin and concept of the planned industrial district are traced, the experience of other countries as detailed in the current literature is reviewed, the Canadian economic, social and political climate are evaluated and the elements of a policy are formulated for the planning and organization of planned industrial districts at the local community level in Canada.
CHAPTER II

THE ORIGIN AND CONCEPT OF THE
PLANNED INDUSTRIAL DISTRICT

1. Background of Planned Industrial District Development

The first planned industrial district to be established anywhere in the world was The Trafford Park Estates Limited, sometimes called the "Mother of Industrial Estates", which was founded at Manchester, England, in 1896. Shortly afterwards, in 1899, the Clearing Industrial District in Chicago, U.S.A., went into operation. These two pioneer industrial districts were privately owned and were operated for a profit motive, but the subsequent development of planned industrial districts in Britain came increasingly under the public influence, whereas the development of planned industrial districts in the United States has remained largely in private hands. Because of their limited supply of land, the British Government has had to take an active role in supervising the allocation of all forms of land use, including industrial land use. In guiding industrial location it has made increasing use of the technique of the planned industrial district, with the result that most planned industrial districts in Britain are now owned and operated by the Crown. In America, by contrast, because of the seeming abundance of land and the dominant laissez faire economic philosophy which has long
stressed the importance of private enterprise and private capital investment, decision-making with regard to the location of industry, with the exception of such government-controlled developments as defense establishments and harbour projects, has remained largely in the hands of private entrepreneurs with whom the profit motive is supreme. In the light of this fact, the increasing number of planned industrial districts in the United States is a striking testimony to their economic efficiency. The United States Government, however, has never taken an active role in promoting planned industrial districts, except in so far as it has pointed out their advantages to industrialists; consequently most existing planned industrial districts in the United States have been developed by private entrepreneurs on a strictly commercial basis. Because industry in the United States is under no pressure to locate in any particular area, the standards of planned industrial districts in the United States are often extremely high.

Because of differences in the manner in which they have developed, the history of planned industrial districts in Britain and the United States will be examined separately. In the United States the terms "industrial district" and "industrial park" are used, the latter presumably being a
more sophisticated version of the former. In Britain the most common term for a planned industrial district is "industrial estate", with "trading estate" a frequent alternative. However the basic concept which goes under these different labels is essentially the same.

2. Planned Industrial Districts in Great Britain

   a) Trafford Park and Slough Industrial Estates.

The Trafford Park Estates Limited was organized at Manchester in 1896 by a private company which had raised the necessary capital through the issue of shares. The estate is located on a 1200 acre site and the initial cost of development was heavy. The site had valuable locational advantages, being situated adjacent to the Manchester Docks and the Bridgewater Canal which, together with 35 miles of private rail linked with the main line railways, provided it with excellent transportation facilities. The fact that it was at the hub of an important and heavily-populated industrial area drew to it a wide range of light industries together with many heavy industries which could utilize its excellent facilities.

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The estate was not comprehensively planned from the beginning but rather developed piecemeal as new industries were introduced or older ones expanded; thus the layout leaves much to be desired. The Company provided all services such as sewers, water and power and obtained favourable transport charges for its tenants. The result has been a highly diverse and successful concentration of industries on the estate.

The Company also used a number of methods for making sites available to its tenants. Firms who wish to acquire sites may either purchase the land outright or lease it at an annual rent. Firms not wishing to invest in land or buildings may lease premises on the estate. Some of these premises act as "nurseries" for young businesses which often purchase or lease other sites on the estate as they expand.3

Often mentioned in conjunction with Trafford Park is Slough Estates Limited, located at Slough, Bucks., about 25 miles from London. This estate was an Army Motor Repair Depot in World War I; after the war it was acquired by a private company who leased the existing buildings to industrial tenants. As these industries prospered the demand for new sites grew and in 1927 the Company began to plan ahead and

built factories in advance of demand; by 1958 the estate boasted 230 industrial tenants operating 500 factories employing 25,000 people.\(^4\)

The Slough Estate is a typical privately owned industrial district operated for profit derived from the rental of factory sites and/or buildings, and from charges on the services it provides. These would be provided by the city in any ordinary industrial area. Capital is raised through the issue of shares, which are traded on the Stock Exchange, and management is by a Board of Directors which includes a managing director and general manager. The original Company now operates industrial districts at Birmingham and Greenford, England, and also in Melbourne, Australia and at Ajax in Ontario.

The Slough estate is unusual in that it has provided housing for workers on the estate partly on the site itself, partly in the town of Slough. North American industrial districts never attempt to provide this service but rather endeavour to locate at points of maximum accessibility to automobile transportation such as adjacent to freeway intersections, thus shortening the time consumed in the journey

to work. As the development of freeways, or motorways, as they are called, has only just begun in Britain it is conceivable that a similar trend will develop there in the future.

In addition to the virtually essential services such as sewers, water, power, and roads, the Slough Estate also provides other services which, though not essential, are becoming increasingly common as features of the more sophisticated industrial districts in both Europe and North America. These include a community center, recreation facilities, a health center, a trade school and a technical assistance service to help solve special problems of the industrial tenants.

All the buildings on the estate are leased to their tenants; new buildings are leased at a rental based on the amortized building costs plus a fixed percentage of the operating costs and a margin of profit. Older buildings are leased at a rent based on the appraised value of the buildings. Of course the rents vary with size, location, and special characteristics of the site, but they compare favourably with similar factory space obtainable off the estate.  

Rational planning for industry was also a feature of the Garden City movement in Britain. This movement was

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5 Bredo, *op. cit.*, pp. 182-184.
sparked by Ebenezer Howard's book "A Peaceful Path to Real Reform", published in 1898 and revised and reissued in 1902 under the title: Garden Cities of Tomorrow. From the movement sprang the building of two Garden Cities - Letchworth and Welwyn Garden City - in which the planning principles enunciated in Howard's book were put into practice. These included the planning of industrial estates which were separated from the houses, but at a distance which would not entail a long journey to work. The industrial estates at Letchworth and Welwyn developed rather slowly but the principles on which they were based proved sound so that today they are an integral and important part of the total community.

b) **Public industrial estates in Britain.** After World War I, Britain experienced a prolonged period of industrial expansion which made the impact of the Depression of the 'Thirties all the more severe. The areas where the heavy resource-oriented industries were located were the hardest hit. Measures were taken by the British

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government to assist the recovery of industry but the hard-core "depressed" areas failed to respond as satisfactorily as the rest of the country. Consequently further study of the problem was undertaken and the result was the enactment of the Special Areas (Development and Improvement) Act of 1934. Under this Act, Commissioners were appointed and a Special Areas Fund was set up to initiate, organize and promote measures designed to facilitate economic development and social improvement. Most of these measures were of the "government grant" variety and had been used successfully in stimulating the economies of other regions; two measures, however, were included which had not been tried before. The first of these was the establishment of trading estates in the special areas; the second was the advocacy and promotion of legislation to provide financial assistance to small industries.  

The reasoning behind the policy of promoting trading estates was that the economy of the depressed areas had to be diversified in order to minimize the effect of economic slumps. Since no industry could be induced to move into the depressed areas because of lack of adequate sites, high taxes and unpleasant environment, to name a few of the disadvantages, it was decided that the only way to attract industry and

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reduce unemployment in these areas was to plan the development of the area as a whole and to provide adequate and economic facilities for industry at public expense. This was to be accomplished by means of trading estates modeled on the older private industrial estates in the south of England.

The method adopted for promoting these estates was as follows. Groups of prominent citizens in the depressed areas were encouraged to form non-profit companies which would select, purchase, develop and lease sites, buildings and facilities for industrial development. As soon as these groups had a working plan they could apply to the Commissioner for Special Areas for the necessary capital to carry out the scheme. This was made available at favourable interest rates and the trading estates were set up under appointed directorates. Within a year three companies had been established under this scheme: the North-Eastern Trading Estates Limited, the South Wales Estate Company and the Scottish Industrial Estates Limited.  

North Eastern Trading Estates Limited was the first group to take advantage of the government's policy of promoting planned industrial districts. Their first and best-known venture was at Team Valley, near Gateshead, three miles

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9 Ibid., p. 5.
south of Newcastle-on-Tyne. The estate is served by the main London railway line and is adjacent to the Great North Road. The site is about 700 acres and the planning has been handled with imagination. It has a fine central avenue with dual carriage-way, flanked by service roads and oriented on a church steeple on a hill close by. Architectural control is maintained throughout and open space and landscaping are important features of the plan. The River Team flows through the Estate and at one point is bridged by a "rose carpet" on a metal grille. 10

North Eastern Trading Estates Limited, is a registered company limited by guarantee but having no share capital. It is a non-profit corporation with an unpaid board of directors; members of the Company are appointed by the Board of Trade. Since 1936 the Company has greatly expanded its activities and by 1958 it was administering 14 estates, 8 group sites (small estates), and 15 individual sites; about 2,388 acres had been acquired for development purposes, with 310 tenants already occupying 12.3 million square feet of factory space and giving employment to 54,000 people. 11


11 Bredo, op. cit., p. 185.
Other publicly financed trading estates were the Scottish Industrial Estates, Limited, which developed the Hillington Industrial Estate in Glasgow, and the South Wales and Monmouthshire Trading Estates, Limited, which developed the well known Treforest Estate close to Cardiff in South Wales. These and other estates had a marked effect in bolstering the economy of the depressed areas.

In 1947 the responsibility for supervising the location of industry passed to the Board of Trade under the Town and Country Planning Act. The emphasis was slowly shifting from concern with the depressed areas to concern with planning and development at the regional and national level. However, policy still dictated that industry should move into the depressed areas, but compulsion through the withholding of industrial development certificates began to give way to inducement in the form of the construction of factory buildings, advantageous sites and improved services. By 1954 the momentum of the drive to stimulate the development areas had slowed down but the work had been largely completed and development within these areas was almost at a par with the national average in wages per capita and percent unemployed. By 1954 they contained about one-fifth of the total manufacturing employment and accounted for one-third of post-war factory completions. The trading estates by this time
amounted to 40 million square feet of factory space (35 million built after the war) and employed some 182,000 people.\textsuperscript{12}

The changing situation is reflected in the new Distribution of Industry Act (Industrial Finance) of July, 1958 which permits grants or loans to be made outside the Development Areas proper, and applicable to non-industrial and commercial ventures. Thus new industrial estates may be built outside the Development Areas as circumstances demand.

The number of government-sponsored trading estate companies has now grown to five, each of which administers estates in its own defined region. The government acquires the land and leases it without rent to the company. The estates are financed by the Board of Trade to which any surplus of revenue over expenditure is returned. Otherwise the companies are free to run the estates as they see fit.\textsuperscript{13}

c) Industry in the New Towns. The alarming growth of the great conurbations in Britain in the early part of this century led the Government to set up a number of Commissions between 1935 and 1945 to study certain aspects of the problem. Perhaps the most

\textsuperscript{12} Peter Self, \textit{Cities in Flood} (London: Faber and Faber Ltd., 1957), p. 129.

\textsuperscript{13} Bredo, \textit{op. cit.}, p. 19.
influential of these was the Royal Commission on the Distribution of the Industrial Population (Barlow Commission), whose report in 1940 emphasized the economic as well as the social drawbacks of continued growth of the larger centers. Decentralization was thought to be the answer to this problem and in 1946 the New Towns Act was passed. This Act provided for the building of a number of almost entirely new and self-sufficient communities, which would accommodate the overspill from London and the other conurbations. As a result fifteen New Towns were soon on the drawing-board, eight of them in the vicinity of London and seven others in various parts of England, Scotland and Wales.

In order to provide work for the people who have come to live in them the New Towns have had to attract a great deal of industrial development and for this purpose they have laid out industrial estates, provided all the necessary facilities, built standard factories to order and offered a house for immediate occupation to every employee of incoming firms. Their efforts have met with considerable success and from a slow beginning industry in the New Towns is coming close to fulfilling the wishes of their designers. In

\[14\] Self, op. cit., p. 87.
addition to standard and intermediate factories they provide nursery factories for fledgling businesses and service industry bays for such services as shoe repairing, job printing, and radio and T.V. repairing.15

Industrial estates in the New Towns are typically on the outskirts of the built-up area, and adjacent to road and rail transport. There are generally two or three main sites, thus minimizing traffic congestion at rush hours. Detailed design of factory premises and site layout is carried out by the New Town Corporation's Architects Department working in conjunction with the tenant and the Commercial Estates Division. The Corporation retains ownership of all industrial and commercial sites which are let on long term leases.16

The Board of Trade's policy of directing industry to the New Towns has probably helped their industrial development program to some extent, but that is not the whole story. The New Towns cannot offer any incentives to industry in the form of grants, as the development areas can, so they have to rely mainly on locational advantages. Industry has found the sites and environment provided in the New Towns generally satisfactory. There is less absenteeism among the workers


16 Ibid., p. 194.
since they enjoy better health. They are willing to work overtime because surroundings are more pleasant and the journey to work short. Most industries have noted an increase in productivity, a fact that has led to an extension of their premises with their increased prosperity in some cases.\textsuperscript{17}

Since about 1954 the industrial location policy of the Board of Trade has been slowly changing. The development areas are in a comparatively healthy state and since 1958 government grants have been available for industrial and other development outside the scheduled development areas. It has been recognized that the pull exercised by the south-east of England is not entirely due to the existence of the London conurbation but that the area has climatic and other enticements to attract the great number of industries that have no longer to be located near the coal mines and other resource deposits since the advent of cheap electric power and fast transportation.

As a result of these factors we may expect that in the next few years trading estates will be established in increasing numbers outside the development areas. The recognition that modern 'clean' industries do not have to be segregated from residential areas may lead to the location of trading

\textsuperscript{17} Self, \textit{op. cit.}, p. 91.
estates outside of redevelopment areas. Finally the government's policy of expanding existing towns will lead to the establishment of many new planned industrial estates under the aegis of the New Towns Corporations.

3. Planned Industrial Districts in the United States

   a) Pioneer industrial districts in the United States. The railroads played an important part in the development of planned industrial districts in the United States. Their primary motive for developing these districts was to generate freight for their respective lines and it was part of their policy to allow in their industrial districts only those firms which would generate a considerable volume of freight. This interest of the railroads in planned industrial districts has persisted up to the present time though it is less strongly marked than formerly. A survey by the Area Development Division of the U. S. Department of Commerce in 1952 showed that 47 of the 122 industrial districts in the survey were controlled by railways.¹⁸

   The tendency to organize on a planned basis appeared early in the United States. The New York Dock Company, though

not a planned industrial district in the modern sense of the term was organized on a planned basis in 1830. The first genuine planned industrial district was the Clearing Industrial District, which was organized in Chicago in 1899. This was followed by the North Kansas City Industrial District in 1900 and the Central Manufacturing District in Chicago in 1905.19

The Central Manufacturing District and the Clearing Industrial District in Chicago developed along closely similar lines and probably learned a great deal from each other as they developed. A full and interesting account of their development has been given by Robert L. Wrigley, Jr.20 Since they are typical of the older type of industrial district and since they utilized similar development techniques it seems natural to combine the histories of their development.

The Central Manufacturing District was organized in 1890 by the Chicago Junction Railways and the Union Stockyard Company, but development did not begin until 1905. The district, composed of six sites totalling 851 acres, was


developed for the express purpose of generating additional freight for the railroad. Previously the land on which the sites are located had been by-passed because of excessively rough topography, a fact which made it easier for the Company to assemble them. All six sites are located within Chicago proper, five of them within 6 miles of the Central Business District.

The Clearing Industrial District was organized in the 1890's but development did not gain momentum until about 1912, when completion of the Chicago Belt Line Railroad made the original district readily accessible by rail from all parts of the Chicago area. The Company now has seven industrial tracts scattered throughout the Chicago area, two of which are outside the city proper. The total amount of land controlled by the Company is about 4,000 acres. The Clearing District was also organized by railroad interests; after several changes in the initial years it finally became incorporated and operates under the usual management structure.

The Central Manufacturing District, by contrast, is organized legally as a common law trust. It has three trustees who control the organization and function as a board of directors, appointing a general manager and staff to handle day-to-day operations. This type of organization has certain advantages from a legal point of view, such as ease
of transferring control and development of properties to other parties, fewer taxes and less strict supervision.

Both companies spend a great deal of time and energy in promoting their districts, mainly through personal contacts, though many other methods of advertising are utilized. Small and medium-sized firms are preferred, as these make maximum use of the services offered by the Company. Since the attractions of the great Chicago market area and transportation complex are well known, their task is made much easier. They stress the value to an industry of "an attractive and conveniently laid out industrial neighbourhood, of financial assistance, of building design, of construction and maintenance services, of splendid transportation, and of other services and facilities."21

In developing their industrial tracts, the two Companies follow a similar policy. Streets are platted, public utilities installed and industrial buildings are designed, financed and erected. Depending on the size of the tract, the Company may retain ownership of the streets or dedicate them to the City. At first the tracts were not planned and developed as a whole but were subdivided only as necessary,

21 Ibid., p. 484.
with large tracts kept in reserve in case an industry with
greater land needs should wish to locate there. Small dis-
tricts are now fully serviced and subdivided but larger tracts
are commonly developed block by block. (All subdivision is
on the "grid" system). Gas mains and power lines are
installed by the utility companies but methods of distribution
of the services vary.

Methods of disposing of the land and buildings also
vary, depending on the needs and resources of the client.
Some of these methods are:

1. Land is sold outright and the purchaser improves
   it himself within a specified time limit governed by his
   expansion program. Applying a time limit reduces to a
   minimum the purchase of land for speculation. All
   improvements, of course, must conform with District
   standards.

2. Land with improvements in or about to be installed
   by the District is sold outright. In this manner the
   client can submit his requirements and then accept or
   reject the proposals of the District. Moreover, the
   District supervises all details of design, engineering
   and construction.

3. Land with improvements in or to be put in by the
   District is sold on a deferred-payment plan. In most
   cases between 20 and 30 per cent of the cost of land and
   buildings is paid in cash. The balance is amortized over
   a period of fifteen years or less with interest at 6 per
   cent. Insurance, taxes, and other costs are paid by the
   enterprise. In most instances the districts will finance
   a greater percentage of the cost of a standardized
   structure than a specialized unit designed for one kind
   of industry, because the latter building, if it reverts
to the District, cannot be converted to other uses easily.
4. Land and improvements built to order by the District may be leased on a long-term contract. The enterprise pays an annual charge of 6 per cent on the agreed valuation of the land and 9 per cent for cost of improvements. Of the 9 per cent charge, 3 per cent is the cost for use of improvements. Taxes, insurance and other costs are paid by the tenant during the life of the lease.

5. Space in buildings already erected can be leased for a short period at various terms.22

The Company maintains control of the design and aesthetic appearance of all buildings, whether erected by outside contractors, as in the case of the Central Manufacturing District, or by the Company's own construction team, as is the case with the Clearing Industrial District. Though some of the earlier sites have been built up at high densities, the tendency now is to provide more landscaping and to confine development to buildings of one or two stories, wherever possible.23

As might be expected, the railroads play an important part in the transportation facilities of the Districts, but motor carrier transport is growing in importance. This is enhanced by Chicago's situation at a nodal point along national trucking routes. Water transport is of negligible importance for the Districts. The place of truck transport

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22 Ibid., pp. 286-487.

23 Ibid., p. 488.
is reflected by the importance of warehousing in the Districts.

The growth of the Chicago districts has by no means been uniform. Slow at first, it hit a steady pace after the completion of the Belt Line Railroad in 1912. After 1919, the pace sharpened in step with the overall expansion of the economy but the depression years saw a sharp setback in development. Since 1939 growth has been steady. As old tracts become fully occupied the Districts acquire new ones further away from the central city and also they are now more willing to bide their time and wait for the prestige (and highly profitable) industrial occupant.\(^{24}\)

The Districts have also developed in the number of services they offer to their occupants. In addition to the basic services such as road, rail, sewers, water, power and gas, which are normally provided by the municipality or private utility companies, they now provide policing, fire protection, banking and clubroom facilities and some medical services. They also sponsor sporting events and social gatherings for the workers.\(^{25}\)

\(^{24}\) Ibid., p. 493.

\(^{25}\) Ibid., p. 491.
b) **Planned industrial districts in the U. S. after World War II.** Prior to 1940 only 33 planned industrial districts had been developed in the United States and these were mostly private enterprises along the lines of the Clearing Industrial District in Chicago. Up to this time the railroads were the prime sponsors of industrial districts and their motive was mainly the generation of profitable freight. After 1940 the number of planned industrial districts going into business began to increase rapidly, as Table 1, page 63, shows.

The causes of this sudden interest in planned industrial districts have been enumerated by many writers but it is difficult to arrange them in order of importance. The most important fact is probably the rapid industrial expansion which took place as a result of the war and the decentralization of industry which is the most outstanding feature of post-war industrial location. The fact that a significant percentage of this industry found its way into planned industrial districts has to be explained by: 1, the initiative of the developers and 2, the attractiveness of the industrial district to the industrialist.

A study was made by the U. S. Department of Commerce in 1954 of the principal sponsors or owners of industrial districts in the U. S. and the results are shown in Table II, page 64.
<table>
<thead>
<tr>
<th>Year Development Began</th>
<th>Number of Districts</th>
<th>Percent of Total Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1900</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>1900 - 1909</td>
<td>6</td>
<td>2.0</td>
</tr>
<tr>
<td>1910 - 1919</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>1920 - 1929</td>
<td>8</td>
<td>2.8</td>
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<tr>
<td>1930 - 1939</td>
<td>12</td>
<td>4.2</td>
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<tr>
<td>1940 - 1949</td>
<td>74</td>
<td>25.6</td>
</tr>
<tr>
<td>1950 - 1954</td>
<td>84</td>
<td>29.1</td>
</tr>
<tr>
<td>1955 - 1957</td>
<td>98</td>
<td>33.9</td>
</tr>
<tr>
<td><strong>289</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>


### Table II

**Principal Sponsors or Owners of Industrial Districts in the United States, 1954**

<table>
<thead>
<tr>
<th>Sponsor or Owner</th>
<th>Number of Districts</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Developers</td>
<td>124</td>
<td>41.1</td>
</tr>
<tr>
<td>Railroads</td>
<td>88</td>
<td>29.1</td>
</tr>
<tr>
<td>Community Organizations</td>
<td>52</td>
<td>17.2</td>
</tr>
<tr>
<td>Government Agencies</td>
<td>17</td>
<td>5.6</td>
</tr>
<tr>
<td>Community Organizations in Cooperation With Others</td>
<td>21</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>302</td>
<td>100.0</td>
</tr>
</tbody>
</table>


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Perhaps the most significant fact to emerge from this breakdown is that, though the private developer heads the list with 41 per cent, community organizations accounted for about 25 per cent of the sponsorship of all planned industrial districts in the U. S. It is quite possible that a good percentage of the privately owned districts were inspired by community action and encouragement to undertake development.28

There are, as Table II, page 64, shows, three main groups at work in promoting the growth of planned industrial districts in the U. S. A. The first group, the private developers, see in planned industrial districts an opportunity to secure a good return on their investment and the rapid growth in the number of districts would seem to indicate that their investment is profitable. The second group, the railway companies, are seeking to increase their freight business in addition to any return they may get from the sale or lease of industrial land. It is possible also that they are able to utilize hitherto vacant land holdings by developing them as planned industrial districts. The third group, under what may be called public sponsorship, may be broken down into three

sub-groups. First, there are private local community groups acting on their own initiative; second, there are government-sponsored groups, which include Local, Federal, State and Territorial Governments and port authorities; third, there are joint government-private local community groups.

A survey of planned industrial districts by the Urban Land Institute in 1961 examined the characteristics of planned industrial districts in the United States and Canada. Some of the highlights of the survey were as follows:

1. The planned industrial district, mainly a post-war phenomenon, is changing in step with the needs of modern industry.

2. Industrial districts are market-oriented and gravitate toward the big cities but locate in the suburbs because of unattractive conditions in the central city. Most are between 50 and 500 acres in area.

3. Accessibility is of paramount importance; nearly all are close to major highways and 90 per cent are served by rail.

4. Distribution facilities and light manufacturing requiring from 0.5 to 5 acres are the most frequent tenants. Firms requiring more than 25 acres seldom locate in a planned industrial district.
5. Site coverage and employee densities are low.\textsuperscript{29}

In addition to identifying these common characteristics the study also revealed that the districts varied in size, location and type of industrial tenant depending on the type of group which sponsored them, as follows:

1. Those sponsored by private profit-motivated interests tended to locate in the large urban areas, while community-sponsored districts are found mainly in smaller communities of less than 50,000 population.

2. Port authorities sponsor the largest districts and redevelopment authorities the smallest.

3. Community-sponsored industrial districts have a higher ratio of manufacturing to non-manufacturing tenant than private-sponsored districts.\textsuperscript{30}

c) The future of planned industrial districts in the United States. The rapidly increasing growth rate of planned industrial districts in the United States during the past 10 years would appear to indicate that the technique has become accepted as a tool for industrial location and development. Criticism has not been lacking, and this will be dealt with


\textsuperscript{30} \textit{Ibid.}, p. 6.
elsewhere, but by and large the success of the districts seems to show that at least to some industrial developers the planned industrial district offers attractions which outweigh any disadvantages it may have.

Perhaps the most significant finding of the Urban Land Institute's study was the fact that the planned industrial district was capable of changing in the face of changing external circumstances. Technological advances have reduced or eliminated the nuisance factor in many manufacturing processes to the extent that they can now coexist harmoniously in close proximity to residential and other types of urban development. The technique of the industrial district has made it possible to reduce the nuisance factor even further by grouping the manufacturing processes and buffering them vis-a-vis other land uses by means of landscaping and planting strips.

An interesting development of the planned industrial district concept is the industrial park, which is a sort of prestige industrial district with superior architectural and landscaping features and a high percentage of open space. This type of industrial district appeals strongly to firms engaged in research and to those manufacturing precision instruments and components demanding highly skilled workmanship. Since this type of firm is a growing feature of the space age, the prospects for industrial districts in this area seem very bright.
A recent and important trend in the use of planned industrial districts is their employment as a technique of urban redevelopment. Until recently in the U. S. the philosophy and indeed the legal requirements of urban renewal demanded that substandard housing which had been demolished must be replaced by new housing in situ. The validity of this method of operation has long been questioned and federal regulations now permit redevelopment areas to be redeveloped by private investment in uses other than residential. This change of policy has seen the use of the industrial park technique in redevelopment areas and the experiment has been quite successful. One major drawback has been that the prestige firms which occupy these developments do not employ many people from the surrounding residential area but rather have highly skilled personnel who tend to live in the suburban areas. With the growth of high-income residential development closer to the central city this objection may have less validity. There is a growing body of opinion in planning circles that a mixture of land uses is not necessarily a bad thing and that in fact the multiple use of land, especially near the city centre, is virtually an economic necessity. The planned industrial district may have an important role to play in making this mixture of uses practicable.
SUMMARY

Planned industrial districts developed simultaneously in Britain and the United States, but along different lines. In Britain the first industrial estates were private ventures sponsored by capitalized registered companies. These estates, notably at Trafford Park and Slough, operated for profit on the sale or lease of land and buildings and were very successful. Industrial estates were also part of the plans for the Garden Cities of Letchworth and Welwyn, where they proved a success.

After the economic slump of the 'Thirties, the British Government sponsored and financed planned industrial districts in order to bolster the economies of the depressed areas. Their program succeeded in bringing the living conditions in the depressed areas almost on a par with the national average.

After World War II the British Government decided to build new communities to accommodate the overspill from the great conurbations. The Government's previous successful experience with industrial estates led to their inclusion in the New Towns where they are helping toward the attainment of the ideal of the balanced community. This continued success may lead to the establishment of many more industrial estates throughout the country.

In the United States the early industrial districts were promoted by railroads with the object of providing more
freight; notable among these were the Clearing Industrial Estate and the Central Manufacturing District in Chicago. Planned industrial districts, though successful, were few in number until after World War II, when a sudden spurt in the number of districts being organized took place. This spurt coincided with the phenomenon of decentralization - the movement of man and industry out of the central cities into the suburbs and beyond.

Since 1940 the private entrepreneur has taken the lead in industrial district development in the U. S., but the railroads and government-and community-sponsored districts are also strongly represented. Transportation is a key factor in the location of industrial districts as is also the presence of a large market, such as a metropolitan area.

The planned industrial district has shown a marked ability to respond favourably to changes in circumstances and demand. The refined version, called the "industrial park", has developed in response to the needs of modern clean "prestige" industrial processes, and may be used extensively in the future in connection with urban renewal projects.
CHAPTER III

THE DEVELOPMENT OF INDUSTRY IN CANADA

1. Canadian Socio-economic Climate

It has often been stated that in many respects Canada stands half-way between Britain and the United States. This is especially true in the area of law and government, particularly in the matter of State control of the individual in various sectors of the national life. Britain and Canada have similar forms of government, i.e., an elected Parliament with virtually unlimited powers to control and direct the individual. Canada shares with the United States a desire for freedom and independence of the individual from government control. In resolving this dilemma Canada has to steer a middle course and her success in this exercise will determine the quality of her national life.

According to Corry "the really fundamental principle of the British Constitution is the supremacy of Parliament". Whatever is legislated by the British Parliament becomes the law of the land and the Courts have no power to pronounce on its validity. However, the British Parliament has always

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been circumspect in the exercise of its power and has delegated much of its discretionary authority to various Boards and Committees such as the Board of Trade.

The British public has long been accustomed to the interference of the State in the free choice of the individual. The British recognize the fact that their crowded island demands a measure of State control that would be excessive in a less densely populated nation. Thus Britain could regard with equanimity the nationalization of resource industries which took place after World War II, and the comprehensive land use planning and control over the location of industry which has existed in one form or another since the 1930's. In fact, public opinion strongly supports land use control in a country where open space is at a premium, and consequently is highly valued. The Board of Trade in fact has the power to control industrial location since it has the power to veto industrial location in areas where it considers that industrial development would not be in the public interest.

In the United States, by contrast, the form and powers of government are dictated by the principles enunciated in the American Constitution. The Constitution stresses the federal character of government arising from the preservation
of the integrity and substantial independence of the separate states.² The American system subscribes to a kind of limited government based on respect for human rights, and freedom from governmental tyranny is sought by "the separation of powers", i.e. the separation of the legislative, executive and judicial functions of the government.³ The legislative branch interprets the wishes of the people by making laws, the executive branch carries out the laws, and the judiciary interprets the laws by deciding what is required or forbidden in the execution of the laws. In a country dedicated to private enterprise and the freedom of individual choice it is easy to see that any measure requiring tight land use control would have a difficult time getting through Congress, not to mention the test of judicial scrutiny.

The Canadian system of government is more akin to the British than the American system, although the system of federated provinces is similar to that of the United States. The Dominion Parliament has not nearly the same powers as the British Parliament, and in certain spheres only the Provincial Legislatures can enact laws. When the legislative spheres of each have been clearly defined, they each enjoy

² Ibid., p. 21.
³ Ibid., pp. 22-23.
within their own spheres the kind of power wielded by the British Parliament. In Canada "the separation of powers is flouted to almost the same degree as in Britain", but all subscribe to the principle of the Rule of Law. The Dominion Parliament seldom enacts amendments which affect the provinces without consulting them and "informal amendment comes about either through custom or judicial decision". However, "the provinces (but not the Dominion) are empowered by the B.N.A. Act to add to or modify their constitutions, and they have often exercised the power". The power to regulate land use within its boundaries is given to the province under the B.N.A. Act; therefore any land use policies initiated at the federal level would have to be implemented at the provincial and local levels through agreement with the provincial parliament.

Turning from the government to the governed in Canada, one finds a nation of mixed national origin stretching for four thousand miles in a narrow band from the Atlantic to the Pacific. In this mixture the British and French strains are predominant, the latter mainly in Quebec. Regional differences exist but everywhere one phenomenon stands out—that of change. Canada, from the Atlantic to the Pacific,

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4 Ibid., p. 27.
5 Ibid.
6 Ibid., p. 13.
is rapidly changing from a rural to an urban nation. From 1949 to 1960, the number of farm operators dropped from 663,000 to about 440,000, a rate of 20,000 a year. The percentage of the total population on the farm declined from 19.8% in 1951 to 11.4% in 1961. This is a tremendous revolution in the national way of life and it is accompanied by the force which makes it possible—the drive to industrialize. Long a "hewer of wood and drawer of water" for other nations, Canada is just beginning to realize the potential of exploiting her own markets and of utilizing the skills of her own labour force.

Canada's new orientation is spurred on by foreign investment, principally United States investment. In 1900 the U. S. accounted for 14% of the $1.2 billion of foreign investment in Canada; in 1955 it claimed 77% of the 13.5 billion then invested. Residents of the U. S. owned or controlled 6.5 billion of the industrial investment in Canada in 1955, more than twice the amount thus owned or controlled in 1945. No other country in the world to-day with a similar degree of industrial development has so much of its industry controlled by foreign interests. This is the

7 Canadian Association for Adult Education, Big City (Pamphlet No. 3, March-April, 1963), p. 3.

dilemma facing Canadians—to reject this foreign investment which seems to be vital to rapid industrial development and enjoy their independence coupled with a lower standard of living, or to accept it and run the risk of becoming an economic satellite of the United States. Some of the disadvantages of foreign-owned capital investment in Canada have been enumerated by Walter Gordon, who headed the Royal Commission on Canada's Economic Prospects, set up in 1955. The Commission recommended some measures aimed at reducing the influence of foreign ownership on the Canadian economy. These included: (1) the employment of Canadian personnel and the purchase of Canadian supplies, materials and equipment by foreign-owned firms; (2) the publishing of financial statements by these firms; and (3) the inclusion of Canadian directors and the selling of stock to Canadian stockholders. With demand for this type of action has come the fear that under some conditions the Canadian reaction to extensive foreign ownership and control "might develop into demands for restrictive or discriminatory action of an extreme kind, the consequences of which would be unfortunate for all concerned". It is in this climate of opinion that


10 Ibid., p. 96.
Canadian industry faces the future.

2. Background of Canadian Industrial Development.

The history of Canadian industrial development is reflected in the exports for which she is known throughout the world—furs, wheat, ores, lumber, and paper pulp. Canadian industry has long been oriented to the extraction, primary processing and export of these primary products and it is only in recent times that a secondary manufacturing complex has begun to emerge. A review of the development of Canadian industry may indicate why a secondary manufacturing industry has evolved at this time.

The history of Canadian industry began in Southern Ontario and the St. Lawrence Lowland region and because of the happy combination of natural advantages with which it is blessed, this region now contains more than 80% of the nation's manufacturing. First came the fur industry, then the lumber industry, which continued until the 1860's as the main producer for export from the region. Gradually, as the forests were cleared, agriculture began to take an increasingly important place in the economy, and this created a demand for other manufactured goods such as farm implements. Agriculture also formed the base for other manufacturing industries such as tanneries and wool textile factories, which were followed by such manufacturing industries as
boots and shoes, apparel, distilleries and bakeries.\textsuperscript{11}

After 1870 agriculture in Quebec and Ontario began to specialize in dairy products, but forest products remained important and in the years after 1900 the pulpwood sector of the industry began to dominate. An embargo was placed on the export of pulpwood from Ontario in 1900 and Quebec in 1910 to protect the growing Canadian paper industry. The growing demand for newsprint in the United States and the excellent transportation facilities of the region did the rest. Now Quebec and Ontario have about 100 pulp and paper mills, one of the largest concentrations in the world.\textsuperscript{12}

The early part of the century saw a struggle between the Canadian Federal and Provincial governments and the United States combines concerning the location of ore refining plants in Canada. The Sudbury area of Ontario was at this time producing a major portion of the world's nickel, and the ore and nickel matte were being shipped to refineries in the United States by the U. S.-owned Canadian Copper Company. Canada, however, did not enjoy the same monopoly in nickel ore as she did in pulp and paper and though several

\begin{flushleft}
\begin{itemize}
\item \textsuperscript{12} \textit{Ibid.}, p. 114.
\end{itemize}
\end{flushleft}
statutes allowing export duties to be imposed on unrefined ores were passed, they were never put into effect. And so matters stood until the beginning of World War II, when the exigencies of national defence and the force of public opinion compelled the Dominion Government to persuade the International Nickel Company (as it had become in 1902) to build a nickel refinery at Port Colborne. Since then (1918) the non-ferrous metal smelting and refining industry has experienced rapid development in Quebec and Ontario, being the third largest industry in the former, the fourth largest in the latter. The availability of cheap hydroelectric power, as well as of fuels and ores, have been the main reasons for this development, and a ready market has been found at hand in the United States. The metals industries are concentrated in Southern Ontario, with an iron and steel industry at Hamilton and aluminum refineries at Arvida, Shawnigan Falls, and Beauharnois in Quebec.

The existence of these industries in Southern Ontario and the St. Lawrence Lowland has led to the development of a wide variety of manufacturing industries based on the domestic market. Many are protected from foreign competition

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14 Miller, op. cit., p. 114.
by protective tariffs and some are Canadian branches of American manufacturing firms. Examples of these industries are automobiles, farm machinery, electrical equipment and chemicals. In 1964 this region shows no signs of losing its dominance in the manufacturing field, nor is it likely to do so in the near future. According to Fullerton and Hampson:

As already noted, about 87% of Canadian secondary manufacturing industry is concentrated in Ontario and Quebec, and almost all of it in a narrow, 600-mile long strip of land running from Quebec and Sherbrooke in the northeast to Windsor and Sarnia in the southwest. Moreover, there has been little change in the extent of this concentration, at least in this century. While we have heard much about decentralization of manufacturing during recent years, it would appear that most of it consists of plants moving from downtown Toronto to Scarborough or to Barrie, and from Montreal to Pointe Claire or to Cornwall, rather than a shift out of the main industrial regions of the central provinces. 

Notwithstanding this assertion, it seems likely that the established nodes of manufacturing outside the Quebec—Ontario complex will continue to grow and perhaps supply locally some of the goods and services now supplied by the "central provinces". The Maritime provinces have a long tradition of lumbering, mining and ship building, and an iron and steel industry has developed at Sydney, Nova Scotia. The Halifax and St. John areas are the most important centres.

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for manufacturing, with such industries as petroleum refining, food processing, pulp and paper, and machinery.

The two other important manufacturing regions are the Prairie Provinces and the Pacific coast. Winnipeg has traditionally been the centre for manufacturing activities in the prairies, with emphasis on the processing of agricultural products. The railway rolling stock industry is of particular importance.

The supremacy of Winnipeg as the industrial hub of the Prairies is being challenged by the growth of the new petroleum industry in Alberta, sparked by the discovery of large oil reserves at Leduc in 1946. Since then the area has experienced an enormous expansion in its industrial development. In addition to the production of petroleum, according to Miller, "the availability of petroleum as a raw material has created a significant petrochemical industry. A wide variety of petrochemical products are produced, including rayon and plastics. Other types of chemicals are now produced in the region, including fertilizers and the manufacture of such inorganic products as caustic soda and chlorine".16

The growth of manufacturing in the Prairie Provinces has also produced what is probably the first conscious attempt

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16 Miller, op. cit., p. 119.
in Canada to use the planned industrial district as a tool for industrial development. The cities of Calgary, Edmonton and Regina have taken advantage of the industrial boom by converting city-owned land (mainly acquired through tax delinquency in the 'Thirties) into fully-serviced planned industrial districts. This policy of developing organized industrial districts where industry could move into completely serviced areas in a package deal began in Calgary about 1950 and "there is no doubt that Calgary's recent industrial growth can be credited in large measure to (these planned industrial districts)."\(^{17}\) Calgary's example has been followed by Regina, where the city has acquired large tracts of industrial land to be pre-serviced as required; and serviced sites are available in Edmonton "in planned industrial areas or Industrial Estates".\(^{18}\)

The growth of secondary manufacturing in the Pacific Coast Region has not been spectacular, but has kept pace with the growth of population. West Coast industry is still very much resource-oriented, based on timber, fish, agriculture, minerals and water-power resources. The manufacturing industries are concentrated in the Lower Mainland of B. C.,


\(^{18}\) Ibid., Vol. 35, No. 4, April 1961, p. 41.
with isolated nodes at the aluminum town of Kitimat and the smelter city of Trail. Industrial land in the Lower Mainland is being seriously depleted by urban sprawl and premature subdivision, and high land prices tend to discourage prospective industrialists. These conditions have produced four planned industrial districts in the Vancouver area, two of them still in the planning stage. Partially developed are Annacis Industrial Estate near New Westminster and Lake City Industrial Park in Burnaby. Two estates are being planned, one in Richmond, the other in Langley.

All studies of the economic and manufacturing background of Canada emphasize one outstanding aspect—the extreme dependence of Canadian industry on United States capital, technology, and even personnel. Table III, page 85 shows the rapid increase of foreign investment in Canada between 1950 and 1960. The bulk of this increase came from the United States. Table IV, page 86, shows the degree of non-residential control as a percentage of selected Canadian industries in 1948, 1955, and 1958, and indicates the dominance of the United States investment in some of Canada's major industries. Hugh Aitken explains the situation thus:

United States capital flows into Canada principally to accelerate development in sectors that will serve the United States market. Since the United States is already a highly industrialized economy with a very productive agricultural sector, the market demand that it exerts on Canada is predominantly a demand for industrial raw materials. The rate of economic development in Canada
TABLE III

ESTIMATES OF FOREIGN CAPITAL INVESTED

IN CANADA 1950—1960

(billions of dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct Investments</th>
<th>Portfolio Investments</th>
<th>Total Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>4.0</td>
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<td>8.7</td>
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<tr>
<td>1951</td>
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<td>1955</td>
<td>7.7</td>
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<td>13.5</td>
</tr>
<tr>
<td>1956</td>
<td>8.9</td>
<td>6.7</td>
<td>15.5</td>
</tr>
<tr>
<td>1957</td>
<td>10.1</td>
<td>7.4</td>
<td>17.5</td>
</tr>
<tr>
<td>1958</td>
<td>10.9</td>
<td>8.1</td>
<td>19.0</td>
</tr>
<tr>
<td>1959</td>
<td>11.8</td>
<td>9.0</td>
<td>20.8</td>
</tr>
<tr>
<td>1960</td>
<td>12.8</td>
<td>9.5</td>
<td>22.3</td>
</tr>
</tbody>
</table>

### TABLE IV

**NON-RESIDENTIAL CONTROL AS A PERCENTAGE OF SELECTED CANADIAN INDUSTRIES 1948, 1955 AND 1958**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Control by United States Residents</th>
<th>Control by all Non-Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>Petroleum and Natural gas</td>
<td>*</td>
<td>73</td>
</tr>
<tr>
<td>Mining and smelting</td>
<td>37</td>
<td>55</td>
</tr>
<tr>
<td>Railways</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Other Utilities</td>
<td>24</td>
<td>6</td>
</tr>
</tbody>
</table>

* Not available

depends largely upon exploiting such demand. The influence of the United States is therefore such as to encourage the development of the Canadian economy along lines complementary to the economy of the United States. This casts Canada, in its relation to the United States, in the role of a supplier of unmanufactured or semi-manufactured products. The structure of the United States tariff reflects and reinforces the pressure already exerted by the pattern of United States labor, capital and entrepreneurship.\(^1^9\)

The fact that Canadian industries are so directed and dominated by outside interests is distressing to many individuals and alarming to some economists and politicians, yet it appears inevitable if Canada is to maintain its rate of growth. The growing Canadian domestic market has induced many United States firms to establish branch plants here to supply the Canadian consumers' wants. Their capital investment and technical know-how enable them to do this cheaply and efficiently. If they did not do so the Canadian consumer would either pay a much higher price for the imported article, or else go without. The cutting off of American investment and the control which this implies could have painful consequences for Canadians. Aitken sums up the situation when he says that "the attitude itself is understandable; the suggested policies to which it gives rise, however, are of questionable effectiveness and rarely show an appreciation of the real costs of nationalism".\(^2^0\)

\(^1^9\) Aitken, \textit{op. cit.}, p. 526.

\(^2^0\) \textit{Ibid.}, p. 527.
The policies of the various levels of Government in Canada regarding industrial development described below may illustrate what their response has been to the situation described in the preceding pages.

3. Economic and Industrial Policies at the Three Levels of Government

Since Canada became a nation it has been her policy to industrialize. In this she has been frustrated repeatedly by the policies and demands of her neighbour south of the border and by the expediency of the moment, which generally dictated that industrial development of any kind was better than no development at all. Whenever there was a chance to halt the outflow of raw materials and process them at home the Government took the necessary steps to bring this about. Thus in the case of the pulp and paper industry, Canada was in a monopolist position and so was able to protect the infant paper industry by prohibiting the export of raw lumber. This policy was in fact carried out at the provincial level by the Quebec, Ontario, and British Columbia governments since they, and not the Dominion, controlled the forests.

In the case of the nickel industry and later the petroleum and natural gas industries, Canada did not enjoy a monopolist position and was therefore unable to enforce her policy of promoting secondary industrial processing before export. The main difficulties confronting her in carrying out this
policy have been, according to Aitken, the "structure of the United States tariff, favouring raw material imports and penalizing imports of manufactured and semi-manufactured goods, the retaliatory power of United States producers, determined to retain control of the domestic market; the location of corporate control in the United States; the availability of alternative sources of supply and the basic locational advantages of situating the intermediate and final stages of processing close to the market and to allied industries".  

He goes on to state the Canada's success was related to the strength of her bargaining power and that her policy was effective "only where it has operated to reinforce other locational factors that could be expressed in terms of business costs, and to accelerate a transfer of production that would probably have taken place anyway, though more slowly".

Apart from her dealings with the States, Canada in the first third of this century pursued a triple policy of national development—a measure of protection for Canadian manufacturers, land grants and related settlement policies covering areas of Western Canada, and the promotion of

\[21 \text{Ibid.}, \ p. \ 547.\]

\[22 \text{Ibid.}\]
railway transportation. It has been said that transportation made Canada, and by transportation is meant "railway transportation". The settlement pattern is closely tied to the transportation pattern in Canada and she has pursued a policy of freight rate adjustments in order to minimize regional differences in development.

The Depression of the 1930's hit Canada hard and resulted in a change in emphasis in her economic policies. Adjustments to the tariff structure continued but now social welfare and social security measures became important. The special needs of various regions began to be met with fiscal aid. The advent of World War II boosted Canada out of the depression, and governmental concern with industrial development continued to be important. Special measures were taken to help industry, new industries were encouraged to develop, and government began to participate in agricultural marketing. Finally, interregional and national projects were promoted and assisted by the Federal Government, such as the Trans-Canada Highway.

Of late Canadian economic policy has focussed on two main targets: maintaining employment at a high level and

24 Ibid., pp. 62-63.
controlling inflation. The former is promoted by such positive measures as encouraging private initiative with subsidies, tariffs and land grants. The fluctuations in the economy have been minimized somewhat by maintaining the purchasing power of individuals through such remedies as unemployment insurance, family allowances, old age pensions and progressive personal income tax. The national budget and monetary policies are also used as tools to curb inflation. The Bank of Canada, through its control of interest rates, has one of the most effective means of influencing the level of economic activity throughout the country. Unfortunately, this tactic affects the small Canadian businessman more than the big company, while the subsidiaries of U. S. companies in Canada may not be affected at all.  

The Canadian national government is conscious of regional differences in standards of living and levels of development and tries to minimize them as far as possible. In addition to providing assistance to special areas (i.e. Prairie Farm Relief) it modifies freight rates and develops interregional transportation routes. The resources of the Central Mortgage and Housing Corporation, which guarantees

25 Shea, op. cit., p. 96.
loans for new houses, are used to stimulate the construction industry in an effort to relieve unemployment. The national government has no industrial location policy as such, but is committed to overall industrial development. Its allocation of government contracts sometimes reflects this aim.

The Provincial governments are possibly more aggressive than the national government in wooing new industrial development and as such are a prey to the blandishments of foreign investors. Tax and fiscal policies are used to encourage industry to locate in a province, and the provincial government's control of lands, forests and mineral rights provides a powerful weapon in controlling the direction of industrial development. Most provinces maintain departments concerned with industrial development, and their representatives often journey abroad to court foreign investment and industry. The tourist industry is one in which this type of advertising is virtually essential. Some provinces, such as Manitoba, have attacked the problem of economic development by means of a systematic analysis of their development potential. Unfortunately, even in this thorough and comprehensive study, the physical and locational

aspects of development were completely ignored. The provinces seem to leave the details of industrial location up to the local authorities, or to the industries themselves.

The policy of local government towards industrial development is more difficult to assess. The growth of trade and industry has been the cause of most urban concentrations across Canada, and their continued growth is vital to the existence of the community. But industry is also important to a municipality because the major source of municipal revenue is the tax on real property. Industry, because of the amount of valuable land it occupies and the valuable plant and equipment associated with it, is usually an important contributor to the municipal coffers. For this reason industry is constantly wooed by local municipalities, and, for the same reason, industry tends to locate in unorganized territory if possible, or, failing that, in a less urbanized municipality where a lower mill rate and less stringent land use controls make it appear more desirable. Resource-based industries sometimes incorporate the area occupied by their plant and some of their employees' housing, in order to avoid paying taxes to the municipality where most of their employees reside. This is the case in Trail, British Columbia, where the main industrial base of the community, the smelter complex, is in the municipality of Tadanac, while most of the employees reside in Trail or in
neighbouring municipalities. The Tadanac area includes only the smelter and some housing for company officials and was created solely for tax exemption purposes. This is a regrettable attitude on the part of the industry but one can understand its position. Perhaps some special tax-sharing formula is the answer in these cases.

A device employed by Canadian municipalities to attract industry is the "fixed assessment", described by Donald Rowat as follows:

It has long been the custom for urban Councils in Canada to make concessions to industries or to community enterprises like rinks or hotels through agreements exempting a large percentage of their property from taxation for a specified number of years.

In the case of industries, the fixed assessment is granted in order to attract a new industry to a municipality, the theory being that infant industries need such financial encouragement while they are going through their "growing pains". But many industries in Canada seem to have a rather long weaning period. The practical results of leaving municipalities free to make their own terms with new industries has been unhealthy competitive bidding among local units in the form of higher and longer exemptions. It is questionable whether municipalities are financially strong enough to afford such subsidies, beyond the first few years at least. Most provinces therefore restrict the exemptions in new agreements, and some specify that fixed assessments must increase each year until they reach full value (after, say, ten years). But even where there is provincial regulation, Councils sometimes fix assessments through informal agreements that are not publicized.27

In Canada taxes are paid on real property, and are based on the assessed value of land and buildings without any regard for the "ability to pay". A survey of 30 "average" American cities by the Urban Land Institute revealed that while industrial land pays 15% of the total property tax revenues, it receives only 7% in return in the form of such services as a water supply system, a sewage treatment and disposal system, street maintenance and police protection. By contrast, residential land pays 54% and uses 80% of the total property tax revenue. It is not surprising then that most of the larger cities in Canada have an industrial commission of one form or another. Some of these, for example Calgary's Industrial Department, work in close cooperation with civic leaders and city planners and have achieved a large measure of success; others, for example Vancouver's Commission, though endowed with a considerable budget, operate more or less in a vacuum and have been severely criticized in Council for its lack of tangible results. The Commission may be less to blame than lack of leadership at the political level in formulating a development


policy and program. The question of zoning for industry is a complicated problem and deserves fuller treatment than it can be given here. The problem is often not a lack of zoned industrial land but of too much—in the wrong places. Industry therefore has a wide choice of location in most municipalities—but so have all its competitors, the so-called "higher" uses, residential, commercial, and institutional, which are usually allowed to take precedence over industry and occupy industrial land even when it is zoned industrial. The exclusive zoning of industrial land is not yet a common phenomenon.

This puts industry at a disadvantage vis-a-vis the so-called "higher" uses. In a study of the pattern of industrial land settlement in the Greater Vancouver area, the Lower Mainland Regional Planning Board found that relatively few industries can compete with residential development for land. It elaborated on this finding as follows.

It is not easy to make accurate comparisons between residential and industrial land developments since the former may involve much greater servicing costs per acre, but it is quite clear that in many circumstances industry, which normally occupies only about one fifth as much land in a community as residential development, is not by any means in the strong competitive position which many people seem to think. This is particularly so in areas where residential subdivision and development are already fairly widespread and all local indications suggest to the subdivider that residential use of his land would be more immediate and no less profitable than industrial use.
In the light of this it is clear that industry will seldom buy up small lots containing existing houses except under the most compelling circumstances.29

To find the kind of land which is both suitable for its needs and within the range it can afford, industry has to migrate further and further from the city center: this may take it beyond the city limits and poses the problem of how a city with an internal rational industrial land development program can control industrial land settlement outside its boundaries. One could argue that for a city with a really effective policy and program this problem would not arise; however, few cities are so far advanced and some municipalities with a genuine desire to put into effect a rational land use policy find themselves frustrated by haphazard development occurring just beyond the city limits. The device of annexation has been tried with only limited success; the problem is simply pushed out a little further from the city center. This raises the question of how industrial sprawl can be tackled on a regional basis; the next section deals with the problems and needs of regional planning for industry.

It may be useful for the sake of clarity to draw a

distinction between physical and economic planning. Generally speaking, the Federal and Provincial governments are concerned with economic planning. The former is concerned with imports and exports, subsidies, tariffs and ways and means of keeping the economy on an even keel. The latter are concerned with the relative industrial growth rates of the provinces and with promoting large industrial projects such as power development schemes to maintain and accelerate growth. Neither level of government is concerned with physical planning for industry as such, and where either one has power to influence locational decisions in industry it is more likely to be swayed by political rather than by any other implications of the decision.

The local community, however, must of necessity grapple with both the physical and economic aspects of the problem of industrial growth, a task for which it is not often well equipped. The municipality is itself competing with other communities to attract new industry and therefore the economic implications are liable to take precedence over the question of physical allocation. This is unfortunate as the advantages gained by attracting the industry may be dissipated by the costs to the municipality of inefficient land use. If competing municipalities were in an equal position from an economic point of view, that is, if the only advantages they could offer to industry were their efficient
internal structure and the locational and physical advantages of their industrial areas, then most municipalities would pay more attention to physical planning for industrial development rather than attempting to attract industry to locate there at great relative cost to the municipality. This is dealt with more fully below.

4. Industrial Decentralization: The Problem of Regional Planning for Industry

Industrial decentralization occurs when industrial development takes place on the perimeter of the urbanized areas of established population centers, or in the rural areas beyond or in the smaller population centers situated close to the main center. This industrial development may be due to new industries moving into the area, or old established industries moving out from the central city to the suburban perimeter or beyond. Fullerton and Hampson observed that decentralization did not entail a shift out of the main industrial regions but rather a "suburbanization" of industrial activity in concert with the suburbanization of residential, commercial and other land uses.  

The problems associated with this type of development are familiar to the Councils of suburban municipalities and

31 Fullerton and Hampson, *op. cit.*, p. 197.
to all students of urban affairs:

Because both the tax resources and the authority of local government units...are limited and because of the suddenly increased need for urban services and for urban reconstruction, a major factor in the metropolitan situation is now the imbalance between tax resources and tax needs. In the process of suburban development, some communities have acquired important taxable properties such as a new factory, while the neighbouring community may gain only the homes of the factory worker, with their overflow of children needing schooling. Thus the splintered political jurisdictions make it difficult to deal with larger problems, and extremely difficult to finance the services and developments now called for.32

This quotation refers to the problems that bedevil growing metropolitan regions in the United States, but it is equally applicable to the situation which confronts the larger metropolitan areas in Canada. To cite a Canadian example, the problems created by urban sprawl in the Lower Mainland of British Columbia have been detailed as follows:

It has produced servicing problems—water supply, sewers, road paving and public transit, for example—which bedevil the Councils and taxpayers in many areas.

It has produced in many places living conditions which are unsafe and unhealthy as well as inconvenient.

It has wiped out potential key sites. In the last decade the region has lost several airport sites and hundreds of acres of potential industrial land.

While devouring new land on a grand scale, it has left a vast patchwork of unused land in its wake. If the 10,000 scattered acres of vacant residential land in the

Burrard Peninsula, the North Shore and Richmond could be reassembled in one block it would measure five miles by three; but they cannot thus be reassembled.

It undermines the whole economic pyramid based on agriculture, which directly or indirectly supports 20% of the jobs in the region, and it makes the region unnecessarily dependent on other areas for its food supply.33

The Lower Mainland Regional Planning Board's solution to these problems is a polynucleated region—a system of well-planned urban nuclei separated from each other by belts of open space and farmland, linked together by regional freeways. The development of the region is based on two main principles—the conservation of existing public and private investment in built-up areas and the prohibition of further development unless supplied with the full range of urban services.

The need for metropolitan planning has been recognized in Canada and a number of attempts to cope with the problem have been made. The most noteworthy and successful is the Municipality of Metropolitan Toronto, a kind of super-municipality embracing 13 local municipalities and charged with the responsibility for those services and functions which are common to all the municipalities in the metropolitan

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area - water supply, sewage disposal, roads, transportation, education, health and welfare, justice, housing, planning, parks, and taxation and finance associated with these responsibilities. The "member municipalities" are left with the local planning and administration associated with these functions.  

It is unfortunate that even in this relatively advanced attempt at metropolitan regional planning little thought has been given to physical planning for industrial development in the heartland of Canada's most concentrated industrial region. The Toronto region has some very ugly industrial sprawl areas and also some examples of fine industrial planning, such as can be found at Don Mills and Scarborough. If the Metropolitan Toronto Planning Board had the power and responsibility to identify and preserve potential industrial sites and to assemble them within a rational system of industrial districts planned in conjunction with the other elements of the urban environment--residential areas, commercial areas, circulation pattern and open space--it could increase the capacity of the people of the region to create wealth--and to enjoy it. Just as overall regional

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planning is essential to the success of an industrial park program, and even more to the success of the broader regional objectives to which industrial parks are expected to contribute, so also a regional plan which ignores the physical aspects of industrial development has abdicated control over one of the most powerful shapers of the urban environment. Regional planning is not a substitute for local planning but should create the milieu in which local planning can function most effectively. This kind of industrial planning will not of course come about until an administrative system exists to cope with regional problems. The nature of the present system and the changes that appear necessary are discussed below.

5. Administrative Aspects of Industrial Planning

Under the British North American Acts—the power to regulate public lands, municipal institutions and property and civil rights has been given to the Provincial Legislatures. It would seem therefore that the Dominion government can do little to regulate the physical planning of industrial development. It can however, influence the rate of development through the policies it pursues in accordance

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with its powers to regulate trade, commerce and financial affairs. Industrial development is vitally affected by government policy in these areas, consequently there is a need for a better understanding on the part of government, of the effects its policies will have on the manufacturing industries. Walter Gordon pointed up this need for understanding in Ottawa, and the newly-created Department of Industry may help to bring it about.

Industry could also be aided by economic studies, tax incentives, industrial development programs in depressed areas, and an expanded role for the Industrial Development Bank to assist small and growing industries. To be effective this program must be accompanied by concern for the physical basis of industrial development; this means an increased interest in the growth and development of our major industrial areas, our metropolitan concentrations and in urban growth in general. This presupposes a level of coordination of governmental activities among the three levels of government which may be difficult to achieve within the present administrative framework. Regarding this fragmentation of

36 Ibid., p. 25.

governmental activity, the Lower Mainland Regional Planning Board has this to say:

If a region is a functional unity, it must be planned, serviced and developed as a unity, not as an open hunting ground for dozens of federal, provincial and municipal activities, and the arrangements made for doing so must be in scale with the importance and prospects of the region. This will, of course, involve change. But as Edmund Burke said: "The State without the means of some change is without the means of its own conservation".38

The role of the federal government in physical planning for industry is then to create a climate favourable to industrial development; to furnish advice and inspiration to provincial governments and local municipalities; and to encourage a scheme of national development by the judicious use of the expanded revenues of the Industrial Development Bank and the Municipal Loan Fund. It could, for instance advance loans to municipalities which could put forward a rational scheme for a system of planned industrial districts. This money could be used to acquire the necessary industrial land and the Dominion government could induce industries to settle in them by preferential treatment in granting loans for development. This policy could be justified by the fact that a planned industrial district offers far more security than does an industrial area not similarly planned.

38 Lower Mainland Regional Planning Board, Chance and Challenge, p. 13.
zoned and protected by covenant.

Speaking of public control over industry at the macro level, Peter Self has summarized the role of government as follows:

Public authorities are in a position to correct the one-sided approach of the individual firm by bringing into account a broad range of economic and social considerations that are hidden from it. They can also acquire detailed knowledge of the industrial prospects and requirements of the different parts of the country which may be used to persuade firms to make wise and farsighted decisions. In fact, the provision of information and advice is today the main method of public control over industrial location. It is a method which can achieve very considerable and beneficial results.39

Under our present system of government the Province is responsible for physical planning for industry in the province. It has, of course, delegated the responsibility for planning and land use policy to the local authorities but this delegation of responsibility has not been accompanied by commensurate powers of taxation. One newspaper made the editorial comment that:

Local government has had to assume a major part of the costly consequences of industrialization—urban growth, broadened education, the ubiquitous car with its consuming demand for streets, expressways, parking facilities. Yet local government is still low man on the tax totem pole. Its taxing resources are substantially what they were when our cities were mainly market towns.40


It is only natural that the provincial governments should exercise supervision over the financial affairs of local governments and come to their aid when they get into difficulties. By limiting their borrowing powers and approving money by-laws they place the municipality in a position where it has to seek aid at the provincial level. This aid is extended mainly in the form of special-purpose grants and in direct provincial contributions to the general revenue. These contributions now form the largest single source of municipal revenue next to the real property and business taxes.\(^1\)

In the absence of interest on the part of private developers in undertaking the promotion of planned industrial districts, it might be difficult to persuade the taxpayer that municipal money employed in the purchase of potential industrial land was well spent. The problem has been stated succinctly by J. K. Galbraith:

New public needs, or even the increase in the requirements for old ones incident on increasing population, require affirmative steps to transfer resources to public use. There must first be a finding of need. The burden of proof lies with those who propose the expenditure. Resources do not automatically accrue to the public authority for a decision as to how they may best be distributed to schools, roads, police, public housing, and other claimant ends.\(^2\)

\(^1\) Rowat, \textit{op. cit.}, p. 88.

The municipal taxpayer seems to suffer from a mental block when new expenditures are proposed, no matter how noble the cause. He is likely to express his displeasure with municipal spending habits at the polls and so most municipalities (but not all) are unwilling to invest large amounts of money in industrial land. However, those which have taken the plunge, e.g. Calgary and Edmonton, have found the investment so profitable that they are willing to risk further amounts of the taxpayers' money in similar ventures. It is a safe bet that if planned industrial districts are attractive to private developers, they are economically feasible. Hence a municipality that embarks on the establishment and promotion of a planned industrial district is on fairly safe ground, provided it makes sure that the demand exists, that the property is well-located and that it is prepared to wait for some years before starting to reap a profit.

It would appear, therefore, that successful industrial planning, in which is included the planned industrial district program, must be promoted at the three levels of government. The actual responsibility for the physical organization and distribution of industry rest with the provincial government; this should be fulfilled by means of a coordinated program for regional planning and development. There are many ways in which such a program might be implemented; the important
thing is that the responsibility be accepted and the task undertaken.

The control and distribution of industry at the local level is the task of the local authority. The municipality stands to gain in tax revenue if industry locates within its borders; it stands to gain even more if it provides for industry a planned industrial district which will enhance the attractiveness of the whole community. A policy of planned industrial districts may be undertaken by a municipality on its own account (and indeed a number of municipalities have done just that, as we have seen) but the process would be much simplified if it were supported and encouraged by the provincial government. Ideally it should be undertaken by a number of municipalities on a regional basis, leading to an acceptance of the concept by the public and industry alike.

6. Implementation of a Planned Industrial District Program

Once a municipality has made a decision to develop a planned industrial district or a number of districts, it finds itself in almost the same position as the private developer. For one thing, its chosen site must be in a competitive location in order to attract industry. This will depend on a number of factors, including markets, transportation, labour force and materials. The site must then be acquired by the municipality, if it does not already
own it. This means buying out the private owners who may own all or part of the property. Municipalities of their nature must have power to acquire and hold real property. A very high proportion of the land area of most towns and cities is held by the municipality, in the form of street allowances, works yards, public buildings, parks and other property. Some municipalities hold a great deal of land which has reverted to municipal ownership through tax delinquency in the Thirties. Most of this land is used for municipal or public purposes.

Councils however are usually granted the power to acquire land for other than municipal purposes. The Municipal Act of British Columbia allows councils:

To develop property owned by the municipality for use as a residential, commercial, or industrial area, or any combination of such uses, and provide such works and services as are deemed necessary or beneficial to the development,

and for purposes enumerated above it may

(a) by resolution or by-law, acquire property other than expropriation; or,
(b) by by-law and with the approval of the Lieutenant-Governor in Council, acquire property by expropriation.43

43 The Municipal Act: R.S.B.C. 1960, Ch. 255; 1961, Ch. 43; 1962, Ch. 41. (Victoria, B. C.: The Queen's Printer, 1962), Sec. 465, (1), (2).
It will be seen from this extract from the Municipal Act that the municipality has one weapon not available to the private developer—the right of expropriation. Whether this method is utilized or not, the necessary funds will have to be raised for acquiring the property; this could clearly be a difficult proposition and a clear-cut provincial policy would be a useful asset. When it is a first attempt by the municipality to establish an industrial district the tax-payer is likely to be suspicious and an easy victim for parties with vested interests who may oppose the municipal policy. This can be quite a handicap in municipalities in which Councils are elected annually or biennially (and many Canadian municipalities fall into this category) but a strong Council which can stand on its record has little to fear. Once the money is spent, the tax-payer soon forgets what his objections were, especially when he can feel some proprietary attachment to a planned industrial district set up for his benefit.

When the property has been acquired the task of development begins. This will include the preparation of an outline development plan for the site and the provision of adequate access, water, sewers, and other services. Hand

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44 Rowat, op. cit., p. 27.
in hand with this will go the campaign to "sell" the district to industry, as well as the preparation of a restrictive covenant to protect occupants of the district. It may also be necessary to have enabling legislation enacted by the provincial legislature to allow the municipality to lease land for industrial purposes.

At some point or another the question of whether to lease or sell sites will arise. There is no definite trend either way in North America, but in Britain the trend is definitely towards leasing sites on a long-term basis and the British Industrial Estate companies which have developed property in Canada appear to follow this trend. Taking the long-term view (and a municipality can afford to take the long-term view) leasing is superior to selling the property, for by leasing the municipality retains effective control and at the same time benefits from any increase in the value of the property over the years.

In a democratic society the question of public versus private industrial districts is bound to arise. The short answer to this is that there is a place for the private developer in a municipality, so long as his development coincides with the long-range plans of the municipality and as long as he is willing to maintain adequate standards of development and maintenance. In the words of Douglass:
"...(privately-owned) industrial parks themselves should be both beneficiaries and subjects of public planning and regulation". The genuine private industrial district developer will be interested only in a municipality which sets and maintains a high standard of planning and development and will gladly comply with municipal regulations, for the benefit of all concerned.

In the next Chapter the problems of industrial location in Canada will be reviewed. The use of the planned industrial district as a solution to some of these problems will be proposed, followed by a survey of the effectiveness of planned industrial districts already established in Canada in combating these problems.

SUMMARY

Both the Federal and Provincial parliaments of Canada have almost unlimited powers in the spheres of government assigned to them under the British North America Act. They govern a country which is rapidly changing from a rural to an urban nation. In Canada one of the most widespread fears is that of economic domination by the United States.

45 Paul Douglass, The ABC of Industrial Park Development (Winter Park, Florida: Center for Practical Politics, 1961), p. 82.
Canadian industry has grown to maturity in a very few highly-concentrated regions. Mainly based on the extraction and primary processing of natural resources, industry has recently begun to diversify and branch out into the secondary manufacturing of consumer goods, reflecting the rapid growth of the population.

Both the Federal and Provincial parliaments have striven to protect infant Canadian industries by means of embargos on the export of certain raw materials and by means of tariffs. This campaign has been only moderately successful. The efforts of the Federal government are now directed mainly towards attaining full employment and controlling inflation.

Canadian manufacturing industry has shared in the phenomenon of suburbanization, which has been a feature of post-World War II North America. This industrial "sprawl" has led to distressing problems in the urbanizing municipalities which surround the metropolitan cities and has pointed up the need for regional planning of a great many urban and non-urban functions, including the location of industry.

The federal government can take an advisory role in industrial location and, in addition, can help local authorities, if it should so choose, by means of grants, loans, and taxation policies. The provincial governments have the responsibility to promote regional planning and to help the
the local municipalities to carry out their development policies.

A local municipality, in the absence of help and encouragement from higher levels of government, can itself acquire land for a planned industrial district, and can subdivide, service and sell or lease (with provincial sanction) industrial sites for the benefit of its citizens. It can also require private industrial developers to meet municipal standards of development and maintenance.
CHAPTER IV

THE PLANNED INDUSTRIAL DISTRICT IN CANADA

1. Industrial Location Problems at the Local Level

There is a need to protect local amenities and to secure pleasant living conditions. It is an accepted principle that, so far as possible, industry should be segregated from residential uses. Segregation is of course especially important in the case of noxious and noisy industry. Today, stronger measures are possible to prevent the pollution of the atmosphere by smoke and dirt. The technique of industrial zoning is used to promote these ends.1

This statement by Peter Self is perhaps more applicable to the British than it is to the Canadian scene; nevertheless the principles contained in it reflect Canadian thinking concerning industrial location. More and more Canadians are living in planned residential suburbs and are driving ten or twenty miles to work each morning. This divorce of the place of work from the place of residence, with the consequent increasing journey to work, has placed a terrific rush-hour burden on our streets and highways, and wastes the time and frays the nerves of the commuting motorist. Though no accurate estimate of the waste of human time and energy involved is possible it is certainly considerable.

In the past it was thought that the problems caused by the journey to work could be solved by the traffic engineering approach, that is, by building better and wider highways to accommodate the flow of traffic. This approach, however, has not been broad enough to prevent the decentralization of business and industry from the central city to the suburban areas which is to a great extent caused by a desire to escape the traffic congestion and lack of parking facilities which plague the downtown areas of our larger cities. This dispersion of the centres of activity and consequent diversification of traffic "desire lines" has led to an easing of the traffic burden on many thoroughfares, but the situation is still unsatisfactory in most urban centres. There is need, therefore, of more understanding of the relationship between traffic and land use as well as a need of more land use planning to accommodate the quantity of traffic it generates.² It is no longer enough to build traffic safety into residential subdivisions: we must take account of where the residents will wish to work—and play—so that traffic and transportation facilities can be planned accordingly.

During the past 20 years there has been much talk of building balanced communities which would contain all the facilities necessary for their residents to work and play and

live without going outside their boundaries. The New Towns of Britain have been designed to fit this concept, but even here the principle of segregation of residential from industrial areas is rigidly applied.

The residential districts are generally insulated from the industrial areas. Even when the factories are not objectionable on the grounds of noise, smoke, or appearance, residential and industrial uses are not being mixed because of traffic and other considerations.³

The separation of industrial from other traffic is a legitimate reason for segregating residential from industrial areas. The "other considerations", not elaborated on by Mr. Rodwin, may include the psychological effects of living close to an industrial area, however clean and free of nuisance it may be. These effects are very real and probably stem from the days when the poorer workers had to live close to the factories, which were often noisy, dirty and objectionable, while the more privileged and highly paid managerial staff could afford to live at some distance away. For these reasons some buffering and screening of all industrial areas is desirable.

In addition, people object to industrial areas on account of the nuisance characteristics they often exhibit. The following is a fairly comprehensive list:

- Noise
- Fire Hazards
- Smoke
- Industrial Wastes
- Odour
- Transportation and Traffic
- Dust and Dirt
- Psychological Effects
- Noxious Gases
- Aesthetics
- Glare and Heat

Of these, some such as fire hazards and industrial wastes will be of particular concern to the public authorities while others, such as noise, aesthetics, dust and dirt, will impinge on the senses of the private citizen. A method of zoning industrial uses by means of "performance standards" has been proposed. This method, still in its infancy, attempts to judge each industry on its merit by the amount of dust, glare, heat, etc., that it emits, and measures it against an absolute standard of performance. The technical aspects of this method make it impractical for the ordinary municipal zoning department. The most useful method for some time to come will be to evaluate each industry subjectively on a qualitative basis.

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and group these industries in some refinement of the usual order of "light", "medium" and "heavy".  

While granting that industry and residence should be separated, at least to some extent, and the traffic arteries connecting them rationalized, the specific needs of industry itself must not be neglected. This entails consideration of the fact that industrial areas must have good access and transport facilities, and sufficient land must be provided to meet foreseeable industrial requirements. Consequently a study of the need for industrial land must be made on a regional basis "since it is not possible to foresee or to influence movements of population and industry within a small compass".  

Many suburban municipalities, in their eagerness to capture industrial property to supplement their tax base, have opened their doors to industry without even a minimum of planning. This has resulted in the suburban industrial "slum". Though the following comment is made in the United States context, it is equally applicable to many of our Canadian suburban communities:

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5 Ibid., p. 9.

6 Self, op. cit., p. 42.
...most suburban industries do not have the extra cash to put into land or landscaping and they may present as hideous an effect in the country as in the city. How to encourage "clean" industry and exclude the objectionable is a raging issue in most new communities, for it is just as easy to create a slum in suburbia as in the city. A truck trailer terminal or service station with an automobile salvage yard attached can accomplish wonders at destroying residential land values for a quarter of a mile around. Suburbia is too often splashed with this kind of irresponsible free enterprise that destroys everyone else's investment.7

The products of this kind of industrial planning are all too evident in Canada. They are the result of the dilemma in which Canadian communities find themselves. Faced with an exploding residential population in dire need of schools and other services, they are compelled to promote the location of industry within their boundaries. Fortunately there is a solution to the problem which will allow residential, commercial and industrial land uses to exist side by side in harmony: the solution is comprehensive community planning which recognizes the importance of industry and works with it, to produce an attractive residential and industrial environment. The most potent tool at the disposal of a community for accomplishing this end is the planned industrial district. However, before examining the possible applications of this tool it is necessary to examine the way in which

industry locates at the local community level in Canada.

2. The Dynamics of Industrial Location

The dynamics of industrial location is a large subject and has been extensively investigated by a great many economists. These investigations consist of an examination of the relative strength of the factors which purportedly influence the choice of the industrialist in making industrial location decisions. These factors include transportation, raw materials, markets, labour, and energy. In addition, the availability of the following facilities supports the locational choice: transportation, communications, utilities, industrial parks, housing, commercial facilities, recreation, health and welfare facilities, vocational training and education.  

An investigation of the various theories of industrial location is unnecessary from the point of view of this paper, as they are concerned mainly with the relative advantages of areas or regions, whereas this paper is concerned with industrial location within the specific area or region already selected by industry. It is sufficient to say that the final choice of location among regions is the result of an evaluation

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of all the locational factors which will yield the greatest profit to the entrepreneur. While some location decisions may be the result of personal whim, most businessmen will be unwilling to make what is possibly the most important decision with regard to their business without first making a thorough investigation of the factors which will determine its profitability and ultimate survival.

In Canada, it has been noted that a number of industrial regions can be clearly identified. These regions have well established industrial bases and serve a growing domestic market as well as producing exportable goods and materials. With the growth of population it becomes economic from time to time for a plant to locate in such areas for the manufacture of products which had heretofore been imported from outside the region. Or, again, a firm which manufactured a certain product within the region may find that it has to expand its plant facilities to serve its growing market area. In cases such as these the decision is often made to locate the new plant in a community close to, or on the periphery of, the main urban concentration. It is with the means of influencing and controlling this type of industrial location that this paper is chiefly concerned.

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A study of how industrial location takes place within an area or region was made by the Lower Mainland Regional Planning Board of British Columbia. In this study a first attempt has been made to devise a rational method by which industrial land settlement can be forecast. This was to be achieved in 3 steps:

1. determining the probable land demand for industry, quantitatively and qualitatively;
2. identifying suitable available areas;
3. reconciling demand and supply in a systematic way.

While the findings of the survey have direct application only in the Vancouver area, the underlying principles of settlement probably hold true in most expanding urban areas in Canada. Since the findings were found to be equally applicable to the two major urban foci in the area—Vancouver and New Westminster—this may reasonably be assumed to be the case. Some of the major findings were:

1. that businesses sought to locate as close to downtown as possible;
2. that demand and supply adjusted to each other, firms that could afford to located close in; others found cheaper sites farther out.

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11 Ibid., p. 1.

12 Ibid., p. 48.
In addition the important observation was made that "the effective demand for industrial land in the metropolitan area is satisfied when the total amount of unoccupied land on the market is roughly equal to the total amount of land already occupied. In other words the free operation of the industrial land market seems to require a reservoir of available land equal to the total area already occupied".\textsuperscript{13} The conclusion is that as the market for industrial land is at present constituted there is as much land lying idle as there is occupied by industrial enterprises. Though this reservation of land is considered to be one of the functions of the real estate market, it is questionable whether this large amount of vacant land is necessary. Certainly it is very wasteful for the municipality which has to extend its services over a much wider area. It well may be that in the course of time the operations of the market will bring about the efficient use of all the industrial land within an urban area. One is tempted to ask whether it is necessary to wait for this process to take place 'naturally'. In most private enterprises there is an extreme degree of planning and economizing: one might ask why this should not be so in the public sector also. In the matter of developing the industrial potential of a community, delay may well be dangerous and the end result may be something less than desirable. Regarding this question of 'natural' versus planned development, Gordon Logie has this to say:

\textsuperscript{13} Ibid., p. 51
The free play of economic forces has in the past generally produced, in time, more or less efficient location, although often with considerable waste of material and manpower. The economic planners' belief is that by taking thought, the same adaptation to circumstances can be brought about more quickly, with less waste, and with less damage to other non-economic interests such as amenity, health and happiness.14

It would appear then that a certain amount of public interference in industrial planning on the part of the municipality is necessary if the public is to get a fair return for its tax dollar. This will be achieved by tightening up development and thus saving on servicing costs, while planning for amenity in residential, commercial, and industrial areas. What powers the municipality has to influence industrial development are discussed in the next section.

3. Municipal Participation in Industrial Planning

Any community that wishes to embark on an industrial development program has first to clarify its aims. Failure to do this has been the downfall of many such programs. Setting off in hot pursuit of industry without knowing precisely what kind of industry it wants or where it will locate will cause nothing but trouble for the municipality later on. Short-term stop gap measures to bolster the tax base with rapid industrial growth are a sure means of compromising the economic future of a municipality.

In the field of community development, Canada could do well to take a lesson from the United States. Though many Canadian cities do have industrial development commissions of one kind or another, these have confined themselves mainly to "beating the drum" for the municipality they represent. Their campaign is usually not associated with any kind of development program which would make the city attractive to the industrialist from an economic point of view. When only a few cities were engaging in this type of self-advertising, the results may have been noticeable, but now that everyone has got into the act they can only hope to stimulate enough interest on the part of the industrialist to cause him to investigate further the actual basis of the commission's claims. If the community's development potential does not measure up, the industrialist will take his business elsewhere.  

A survey of the Area Development Programs in the United States, conducted by Donald R. Gilmore, showed that some 14,000 economic development programs were in existence in 1957-58. These programs are prepared and carried out under


the supervision of the Area Development Committee of the Committee for Economic Development set up under the Area Redevelopment Act, which became law in May, 1961.\(^17\) A review of what has taken place under this Act may be of value as the Area Development Agency of the new Department of Industry is likely to play a similar role in Canada.

The Area Redevelopment Act is designed to assist local areas suffering from retarded growth and chronic unemployment. It seeks to create a partnership of private enterprise, the community, the State, and the Federal Government. Evidence of local interest and initiative must first be forthcoming in the form of an Overall Economic Development Program before any requests for financial assistance can be considered.\(^18\)

While there is no specification as to what kind of group must submit the Overall Economic Development Program, 3 groups far exceeded all the others in number. These were: local chambers of commerce and boards of trade (4,842), local, metropolitan and area planning and zoning boards (3,108), and community development corporations (1,952).\(^19\) While any one of these three group-types might undertake a local development


\(^19\) Gilmore, *op. cit.*., p. 15.
program in Canada, only the first two are at present very active in this field, and of these the first group, local chambers of commerce and boards of trade, are engaged more in promotional than in developmental activities. Since many Canadian communities suffer from chronic unemployment and underemployment, the need for more activity on the part of these groups is necessary, but this is unlikely to come about until the leadership is given by the Provincial and Federal Governments. Meanwhile the local Council is usually convinced of the necessity of underpinning the economic base of the community and here the experience of municipal and county development agencies in the United States may be of value.

Usually the local Council in the United States does not itself undertake to prepare a development program, but sets up a municipally-financed development agency to carry out the job. This agency undertakes a survey of local needs, supplements the activities of private organizations and acts as a coordinating body between private groups and individual investors, and the local authority.

A feature of this type of public agency is that it seeks to promote its area, usually on the basis of selecting industries to be attracted with due regard to the community's specific economic needs. The characteristics of the unemployed labour force are taken into account, along with the assets of the community and the probable impact of the new concern on services and facilities required from the local government. This is in contrast to the usual practice among the majority of local agencies, whose programs are based more on opportunism than on selectivity.20

20 Atlantic Provinces Economic Council, *op. cit.*, p. 15.
While there is something to be said for the establishment of a separate development agency in a community, there is a danger that the agency may become too specialized and too narrow in its focus to the detriment of the balanced development of the community. In addition it may become too far removed from the municipal chain of command to have any real effectiveness and consequently may become just another promotional body. The proper place from which an industrial development program should be conducted is the planning department of the municipality, where all aspects of community development are considered as a whole. The municipal planning department has all the necessary information to forecast the economic future of the community; it can conduct investigations into the community's specific needs; it can, and should, plan for the most efficient development of the community by organizing the land use and transportation pattern on a rational basis. Finally, it is directly responsible to the Municipal Council, and can put its proposals directly before the people who make the decisions.

Why should the Council concern itself with industrial development? The answer is that industrial development is vitally important to the overall development of the community and this is the special concern of the Municipal Council. The Council should have an image of what they would like their community to be and the efforts of all municipal departments
should be directed toward achieving the realization of this image. The Council may have only an image of a highly industrialized, efficient and beautiful community; it is the duty of the development agency to set up the framework of action which will bring this about.

It will not be an easy task. The growth of our cities has heretofore been governed by the ideas of individual lots, private property, competitive enterprise, and small-scale building. This accounts for the inefficient pattern of development which we have inherited. But because business and industry have had their own way for so long they are not particularly receptive to planning. They do want planning, it is true, but their concept of planning may differ considerably from that of the municipal planner. In addition, the outlook of big industry may be very different from that of little industry and neither is very interested in that most maligned of principles, the public interest.

It is necessary, therefore, that the Council should have an image of their municipality and should interpret this image for the public through the policies and programs it institutes. It should have a plan for the development of the municipality and should inform the public of the plan, thus limiting the area of speculation. Finally it must impose all the controls necessary for the implementation of the plan.
How can the municipality control the development of industrial land? The most effective means is site reservation built into the overall community plan. In this way certain sites are reserved for industrial development and no other kind of development is permitted to take place in them. However, it may not be enough to reserve sites for industry; speculation may still put the industrial land beyond the reach of most industries, particularly the smaller ones. In the absence of public intervention, according to Galbraith, "private production will monopolize all resources. Only as something is done about it will resources become available for public services".21 If the Council feels that industrial land at a reasonable price is essential to the development of the community, it must acquire this land and make it available to industry at a reasonable price.

The Lower Mainland Regional Planning Board has put forward this idea of "tightening up" the real estate market in industrial land by acquiring industrial sites and making them available at prices attractive to industry. It sees such a policy having certain effects, as follows:

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It would accommodate industries that would otherwise be forced farther out;

It would accommodate some industries which would otherwise be lost to the region;

It would accelerate development of the general area involved if the price range were attractive.²²

This idea of public participation in the industrial land market is not new and the effect of developing public planned industrial districts in other Canadian communities is cited:

In Edmonton, Calgary and other prairie cities relatively low land prices have been maintained and very attractive (industrial) estates have been developed, to the great benefit of the community as a whole. Furthermore, their operations have had the most desirable secondary effect of making competing land owners match the quality of the city's product, so that Calgary in particular now has several such estates, public and private.²³

Before proceeding to an examination of the role played by a number of public and private planned industrial districts in Canada it may be useful to review the advantages and disadvantages of the planned industrial district to the community.

4. The Planned Industrial District in the Community

When speaking of a planned industrial district one must exclude those tracts of raw industrial land which have been


²³ Ibid., p. 18.
labeled with the title industrial park in a vain attempt to attract the unwary industrialist. Speaking of the United States, Douglass points out that "thousands of acres of advertised industrial parks lie vacant to the loss of the communities they intend to serve, their claim to usefulness being proclaimed only by (a) weathered outdoor sign irresponsibly erected on raw industrial land".²⁴

In the kind of planned industrial district dealt with in this paper the accent is on planning. The economic feasibility of the project must have been established; the area must have been located to ensure the maximum site benefits to industry and to fit into the regional development pattern; the site must have been adequately developed and suitably controlled and an adequate advertising campaign conducted. If these conditions have been fulfilled the success of the undertaking is more or less assured.

What then are the benefits to be derived by the community from planned industrial districts? The fundamental advantages have been cited by the United Nations as follows:

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Industrial estates provide a useful means of organizing land uses economically for industrial development. These estates, if located outside large urban areas, and provided with existing or new housing and community services, can discourage the migration of population to large urban centres; however, even in large urban centres, industrial estates provide the opportunity of scale economies and the segregation of potentially harmful land uses from the living quarters of the people.25

In Canada, where both rural depopulation and the too-rapid growth of the larger urban centers are prevalent, the planned industrial district can fulfill both these roles in economic development. However, industrial parks affect and are in turn affected by the community in a number of ways and these have been explored by an experienced student of planned industrial districts in the United States, Robert E. Boley. Some of his findings were as follows:

1. The planned industrial district helps to attract industry to the community because of the protection it offers to industry and because it can offer it a "package deal" (design, construction, lease or sale arrangements, etc.) under a single contract.

2. It adds to the local tax receipts.

3. It helps to stabilize employment in the community by attracting and holding a diversified group of stable industries.

4. It can provide a real measure of control over industrial nuisances and can prevent undesirable development within the district.

5. It helps to maintain - and even increase - property values in a community, by reason of protective covenants and architectural and land coverage standards.

6. By concentrating industrial development in one area it reduces municipal servicing cost related to sewers, water mains and other utilities.

7. It helps to ease the shortage of available industrially zoned property in the city or community.26

This is an impressive list of advantages and one is tempted to ask why all communities are not rushing to develop a planned industrial district. There are a number of reasons why they do not.

Firstly, if a planned industrial district is to be successful it must be a feasible undertaking and the need for it must be established. Few municipalities would be willing to undertake the expense involved without being reasonably sure that the investment would prove sound from the community's point of view. Secondly, the municipalities which could afford to purchase land for a planned industrial district—the old established centers—are unlikely to have a large enough or cheap enough site within their boundaries. The municipalities which have such sites—on the periphery of the big cities—are usually desperately short of money for such projects.

Thirdly, few Canadian municipalities have conducted the economic survey which, coupled with a detailed land-use survey and analysis of site characteristics, would ensure the success of the planned industrial district. The cost of such a survey will deter many municipalities. Fourthly, there are many municipalities without enough economic development potential or available labour force to make a planned industrial district a feasible undertaking. This fact might be evident on superficial examination or might require a detailed economic survey.

Fifthly, there are a number of drawbacks which are inherent in the nature of planned industrial districts themselves. For one thing, they cater only to a certain type of industry: warehousing and distribution, light manufacturing and assembly, food processing, and research foundations. Heavy industry, and those requiring very large sites, are usually able to purchase and develop their own sites. In addition, unless special provision is made for them, infant industries will be excluded because of cost. Then there is the problem of the suburban industrial estate attracting industry and employment out of the central city. Thus the suburban municipality may gain at the expense of the central city. This may be turned to advantage by the central city if it utilizes the vacated industrial premises by consolidating them under a redevelopment scheme such as a high-priced
industrial park, suitable for those industries to which a central location is important. Finally, a poorly planned industrial district can, while attracting industry to the area, exert a detrimental influence on the community by creating traffic problems, i.e., if it should become mainly a centre for trucking and warehousing. This can be avoided by careful selection of industries.

Boley, in conclusion, cites three ways in which planned industrial districts are a positive aspect of community development: ²⁷ firstly, by making industry acceptable to the community; secondly, by increasing the amenity of the community and making it a more attractive place in which to live; and, thirdly, by stimulating the local economy. The conclusion to be drawn from all this is that a planned industrial district, provided it is economically feasible, well-planned, strategically located, adequately controlled, and offers sites at attractive prices, can contribute greatly to the efficient development of a community, can strengthen its economic base and can make it a more attractive place in which to live.

Selected examples of both public and private planned industrial districts which have been developed in Canadian communities are reviewed in the following section.

²⁷ Ibid., p. 560.
5. Some Examples of Planned Industrial Districts in Canada

There were 25 known planned industrial districts in existence in Canada in 1958. These constituted 2.4% of the known planned industrial districts and parks in the United States, Canada, and Puerto Rico. What these Canadian districts lacked in quantity they made up in quality, and it is surprising that with such good examples of what planned industrial districts can do for a community, Canada does not boast many, many more. A possible explanation is that the idea is relatively new and has not been vigorously promoted, and Canada's manufacturing industry is relatively undeveloped. This latter fact, however, should be regarded as an asset and every effort should be made on the part of public authorities at all levels to ensure that new industrial development will take place in such planned industrial districts, whether public or private, and thus spare Canadian communities the problems which have traditionally been associated with haphazard industrial development.

Planned industrial districts in Canada are sponsored by both private and public agencies and are of two types.

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The first type is the planned industrial district which is organized specifically to create a balanced community—a place in which to work and live. Examples of this type are Ajax and Don Mills in Ontario. The second is the ordinary planned industrial district organized by a private entrepreneur for profit or by a public agency to promote the economic development of the community. Examples of these are the Highfield Industrial District, Calgary, Alberta, (a public project) and Annacis Industrial Estate, Delta, B. C. (a private development). It is proposed to examine one of each of these types to see how they came to be developed, what problems they have encountered, and how successful they have been.

a) Don Mills, Ontario.

Location: Don Mills, Ontario.

Initial Development: 1953

Sponsor or Developer: Don Mills Developments Limited.

Sponsorship Category: Private Real Estate Developer.

Total District Acreage: 391 acres (in three separate industrial tracts out of a total 2,127 acre community development.

Acreage Sold or Leased: 391 acres (development completely sold out in 1961).

Area of Rights-of-way and Easements: 12% of total industrial acreage.

Number of Occupants: 74 firms.\(^{29}\)

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The foregoing is a capsule description of the industrial areas of the "new town" of Don Mills, Ontario. An outpost of Toronto 15 years ago, Don Mills was developed as a balanced community to provide work and living quarters for 25,000 people. The industrial districts were keyed to grow with the whole development.

The industrial districts are three in number and are located on the periphery of the residential areas. They are well served by rail and road (the Don Valley parkway passes through Don Mills and the major Highway 401 is less than a mile away). Rail access is supplied to approximately 60% of the sites, but of all the sites designed to be served by rail only 10% actually make use of this facility.¹⁰ This points up the growing importance of truck transportation and the decline in rail transportation in Canadian industry.

Size of lots were varied to give a wide range of choice to incoming industries. Water, sanitary sewers, electric power, and gas were supplied to all sites. Storm sewers were installed in some parts of the development while shallow sodded ditches were used in other parts. All road drainage is by shallow ditches, on the theory that this blends better with the landscaping.¹¹

¹⁰ Ibid., p. 137.
¹¹ Ibid.
An important aspect of Don Mills' industrial development was the restrictive covenant which bound all incoming industries. The covenants oblige the covenanters to respect stringent regulations relating to setbacks, sideyards, site coverage, outside storage, undue noise or odor, types of outdoor signs, parking control, the kinds of materials used in plant construction, site plan, etc. Regulations regarding signs are also in force, and parking in front of the buildings is banned.

The result of all this is that the industrial area presents a very open, park-like appearance, enhanced by the visual excellence of the architecture. According to the Architectural Forum, the presence of industry has been turned into a distinct visual asset, contributing to the desirability of Don Mills as a place in which to live. Boley notes that in a properly planned community "there should be no citizen resistance to the establishment of industry adjacent to residential areas. The experience of Don Mills affords proof of this contention, since the percentage of house re-sales in districts adjacent to industry is neither greater nor lower than that of homes that do not abut the community's industrial areas; in fact it conforms to the overall average".

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32 Ibid.
34 Boley, loc. cit., p. 140.
Although restrictions on industry were severe, the area proved attractive and quickly filled up. The industrialists grew to like their surroundings and when a rezoning of land to the north for industrial use was proposed, they insisted that the city impose restrictions on it similar to those in force in Don Mills. As one spokesman put it, "We don't want anything to happen to the north of us that will detract either from the value or the appearance of our own area". 35

The type of industry in Don Mills covers a wide range, including publishing, foods, electronics, and soap manufacturing. The kind of industry admitted is strictly controlled; hence most are of the light-manufacturing variety, although there are some warehousing and distributing facilities.

As a new town Don Mills is only a limited success; because the costs of living in it are high and because it is a desirable place to live it has attracted people from a higher income bracket than was originally intended. Consequently only about 15% of the people who work in the Don Mills industrial districts actually live in the residential area there. However, judged on its own merits, the industrial sector of the development has been an outstanding

35 Ibid., p. 139.
success and has proved conclusively that modern technology has brought about a reconciliation between industrial and residential land use.

b) **Annacis Industrial Estate, B. C.**

Location: New Westminster, British Columbia, Canada.

Initial Development: 1955

Sponsor or Developer: Grosvenor - Laing (B.C.) Limited.

Sponsorship Category: Private Real Estate Developer.

Total District Acreage: 1,200 acres.

Acreage Leased: 82 acres.

Number of Occupants: 40 firms.  

The Annacis Industrial Estate is typical of the second group of planned industrial districts—those developed with a view to making a profit from rentals on land and buildings and charges for services. Many of the planned industrial districts established in Canada fall into this category. Exceptions are some community-sponsored districts in Ontario and especially in the Prairies. In the Pacific Coast region a first community-sponsored district is being developed in Richmond, B. C.

Annacis Industrial Estates is being developed by an investor with a particularly long-term point of view—Grosvenor Estates. This family undertaking has been involved

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in real estate investment in Britain for several generations but this is their first venture into the Canadian real estate market.

The Estate itself is located on an island enclosed by two arms of the Fraser River close to New Westminster, B. C. The island was acquired by the firm of Grosvenor Estates in collaboration with the construction firm of John Laing and Son Limited, also of Britain, which undertook the actual construction. In order to raise the level of the island and minimize the danger of flooding and poor footings for buildings, the developers arranged with the New Westminster Harbour Board to have sand dredgings from the river pumped onto the island. Further drainage problems were eliminated by pumping.37

The Estate is well situated in relation to the Greater Vancouver area and has 95% of its sites serviced by rail. The island has deep-sea docking facilities. The two main road exits from the metropolitan area, the Trans Canada Highway and the Deas Island Thruway are close by and Vancouver International Airport is only 20 minutes away by automobile. As no housing is planned on the Estate itself, the fact that there are large residential areas close by is important.

The development policy of the company is to lease all sites and if necessary erect buildings to suit the tenants. For industries requiring this service, the developers provide a variety of designs. The four principal categories are:

1. Buildings designed and built to custom requirements.

2. A selection of standard one-storey factory designs ranging from 10,000 sq. ft. upwards, featuring clear space, natural light, low maintenance costs, and adaptable to meet special needs of individual occupants.

3. Small factory units within a composite structure, providing for easy expansion, based on the "incubator" factory concept, and suitable for young and growing organizations, pilot plants, small branch plants, etc. These units are available on short-term leases.

4. Warehouses, bulk breaking or assembly plants, transshipment depots, etc., available under the general leasehold plan.38

Abundant power, water and natural gas are available to industrial occupants. In addition there are amenities such as piped oxygen, community sales and sample display centres, warehousing, shopping facilities, banks, clubs, service stations, and fire protection. Other services, such as design, engineering, insurance, and technical advice are provided by the company while still others such as legal services and meeting rooms are available on request.39


39 Ibid., p. 170.
The planning and design of the Estate is supervised by a team of architects, and engineers and the whole Estate is administered from a central administration office. Restrictive convenants protect tenants from improper use of surrounding sites, guard against the erection of structures built of poor materials, prevent haphazard and inharmonious development of sites, allow no billboards or advertising signs other than well-designed signs advertising the name, business, and products of the tenants and insure that the tenants maintain and use the premises in keeping with the high standards of modern industrial estates.40

A feature of the Estate is that without a large capital expenditure a firm may hold land for expansion adjacent to or close by its existing plant. The developers plan to group industries to enable companies to be of service to one another and to benefit from mutual trade. The concept of the incubator factory is designed to meet the needs of small and growing companies and of firms wishing to test the market with a minimum initial outlay.41

The actual process of development has been slow because of unfavourable conditions which accompanied the 1957 recession and persisted for some years. However, the developers

40 Ibid., p. 171.
41 Ibid., p. 170.
are not in a hurry and the whole development may benefit from the fact of slow growth. There will be time to learn from mistakes and to eliminate any flaws which show up in the planning.

c) Evaluation

The two examples examined above, Don Mills and Annacis, may have developed under conditions not found in most Canadian municipalities. Certainly Don Mills had enormous advantages in being situated on the outskirts of the most diversely and highly industrialized city in Canada. Had the industrial areas been developed without any of the planning and controls associated with planned industrial districts, they probably would have been highly successful. But that is not really the point. The important things about Don Mills are, firstly, that industry, when it has to, will submit to severe controls, and having done so, will come to realize the wisdom of these controls; and, secondly, that residence and industry, when adequately planned and controlled, can exist side by side in harmony, to their mutual benefit.

Annacis is unusual in that it is being developed by a company with a long-term point of view. Few private developers would be prepared to wait for decades for returns on their investment. However, there is one type of developer prepared to wait this long—the government-sponsored development agency. If Grosvenor-Laing cannot invest in every
community, and of course they cannot, a possibly better alternative is for the community itself to develop a planned industrial district. In this way the community can not only retain ownership and control of the district, but can also benefit from the increased capital value and income generated by development.

The overall conclusion is that where planned industrial districts have been developed in Canada, they have been quite successful. Not only have they reinforced the economic base of the community but they have also increased the attractiveness of some areas by providing open space and landscaping where none existed before. One has only to imagine what Don Mills would be like without restrictive controls over industry, in order to realize that the planned industrial district is the surest road to orderly, efficient and aesthetically satisfactory industrial development.

SUMMARY

Industrial location has caused numerous problems at the local level in Canada. Many of these are associated with industrial sprawl, mixing of incompatible land uses and the noxious nature of some industries. It is becoming increasingly important to channel the growth of new industry in such a way as to prevent the problems associated with industry in the central city from being repeated in the suburbs.
Studies have shown that the real estate market in industrial land is inefficient and leads to great waste in industrial land. About half the industrial land in a metropolitan area lies idle because prices are beyond the reach of most industries. The ensuing industrial sprawl is very costly to the municipality, which has to build and maintain roads and install services, which are then used far below capacity.

Municipalities can reduce many of these problems by planning positively for industrial development. This will entail land use planning, zoning, site reservation, and special incentives for and controls over industry. An important tool which may be used by the municipality in influencing industrial location is the planned industrial district.

The use of the planned industrial district has been pioneered in Eastern Canada, in the Prairies, and in B. C. These examples demonstrate the value of the planned industrial district in the harmonious integration of residential and industrial land uses, in strengthening the economic base of the community, and in increasing the efficiency of its internal structure.
CHAPTER V

PLANNED INDUSTRIAL DISTRICTS: MUNICIPAL POLICY AND PROGRAM

1. Limitations of the Planned Industrial District

The problems resulting from industrial development have led to restrictive controls over industry imposed by public authorities. The earliest controls protected the worker in industry from hardship and health hazards; later controls were designed to separate industry from residential use and to protect the residential environment. As technology advances and many industries become less noxious, the trend is towards making industry fit into the residential environment by endowing it with the characteristics which mark the modern residential subdivision—open space, landscaping, minimizing of traffic conflicts. To achieve this integration of residential and industrial land use the most promising means is the use of the planned industrial district which, not without reason, has been considered the industrial counterpart of the planned residential subdivision.

But just as not everyone can live in a planned residential subdivision so also not every industry can locate in a planned industrial district. Some industries will never be sufficiently free of nuisance to locate close to a residential area or to other "clean" industries; for other industries the
cost of locating in a planned industrial district will be too high and they will seek to locate elsewhere; still others, which are financially strong and which have more than average land needs, will prefer to acquire their own sites and develop them as required.

Because of these limitations the planned industrial district developers are restricted in the type of industrial occupants they can expect to attract. Heavy industry, for instance, cannot be included, unless it can be kept at a reasonable distance from residential development; the same applies to industries emitting smoke, dirt, noisome odours or involving noisy mechanical operations. The most likely occupants will therefore be research organizations, distributive facilities, assembly plants and "clean" light to medium manufacturers. The firms will be of small to medium size and will include branch plants of U. S. industries and of other industries already in existence in Canada.

The policy of the developers regarding land prices (or lease costs), number and type of services offered, and restrictive covenants will of course to a great extent determine the type of industrial firm that will locate in a district.

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It is possible to visualize a municipality with several different districts, each catering to a different clientele. It is important, however, that the developer should make a specific appeal to the type of industry desired and should ensure that development will not be "forced" by the type of industry initially locating in the district. If, for instance, a trucking firm should be the first to locate in a district, it could attract other industries of a similar type and thus set the tone of the whole district. The services and advantages offered by the district should therefore be geared to the needs of the industries it is hoped to attract.

The advantages and disadvantages of the planned industrial district from industry's point of view have been enumerated by Murphy and Baldwin. The main attraction is dollars-and-cents savings and these are accomplished by reason of the elimination of development costs, operating economies as a result of shared facilities, such as sewage treatment and restaurant facilities, and tax savings as a result of special tax concessions frequently offered in planned industrial districts. In addition, the "package plan" usually offered by a district, in which it handles all negotiations with the local authorities, as well as all other aspects of site

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2 Ibid., p. 81.
development, is an added attraction. (Where the municipality is the developer, this should be even more of an attraction). Other aspects of planned industrial districts are considered advantageous by industrial tenants:— protection from neighbour-hood deterioration, site readiness leading to a quick start on production, compatibility with the other tenants, possibility of linkage with other firms and carrying out joint projects and security from break-ins and trespassing.

The offsetting disadvantages are:— possible expansion problems (these can be minimized but not entirely eliminated); restrictions that may become oppressive if the firm should wish to change its product or method of operation; heavy initial cost if the site is purchased; and loss of identity for advertising purposes. These, of course, could be important to individual firms, but the lease system can eliminate heavy initial costs, the "nest factory" can ease problems of expansion and to the smaller firm the prestige of the planned industrial district address is more important than the possibility of advertising its own individual plant.

The economic advantages of industry to a community are obvious, but the "hidden" costs should not be ignored.\(^3\) Thus

there will be increased servicing costs for sewage disposal, water supply and other utilities, fire protection and policing. In addition there should be an increase in the residential population of the community (unless it is an area suffering from high unemployment). It has been calculated that the increase in a community's population is nearly triple the number of new jobs provided by a firm; this means a demand for further schools, teachers, new streets and utilities and more police and fire protection. Since residential areas, especially low-density areas, mean relatively high costs and low returns to the city, the net benefit to the community from having industry locate in it may be less than it appears at first glance.

The decision as to whether an individual community in Canada should adopt a policy of promoting planned industrial districts depends on a careful evaluation of all the factors involved--plus and minus. A lot will depend on the community's basic reasons for wanting to attract industry, or a certain type of industry. One community may have a surplus of female labour and may wish to provide employment opportunities for them. Another may have a serious unemployment problem and be willing to offer sites in an industrial district at attractive rates to induce industry to locate there. A third may be alarmed by haphazard industrial development and may wish to rationalize the pattern of industrial location
within its boundaries. A fourth may wish to redevelop a centrally located area of mixed development exclusively for industry. Most municipalities are aware of the beneficial effects of industry on tax revenues but this may not be the all-important consideration. The planned industrial district is a useful tool for furthering the community's ends by encouraging industrial location.

The decision to promote planned industrial districts will depend on a feasibility survey. This will depend on two factors: one, the "natural" attractiveness of the area to industry and, two, the "artificial" attractiveness the community can create by means of tax incentives, competitive price rates, range of services provided, and such extras as good community planning, and educational and training programs. The success of the program will depend on the accuracy of the feasibility study, the suitability of the site chosen, the adequacy of the site planning, the appropriateness of the restrictions imposed, and the competence of the management. Before reviewing these in detail, the necessary prerequisites to sound industrial planning must be considered.

2. Prerequisites to Industrial Planning

The most important prerequisite to industrial planning in a community is a positive attitude toward industrial development. The municipality of Scarborough, in Ontario, boasts
that "The needs of industry are given primary consideration in terms of power and transportation facilities: planned residential areas are assured of parklands, schools, community and regional shopping facilities--now and in the future".  

It goes on to declare that "Scarborough is one of North American's first planned communities. Areas for industrial development are provided with properly serviced land, with modern rail and tracking facilities, by a Municipal Governing group and Planning Board which works in support of industrial development--not against it". This is the type of environment most favoured by industry--a community with an overall community planning program, a keen eye for future development--residential, commercial and industrial--and a sympathetic understanding of the needs of industry. The danger of establishing a planned industrial district in an otherwise unplanned community is pointed up in a recent United Nations publication:

4 Scarborough Ontario Canada: The New Industrial Pulse of Toronto (Corporation of the Township of Scarborough, 1958), unpaged.

5 Ibid.
The lack of municipal or regional control to guide development is symptomatic of the dangers of inadequate land use planning and zoning and of inadequate enforcement of regulations; it further indicates that, without such controls and enforcement, an industrial estate eventually could be engulfed by such growth and that even a well-planned project could turn into a congested industrial slum.6

The township of Scarborough is indeed fortunate in that it not only has an excellent community planning staff but also that the development of the metropolitan area in which it is situated is guided by the Metropolitan Toronto Planning Board. Municipalities not so well situated should heed the warning of the United Nations publication that "The establishment of industrial estates cannot be a substitute for an economic development policy of broader scope. It is necessary to coordinate industrial estate projects with over-all development plans for a region or a municipality".7

There are therefore two virtually essential prerequisites for the success of a planned industrial district development program:- a regional development program and a municipal planning program. It is not, however, impossible to establish a successful individual planned industrial district in the absence of a regional planning scheme, provided that the effective demand for industrial land is such

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7 Ibid., p. 3.
that it outweighs the lack of regional control over development. Where industrial growth is expected but the direction it will take is unclear, a municipality may have to supplement its municipal planning program with a survey of regional industrial development before deciding whether or not to develop a planned industrial district. In many cases a detailed analysis may be unnecessary and the task may be well within the capabilities of the municipal planning staff. Since the economic base of the community is usually bound up with that of the region in which it is located, such a survey would have to be undertaken in any event.

The development of a planned industrial district in the absence of a municipal planning program is a far more hazardous undertaking. The district may itself prove economically successful and attract a great deal of industry but the actual costs to the community in increased servicing costs, traffic congestion and haphazard growth outside the district can drastically reduce the benefits derived by the municipality in the form of tax revenue and increased employment. Added to this is the fact that many industrialists nowadays will not locate in an unplanned community on the assumption that the unplanned community is less efficient and therefore more costly in its day-to-day operation, thus requiring higher taxes. Even when tax reductions are offered, it is reasonable to suppose that they cannot last indefinitely, and so
industries will seek other locations.

In any event the device of the tax concession is a very artificial inducement and discriminatory against the established industries in the community, putting them at a competitive disadvantage with the new industry. What may be necessary is a reorganization of the tax base of the community, to bring revenue more into line with the actual municipal expenditures. At the present time provincial subsidies to municipalities are second only to property and business taxes as a source of municipal revenue. Thus the Province, by reserving to itself the most lucrative forms of taxation, based on income and consumption, is able to play the role of the benevolent despot, leaving the municipal government with little room to manoeuvere within an already tight budget.

Three possible solutions have been offered to this problem:—to broaden the local tax revenue base; to revise and rationalize the system of grants-in-aid; or to regroup both revenue and responsibilities, provincial and municipal, on a functional basis. While the rural vote carries more weight than its

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urban counterpart, reform of provincial-municipal relations are liable to be slow; however, requests of local municipalities for provincial aid in the field of industrial development are liable to be more sympathetically received than requests for assistance in the provision of such social capital as streets, sewers and water mains.

If a municipality goes bankrupt it becomes a charge on the Provincial Government; consequently the municipality that wishes to embark on a project involving a large amount of initial capital expenditure, such as the development of a planned industrial district, must convince the senior government of its financial responsibility. The most useful device in putting municipal finances on a sound footing is the five-year capital budget, by means of which all capital expenditures scheduled in the next five years are estimated and taxation policies arranged accordingly. Since Councillors are often elected for only one or two years it is very difficult to get them to plan for five years ahead, but such financial planning is essential for a sound development program. Capital budgets have to be geared to the community plan and should include estimates of expenditures on roads, buildings, and structures in the actual locations they will occupy.


11 Rowat, op. cit., p. 105.
From this it can be seen that capital budgeting and planning must go hand in hand; otherwise a municipality may acquire a tract of land for development as a planned industrial district, but may find itself short of cash to carry out its development immediately, thus losing a number of industries and the accompanying revenue. A case in point is the Municipality of Richmond, B. C. which acquired a planned industrial district site in 1962 but must wait until 1965 or 1966 to begin development because the necessary cash is not immediately available.  

Finally, before development takes place a decision will have to be made on whether to sell or lease sites in the planned industrial district. While the selling of sites appears to be the most common practice in North America, this is not necessarily the best thing from the point of view of the developer. In Britain all the government-sponsored estates and most of the privately-sponsored estates are on the leasehold system. There are obvious advantages to leasing industrial land, especially where the developer is a public agency. There is, firstly, the possibility of maintaining control over the industrial tenants and, secondly, the

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12 Statement by William Kerr, Richmond Municipal Planner, personal interview.
possibility of benefiting from the increase in the value of the industrial site over the years. While many private developers include covenants, restrictions and detailed reservations in purchase contracts, it is rarely possible to exercise in this manner the same degree of control as is possible by means of a leasehold contract. Besides, it is possible to change the restrictive clauses at the end of the leasehold period, whereas this may be more difficult, if not impossible, in the case of the purchased site.

3. Industrial Policy Recommendations at the Three Levels of Government in Canada

It is of value here to recapitulate the policy recommendations that have emerged from the discussion up to this point. From the Federal Government a measure of guidance is expected in the matter of industrial development, including concern for the physical plant of industry and its location in the community. That greater Federal participation in local development programs is just around the corner is indicated by the recent establishment of three agencies: the Area Development Agency of the new Department of Industry, the Atlantic Development Board, and the Agricultural Rehabilitation and Development Administration of the Department of Agriculture. Consistent with its policy of reducing regional

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differences in income, relieving unemployment and generally strengthening the national industrial base, the Federal program will probably concentrate on the development of industry in the depressed regions of the nation. For this task it has an excellent tool in the use of the planned industrial district. By this means it can assist growing firms in the early phases of growth; it can grant special financial assistance (perhaps through the Industrial Development Bank) to industries locating in a planned industrial district, knowing that its investment will be protected; and it can stimulate private investment in the national economy by thus setting up the framework for industrial development. In addition, when the success of a planned industrial district program carried out by Federal and local agencies in partnership becomes established, it will induce other local authorities to initiate their own development programs with a minimum of assistance from the Federal Government.

While the Federal Government may be expected to promote some industrial decentralization on the national level to assist the growth of the less developed regions, it will be the task of the Provincial Governments to supervise industrial development on a regional basis. The need for planning on a regional basis is pressing but efforts in this direction in Canada have so far been pitifully weak. The Province of
Ontario has done a number of regional studies but the findings have not been translated into a regional plan or program. The Lower Mainland Regional Planning Board of British Columbia has done some excellent studies, leading up to a Regional Plan, but its staff are so few and its budget so small that it is fast becoming, in the words of its ex-director, "an inexpensive, cynical exercise in futility". The B. C. Provincial Government's contribution to the Board of $5,000 per annum poorly reflects the planning needs of a region containing nearly three-quarters of a million people.

There is need for a searching reappraisal on the part of all Provincial Governments in Canada of their attitude toward regional and local planning and development. Plagued by financial problems, the municipal government may regard the setting up of a community planning agency as just another frill calculated to increase expenses without producing any returns. They may fail to realize that in the matter of attracting industrial development "the municipality which lacks a sound planning program is at a distinct disadvantage".

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What can be accomplished when provincial and local bodies get together has been shown in the formation of the Municipality of Metropolitan Toronto, the carrying out of the St. Lawrence Seaway Project and the Development of the South Saskatchewan River. Principles of provincial and local cooperation here tried should now be applied on a province-wide basis. It is the task of the Provincial Government to give leadership to the local authorities in initiating planning and development programs. It should be Provincial policy to promote regional and local planning boards, to encourage the hiring of planning staff, and where necessary to carry out regional development studies. In addition it should promote industrial development at the local level by encouraging the local communities to develop planned industrial districts, to assist them with grants-in-aid and low-cost loans and to pass the necessary enabling legislation to allow the local authority to lease land for industrial purposes.

The local authority should accept the principle of planned industrial district development as the most efficient and desirable method of developing its industrial potential. It must limit speculation by identifying and reserving industrial sites and incorporating them in its community plan. It must be prepared to acquire industrial land out of municipal funds and develop it as a planned industrial district. Bredo suggests three possible approaches to this municipal
participation in industrial development:

1. The municipality may itself develop industrial tracts; this will involve the purchase of land, the installation of appropriate utilities, streets and road layout, and possibly buildings.

2. The municipality may establish a public development commission or corporation charged with the responsibility of development of an estate on the basis of certain prescribed policies.

3. The municipality may encourage the formation of a development foundation having the backing of a chamber of industry and commerce or a public-spirited group of citizens.16

The approach of the City of Calgary, Alberta, has been to set up a Department of Industrial Development within the city government and working in close cooperation with the City Planning Department. The City operates with a capital budget, acquires and improves industrial land and sells off the ready-made sites to industrial firms. There is a package price of $6,750 per acre which includes power lines, sewer and water lines and rail lead-in plus deep-base gravel roads ready for paving.17

Which administrative device the municipality uses to promote the development of planned industrial districts is


unimportant, so long as it accepts the validity of the principle and undertakes the necessary tasks which will make a planned industrial district development program successful. These include: an industrial survey on a regional basis; a community planning program; a capital budgeting system; survey, identification and reservation of industrial sites; an educational program to "sell" the idea to the citizens; acquisition and development of the industrial tract; and an advertising campaign to attract industry.

The municipality will also have to adopt a positive policy toward industrial development which takes place outside the planned industrial district. This should consist of a municipal policy favouring the development of industrial land on a planned basis, thus encouraging private developers to emulate the standards set by the municipally managed industrial districts. In addition the municipality should discourage industrial development in unsewered and unimproved areas and should require all industries to meet certain standards of off-street parking, building setback, landscaping, site coverage by buildings, and degree of nuisance factors allowable.

4. **Planning the Industrial District**

To determine the feasibility of an industrial district development program in a municipality a survey of the industrial potential of the municipality will have to be made.
Where studies of the future demand for industrial land on a regional basis have already been carried out, as in the Lower Mainland of B. C., a detailed survey of regional industrial development on the part of the municipality is unnecessary. In the absence of such studies the municipality will have to conduct the survey itself.

Methods of forecasting economic growth in a municipality usually consist of techniques developed from the basic-nonbasic concept of urban economic functions. The basic-nonbasic employment survey distinguishes between those employed in providing goods or services for people outside the survey area (basic activities) and those employed in providing goods and services for people within the survey area (non-basic activities). This leads to the establishment of the relationship between the basic and non-basic employment in the area, and the forecasting of future trends in employment. Chapin considers the employment forecast useful for the following reasons:

1. It provides information of concern to population studies which in turn are used in estimating space needs for residential areas and community facilities, and

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2. It supplies a direct yardstick for use in scaling land requirements for industrial and commercial areas.\(^{19}\)

Since the employment forecast leads to predictions of land needs it is very useful to the planner. If the time or the staff is not available to conduct a thorough survey, a close approximation may be obtained by analyzing and forecasting employment in three or four basic industries. Since employment forecasts for larger areas or regions are usually available they can be scaled down to predict employment in a smaller area.\(^{20}\) For the municipality with slender resources this is a satisfactory compromise.

From the industrial survey it should become clear whether the establishment of a planned industrial district is a feasible undertaking. After the decision to proceed has been taken, the next task will be the selection of a suitable site from the alternatives which will have emerged from the land use survey. Bredo has listed a number of factors which will influence the final site selection.\(^{21}\) These include: the comparative ease of land assembly; the present zoning; the size of the tract, the slope of the land; the cost of


\(^{20}\) Ibid., p. 140.

\(^{21}\) Bredo, \textit{op. cit.}, p. 79 et seqq.
installing utilities; the availability of economical transport; access to railroads and other transportation facilities; and access to residential areas. A superficial assessment of each alternative site on the basis of the above factors may be enough to base a decision on but if necessary a detailed comparative analysis may be made. In the case of Richmond, B. C., the industrial studies of the Lower Mainland Regional Planning Board had established the feasibility of developing a planned industrial district in North Richmond, but the deciding factor that induced the municipality to develop a planned industrial district was the desire of the owners to sell the site to the municipality rather than to a private developer. In this case all the other factors such as zoning, size of tract, cost of utilities and access to residential areas, were favourable to the development of a planned industrial district.

22 Ibid.


24 Statement by William Kerr, Richmond Municipal Planner, personal interview.
While it is not intended to examine the details of the site planning of planned industrial districts, some of the more important aspects will be mentioned briefly. The United Nations pamphlet on "The Physical Planning of Industrial Estates" has this to say about the importance of a comprehensive plan for development for a planned industrial district:

It is just as necessary to have a comprehensive plan of development for an industrial estate as it is for a community. This is called pre-project or advance planning, and it is designed to ensure orderly development and that the site will be economical convenient and attractive to industrial users. Such a comprehensive plan of development should include the following: detailed information on the possible sites and why the proposed site has been selected; a tentative layout including the location of streets, access roads, rail and utility easements, building lines, etc., and the nature of the facilities to be offered to the tenants: whether factories will be provided and their design and ranges of types; provision, if any, for such communal facilities as canteens, health station, post office, and bank and for the various industrial facilities such as training and advisory services, and land for expansion.

The actual site plan will depend to a great extent on the requirements of the industries it is hoped to attract to the district, and the physical characteristics of the site itself. However, Bredo has listed a number of principles

which are designed to increase the attractiveness and efficiency of the district, and which include such considerations as minimizing the length of roads, railways and other utilities to reduce costs, providing a choice of site sizes to meet the specific requirements of various industries, zoning the district itself in order to segregate different types of industry, and maintaining a high degree of flexibility in the development plan.

To look after a planned industrial district or districts properly, the municipality will have to hire professional full-time management. The most promising device is the industrial development department (as in Calgary, Alberta) working in close cooperation with the planning department and the Council. To ensure that the planned industrial district will be a success, it has to be vigourously promoted and this would be one of the major functions of the industrial development agency. The professional competence thus acquired would pay dividends should the municipality decide to expand its planned industrial district program.

5. Effects of a Planned Industrial District Development Program

The advantages of a planned industrial district to the community have been detailed above. They include:— the

26 Bredo, op. cit., p. 87.
attraction of industry into the community; an increase in the
tax base; control over industrial nuisances; the provision of
jobs; and reduced costs for the extension of services and
utilities to industry. The disadvantages associated with
planned industrial districts, are mainly the result of poor
planning. Some side-effects, such as an increase in residen­tial development, are inevitably concomitant with industrial
development, and it is far more preferable that residential
development should accompany industry into the community
rather than precede it.

One of the major effects of a planned industrial dis­
trict program sponsored by the municipality would be a
modification of the real estate market in industrial land.
The identification and reservation of industrial sites would
reduce speculation but if the municipality did not itself
undertake the development of a planned industrial district,
prices could still remain prohibitively high and force
industries seeking sites to look elsewhere. The effects of
a municipal decision to develop industrial sites and sell
them at cost or lease them at favourable rates have been
commented on by the Lower Mainland Regional Planning Board
as follows:
Prices within an industrial estate should not be too different from normal market values. High land prices are not in themselves evil, but perform a useful function in city development. They normally mean smaller sites, which in turn mean higher employment densities and these, when concentrated near focal points on a highway system or near good transit locations, constitute efficient use of both land and facilities. Disruption of the pattern of land values would disrupt the normal development pattern. Instead the aim should be merely to temper land values sufficiently to ensure that no industries are lost, or to achieve greater concentration of development where desired.\(^{27}\)

While this respect for the "normal development pattern" is sometimes commendable, one may question whether the normal pattern of industrial development has produced convenient, efficient, and economic communities in the past or is likely to do so in the future. In other words, shall the public interest be deemed to be served by letting development take its natural course, or is the public authority justified in stepping in and altering the "normal pattern" by acquiring and developing industrial sites as planned industrial districts and putting them on the market at something less than the so-called market value (which may be somewhat theoretical since little land is changing hands and the "asking" price rather than the selling price is reflected in it)? In discussing the elements of the "public interest" prompting the use of controls, Chapin cites "health and safety",

\(^{27}\) Lower Mainland Regional Planning Board, \textit{op. cit.}, p. 18.
"convenience", "economy", and "amenity". He defines "convenience" as "a derivative of the locational arrangements of land use and the relationship that each functional use area bears to every other one". He considers convenience as capable of being "judged in terms of home-to-work, work-to-recreation, home-to-shopping, shopping-to-work and a variety of other area relationships intrinsic to the urban land use pattern. He associates economy with "efficiency in the land use pattern and its public cost implications, whether in terms of municipal expenditures or cost to the urbanite in general", and believes that "the location of use areas and their intensity of development are key considerations of economy".

It would appear therefore that the municipal Council which seeks to enhance the amenity, convenience and economy of the community through planned industrial district development is simply serving the public interest by preventing undesirable development resulting from the imperfections of

28 Chapin, op. cit., p. 42 et seqq.
29 Ibid., p. 50.
30 Ibid.
31 Ibid., p. 51 et seq.
32 Ibid., p. 52.
the real estate market in industrial land. This is a legitimate action of government and while speculators in industrial land will object strongly the ordinary citizen will applaud the wisdom of the decision. When the Municipality of Richmond, B. C. decided to develop a planned industrial district, in the ensuing municipal elections those who ran for office on a platform of opposition to this public interference in the industrial land market were soundly defeated. 33

The municipality will not, however, have to offer industrial land at prices substantially lower than current market prices, but should endeavour to keep them roughly on a par with the going rate. The attraction for the industrialist will be in the number and refinement of the services provided in a planned industrial district as compared with those usually offered in a raw industrial tract.

An important side-effect of a municipal planned industrial district program is the general up-grading of the quality of industrial development in the municipality. To compete with the publicly-owned districts, private developers have to offer to industry a range of services similar to that offered in the publicly-owned district. This double effect

33 Statement by Mr. William Kerr, Richmond Municipal Planner, personal interview.
of keeping prices low and quality of development high has been commented on by the Lower Mainland Regional Planning Board as follows:

In Edmonton, Calgary and other prairie cities relatively low land prices have been maintained and very attractive estates have been developed, to the great benefit of the community as a whole. Furthermore, their operations have had the most desirable secondary effect of making competing land owners match the quality of the city's product, so that Calgary in particular now has several such estates, public and private.34

The fact that private developers can compete with the city and still make a profit is undoubtedly one of the strongest arguments in favour of public enterprise in the form of planned industrial district development.

6. Conclusion

The growth of the automobile industry in the 20th Century has made the modern-day industrial revolution both necessary and possible. The shift to mass-production methods pioneered by the automobile industry led to the migration of industry from the central city to the suburbs in search of space to build single-storey factories and horizontal production lines. The industry's product, the automobile, made it possible for the employee to travel longer distances from his home to his place of work. As people grew more affluent

34 Lower Mainland Regional Planning Board, op. cit., p. 18.
they demanded better, safer, more convenient places in which to live. The result has been the planned residential subdivision. With the growth of large residential markets in the suburbs the downtown shopping centre became inconvenient to use and the regional shopping center has evolved. In the past twenty years or so interest has grown in the creation of pleasant, convenient and efficient working places; hence the rapid increase in the number of planned industrial districts being developed in North America.

The planned industrial district is the industrial counterpart of the residential subdivision but with different locational needs. Some locational factors that would normally be considered detrimental to a residential area, such as the proximity of a major highway, railway, or airport, are definite advantages to a planned industrial district. Since one of the attributes of a planned industrial district is that it makes industrial development compatible with residential development, it can conveniently be used to act as a buffer between residential areas and those uses which of their nature are incompatible with residential use. Thus the planned industrial district is an important potential building block for a convenient, efficient, economical community.

It is possible to identify industrial sites in a community which are potential planned industrial districts, but even when a private developer is willing to develop such sites on a planned basis he is prevented from doing so by high land prices, fragmented ownership, and in some cases, lack of protection such as is given by a community plan and zoning bylaw. At the same time the community finds its taxation burden growing year by year to pay for the schools, streets and utilities necessary for its residential areas. In such cases the attraction of industrial development into the community becomes virtually a necessity.

In Canada many of the growing municipalities on the fringes of the metropolitan areas are faced with these problems. Other cities in the depressed regions are faced with declining employment opportunities, and the big cities themselves suffer tax losses from the migration of industry from the central cities to the suburbs. For these problems the use of the planned industrial district is proposed as the most promising solution.

By means of the planned industrial district the central city can reorganize its present industrial slums as high-class planned industrial parks, with off-street parking and loading provisions and shared facilities such as restaurants, banks and display areas, resulting in the easing of traffic congestion in city streets, the possibility of rehabilitating
the surrounding area, and increased revenue from industry.

The older city with declining employment opportunities can use the planned industrial district to foster local industrial initiative, to stimulate private investment in industry, and to attract branch plants of national firms to serve the local market from low-cost and well-serviced industrial sites.

For the "fringe" municipality with a narrow tax base and industrial development stunted by speculation in industrial land, the publicly-promoted planned industrial district offers the greatest dividends. It can improve the appearance and efficiency of the community by consolidating industrial development of a desirable type in the areas most suitable from the point of view of overall community development; it can temper industrial land prices to the point where industry can afford to buy sites within the municipality; it can stimulate private investors to undertake the planning and development of industrial districts in competition with the municipality, thus creating a favourable climate for industrial development. Finally, the increased employment and revenue from taxes will strengthen the economic position of the community as a whole.

Canadian economic philosophy does not disapprove of a municipal policy of planned industrial district development. Such a policy is permissible within the framework of Canadian
municipal institutions and there are many examples of its successful application. Therefore the adoption of a program of planned industrial district development, wherever feasible, is recommended for Canadian communities.

SUMMARY

Though the planned industrial district is a useful device in creating an efficient community it has its limitations. It is suitable only for a restricted range of industries; it imposes high servicing costs on the community; and it attracts residential development, which produces little tax revenue for the municipality. Consequently a community should weigh carefully the advantages and disadvantages before deciding to develop a planned industrial district.

A successful planned industrial district program requires a regional as well as a community planning program. In addition the community should operate under a capital budgeting system; it should undertake an industrial survey; it should identify and reserve industrial land; it should sell the idea to the citizens; and it should undertake an active promotional advertising campaign.

Planning the district will include an industrial survey, identification of the site and a comprehensive plan for development of the district. The layout of the site will be according to tested principles of industrial site planning.
and will depend on the type of industry expected as well as the physical characteristics of the site itself. The community will have to develop an adequate administrative system to undertake the management of the planned industrial district.

The development of a publicly-owned planned industrial district will have certain side effects on the community. The market for industrial land will be modified, provoking opposition from speculators and perhaps from real estate interests also. The development of a planned industrial district by the municipality may stimulate private investors to develop private planned industrial districts, thus enhancing the attractiveness of the community to industry.

Public interference in industrial development is justified on "public interest" grounds. Planned industrial districts promote the development of a healthful, convenient and economical community. The political climate in Canada is generally favourable to publicly owned industrial districts and such an undertaking is within the legal powers of the Canadian municipality. It is therefore recommended that, wherever feasible, Canadian communities should promote the use of planned industrial districts as a tool to achieve efficient community development.
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