The Forest Hills New Community Planned Unit Development

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I. Introduction

This article is about the Forest Hills new community development of the Nova Scotia Housing Commission. In examining this development, it is intended to explain its significance in the context of planning in general, community planning in particular, and planned unit development specifically. But first, some background seems appropriate.

There exists a definition of "planning" as simply the thinking that precedes action.\(^1\) If this broad view is accepted, then virtually all human activity constitutes planning, right down to such insignificant decisions as which sock to put on first when dressing. So stated, planning is a process which has been going on throughout the history of man. For the purposes of this article it is preferable to adopt the narrower view that

primarily a way of thinking about social and economic problems, planning is oriented predominantly toward the future, is deeply concerned with the relation of goals to collective decisions and strives for comprehensiveness in policy and program. Whenever these modes of thought are applied there is a presumption that planning is being done.\(^2\)

Increasingly, planning has become a key function of government. But this does not explain the rapid growth of planning during the last one hundred years. Rather, it is a result of this growth. North America has changed from a *laissez-faire* society to one where government intervention into many aspects of daily life is accepted with little, if any, protest. The reason seems to be that, when left entirely on its own, the free market system results in situations which people are not willing to tolerate, and which can only be

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improved by some sort of control mechanism — planning. The necessity of government planning is largely due to the fact that only governments have the resources and abilities to implement planning on the often Promethean scale required to alleviate the problems faced by modern societies.

With the growth of planning, a number of different types of planning have evolved. Basically though, all planning is some combination of the three general planning classes — economic, physical, and social planning. Economic planning is concerned with the prosperity level, physical planning relates to actual physical structure, while social planning involves a preoccupation with the intangible "quality of life" (comprised of such things as health and happiness). Of the variety of planning categories recognized today, the one of most concern to this article is community planning, but land use and regional planning will also arise.

Community planning is possibly the oldest recognized type of planning and has been going on ever since man determined to "descend from the trees" to establish residence on the ground in company with others. The fundamental objective of community planning is "the conscious achievement of the best possible surroundings for carrying out the various activities of living of the individuals who make up the community." While easily stated, the actual fulfillment of this objective is fraught with difficulties. How are the various activities of a community, both present and future, identified? Who determines what are the best possible surroundings for carrying out these activities, and how is it done? The most important question in the context of this paper is, how are the ideal


4. Carrothers, "Planning in Manitoba" in J. B. Milner, Community Planning (Toronto: University of Toronto Press, 1963) at 62. Also, on the same page, the inter-relationship of the three planning components mentioned above is illustrated. Carrothers states, "In clarifying the meaning of community planning, two basic aspects may be recognized. The first is concerned with the physical surroundings of the community; the organization of land use, streets, buildings, recreation areas and the like. In this sense community planning seeks to achieve that physical environment that will best promote the economic, social and moral welfare of those persons living in the community. The second aspect of community planning emphasizes the social and economic relationships and characteristics of the community; family life, recreational, cultural, political and other group activities."
surroundings created, keeping in mind economic and social efficacy? This article should provide answers to these and other questions.

II. Forest Hills in the Regional Context

Planning in Canada, with a few isolated exceptions, only began in the latter years of World War One. This sudden planning consciousness has been attributed to Thomas Adams, the Town Planning Advisor to the 1917 Commission on Conservation, who investigated rural and sociological conditions, and land use, writing a report on *Rural Planning and Development*.

Intensive urbanization began in Canada after 1890, so with the exception of industrial town sites such as Arvida and Cornerbrook, planning was confined to the large cities until quite recently. It was not until the 1950s that systematic municipal planning in small towns began to emerge. Initially this happened only in a few isolated places at the initiative of provincial governments, but as people began to demand higher standards following increasing prosperity, better utilities, streets, shopping facilities, schools and recreational areas were provided and planned for.

Regional planning has only really become important in Canada since the early 1960s, and may be seen as a response to ineffective city planning. It has been suggested that planners have transferred their attention beyond the municipal boundaries in order to control future growth. However, in recent years there has also been an increasing awareness of the importance of the relationship between both large and small centres, and even inter-regional relationships. Efficient transportation systems and an extremely mobile society has led to the replacement of the traditional isolated bounded-area concept with that of self-containment on a regional basis. As a result, all provinces have some sort of provincial planning legislation and regional plan.

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5. The first real planner in Canada was Colonel Richard Moody, who as well as acting as the Commissioner of Lands and Works, was the commanding officer of a company of Royal Engineers which laid out new towns, roads, and services in British Columbia during the 1860-70s. And at the turn of the century government surveyor Dr. George Dawson attempted to improve regulatory controls on land use in new mining settlements such as Whitehorse. M. Hugo-Brunt, *The History of City Planning* (Montreal: Harvest House Ltd., 1972) at 265 and 267


7. M. Hugo-Brunt, *supra*, note 5 at 269
The Planning Act of Nova Scotia allows the provincial government to designate planning regions within the province, and for the Department of Municipal Affairs to prepare a regional development plan for each planning region. One of the planning regions is Halifax-Dartmouth and the surrounding metropolitan area. The most recent Halifax-Dartmouth Regional Development Plan (1975) forecast that the Metro area will experience a rate of growth of between two percent and six percent per annum for the rest of the century, adding that "it is realistic to anticipate a population of 435,000 persons by 1991, and our plans must cater to this possible eventuality." The obvious question raised by the Regional Plan is, where will all the people go? Or more accurately in the planning context, where do we put all the people?

In formulating possible answers to this question, a number of factors were considered by the Metropolitan Area Planning Committee (M.A.P.C.) and the Department of Municipal Affairs. The first factor considered was economic change, since it is generally recognized that economic change is the catalyst which spurs population growth in an area. After pointing out Halifax-Dartmouth's predicted future position as the Maritimes centre for the service sector, the movement of goods, and industrial development, the study that was carried out indicated

The major concentration of jobs will be located in the urban core which includes most of peninsular Halifax and parts of the Old Town area of Dartmouth. A second concentration will be found in the industrial parks in Dartmouth and in the Lakeside Industrial Park.

Having identified the focal points of most of the growth, another consideration was the existing physical services, since it is economically desirable.

to encourage development to go to areas that are already serviced with trunk facilities rather than incur additional costs to open up new areas and leave existing trunks underutilized . . . . if financial resources are to be found for the social and economic programs, then expenditures for new trunk water and sewer services must be kept to a minimum.

8. The Planning Act, S.N.S. 1969, c. 16, subs. 3 (1)
9. Id. at subs. 4 (1)
10. Department of Municipal Affairs, Province of Nova Scotia, Regional Development Plan for Halifax-Dartmouth Metropolitan Area, (Halifax: Queen's Printer, 1975), part four
11. Id. at part five
12. Id. at part ten
While these economic aspects were always kept in mind, the Regional Plan also reflects a concern with preserving the physical environment of the area. Notice was taken of the natural amenities prevalent in much of the area and not yet blighted by suburban encroachment. An environmental impact map was commissioned for use as an analytical tool, and the final regional map contains a number of sites set aside for recreational use and specific development boundaries.

There was some public input into the development of the Regional Plan. A public attitude survey was carried out by the M.A.P.C. and the Dalhousie Institute of Public Affairs to determine, from a list of items, citizen priorities as to where increased effort was needed. In addition to this it was noted in the Regional Plan that

Throughout Encounter Week, the numerous public meetings, the discussions at the Information Centre, and the response in the press, there has been a constant theme that suggests a demand for a shift in priorities from development at any cost to a major emphasis on "people" programs which enhance the physical environment, build on the attractiveness of the area, and improve the delivery of services, particularly the social services of health, housing, recreation, education, and social welfare.

In order to accommodate the various factors identified as the most important considerations, and analysis of many areas as potential development sites was conducted, keeping three main questions constantly in mind: (1) Which areas are the least costly to service? (2) Which areas must remain underdeveloped for natural processes to continue functioning? (3) Which high quality sites must be reserved for community functions, such as recreation, before development?

One of the locations proposed for future development was just beyond the Dartmouth city boundary in the Cole Harbour area. This is one of two areas in the planning region that have a substantial under-utilized capacity in terms of trunk water and sewer services.

13. Halifax-Dartmouth Regional Plan lists the top twelve priorities as: helping kids and others on drugs; places for teenagers to go; controlling water pollution; inspecting and making owners clean up houses that are run down or hazardous; controlling air pollution; public housing for low income earners; public schools; retraining the unemployed; parks and playgrounds; look after homeless children; cleaning and repairing streets; and improving public transportation.

4. Id. at part six

5. Id. at part ten
The Bissett Lake drainage basin in Cole Harbour has the capacity to accommodate approximately 60,000 people, and also has a pollution control centre in operation. The area is trisected by two major roads, Highway #7 and the Cole Harbour Road, both leading into downtown Dartmouth and Halifax. On the Cole Harbour Road is the intended site of a public park and ride transit node of the proposed new urban transit system. This will serve as an outpost of the extended express bus service to downtown Halifax-Dartmouth and the industrial parks. In addition, one of the regional multi-service community centres is also slated to be located in the area.

At the same time as the Regional Plan was being developed, the planning services division of the Nova Scotia Housing Commission (N.S.H.C.) was faced with the ever growing need for housing in the Halifax-Dartmouth area. The Housing Commission had already provided thousands of units of housing in nearby Lower Sackville, but was searching for another site to accommodate further housing development. Mr. Ernie Clarke, Director of Planning for the N.S.H.C. explains:

We knew we were going to have to provide a lot of housing to accommodate the growth in the area. One question was where would it be least expensive to extend facilities (in other words, where would new housing be most economical)? The development of a regional plan to organize growth helped give the Housing Commission an idea of where it would be best to develop new housing.17

The systematic method of thinking which constitutes the planning process always boils down to three components: the survey, the analysis, and the plan. Planners identify all that exists that is relevant; they then analyze all the data and try to meet the revealed requirements in the plan and programme which is the end product of their work.18 As pointed out above, the N.S.H.C. was saved the task of analysing such factors as job concentrations, existing physical services, transportation networks etc. by the Regional Plan. However, in order to determine precisely where to locate the new housing development, a comprehensive site analysis of

16. These roads will both be expanded to four lanes later in the 1980s to accommodate the increased traffic volume expected.
17. The author interviewed Mr. Clarke at the N.S.H.C. offices on March 1, 1979. All further references to statements made by Mr. Clarke are, unless otherwise stated, from that interview.
18. Project Planning Associates, Planning For Smaller Towns (Toronto: 1972) at 6
potential locations within the Cole Harbour area was conducted. The Housing Commission collected extensive data related to the potential sites, aided by representatives of the M.A.P.C. staff, Interfaith Housing Corporation, and the Nova Scotia Department of Development. The inventory of site conditions related to the following items:

- topography, slope characteristics
- drainage patterns, watercourses, wet areas
- vegetation, tree cover
- soils, bearing capacity
- existing land use, residential development, surrounding settlement patterns
- existing roads, site access, utilities, trunk services

The site analysis, and a corresponding housing market study by the Housing Commission, resulted in the identification of what was felt to be the most desirable spot for a new housing development in the area. The location was an area of several hundred rolling, wooded acres situated just along the Dartmouth city limits between Highway #7 and the Cole Harbour Road, a place known by local residents as Forest Hills.

Once the location was decided upon, the N.S.H.C. moved in swiftly and expropriated 963 acres of the undeveloped land. But having assembled the necessary land for the housing project, the Housing Commission was faced with the problem of how to develop the location?

III. The Planned Unit Development Agreement

A special objective of the Housing Commission was to take full advantage of the natural beauty and potential of the site (which was a prime determinant in its selection). The land assembly has many locations with particular amenities such as: panoramic views of the Atlantic Ocean, panoramic views of Bissett Lake and the surrounding area, views of Cranberry and Settle Lakes (which form

20. The author interviewed Mr. Bob Hagel, a lawyer in the Attorney-General's department who handles most of the work for the Housing Commission, on February 26, 1979. Mr. Hagel explains that expropriation was used rather than other means of acquisition because of previous problems with land speculators and "make-a-buck" property owners during the earlier Lower Sackville land assembly. He states, "expropriation is cheaper, faster, and most of all, more certain."
part of the assembly), and proximity to the various watercourses. Obviously the N.S.H.C. envisaged something more than the quick erection of yet another massive suburban jumble. But at the same time, a major responsibility of the Commission is housing for low to moderate income families.

It was determined that it would be possible to provide the desired housing and also take advantage of the various amenities offered at Forest Hills by developing a comprehensive plan, which would set out the inter-related land uses in the entire assembly and regulate the rate of development based on a tight cash flow strategy. The Forest Hills project would have to be a "planned unit development".

Planned unit development has been described by one American court as

a tract of land absolved from conventional zoning to permit clustering of residential uses and perhaps compatible commercial and industrial uses, and permitting structures of differing heights.\(^22\)

The significance of planned unit development, though, is in what it sets out to accomplish and avoid. As one developer explains

Planned unit development is a concept designed to avoid most of the unfortunate results of uniform housing development. The planned unit enables the builder to create, within the confines of a sizeable development, a variety of housing types which will broaden and diversify his market while at the same time enhancing the possibilities of attractive environmental design and providing the public with open space and other common facilities. In addition, the planned unit provides the builder with the appealing possibility of accommodating a greater density of living units without sacrificing spaciousness and livability.\(^23\)

Clearly, planned unit development is an attempt to avoid the problems arising out of conventional zoning. Such zoning has tended to press new residential development into stereotyped molds which are shaped by the concept of lot by lot development. The result is the widely decried monotony of most suburban development\(^24\) and its lack of adequate open spaces for livability and recreation.

\(^{21}\) supra, note 19 at part 6.3

\(^{22}\) Orinda Homeowners Comm. v. Board of Supervisors, 11 Cal. App. (2d) at 768, 772.

\(^{23}\) G. D. Lloyd, "A Developer Looks At Planned Unit Development," 114 U. Penn. L. Rev. at 136 (1965)

\(^{24}\) H. Carver, Cities in the Suburbs, (Toronto: U. of Toronto Press, 1962), at 16
The usual approach to zoning and subdivision regulation has been lot by lot development with street frontage required for every lot and with density controlled by lot size. Unfortunately this puts the emphasis on lot count as a design objective rather than livability, so parks and other common open spaces which reduce the total lot count are rarely provided. Another feature of zoning has been a preoccupation with segregation of uses, predictability of land development, and regulation of building construction in terms of height, bulk, and land area.

When housing was constructed on a house by house, lot by lot basis (the predominant method in the first half of the century) this zoning was workable. But in the last few decades the building construction industry has changed from single-lot construction to subdivision development. Today most housing is done by builders who build a number of houses for sale on the open market and single lot house construction constitutes a minority of housing construction.

As home building and land development grew in scale, the simple and obvious approach became to look at a housing development in its totality as a living environment rather than a concentration on each lot individually. Planners trained to view land development as part of an integrated social, economic, and environmental system argue that the single-lot, single-use type of land development and regulation is no longer valid in all circumstances. One commentator has written

The most serious obstacle in the path of these new ideas is the orthodox zoning and subdivision regulations that swept the country in the twenties. These ordinances were — and in most instances still are — bottomed on the assumption that dwellings must be segregated by type, that creation and maintenance of open space is solely a function of government, and that the home building business is conducted by master craftsmen who merely construct a single house on a single lot.  

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notes, “There is the complaint that zoning by-laws and subdivisions practises and social prejudices have denied to family neighbourhoods every feature that might give variety, surprise, and contrast to the scene. No building but a family house shall enter here. No apartment houses for young people or flats for old people. No corner stores. No housing for those who are outside the privileged circle of home-owners. None who are too poor or too rich. Sterilized and inviolate under the protective shield of by-laws, the rows of small houses are immaculate in their uniformity, their infinite repetition.”

Another writer has added that while existing controls make sense for single lot development, they "offer the residential developer nothing better than a "cookie cutter" with which to create a community." 26

While there are a variety of planned unit development techniques, the most widely advocated is that known as the cluster development. Cluster developments place multi-family units around common open space. Clustering can preserve scenic beauty by maintenance of open spaces as parks or natural areas, reducing roads, beaches and docks through shared facilities, and careful site planning and landscaping. Grouped dwellings also facilitate installation of sewer and water systems. 27

In the cluster technique for arranging planned unit developments large open spaces and recreational areas are obtained by intensive use of land for housing in some sectors while preserving other sectors as open space for the benefit of the residents. This does not necessarily alter overall density. It does permit pooling part of the land for the greater benefit of all concerned. 28

The cluster subdivision and other types of planned unit development benefit the home buyer in several ways: 29 (1) lower priced houses achieved by cost savings through more efficient land planning with shorter networks of utilities and pavements; (2) small private yards for outdoor living with a minimum of maintenance chores and a maximum of time for recreation and other activities; (3) large common areas of green open spaces for an attractive neighbourhood setting maintained by efficient, experienced management; and (4) a neighbourhood recreation centre for swimming, crafts, meetings, and other group activities, at nominal expense through shared costs.

While admittedly a valuable planning technique, planned unit development, especially when it features such things as cluster development and a variety of different residential and commercial uses, is incompatible with the standard zoning and development controls. There are a limited number of ways to work a planned unit

27. Kusler, "Artificial Lakes and Land Subdivisions;" (1971), Wisc. L. Rev. at 408
28. B. Hanke, "Planned Unit Development and Land Use Intensity" (1965), 114 U. of Penn. L. Rev. at 30
29. Id. at 31.
development in the face of usual zoning restrictions, one method being by density zoning. However, for any ambitious planned unit development some kind of enabling legislation is the only solution.

In Nova Scotia the enabling legislation is found in the Planning Act. It contains paragraphs 33(2) (b & c) whereby an area can be taken out of ordinary zoning control by means of a by-law. On August 15, 1972, the Municipality of the County of Halifax passed by-law no. 35 — The Planned Unit Development By-Law. This by-law allows the municipal council to enter into an agreement with a developer for the planned unit development of not less than ten acres within Halifax County. The by-law provides that before approving or varying any such development scheme, the council must consider its suitability in relation to existing development, services, natural surroundings, and other various factors. It also covers such matters as which legislation will prevail in case of conflict between the planned unit development agreement or by-law and the Planning Act or other zoning by-laws, the amount of open space to be retained in the development, and the posting of security by the developer. Pursuant to the by-law an agreement was entered into between the county of Halifax and the Nova Scotia Housing Commission on November 4th, 1976, relating to the planned unit development for the Forest Hills subdivision.

Bob Hagel is convinced that the Housing Commission could only have accomplished the Forest Hills project by means of a planned unit development agreement. He noted three advantages of a

30. B. Hanke, “Planned Unit Development and Land Use Intensity”, 114 U. Penn. L. Rev. at 17 (1965), explains that, “Density zoning dispenses with lot size as the key control. Instead it relies upon a maximum number of living units per acre, applied to the development unit as a whole. No longer hobbled by lot size limitations, the developer’s planner arranges the fixed number of living units on the land to obtain the best land use. He designs the best possible environment for living on that site, considering occupant desires, market demand, land features, maintenance needs, and costs of construction and maintenance.


32. S.N.S. 1969, c. 16
33. County of Halifax By-law No. 35, article 6
34. Id, article 14
35. Id, article 16
36. Id, article 18
planned unit development agreement which are essential to an undertaking on the scale of Forest Hills: (1) certainty, (2) flexibility, and (3) speed.

The certainty is that once the general details of the over-all development plan were agreed to by the county, the Housing Commission could estimate service costs, lot costs, commercial development revenue, and other factors necessary in formulating the cash flow strategy required to ensure that the development will pay for itself. Without this certainty, a developer runs the risk of having a zoning change or plans modified during construction by the municipal authorities (especially after the election of a new council).37

There is also a certain amount of flexibility built into the planned unit development agreement. Bob Hagel pointed out that the development plan is a two-stage process. The general plan is worked out first with general constraints and design, while the actual specific details are decided on later in the development. In working with a planned community of such large dimensions a discretion must exist to vary the specific details somewhat, in order to meet unforeseen future events. The key here is that the developer must still fulfill the general requirements of the plan.

The speed element is really just a by-product of the certainty and flexibility. Since large developments are often dependent on a timed, cash flow scheme, it is important for the developer to know what will be constructed where and when, and be assured that variations can be made where necessary as they arise, thereby allowing him to stick to his schedule.

The agreement between Halifax County and the Housing Commission is a comprehensive, twenty-seven page document, covering inter alia: land use; construction, maintenance and takeover of services; standards; rate of development; purchasers; public park lands; transit services; roads; educational services; recreational facilities; activities; arbitration; and, time. While the

37. Note such an occurrence did in fact happen in the two phases of the subdivision which were in the City of Dartmouth and so not part of the planned unit development agreement. After an earlier agreement in principle to downzone the R1 zoning in that area to R2-R4 in order to accommodate a variety of housing, the City Council (in response to some complaints from residents of the existing Greenough subdivision), decided not to downzone. The Housing Commission modified its plans to try to satisfy the residents, but ultimately had to appeal to the Planning Appeal Board which approved the downzoning the Housing Commission had requested.
agreement makes it clear just what each party expects of the other, it does not set out many specific requirements. Rather the agreement time and time again states that the development should be "in general agreement" with the Master Plan which was developed by the Housing Commission.

IV. The Forest Hills Master Plan

As might be expected from somebody who deals with it every day, Ernie Clarke's definition of planning lacks frills but is very practical. He explains that planning is, "just a matter of sorting things out at each level before you start action on something. You just start on the broad level and keep working things out right down the line until the fine details are taken care of." This approach is evident in the planning of Forest Hills. The N.S.H.C. identified the four levels which had to be sorted out before the new Forest Hills community development could get underway: (1) the regional level, (2) the community level, (3) the neighbourhood level, and (4) the lot level.

The *Halifax-Dartmouth Regional Development Plan* took care of matters on the regional level. The next step for the Housing Commission then was to sort things out at the community, neighbourhood, and lot levels, by means of a Master Plan for development. The Master Plan Report is the working document which provides the method of development and proposed final form of the new community. Released by the Housing Commission late in 1974, the fifty-seven page report deals with proposed physical services, social services and major land demands in necessary detail in eleven parts:

1. Summary of findings
2. Description of the planning area
3. Regional context
4. Size and rate of growth
5. Site analysis
6. Concept plan
   — designation of development areas
   — residential development
   — designation of open space
   — extension of the major street system
7. Servicing systems
   — water supply
— sanitary sewers
— storm drainage

8. Design plan
— land use distribution
— residential
— development techniques
— development standards
— existing buildings
— parkland
— neighbourhood parks
— community parks
— regional parks
— conservation areas
— special parks
— walkways
— recreation facilities
— streets
— schools
— commercial and other uses
— temporary land use
— pollution control
— watercourse reconstruction

9. Development phasing
10. Master plan approval
11. Objectives

The final part contains a list of seven objectives for the Forest Hills development which was established by the Housing Commission for use as a general guide in the preparation of the Master Plan. Rather than lumbering through the entire report, it is more reasonable to examine these objectives and see how they are being fulfilled. The objectives are the key to understanding the Forest Hills development since the Master Plan is merely the major means to achieve those ends.

The first objective is to develop Forest Hills in accordance with the original objectives of the entire land assembly programme in Nova Scotia. These are: (1) the maintenance of a continuous supply of land for housing and community facilities so that the trend of spiralling land costs can be minimized, and (2) the comprehensive planning and servicing of land to provide housing and community development of good quality at minimum cost. Just how successful
The Forest Hills New Community

Prime Treed Areas

Steep Slopes - over 25%

Steep Slopes - 15% - 25%

Low Areas

Swamps

Watercourse

Existing Settlement Pattern

LOON LAKE

BETTLE LAKE
the Housing Commission was in meeting this first objective will become apparent by the end of this article.

The second objective is to provide a high quality of life for the residents of the new community. A three-pronged approach is set out in the Master Plan Report: an environmental, individual, and community approach. From an environmental viewpoint it was decided to retain the outstanding natural characteristics of the land assembly site, such as major tree growth, topographic features, and the ecological system. Working from the site analysis study, a detailed map of the site topography and natural structure was composed. This map isolated prime treed areas and watercourses which, for aesthetic and environmental reasons, should not be developed residentially. Other features, such as steep slopes, low areas, and swamps, were isolated because of their unsuitability for residential development from both an environmental and building difficulty point of view. As a result, early in the planning stage the Housing Commission was able to set aside an open space rationale of connected conservation areas by the lakes, watercourses, and through prime treed areas, as well as designating prime development areas which were worked around steep slopes and low marshy areas.

To create a high quality of life from the individual’s perspective, it was decided to attempt to provide the widest possible choice in all relevant aspects of life. As befits a Housing Commission, one aim was that a broad range of housing types, costs and tenure systems should be made available. To this end, Forest Hills will eventually be composed of: 70 percent detached, single family, single dwelling and two family homes owned or leased: 20 percent town house, attached and multi-family housing available in fee simple ownership, condominium ownership, leasehold and rental; and, 10 percent garden apartments either condominium or rental. This wide offering of housing also helps the heterogeneity in population which is an implied goal of the Forest Hills development. When combined with the availability of programs such as Assisted Home Ownership Plan A.H.O.P. and Co-operative Ownership Plan (CO-OP) it is possible for lower income earners to also own homes in the sub-division. Ernie Clarke also mentions a senior citizen’s development which will be constructed in the latter stages of the plan. The resulting mix of income and age groups is felt by many authorities to be essential to any viable new community.
development in order to prevent stagnation. Ernie Clarke is proud of the fact that a resident could conceivably live his or her entire life in Forest Hills — from a child in the family home, to a young adult in an apartment, to a parent in a family home, to a middle aged person in a condominium, and finally, as a senior citizen in the senior citizens' development. There would of course be a variety of different economic statuses through these statuses.

A broad range of public facilities and services (educational, cultural, recreational) are planned for the benefit of the individual. The recreation facilities in Forest Hills, when completed, will be unsurpassed. Mention has already been made of the interlocking park and walkway system throughout the subdivision. Playground facilities and equipment, and field sport facilities will be provided on many of these parks for outdoor recreation. In addition to this, the Housing Commission is contributing to the capital development cost of the regional and community centre building which will include indoor recreation facilities such as gymnasium, courts and a pool, and ballparks, sports fields and a track on the commons beside it. There already exists the Scotia Stadium arena to which the N.S.H.C. contributed $300,000 (one-half of the capital cost).

After developing a school population forecast (in conjunction with the municipal school board), the Housing Commission set aside land and made plans for the construction of six elementary schools, a junior high school and a senior high school in the project as the population grows. So far the only real move towards providing cultural services has been the provision of money for the heritage farm museum development on the border of the subdivision. This farm museum is operated by the Cole Harbour Heritage Society as a genuine replica of an area farm 150 years ago. Ernie Clarke points out that future cultural development will be supported by the N.S.H.C. but the impetus can only really come from community residents themselves.

The provision of a high quality of life from the community standpoint is planned via the creation of a community identity. The subdivision is actually composed of eleven smaller communities and the town centre complex. Each residential sector is readily

identifiable and should give an intra-community focus to residents. In addition, the Housing Commission is encouraging residents to become involved in the political and planning aspects of later stages of development. A residents’ association has been formed and is becoming more involved with the development of the project. The real guarantee of community identity, however, is in the fact that what is being developed is a complete community rather than a mere housing project. Residents will have access to a multiplicity of services and uses. As well as facilities already mentioned, upon the completion of the commercial development planned for the final stages residents will have access to a variety of stores and services, including a professional centre. Forest Hills will be an entirely self-contained community.

The third objective is simply to have the subdivision be compatible with the region. It is apparent that Forest Hills has been developed in full cooperation with the county and the regional plan, but the N.S.H.C. has aimed for more than this. It’s desire that the subdivision would provide at least its share of municipal and regional services and facilities is being fulfilled. Scotia Stadium is a good example; it is the home of the Cole Harbour Colts (a provincial Junior A hockey team) and an assortment of teams and leagues from the surrounding region. The high school in the subdivision presently accommodates students from all over the area as well as the development. When the wide range of recreational facilities planned and the commercial development are complete, the benefit will endure to all residents of the Cole Harbour area. It would seem that not only will Forest Hills be compatible with the region, but that it may very well become the focal point of the area!

The fourth objective is to create an economically viable urban development — the site should be efficiently developed and the development should produce revenue to recover the costs. The main feature of the subdivision to meet this objective is the cash flow scheme mentioned above. Basically it is just a chain of subsidization, from the commercial development down to non-revenue park space. The price of each lot sold includes its proportionate contribution to the cost of open space used for parks, schools, recreation facilities, street and sewer installation etc., and in this manner the price of each lot subsidizes the non-revenue areas of the community. But each lot is subsidized in turn, as the Housing Commission counts on future revenue from the sale of commercial properties to reimburse it for the cheaper lot prices. This method
OPEN SPACE RATIONALE
- Lakefront Conservation Area
- Commons Recreation Area
- Watercourse Park
- Trail, Bikeway, Walkway
allows the entire development to be constructed on a break even basis.

The whole development features other means of reducing costs. For instance, the joint use of land is employed with respect to church complexes, schools, community, cultural and recreational facilities, with the open space network being the common base. As mentioned above, the average density of single family residential development is increased by clustering to reduce the costs of utilities, streets, and underground services. And all residential construction occurs as efficiently as possible with respect to density and form on lands that are most easily developable. The overall development is occurring on an ordered phase by phase construction which is related to market and cash flow requirements. As one phase nears completion, the services and streets for the next one are being put in, and only then are lots sold in that phase. The lead time between phase designing and construction of homes in the phase is two years.

The fifth objective is to minimize the adverse effects on the community caused by construction of later development phases. A number of techniques are employed to this end. One is the phase by phase incremental development method. Since each phase includes physically separate residential sectors and a localized street system, as well as being separated from other parts by a band of open space parks and woodlands, the effects of construction of one phase on other parts are minimal. Another important method is the provision of normal community facilities such as street paving, playgrounds, sidewalks, parkland, commercial and institutional development, at the same rate as residential development. Very often such facilities are not provided until after the housing construction is finished, since municipal authorities and businessmen want to be sure the market use for them exists. Steps have also been taken to ensure that enough existing tree growth will be retained to diminish the barren effect found in most newly constructed subdivisions.

The sixth objective is to improve urban technology, planning and development practise in Nova Scotia with respect to:

- housing design
- open space design
- residential street design
- servicing systems design
- development programmes involving co-operation in implementation between such diverse development groups as
government, private co-operative groups, non-profit housing corporations, and private builders
— development legislation, zoning by-laws and performance Standards

Housing design is largely up to the individual builders or homeowners, within the requirements set down by the Housing Commission. As a result there is a wide variety of different housing styles, reflecting the performance of those involved. There are also standards to be met for landscaping, site grading and drainage, building placement, site access etc.

An appendix to the Master Plan Report lists in great detail the servicing standards and technical requirements for the development. But to judge to what degree, if at all, these and the various designs used, meet the N.S.H.C.'s objective is beyond the author's competence. Likewise, the improvement in respect of co-operation in the development programmes and development legislation can probably only be judged sometime after the development is complete and hindsight comes into play. However, it would appear from the smoothness with which development is proceeding, that the Housing Commission has certainly not set urban technology or development practise in the province back.

The seventh objective is to establish development controls for the purpose of; (1) protecting natural amenities including designated tree stands and watercourse areas from excessive damage during construction periods, (2) providing safety measures during the construction phase, to eliminate excessive silting along natural watercourses, watershed areas, and lakes, and (3) assisting home builders in the self-help programmes to produce higher quality homes and to minimize the costs of construction.

The development standards mentioned above ensure that all houses in the subdivision are of a certain quality, while the provision of service hookups and existing facilities make the construction of homes easier and somewhat less expensive.

Steps to protect trees and watercourses from damage and silting have been taken by the Housing Commission. All builders working in the subdivision have a clause in their contracts requiring various measures to be taken to prevent damage to existing plant growth. But in addition, other efforts have been taken. For instance: a development buffer strip of 100 feet around the lakes is in force; clearing and grubbing are kept to a minimum; all street rights-of-way are seeded or sodded to restore stable ground cover
where the natural state has been disturbed; storm sewer outfalls are
dammed with crushed stone or granular materials; during the
building of houses, all storm water service connections are covered
with granular materials which will act as a filter of storm water
flows.

These are just the main features of the Master Plan and
procedures being employed at the Forest Hills development. The
plan gives many specific details which cover almost every
conceivable aspect of the development, but it is beyond the scope of
this article to go into greater detail. Suffice to say that the Master
Plan is a comprehensive document which leaves little to chance.

V. Conclusions

Forest Hills is one of the most ambitious planned community
undertakings in Canada. Not only its final size, but also its
completeness as a community, make it a very special development.
Yet very few Nova Scotians are aware of just what is really going on
in Forest Hills. Yes, many people known that there is a new housing
development going on there; and yes, it is supposed to become very
big before it is finished. But beyond this little is known. Most
people do, however, have the notion that it is a “lower class”
development and consists of assisted ownership homes and
duplexes, and will never be comparable to nearby Colby Village. In
other words, Nova Scotians are blissfully unaware of the
significance of the Nova Scotia Housing Commission’s latest
accomplishment.

Ernie Clarke points out that most of the people buying lots in
Forest Hills are unaware and unconcerned about the open space —
park — recreation planning going on. They are attracted to Forest
Hills almost soley because it is a chance to own a relatively
inexpensive home. It is only after the home is complete that they
look around and become aware of the variety of other features
offered.

So far the development is proceeding right on schedule and with
very few problems, a marked difference from other N.S.H.C.
developments in recent years. A drive through Colby Village and
then through parts of Forest Hills points out some of the advantages
of Forest Hills. While the homes may not be as expensive, they
certainly contain a far greater variety of styles and sizes. And while
the clustering of homes makes the lot sizes and elbow room appear
quite small (which it is), the open spaces and woodland which will become the open space rationale/park and recreation system more than compensate for it. The evidence is there which points to Forest Hills emerging as a community rather than just another subdivision.

There have been suggestions made that Forest Hills may become a "dinosaur". Ernie Clarke pointed out that there are some factors which could lead to this eventuality. He mentioned, for instance, that since Forest Hills is predicated on the regional plan, a defect in the plan such that jobs and people will not be concentrated as predicted, could result in a soft housing demand in the Cole Harbour area. This would completely destroy the cash flow strategy and lead to an incomplete community. Likewise a heavy recession could dry up the money which is financing the purchase of lots and homes in Forest Hills. However, he feels that there would not be much that any development could do in such instances.

The Forest Hills development really is a marvellous work. The feature that impresses the author most is how little is left to chance. Everything is worked out on a variety of levels, with every niggling little detail taken care of. It really is an example of planning at its best. And it is important to note that this would not have been possible without the existence of a planned unit development to facilitate the undertaking of such a complex development. Clearly traditional zoning would have prevented such a project.

Ernie Clarke feels, though, that there will not be another Forest Hills type development in Nova Scotia. The main reason is that the sudden demand for so much housing in one area probably will not repeat itself. There is also the problem of the inordinate amount of time and resources necessary to co-ordinate so large a development, as well as the problem of tying up so much capital for such a long period of time. So, while there will be other planned unit developments carried out in Nova Scotia, Forest Hills alone will stand as an illustration of the magnitude and comprehensiveness that planned unit development can achieve.