RESIDENTIAL SUBDIVISIONS IN RURAL AREAS: AN
EVALUATION OF STANDARDS FOR LOCATION
AND DESIGN IN COMMUNITY PLANNING
AREA NUMBER 14, THE
REGIONAL DISTRICT OF
COMOX-STRATHCONA

by

DENNIS BERNARD FRIESEN
B.A., University of British Columbia, 1968

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
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in the School
of
Community and Regional Planning

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1971
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Dennis B. Friesen

Department of **Community and Regional Planning**

The University of British Columbia

Vancouver 8, Canada

Date April 30, 1971
This study examines the residential subdivision of land in rural areas within the context of Community Planning Area Number 14 in the Regional District of Comox-Strathcona, British Columbia. Two separate elements comprise the major portion of the study.

Interviews with a select sample of developers who practise within the Community Planning Area provide information about the extent and practise of residential land development in the study area. The interview schedule is designed to elicit both facts and opinions. The analysis of these interviews supplies the necessary background for the study.

A random sample of residential subdivisions provides the basis for subdivision case studies. Each sample subdivision is subjected to a physical evaluation in terms of commonly accepted planning standards and principles for location and design. The extent to which the sample subdivisions meet the needs of the residents is discovered through interviews with the residents. These interviews are designed to elicit facts, opinions and levels of satisfaction pertaining to the subdivisions.

The background to the problem and the methodology of the study are described. Concepts of residential subdivision location and design are discussed. The results of the comparative physical evaluation of the sample subdivisions and the results of the interviews with residents
are also discussed. Conclusions are made about the location and design of the subdivisions and about the level of satisfaction which the residents express.

It is shown in the study that "rural area residential subdivisions" in Community Planning Area Number 14 do not conform with accepted planning standards and principles. However, it is also shown that the needs of residents who have chosen to live in these subdivisions are satisfied despite those deficiencies.
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CHAPTER I

APPROACH TO THE STUDY

Introduction

The Province of British Columbia covers a vast area of some 366,000 square miles. Because of its mountainous topography, people have settled mainly in numerous communities along the valleys and coastal plains. The east coast of Vancouver Island (Location shown in figure 1) offers substantially more coastal plain for settlement than does the mainland coastal region.

Residential subdivision and development of lands in the province, however, is seldom confined to the immediately adjacent areas of towns and cities. In newly urbanizing regions, development frequently takes place well beyond the urban fringe. Various factors are held responsible for this kind of uninhibited growth. Among these are the obvious factors such as land costs, speculation, and the ease of transportation. Less obvious factors may arise from general economic conditions, social preferences, and the absence of comprehensive controls.

The process of subdivision and development in rural areas abruptly creates new neighborhood environments. When these approach urban residential densities, accepted standards for their development may not differ significantly from urban
subdivisions. Where regional development begins to approach this point, people become increasingly concerned about the quality of the environment which they have in some measure helped to create.¹

It is commonly understood that residential areas must, above all, be livable in order to fulfill the various needs of the residents. Livability can be viewed as a rather basic quality. It has been described as:

... the sum total of the qualities of the urban environment which tend to induce in a citizen a state of wellbeing and satisfaction.²

In British Columbia there are at least four groups of individuals involved in creating the environment in residential areas. These might be listed as the residents themselves, developers, legislators, and administrators.

In the regional district context of British Columbia, both at legislative and administrative levels, concern has been expressed about the general livability of residential areas which have developed in the past two decades. To a large extent, the livability of a subdivision is a function of its location in terms of institutions, its facilities and services, as well as its physical design.

¹Comox District Free Press, (July 29, 1970) editorializes that "The proposed moratorium on subdivisions on all the lands along our desirable coast is a sane move at a time when even grandma is getting her finger in the land speculation pie."

While it is apparent that the natural amenities which provide the setting for a residential subdivision are also important, the process of subdivision development frequently decimates or alienates the very amenity which made the development desirable in the first place. Public concern also arises out of this realization.

The pressures of population and rural development in many areas of British Columbia have been too intense to allow for proper consideration of subdivision location and design factors. There is a growing realization that present trends and developments in residential subdivision must be examined in the light of such factors. By so doing it will be possible to provide a more rational basis for development in the future.

The Regional District Concept in British Columbia

In 1965 the Province of British Columbia introduced legislation to provide for improvements in local control over problems which were wider than immediate municipal boundaries. Twenty-eight regional districts were established for this purpose, with boundaries as shown in Figure 1.

The function of the regional district is seen as a federated approach to local government, where both municipal and non-municipal areas can be represented on the board of directors, on a quota basis. In this was it has been possible for regional districts to establish common services both for municipalities and for unorganized territory within their boundaries.
In order to provide the means of financing for these regional district undertakings, the Municipal Finance Authority of British Columbia was set up in 1969 through legislation. The Municipal Finance Authority is composed of members appointed by Regional District Boards throughout the Province.

Appendix A discusses the concept of regional districts in British Columbia more fully.
Community Planning Area Number 14

Within the Regional District of Comox-Strathcona on Vancouver Island lies a coastal "spread community" approximately 60 miles in length. The Regional District itself can be described as occupying the midsection of Vancouver Island as well as a substantial area of adjacent mainland. (See Figure 2)

The coastal community was originally defined by specific jurisdictional boundaries in 1961, and was called Community Planning Area Number 14. (Appendix B) Functions and regulations for development were then administered by the Department of Municipal Affairs. With the establishment of regional districts in 1965, however, it was intended that administration of Community Planning Area Number 14 would eventually be transferred to the Regional District of Comox-Strathcona.

The north east boundary of the Community Planning area is described by an imaginary line 1000 feet seaward from the high water mark. The south west boundary follows district lot lines at its extreme ends, but otherwise follows the diagonal course of the British Columbia Power Commission right-of-way, with a four mile projection to encompass the Cumberland area.

Viewed in total, the Community Planning Area is a coastal strip of one or two miles width at either end and
widening in the middle regions to approximately seven miles. (Figure 3) It is sixty miles long, stretching northwestward from Deep Bay to Menzies Bay. Topographically, the area is mainly on a coastal plain with a gentle coastline. The forested, mountainous areas of Vancouver Island lie immediately to the west, and at some points forest lands such as privately owned tree farms and tree farm licensed crown lands extend well into the Community Planning Area. Informed opinion locally has suggested that one of the reasons for the intensity of development in the coastal strip has been the prevention of westward expansion into the forest industry areas.

Within the Community Planning Area are contained several incorporated places as well as number of independently functioning water districts. The long history of mining, forestry, and coastal shipping has established settlements which are recognized locally even though they have never been incorporated. Such areas have locally recognized place names: Fanny Bay; Union Bay; Royston; Merville; Black Creek; Oyster Bay; Willow Point; and Bloedel.

The present incorporated places in Community Planning Area Number 14 are Courtenay, Comox, Cumberland and Campbell River. In spatial terms Campbell River is the largest of the incorporated places, so that extension of services to expanding

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3Royston will vote March 27, 1971 to incorporate as a village municipality. Notice of poll was given in the Comox District Free Press (March 17, 1971)
Community Planning
Area Number 14

fig. 3
residential centers is most widespread in that area. This, in part, may explain why land values are reputedly higher in the Campbell River area than in other parts of the Community Planning Area.

Community Planning Area Number 14 is the transportation corridor to the resource hinterland of Vancouver Island. In a sense, portions of the Community Planning Area are an integral part of that hinterland. It has been suggested that while primary industry remains stable, there may be a modest growth in secondary processing of timber products as well as an increase in recreational activity, which must result in expanded service employment.

It thus becomes evident that certain developmental problems may be encountered in Community Planning Area Number 14 as a part of the great resource hinterland. One of these problems involves the provision of services and the supply of an adequate range of opportunities to a sparse and scattered population. Connected with this is the problem of controlling further unnecessary scatteration which would merely compound the first problem. A further concern is the satisfactory multiple

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4 This refers to the forest lands around Menzies Bay and Oyster Bay, the pulp mill at Duncan Bay, commercial fishing fleets at Campbell River, as well as secondary processes of the lumber industry in both the Courtenay-Comox and the Campbell River areas.

5 School of Community and Regional Planning, Planning for Regional Development on Vancouver Island; Student Project 7 (Vancouver: University of British Columbia, 1968) makes these projections.

6 Ibid.
use of resources, such as timber, mining, and recreation, and to tie all of this in with residential opportunities.

Since Community Planning Area Number 14 is identifiable as a distinct area with precise legal boundaries, and it is known to contain the majority of urban and rural development in the Regional District of Comox-Strathcona, it is considered to be a very important area to the region as a whole. Here, more than anywhere else, social policies will be needed to achieve

... a balanced development ... for the whole region. Such a development means that we must protect good agricultural and wood land, and the rural dweller; preserve landscapes for their beauty and leisure potential for present and future generations with more leisure time on their hands; encourage clustering of urban development instead of "scatter" and permanently surround built-up areas with open spaces of farmland or woodland; all are the key in our choice of places to live in, work in, visit and enjoy.8

7Conflict is already evident from the fact that tourists complain of pulp mill odor and smoke when vacationing in the Campbell River area. Forest operators are inconvenienced by recreational use of logging roads, both in terms of trucking safety and fire protection.

8School of Community and Regional Planning, Planning for Regional Development on Vancouver Island, pp. 3, 4.
The Problem

It has already been intimated that in regional growth and development, both location and design of residential subdivisions are matters of considerable importance. While this is true for a number of reasons, the foremost is the well-being of individual communities within the region.

In certain cases, haphazard development of residential subdivisions results in the loss of much agricultural land. Where such land is very limited in quantity, (and this is the case in most agricultural areas of prime quality) an irreversible situation can be very quickly created.\(^9\)

It has also been suggested that in some regions resources quite different from that of agriculture may be displaced by residential development. Natural recreational space, with various unique and psychologically satisfying features may be one of these resources. More complex and unusual ecological units which provide a unique habitat for some species of flora and fauna can also be disturbed.

In the case of Community Planning Area Number 14, prime agricultural land is minimal. It is mainly on the flood plain region between the centers of Courtenay and Comox where large-scale vegetable growing occurs. The dairy industry is concentrated on the middle plain north of Courtenay. It becomes obvious that the major thrust of residential subdivision

\(^9\)This concern has been expressed in the Fruit Belt of the Niagara Peninsula in Southern Ontario.
has not occurred in these areas. It is seen from examination of composite maps for the area that the most "rural area residential subdivision" has occurred on and near the waterfront. While the area covered by such development represents a small percentage of the total Community Planning Area, it should be noted that another resource of considerable importance has been encroached upon - that of waterfront recreational space. A single oceanfront provincial park serves the entire sixty-mile stretch of Community Planning Area Number 14. When the large number of local residents is combined with a large number of summer tourists from all parts of the country, it becomes obvious that the alienation of recreational waterfront is a matter of some concern.

In the spring of 1970 a special regional district planning committee was set up to consider land development in Community Planning Area Number 14. The committee, after assessment of the situation, termed development in the area to be "out of control". This report was based on a knowledge of the minimal regulating controls for subdivision in the area as well as a preliminary assessment of the development activity to that date.

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10 Miracle Beach Provincial Park is located approximately fifteen miles north of Courtenay.

11 Campbell River Upper Islander, (July 15, 1970) headlines: "Land Use Curbs Urged."
The board of directors for the regional district urged a

... subdivision moratorium ... June 2 in a letter to Municipal Affairs Minister Dan Campbell.

It recommended a five-acre minimum area for subdivision in Community Planning area from Bowser to Bloedel in the east coast watershed.\(^{12}\)

While the board of directors was not explicit in the reason for its request, there was the implication that the subdivision moratorium was to serve the same purpose as the moratorium already in existence on the northern gulf islands of the regional district.\(^{13}\)

The Honorable Minister of Municipal Affairs stated that

... he would be agreeable provided there is "a clear public understanding that the chief reason for a moratorium is to provide an opportunity for effective planning to take place."\(^{14}\)

\(^{12}\text{Ibid.}\)

\(^{13}\text{Regional District of Comox-Strathcona, A Land Use Plan and Development Controls: Electoral Area "I" (Victoria, B.C.: Regional Planning Division, Department of Municipal Affairs, 1970) is the pilot project for plans and development controls on the islands: Quadra, Cortes, Denman and Hornby. These projects will result in the lifting of the moratorium imposed on these islands by the powers of the Department of Municipal Affairs, which limits subdivision to the creation of parcels not less than 10 acres in size.}\)

\(^{14}\text{David George: "Realtors Hit Moratorium" in the Comox District Free Press, (July 29, 1970)}\)
It therefore became the official intention of the regional district to use the moratorium as an interim controlling device.\textsuperscript{15}

Developers in the area were displeased with the proposal, but no formal representation was made to the regional district.\textsuperscript{16} It is assumed that developers felt that any attempt at counteraction would be futile, and it may be further assumed that they were already engaged in sufficient activity to carry them through to the lifting of the "interim" moratorium.

In requesting the moratorium, the regional district had also given consideration to the jurisdictional status of Community Planning Area Number 14. At the June 8, 1970 regular meeting of the board of directors a resolution was adopted unanimously.

"That supplementary Letters Patent be sought transferring Community Planning Area No. 14 responsibilities to the Regional District.\textsuperscript{17}

CARRIED

\textsuperscript{15}Ibid., "Subdivision and zoning bylaws would probably replace the five-acre moratorium portion by portion. Planning would be allocated to areas in which there was more development."

The moratorium "... would not impede development, but would give time to evolve satisfactory plans... ."

\textsuperscript{16}Enquiry at Regional District of Comox-Strathcona offices revealed that no developers had approached the District to voice protests, even though individual developers had made strong statements to the press.

\textsuperscript{17}The resolution was forwarded in a letter to Mr. C.H.L. Woodward, Director, Municipal Administration Division, Department of Municipal Affairs, on June 16, 1970.
The resolution did not automatically cancel the request for imposition of the moratorium. It was the opinion of the regional district that the moratorium could be enacted much more quickly through the Department of Municipal Affairs than through local action.

The Department of Municipal Affairs, however, was not convinced that sufficient publicity had been given the moratorium proposal. Therefore the regional district request was not complied with. On September 24, 1970 the Honorable Minister of Municipal Affairs made it clear in a letter to the regional district that the transfer of Community Planning Area Number 14 was "imminent" and that "efforts should be concentrated on concluding the transfer."18

At this date transfer procedures are complete,19 and it is anticipated that the moratorium could be in force by September of 1971. It is not certain, however, that the regional district will continue to pursue this course of action.

The opinion that development in Community Planning Area Number 14 is "out of control" continues to exist, reinforced

18From the files: Community Planning Area Number 14, Regional District of Comox-Strathcona.

19See Appendix C "Copy of Minute Approved March 12, 1971 - Lieutenant Governor."
by the opinion that there is also a shortage of suitable housing. While these opinions are unsubstantiated by formal investigation in depth, it is evident from the present level of land speculation and the upward trend in land costs that these opinions are basically valid.

It is contended that the problems in Community Planning Area Number 14, as perceived by the Regional District, may be deterrents to regional development. The reasons why this is considered a possibility are as follows:

1) The residential "sprawl" of subdivision as characteristically experienced by some metropolitan areas can also place undue demands for services on the regional district.

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21Enquiry among lot owners in two subdivisions reveals that many lots have been sold and resold "three or four" times by speculating individuals. Developers concur that a fairly constant yearly appreciation of land values has occurred.


Complicating the housing problem in the less developed areas is land speculation, which has been intensified by population increase, freedom from land taxation, by provision of roads and utilities by governments, by inflationary trends and by the dearth of alternative investments."
2) The potential friction between conflicting land uses (in this case, recreation and residential) must inevitably increase.

3) The transportation network, now dependent on a single highway is not designed to serve as a collector route for "sprawl" development.
Hypothesis

Community Planning Area Number 14 has certain unique features relative to the Province of British Columbia. Its problems are not unique, however, except in the fact that rapid development within its boundaries has outstripped the ability of government to establish legislative controls.

Two areas of investigation are seen as essential to the prevention of future developmental problems in Community Planning Area Number 24. The first must seek an understanding of the incentives to development, and the practises of the developers; the other an understanding of how the rural residential environment is perceived by the residents.

Both of the above investigations have been included in this study. The latter is examined by means of the formulation and testing of an hypothesis.

The preceding account, together with observations and enquiries made in the course of this study, has given rise to a number of postulates which appear to have validity. The last two postulates of the list below form the basis for the hypothesis tested in this study.

1) Rural area development has proceeded mainly without control by the Regional District.

2) The formulation of policies for future development is both necessary and desirable.

3) Topographic considerations and market preferences have limited development to the coastal plain regions. Waterfront locations are seen as particularly desirable.
4) Waterfront for public enjoyment is in relatively scarce supply.

5) Developers in rural areas are meeting market demands, but to date the market is dictated more heavily by speculative demands on land than by actual housing needs.

6) Subdivision practices have been based on minimal regulations and controls, which are functions of the Department of Municipal Affairs.

7) Location and design criteria which are commonly accepted in urban areas receive small consideration in rural area residential development.

8) The values and preferences of residents in rural subdivisions are satisfied by less rigid standards than those applicable to urban environments.

Arising out of the two areas of investigation already suggested, and based on the postulates listed, an hypothesis has been developed as follows:

RESIDENTIAL SUBDIVISIONS IN RURAL AREAS OF COMMUNITY PLANNING AREA NUMBER 14 NOT CONFORMING TO COMMONLY ACCEPTED PLANNING STANDARDS AND PRINCIPLES FOR LOCATION AND DESIGN SATISFY THE NEEDS OF THE RESIDENTS.

In order to develop a methodology to facilitate the testing of the hypothesis, it has been necessary to explore the general concepts of residential subdivision. Chapter II will be devoted to a brief examination of the subdivision process, the forces which act to bring about land development for residential purposes, and certain environmental considerations as they are
linked to location, design, and human response.

The following section describes the methodology employed in this study.
Methodology

On the basis of the foregoing postulates and the hypothesis requirements, the following methodological steps are suggested:

1) To discover the extent and type of rural area residential subdivisions in Community Planning Area Number 14.

2) To attempt to identify the forces which have operated to produce the present level of residential development.

3) To evaluate the existing rural area residential development in terms of accepted planning standards and principles related to subdivision location and design.

4) To attempt to measure how well the rural subdivisions in question meet social requirements.

Data Collection

Preliminary investigation was accomplished through examination of the provincial assessment rolls at Courtenay, B.C. in 1970. Composite maps for the study area were consulted in the offices of the Regional District of Comox-Strathcona.

The Merriam-Webster definition is used: "SOCIAL ... of or relating to human society, the interaction of the group and its members, and the welfare of these members ..."
also in Courtenay. Rural area residential subdivisions were defined for the purposes of this study.24

No land use data has been prepared for the study area, but use of the assessor's rolls and the composite maps provided a listing of:

1) all subdivision lots
2) all dwellings (both vacation and permanent classifications)
3) legal descriptions for all parcels.

From this information it was possible to obtain a total picture of existing rural subdivision in the study area. The listings also provided the basis for sampling procedures.

A tentative listing of land developers active in the study area was made through personal contacts in Courtenay, Comox and Campbell River. This was supplemented by observation of development advertising billboards on the Island Highway, and by a local newspaper search.

Questionnaire surveys

When it became obvious that a fairly small number of developers were active in the study area, a select sample (to include all the major developers) was chosen and contacts were made with each firm for interview appointments. The questionnaire schedule was constructed to provide for...

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24 These are small lot residential subdivisions in rural areas as referred to in the scope of this study. The subdivision contains ten or more lots of approximately one acre in size or less. It is not contiguous with established centers of the community.
open-ended interviews which would indicate the kind of involvement and also the various policies. The questionnaire was tested for completeness and effectiveness, after which all interviews were carried out according to schedule.

Listings of major blocks of land\textsuperscript{25} which contained residential subdivisions as defined by the scope of this study were used as the basis for a sample selection of subdivisions. The block sampling method was used for reasons of convenience, because of considerable distances involved. All blocks were consecutively numbered, and a sample of seven blocks was selected with the use of random number tables.

Subdivision maps of the sample blocks were obtained from Regional District offices. A select sample of two subdivisions not yet residually developed was additionally chosen. This was done on the basis of field observation which revealed certain "innovative" aspects in these subdivisions. Maps of this sample were also obtained.

All residences were located within the sample blocks, and a random subsample of thirty-eight residences (classified permanent)\textsuperscript{26} was obtained. This represents approximately 3.5 percent of the residential universe as outlined in the scope of the study.

\textsuperscript{25} The blocks of land referred to are in the form of district lots, sections within townships, and blocks according to forestry classifications. They are usually more than eighty acres in extent, and represent the kinds of subdivision found in earlier agriculture, forestry, and mining history.

\textsuperscript{26} Residences were located from assessment records, which listed both permanent and vacation dwellings.
A questionnaire schedule was designed for use in open-ended interviews with householders in the sample residences. A test run of five interviews was made to determine the effectiveness and workability of the schedule. After minor revision, the sample survey was carried out during a two week period. Three callbacks was arbitrarily set as a maximum for such cases as were not at home or were unable to respond when calls were made.

The test run was used as part of the total survey, since it had been part of the sample.

Analysis of findings

Information obtained from assessment rolls, composite maps, and field observation was first used to assess the type and extent of rural area residential subdivision in the study area. This provided the overall picture of residential land development for the study.

The interviews with developers (usually the branch managers for development companies) were used to determine policies, attitudes, opinions, and methods of practise. They were also used to identify the extent of current activity and the market forces which are influencing this activity. Comparative tables were prepared to indicate the range of specific policies and methods of practise. (Developers' criticisms and suggestions about present and future development in Community Planning Area Number 14 were listed.)
In the block sample, each subdivision was examined as an individual case study, using field observation, plans and questionnaire notes. The general neighborhood composition and the attitudes of residents to their subdivision were noted. A physical evaluation of the subdivision in terms of its location in the community and its design was based on standard evaluative criteria.  

The select sample of two subdivisions with "innovative" features was treated as a separate case study. A physical evaluation was made. 

Questionnaire responses from the subdivision survey were tabulated for overall analysis. Correlation between certain variables were considered as pertinent to the study. Tests were made for significance. Respondents' criticisms and suggestions pertaining to existing and future development in their neighborhoods and in the general area were listed.

Reaching Conclusions

Subsequent to separate analyses, overall conclusions were sought by bringing together the areas of investigation.

1) Physical evaluation of subdivisions was compared with the general levels of satisfaction as revealed by the residential questionnaire responses.

27 Appendix D lists location and design standards used for the purpose of this study.
2) The success of existing residential developments in terms of social requirements was compared with the operation of the market and the performance of developers.

3) Criticisms and suggestions from both residents and developers were subjected to comparison.

4) The hypothesis was tested against general conclusions.
Scope

As already indicated the purpose of this study is to examine existing residential developments in Community Planning Area Number 14. The results of the study can be expected to provide guidelines for the formulation of policies to shape future development. Viewed in total, this represents a proposal of rather unrealistic magnitude. It has been necessary, therefore, to make certain refinements to the scope of the study.

The first step in the refinement has already been achieved by concentrating on the parts of the Regional District where urbanization in rural areas is most consistently occurring, i.e., Community Planning Area Number 14.

Because the Community Planning Area contains a number of small scale established urban centers, a further refinement in scope is achieved by limiting this study to outlying (or rural) areas. The assumption is made that residential subdivision occurring in, or adjacent to established urban centers represents, to a great extent, the logical expansion of these centers. Problems associated with such expansion need to be dealt with separately from those of rural areas, and are therefore considered to be outside the scope of this study. It is contended that the expansion of established centers is not undeserving of study both on the individual and the regional basis, and that these provide the elements for continued planning research in Community Planning Area Number 14.
Preliminary examination of development patterns reveals that an extremely high percentage of rural small lot subdivision in the Community Planning Area has taken place within one mile of the coastline. In urban terms, residential subdivision implies lot sizes of considerably less than one acre. It is therefore subdivisions with lot sizes of generally less than one acre, and lying within one mile of the coastline, to which this study directs itself.

While the term "subdivision of land" is simply defined as the legal creation of two or more parcels from a single parcel, for the purpose of this study residential subdivision can be arbitrarily regarded as ten or more parcels. Cases are exceedingly rare where rural area subdivisions of small lot sizes are less than ten lots in extent.

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28 A wide range of lot sizes is found in most rural subdivisions. The average lot size is approximately one half acre, but often both smaller and larger lots are found within the same subdivision.

29 Arthur B. Gallion and Simon Eisner, The Urban Pattern, (Toronto: D. VanNostrand Company, Inc., 1950) use the subdivision definition of the Subdivisions Map Act, California, which says that any parcel of land divided into five or more parcels within a year is considered a subdivision.
How this Study Relates to Planning

The development of residential areas invariably brings about environmental change. At some point, the planning process must concern itself with residential areas, and therefore it must provide guidance and controls for the creation of suitable residential environments.

In order to provide such guidance, there must first be a clear understanding of the goals to be attained. "In the past few years a great deal of effort in city planning has been going into defining goals for growth and development". Therefore it is the task of the planner to use such methods as are at his disposal to arrive at workable goals.

In planning for residential areas, there must be a basic concern for human needs. The method of the

... questionnaire search for consensus in attitudes or preferences... to make political action on public improvement programs more sensitive to the preference patterns of various segments of the population... is accepted as part of the methodology of planning Social investigation of residential areas, such as is proposed by this study is considered a valid planning procedure. It may be used as an effective tool in the formulation of planning policies, and will be less arbitrary than other direct

30 F. Stuart Chapin, Jr., and Thomas H. Logan, "Patterns of Time and Space Use," in The Quality of the Urban Environment, p. 307

31 Ibid.
methods. Although planners talk freely and loosely about the goals they are seeking to implement, . . . their actual plans usually still feature the traditional solutions of physical planning.\(^{32}\)

It is the planner's responsibility to interpret the goals of the general public, even though they prove to be vastly diverse and characteristically conflicting.

The methodological problems of quantifying so-called social goals are serious, and even if they can be solved, the planner's recommendation on goal choice must still be reconciled with the goals chosen by elected officials and with those of the citizens, which are, after all, the goals the planners and elected officials ought to be pursuing.\(^{33}\)

This study looks at public attitudes and preferences in existing residential areas. It also examines the forces which have brought about these existing situations. In this way it is possible to discover whether the forces which are shaping the landscape mesh with the public interest.


\(^{33}\)Ibid.
CHAPTER II

THE RESIDENTIAL SUBDIVISION

The Subdivision Process

The person who creates a subdivision is not only subdividing the land but is also creating a community. His early decisions will have long-range effects. Therefore, while profit may be his primary concern, he must give attention to the way the land is subdivided and the kind of environment he creates with the provision of facilities and services. These things provide the market attractions which will make his product the most readily salable.

There are necessary steps which must be followed in the subdivision process. The developer cannot assume absolute freedom to do with his assembled land as he pleases, although this was once implicit under the common law. A statutory change in the common law position has come about . . . which regulates area, shape and dimension of parcels.  

1Arthur M. Weimer and Homer Hoyt, Real Estate, (New York: The Ronald Press Co., 1966) p. 335, " . . . the developer of a large subdivision is in effect the developer of a community. The developer of a small subdivision creates at least a part of a neighborhood."

2From a lecture by W.T. Lane, instructor in Law for Local Public Administration, School of Community and Regional Planning, University of British Columbia, February 1971.
Appendix E lists the procedure for subdividing land within municipalities in British Columbia. Regulations are designed to control land development which occurs because of influencing factors.

Population increase is generally accepted as the major factor which gives impetus to land development for any purpose. This factor is expected to be critical when population increases also coincide with economic changes such as increase in business activity, employment, and family income.\(^3\) This became especially apparent in the 1950's in North America, when

The plotting of large acres of raw land for future use and the selling of these for "speculative investment" in anticipation of rapid population increases\(^4\) became a very common procedure.

The speculative investor has several alternatives open to him when he purchases raw land.\(^5\) He can 1) hold the land for a suitable time and resell at a profit, 2) subdivide into lots and streets, 3) subdivide as above and provide utilities and improvements at some level, 4) or also build houses.

One of the factors influencing the developer in making a decision on the preceding alternatives is considered to be the rate of change in land values. While "... land


\(^4\) Ibid., p. 376

\(^5\) Ibid.
values themselves arise out of the appetites, fears and hope of men\textsuperscript{6} such values are also influenced by land use \textquotedblleft... and at the same time operate to determine use.\textquotedblright\textsuperscript{7} This effectively explains why raw land which has not been committed to the production of any resource can still command a price.

In agriculture, land productivity is measured by soil fertility and distance to markets. This principle can also be applied to residential land, where potential productivity depends on the land's characteristics (such as topographical features and climate) as well as its distance from relevant markets.\textsuperscript{8} Using the two basic factors of characteristics and distance to the market, one can begin to list a number of factors or forces which operate to determine land values and the appreciation of these values. They are as follows:\textsuperscript{9}

1) total population
2) population rate of growth
3) location
4) new inventions (directly applicable to means of transportation)


\textsuperscript{7}Ibid., p. 233


\textsuperscript{9}Adapted from Ericksen, \textit{Urban Behavior}, p. 235
5) climate
6) water (an important esthetic consideration)
7) human preferences
8) distribution of purchasing power
9) tax burden

Recent empirical studies indicate that the highest simple correlations exist between the population change variables and the percentage appreciation in raw land prices.

The growth rate of the housing areas seems to be positively related to the level of appreciation. This means that areas which are growing rapidly may have difficulty keeping appreciation down.\(^{10}\)

Schmid also lists other variables such as the growth rate of percentage change in land use and family income which show significant correlations with land value appreciation. It should be noted, however, that one of the population distribution variables tested (i.e., the percentage of the urbanized area population living in the fringe) revealed a negative relationship with land value appreciation. As the percentage of population living in the fringe increased, the appreciation level dropped.\(^{11}\)

It is seen, from the above examples, that success in raw land speculation may be assured to a point, because of the subtle forces acting on appreciation levels. However, it


\[^{11}\text{Ibid.}\]
has been shown that the increase in percentage of fringe area population tends to slow the level of appreciation. Thus, the speculator must at some point also become a developer in order to maximise the potential profit of a parcel of raw land. It is postulated that this situation can quickly lead to a state of over-subdivision, as raw land speculation ceases and developed lot speculation takes over.\(^\text{12}\)

The result of uncontrolled and indiscriminate speculative practices has brought about unsatisfactory situations in some residentially subdivided areas. This is evidenced by residential subdivision in certain coastal areas of Vancouver Island where insufficient attention was given to ensuring adequate water supplies for increased populations, as in certain waterfront areas of Hornby Island.

The public at large is frequently inconvenienced by the loss of ready waterfront access through large subdivisions, as in Astra Bay near Comox, and the Painter-Barclay subdivision north of Campbell River. Here access routes were provided, but obstructions and physical barriers made them unusable.

\(^{12}\)Richard M. Yearwood, "Land, Speculation, and Development: American Attitudes" in Plan: Journal of the Town Planning Institute of Canada Vol. 9, Spring 1968, p. 22, "... it is the multitude of small scale speculators who constitute the bête noire of orderly development of our communities. These far outnumber the large developers and the influence of these operations is far more pervasive and malevolent."
Subdivision Location

Regardless of the desirability of natural amenities on a particular site, the developer of residential land must cater to the market by providing for the market locational demands. He can, of course, by publicity and advertising campaigns seek to influence the market, and it is conceded that he does so. At the same time, it is logical to assume that there is some specific limit to his influence in regard to subdivision location.

The potential purchaser of residential property makes a decision about his ultimate location in terms of the distance to various functions and institutions he depends upon. It is understood that he also gives consideration to other qualities of the location, such as neighborhood character, esthetic attractions, and level of services. In the main, however, he is

... an "economic man" defined and simplified in such a way that we can handle the analysis of his decision-making.

... (his) family will spend whatever money it has available in maximizing its satisfaction.13

In Alonso's uncomplicated approach to locational decision-making the situation is such that employment and all such variables are contained within one specific center or

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13William Alonso, Location and Land Use: Toward a General Theory of Land Rent (Cambridge, Mass.: Harvard University Press, 1964) p. 18 It is obvious that this model is exceptionally simplistic, but in view of the importance of economic constraints in an individual's every day life, it is nevertheless valid.
point in space. In the real world there are likely to be a number of spatially separated variables vying with one another as major influences on locational decisions. In rural area subdivision it can be assumed that locational decisions are related to opportunities offered by the nearest established centers, the distance to these centers, the cost of land and the natural amenities of the site.

In theory, a bid price curve involving certain tradeoffs might be visualized. The curve is defined as

\[ \text{the set of prices for land the individual could pay at various distances while deriving a constant level of satisfaction} \] \[ . . . 14 \]

This curve is normally expected to vary between individuals, according to their personal values and their ability to spend dollars.

In the context of this study, rural areas have much to offer in the way of natural amenities, so that particularly those people who value a rural atmosphere and at the same time desire a certain level of urban-type services can be expected to avail themselves of the opportunities offered by rural "small" lot subdivisions.\(^{15}\) This is undoubtedly anticipated by developers who have attempted to assemble rural lands which offer the finest opportunities. Subsequently there has been much

\[^{14}\text{Ibid.}, \text{p. 59.} \]

\[^{15}\text{Rural "small" lots refers to lots of approximately one acre in size or less.} \]
subdivision and development of these lands.

It has been suggested that "subdivision is the most significant primer in the land development process . . ." so that when certain areas of rural land are subdivided and serviced, a market is immediately created and the expansion pattern begins. A chain reaction is set up with further subdivision and extension of "services", which can develop into the sprawl problems of over-subdivision which are commonly recognized in many metropolitan situations.


17Piped water is usually considered a basic service. When this service is provided in rural area subdivision it supplies an added attraction for people to avail themselves of the natural amenities of rural places.

18Pearson, "Servicing Cost Consequences", p. 20, indicates that "water lines create development expectations, higher values, and higher taxes. Urban subdivision and development create demands for other urban services. Each successive subdivision or servicing step creates demands for the next step in the land development process".
Locational Evaluation

Locational standards have been developed for subdivisions, using various sources of information. These are based on general goals which take into account the factors of public health, safety, convenience, urban amenity and efficiency of development. These are accepted for the purpose of this study. It should be noted, however, that evaluative standards cannot entirely eliminate the problems of sprawl and alienation of lands with prime agricultural or recreational value. Such problems can only be countered by

... regulations for the control of land subdivision in order to provide common grounds of understanding that will result in sound community development...20

19School of Community and Regional Planning, Residential Land Subdivision: A Physical Evaluation, Staff Research Project 2, (Vancouver: University of B.C., 1965) p. 32. See Appendix D of this study for Location Standards.

20Joshua H. Vogel, Design of Subdivisions, (Seattle: Bureau of Governmental Research and Services, University of Washington, June, 1965) p. 7
Subdivision Design

The quality of a residential subdivision is dependent on many factors besides the physical qualities of the raw land. Historically, subdivision of land was usually done according to a grid system, without specific regard for topographical features. The subdivider was frequently just a subdivider. He subdivided and sold lots without improvements of any kind.

Certain problems were connected with the old system. It was often difficult to accommodate and preserve unique or desirable topographic features. More often still, there were extreme difficulties with the provision of grid pattern roads and proper drainage facilities, simply because topographic conditions were too extreme.

Today it is the subdivider who typically provides roads and streets and makes provision for essential facilities. This is so even in rural areas.

In more recent times a curvilinear concept has also been introduced in subdivision design. This has been possible in two ways: 1) by developing areas of vacant land not already plotted in the old conventional grid system, and 2) by replotting older plans where possible. New subdivision on vacant land has

21 Weimer and Hoyt, Real Estate, p. 348.
22 Ibid., p. 349.
23 Replotting is relatively easy where very little of the land is actually built upon. Where the acquisition of many buildings is involved, total replotting would be impractical.
been very common following World War II. Such developments have been on the periphery of cities, and sometimes in vacant areas between older sections of the city.

More thought has been given to the creation of esthetically pleasing and varied neighborhoods as well as to the provision of more economical services. Streets which generally follow land contours are not only more interesting, but they can also put an end to sideyard drainage problems. They can be used to eliminate problems of excessive road inclines, repetitive visual monotony and confusing intersections.

Contour designs for residential subdivision may be introduced into areas where a basic grid pattern of collector streets and arterials exists outside the subdivision. Through traffic is thus discouraged and interior streets are merely access streets. Systems of cul-de-sacs can reduce the total length of roads and services in a subdivision and are generally compatible with contour design. Less land devoted to streets often means more land for recreational space, and it is generally conceded that the provision of open space within neighborhoods is desirable.

A problem which continues to exist in subdivision development of rural areas has not been solved or even recognized

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by many developers to this date. This problem concerns the alienation of land with desirable features for recreation or pure esthetic enjoyment. The newer concepts of interior subdivision design have done much to improve hillside and "view" developments by providing a greater equalization of opportunities for enjoyment of each property. In regard to streams and water frontage, however, there seems to be a certain apathy toward designs which permit the sharing of such amenities as waterfront access and view.

Imaginative subdivision design can provide open space at the waterfront and permit mutual enjoyment of this amenity even by persons whose properties lie well toward the interior areas. Designs especially created for the purpose of drawing interior lots into improved situations with the waterfront have been publicized since the 1950's,²⁵ but such solutions are not often put to use. Instead, waterfront is typically subdivided into large, exclusive lots fronted by a street parallel with the waterfront. This practise has effectively reduced the natural amenity (and therefore the value) of second-row lots, even though waterfront property may command premium prices. The provision of access right-of-way at regular intervals is a rule generally adhered to, but this does not provide a wholly satisfactory solution for interior lots.

Designs have been created for cluster systems which focus interior lots toward the waterfront by the use of road systems and cul-de-sacs set at angles to the waterfront. With a narrow strip of waterfront land dedicated for public use, a much more satisfactory arrangement exists for the neighborhood as a whole. Improved opportunities for interior lots would suggest that the potential value of these lots would be increased.26 It is considered useful to examine several aspects of such designs which may in some way also apply to conventional subdivision and the treatment of desirable waterfront space.

Planned unit and cluster subdivision designs are noted for their attention to the preservation of open space areas. Attention is given to smaller lot sizes (and in the case of the planned unit to a satisfactory housing mix)27 in order to provide for more open space for common use.

A number of factors combine to produce desired environmental quality.28 These are: 1) density, 2) minimum area of the project, 3) topographic features, 4) location of open space, 5) recreation opportunities, 6) and the street system.

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26Insufficient examples exist in the study area of this thesis to provide conclusive evidence of this assumption.

27Housing mix in planned unit developments may range from single family to apartment blocks and towers, depending on the size of project.

28Vogel, p. 27, 28.
Relatively large sites are required for cluster developments, more open space is possible than with conventional subdivision of similar overall density. Open space is so arranged that access is convenient from all units. Recreation space can be integrated with open space.

Planned unit and cluster designs can lend themselves well to waterfront situations. In the past, however, there has traditionally been a good supply of waterfront land in rural areas. It is possible to assume that this is one reason why more innovative subdivision has not been promoted in waterfront areas to date.

It should be noted that certain problems concerning the maintenance of public open space exist. The responsibility and expense for open space maintenance must be assumed by someone. In unorganized territory, this could best be handled by an association of individual homeowners in the subdivision.

The availability of waterfront land in rural areas is constantly decreasing. As the amenity grows scarce, however, it is possible that an interest in more innovative subdivision design will be shown.


30 In British Columbia legal restraints also prevent planned unit and cluster subdivisions.

31 Harbeston and Schlatter, Large Lot Residential, p. 9
Evaluation of subdivision design

Planning standards and principles for subdivision design can only be established after identification of design criteria. Such criteria have been identified, and units of measurement for these criteria have been devised.\textsuperscript{32} These are accepted for the purposes of this study. It should be noted that the measurement method is best accomplished by a combination of field observation and plan analysis.

Since one of the objectives of this study is to gain an understanding of how residents feel about their neighborhoods, the following section discusses some of the more subtle considerations in the evaluation of existing residential places.

\textsuperscript{32}School of Community and Regional Planning, \textit{Residential Land Subdivision}, pp. 80 - 83, Tables 10 and 11. These are shown in Appendix D of this study.
Evaluation of the Residential Environment

The nature of man's response to his environment is understood only superficially as yet. In earlier times, social systems were thought to be relatively uncomplicated. The complex systems of today's urban regions, however, have produced distinctively different life styles and sets of human values.

The spatial environment which an individual or group of individuals perceives is somewhat smaller than the total natural environment. Man's basic desires for the comforts of life and for mobility have led him to produce artificial environments within his spatial environment. This is the network of roads and utilities which are the functional parts of an urbanizing region.

Inside the functional network are found individual neighborhood environments. Since neighborhoods are "Essentially . . . distinctive areas into which larger spatial units may be subdivided . . . " they can in some measure be distinguished from one another by both physical and social characteristics. The neighborhood may be artificially created, or it may be the result of some natural phenomenon such as topography, and it may also be the combination of both.

33Harvey S. Perloff, "Framework for Dealing with the Urban Environment", in The Quality of the Urban Environment, ed. Harvey S. Perloff (Maryland: The Johns Hopkins Press, 1969) lists five elements (or environments) as the natural, spatial (perceived), transportation-utilities, community (Neighborhood), and micro-environment.

At definite places within and adjacent to the neighborhood environment are found even smaller environments of man. These are homes, institutions and work places. They are also the

"... settings for the individual's most intimate social relations as well as for his most direct and frequent contacts with the man-made physical environment." \[35\]

It is theoretically possible to gain an understanding of the neighborhood through an evaluation of its location relative to the larger community, and its physical design.

On the surface, an evaluation of location and design factors in existing residential areas appears as a relatively simple operation. It would be expected that such an evaluation would provide a type of livability index.\[36\] This would indicate the relative success (or failure) of individual residential subdivisions.

A purely physical evaluation can be achieved by relating location and design factors to broadly accepted planning standards and principles. These are quantifiable criteria, but are extremely limited in their usefulness in terms of sociological factors. They are unable to take into account the specific attitudes and values of people in a particular residential place.

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35Perloff, "Urban Environment", p. 19

The personal values which people have are assumed to be the elements of their basic characteristic qualities. Personal values represent real likes and dislikes, which have been a lifetime in forming and once formed do not change quickly.  

This tendency to resist change may be of considerable importance to persons or agencies who are attempting to define values within a certain community. People who have been in a neighborhood for a long time may be expected to retain the same basic values which they possessed when they originally became part of that neighborhood.  

An attempt to define neighborhood quality, however, need not be a complete exercise in itself, but should rather serve as part of a larger exercise to provide guidelines for the development of future neighborhoods. A mere preference survey is not entirely sufficient for this purpose.

People tend to base their own preferences (or what they say they prefer) on what they see others around them doing. Thus, real preferences uninfluenced by other forces, can often be obtained by more subtle means of opinion gathering. This is only achieved by obtaining a better understanding of people.

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37E. Gordon Ericksen, Urban Behavior, (New York: The MacMillan Company, 1954) p. 96, "... men are in a position to dig for roots just like the lower animal forms (and they do), but the more explanatory roots are those of tradition, sentiments, values, skills and prejudices."

38Ibid., p. 192, "... through observing the location in the community where a person settles, we gain early insight into his conceptions of ambition and success ..."
The more common values which people exhibit have been classified by various social science methods. Following are the major group classifications:

1) People who emphasize the economical use of goods and services.
2) People who fit into a self-sufficient and tightly knit family.
3) Those who are deeply sensitive about their physical wellbeing.
4) People who stress the personal enjoyment of their leisure time.
5) Those who evaluate their environment esthetically, by the order and harmony they see in it.
6) Those who are sensitive to others' needs and just in their conduct.
7) Those who place a high value on the freedom to make their own decisions.
8) People who are anxious to control their own environment.
9) People who emphasize social prestige.

It is implicit also that certain groups might be identified whose personal values are represented by a combination of the above classifications.

The choice of a residential place for many people represents a large investment in terms of money, time and personal

satisfaction. Therefore it may be assumed that if there are no constraints in choice of location, people will generally choose to live in areas where the opportunity to maximise their own personal values are most likely to exist.\(^{40}\)

Accepted planning standards and principles derive in part from broad social goals, as nearly as these can be ascertained from individual values and preferences.\(^{41}\) It is possible to assume, however, that those standards and principles which apply to certain metropolitan residential situations do not necessarily apply to every other case. Both social goals and individual values and preferences can vary by area.

What is needed is to consult with people who live in a particular place. By this means it is possible to relate a certain level of social response to the purely physical characteristics and location of the residential subdivision. If a great amount of physical detail were required, consideration would have to be given to such design-related factors as physical site characteristics, services, and possibly even housegrouping and landscaping.

\(^{40}\) Arthur B. Gallion and Simon Eisner, *The Urban Pattern*, (Toronto: D. VanNostrand Company (Canada), Ltd., 1950) p. 250, suggest that "Being a social entity man seeks the companionship of his fellowmen. Generally desiring the association of others as much like themselves as possible, people with common interests assembled in groups to secure for themselves protection and the maximum amenities of life."

\(^{41}\) School of Community and Regional Planning, *Residential Land Subdivision*, p. 38.
It is conceded that the values and true preferences of people are not readily ascertained. Complex sociological characteristics are recognized which are not easily measurable, nor have they been fully explored to date. The realization, however, that available methods of analysis are not as sophisticated as they may eventually become should not act as a deterrent to the use of such social survey techniques as are available.  

42 Saroff and Levitan, Survey Manual, p. 1, "It is our contention that the planner does not really know what "is" if he fails to include, also, a systematic survey of public reactions to the existing physical environment."
CHAPTER III
A SURVEY OF THE STUDY AREA

Subdivision in Community Planning

Area Number 14

At the present time it is evident that a great amount of subdivision and land development has taken place in Community Planning Area Number 14.\(^1\) The major thrust of this activity is clearly seen as development in or adjacent to long-established centers.\(^2\)

The major centers have grown rapidly in the past two years. Cumberland's population is 1534; Courtenay and Comox have populations of 5861 and 2833 respectively; Campbell River has a population of 8261. The trading area population of these centers, however, represents more than double their internal populations.\(^3\)

The secondary thrust of development in rural areas has occurred on a rather large scale as well.\(^4\) Although

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\(^1\)Campbell River assessment in 1969 totalled $104,600,000.00 compared to 1959 totals of $5,800,000.00

\(^2\)This was most readily seen by field observation and exploration of the peripheral regions of these centers, with the aid of composite maps to indicate the most recent subdivision activity.

\(^3\)Trade and Commerce Magazine, (Campbell River, April, 1969)

\(^4\)Since the Island Highway is a coastal route through much of Community Planning Area Number 14, the extent of rural subdivision is typically indicated by realty advertising signboards. This information is supplemented by examination of assessment rolls.
breakdowns of rural populations are not immediately available, it is estimated that in excess of 4000 persons live in rural subdivisions located less than one mile from the waterfront.\(^5\)

Of the rural areas unconnected with urban center expansion, the waterfront areas are most actively being developed. Residential subdivisions vary greatly in scale near the waterfront, ranging from small ten-lot developments to massive developments involving more than one hundred lots. These are generally small-lot developments, i.e., lots of approximately one acre in size or less. In many cases, due to the sporadic nature of development, the occasional lot of two or three acres may be interspersed with many lots of perhaps one-half acre in size.

The methods of subdivision generally found in Community Planning Area Number 14 may be roughly classified in three categories:\(^6\)

1) Landowner and B.C. Land Surveyor:

These are usually large lots, up to ten acres in size and occasionally larger. (Informed opinion suggests that such lots are very popular with city dwellers.) Purchase is made very easy by the owner-subdivider. One percent down

\(^5\)This figure is based on the examination of assessment rolls for 1970.

\(^6\)Information here is condensed from a series of informal interviews with a qualified B.C. Land Surveyor, landowners, developers, and individual speculators in Community Planning Area Number 14.
payments with one percent monthly payments can sometimes be arranged. The city dweller may thus simply purchase a large rural plot and thoroughly enjoy the use of his own exclusive retreat at a relatively low cost and inconvenience.

In the meanwhile, the owner-subdivider has relieved himself of large parcels of undeveloped land which he may have held for many years. He is no longer burdened by taxes, while at the same time he is able to retain for his own use a small acreage. He also enjoys the returns of an extended income from the sale of his subdivided lots.

A number of large rural lots are also used as homesites. These are particularly desirable for those persons who strongly crave the seclusion and esthetic advantages of rural life.

2) Rural area subdivision by developers:

The enterprising developer may deliberately search for a piece of raw land with qualities as near to what he considers ideal as possible. He approaches the owner with an offer, negotiates, and purchases if the price is right. Having worked out his probable costs and profits carefully, he subdivides into what he considers ideal rural lots and provides the required services. He will sometimes exceed the requirement, if he feels that the lots will sell well.

The services most commonly installed are gravelled roads, ditching as necessary for drainage, and overhead wiring. Water extension is confined to areas where a water main is

7The minimum requirements for subdivision in Community Planning Area Number 14 are given in Appendix B.
adjacent to the development. A drill tap test for groundwater is occasionally used to insure the possibility of individual wells. A soil percolation test is conducted to insure satisfactory septic tank operation. In extreme cases, the developer may install his own water system, operated at the expense of the homeowners.

3) Urban area subdivision by developers:

This involves the creation of subdivisions in and adjacent to towns and established centers. It represents the extension of urban services and in some cases the extension of the urban boundaries.

It is not unusual for a building contractor to act as his own developer. He may acquire a small parcel of land and develop it into several lots, with the necessary extension of services. He can then build either on speculation or by contract. Real estate agents are active, and since there is some scarcity of good quality older homes in the area generally, a new house may be sold before it is finished. It is unusual for a house to remain unsold over an extended period.

Real estate agencies also direct a certain amount of subdivision for owners of larger parcels. As agents for the owner, they direct development, and sell lots for a commission. In such cases they exert a strong influence on the design of the subdivision. Their cash outlay amounts to interim financing which is recaptured through property sales.
The following section describes interviews with a select sample of developers in Community Planning Area Number 14. A general analysis of these interviews is also made.
The Developer Interviews

It is unlikely that any one person is able to perceive the combination of forces which generate land development and shape the market in the study area. It is also unlikely that one person would have a total grasp of existing practice in developing land for residential purposes. For these reasons, it was considered necessary to consult with a number of persons who are conversant with development activities in the area.

An open-ended questionnaire schedule was devised, by which three basic areas of enquiry could be explored:

1) The land market
2) Development practices
3) Attitudes and opinions of developers about present and future development in the area.

The open-ended interview method was used because it was felt that probing for additional information could be tactfully accomplished. It was reasoned that direct questioning would yield less information, but it was kept in mind at all times that the respondent must not be made to feel that he was being criticized in any way.

The select sample of developers yielded ten interviews, with no refusals. Appointments were made wherever necessary in

8 Appendix F.

9 It is felt that the sample includes all major developers or land development companies active in the study area. The companies represented are generally involved in the real estate sales aspect of individual landowner subdivision as well.
order to minimize inconvenience to the persons being interviewed. The interviewer was well received, and enjoyed uninterrupted conversations lasting from forty-five minutes to one and a half hours.

Eight of the interviews were with branch representatives of development companies based in Vancouver and Nanaimo. Two interviews were with relatively small-scale developers based in Campbell River and Courtenay.

Analysis

A map showing Community Planning Area Number 14 and its boundaries was used in conjunction with the opening question, "Are you familiar with Community Planning Area Number 14?" Only two of the ten respondents expressed familiarity with the Community Planning Area as a specified jurisdictional entity. All of the respondents, however, were adequately familiar with the portions of coastal district in which they work. Several are lifetime residents of the area.

There is evidence that development activity is directed from the centers of Courtenay-Comox or Campbell River, with the Oyster River as the natural division boundary. Seven developers in the sample are currently active in rural area residential land development, on a total of eighteen individual projects. Projects range in size from twenty to two hundred lots.

In terms of future development, developers appear to be making long-range decisions. The question was used:
"How much are you working ahead of the market in terms of
- raw land?
- developed lots? What is preferred?"

The following pattern was revealed by eight responses. Two did not respond.

**TABLE 1**

<table>
<thead>
<tr>
<th>Developer</th>
<th>Raw Land</th>
<th>Subdivided Lots</th>
<th>Preferred For Subdivided Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5 years</td>
<td>2 years</td>
<td>1 year</td>
</tr>
<tr>
<td>B</td>
<td>5 - 20</td>
<td>3</td>
<td>2 maximum</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D</td>
<td>7 - 8</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>3</td>
<td>3</td>
<td>3 maximum</td>
</tr>
<tr>
<td>F</td>
<td>5+</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td>-</td>
<td>3 - 5</td>
<td>2</td>
</tr>
<tr>
<td>H</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

This would indicate that long-range prospects are being considered, and that the cost of holding land is expected to be adequately offset by the prospective market.

The search for raw land to develop is not strongly directed. Employee familiarity with the general sales activity in the area yields satisfactory opportunities for raw land purchase through a "constant watch" policy. An offer to purchase is made on the basis of estimated returns. Where purchase is not possible, several companies will consider cooperative development with the landowner.

An active, competitive market has kept land values fairly uniform throughout the area, although values are considered to be slightly higher in the Campbell River area.
One respondent suggested that this difference was not "too logical". Two respondents remarked on the exceptional difference between waterfront and interior land. Waterfront lots command a current price of $100.00 to $110.00 per frontage foot, while interior properties are estimated at less than half this value.

All respondents agreed that the costs of development do not vary significantly throughout the area. The only variation noted is directly related to the level of services provided.

Yearly appreciation in land values has been fairly constant. One respondent estimated appreciation at five percent yearly, while three respondents expressed the opinion that appreciation has levelled off in the past twelve month period. It was suggested that this was probably related to "national economic conditions". It was also noted that appreciation was more noticeable on properties with distinctly desirable features, and on developed lots within urban centers. This was attributed to a general "over-supply" of rural lots.

Several factors are considered in establishing lot prices. Raw land costs receive preliminary consideration. (If they are considered too high, purchase will not be made). Two respondents explained the "rule-of-thumb analysis" in price setting, i.e., one-third raw land cost, one-third development cost, and one-third profit. Other considerations were as follows:
TABLE 2
THE ESTABLISHMENT OF LOT PRICES BY DEVELOPERS

<table>
<thead>
<tr>
<th>Method</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>By market comparison</td>
<td>- 4</td>
</tr>
<tr>
<td>By pricing what the market will bear</td>
<td>- 4</td>
</tr>
</tbody>
</table>

Six respondents conceded that there is a housing shortage in the area. Five believe that present subdivision activity is alleviating the shortage. Two respondents suggested that there is no shortage of "high and middle-income homes", and three implied that there is an oversupply of subdivided lots.

No formal market studies for residential lots have been conducted. Two respondents indicated that they have conducted independent studies for their own use. It was generally conceded that a market study would be desirable.

Respondents were asked to describe their operations in terms of the approximate ratio between subdivision and house building. The following ratios were indicated:

10 An independent market study of land costs in the area is indicated as a very useful area of extended research.
The kind of raw land sought for development reflects market demands. One respondent indicated that flat land is wholly undesirable. Another suggested that land with marketable timber could pay its own way in subdivision. The items mentioned as desirable features are listed as follows:

**TABLE 4**

DESIRABLE FEATURES IN LAND FOR SUBDIVISION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Number of References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural quality</td>
<td>2</td>
</tr>
<tr>
<td>Waterfront</td>
<td>4</td>
</tr>
<tr>
<td>View</td>
<td>6</td>
</tr>
<tr>
<td>Trees</td>
<td>2</td>
</tr>
<tr>
<td>Slope</td>
<td>3</td>
</tr>
<tr>
<td>View to water</td>
<td>1</td>
</tr>
</tbody>
</table>

Respondents were asked to outline their policies for clearing land. The following practices were indicated:
The practice of subdivision design is varied. Three developers depend on the B.C. Land Surveyor for designs, subject to approval. Three indicate that the surveyor and the manager work together to produce designs. In two cases managers do the designing. Two companies have special planning divisions.

Location of subdivisions is considered only as it relates to anticipated profits. Factors considered are listed in the order of their importance as extracted from the interviews: 1) roads, 2) cost, 3) jobs (workplaces) and schools, 4) community facilities and recreation, 5) business and stores. One respondent remarked quite candidly that "if land is cheap enough, location is not given any significant consideration".

There is a significant variation in opinion about the level of services which should be provided in rural areas. The question used was: "What services do you feel should be supplied in rural areas?" Response was as follows:
TABLE 6
SERVICES SUGGESTED BY DEVELOPERS

<table>
<thead>
<tr>
<th>Service</th>
<th>Number of Times Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravelled roads</td>
<td>4</td>
</tr>
<tr>
<td>Percolation test (for septic tank)</td>
<td>3</td>
</tr>
<tr>
<td>Ground water test</td>
<td>4</td>
</tr>
<tr>
<td>Water line extension</td>
<td>6</td>
</tr>
<tr>
<td>Underground wiring</td>
<td>1</td>
</tr>
<tr>
<td>Paved roads</td>
<td>1</td>
</tr>
<tr>
<td>Sewer</td>
<td>3</td>
</tr>
</tbody>
</table>

It was suggested by two respondents that the present subdivision regulations are adequate for rural areas.

Ideal lot sizes for rural area subdivision were discussed. One respondent suggested that there is no present need for "small" rural lots. Six suggested a one-half acre minimum size, and one suggested a one acre minimum. It is significant that only two respondents felt that lots should be less than one-half acre. These respondents expressed a strong opinion that one and two acre lots are "wasteful", and that people do not "look after" large lots. Another respondent indicated that in rural areas "a mere fifty foot frontage is appalling and criminal".

Dedication is practised in rural areas only as required, i.e., rights-of-way for waterfront access and streets. One respondent indicated that "unbuildable areas" might be dedicated as open space. It was suggested that park dedication would be impractical because of future maintenance problems.
Respondents were asked for their opinion about subdivision regulations in rural areas. Only one respondent commented unfavorably, by stating that regulations are "over-stringent". His reference was to rural areas within Campbell River municipal boundaries, and did not apply to regulations for unorganized territory in Community Planning Area Number 14.

Taxation is considered to be equitable by eight respondents. One respondent, however, indicated that present taxation is burdensome to land holding and may operate to slow development in future. Another respondent expressed the opinion that taxes strongly operate to make a developer "careful how many lots go on the market at one time".

The risk element of subdivision was discussed. The following factors were mentioned as responsible for perceived risks:

1) competition
2) market saturation
3) taxes
4) high cost of development
5) location
6) costing estimates
7) threat of subdivision moratorium
8) local and national economy.

The proper legal channels for subdivision of land are well understood. There is no difficulty in the interpretation of regulations.
Developers' Criticisms and Suggestions

Most developers were quite free with criticisms and suggestions pertaining to existing and future development in Community Planning Area Number 14. These views have been categorized into sections dealing with policy, legislation, administration, and development practise. It should be noted that the criticisms and suggestions reflect the views of individuals, and for this reason there are some repetitions as well as contradictory statements.

Present Development

Policy:
"Sprawl" development is occurring, with improper infilling. The whole area is being developed into "little Chunks". Provincial government involvement in subdivision disrupts free enterprise.

Legislation:
Waterfront Tree Farm holdings are not taxed equitably with other land uses. Public Utilities regulations are inadequate.

Administration:
Too much delay and "red tape" in subdivision approval. No overall coordinating body is concerned with land development. The regional district is an "octopus".
Development practise:

Isolated cases of poor soil percolation.
Too much small lot rural subdivision.
Lots in some subdivisions are much too small.
The best use of land is not always considered.
Rural character is disappearing.
Land costs are too high.
There is too much subdivision and development exploitation.
Unimaginative subdivision design has occurred.

Future Development

Policy:

Create more small parcels (two and one-half to five acres).
Control size of developments.
Establish more provincial government reserve in waterfront areas.
Increase rural lot sizes.
Continue the gravelled road requirement for outlying subdivisions.
Retain more waterfront for public use including "waterways, rivers and lakes".
Promote "infilling" in municipalities.
Maintain the Black Creek area as a "logical rural break" between Campbell River and Courtenay centers.
Establish Crown Land reserves for public use.
Integrate street systems of adjacent subdivisions.
Confine industry to "organized territory".
Create a regional plan for secondary roads.
Legislation:

Eliminate the threat of the moratorium on subdivision.
Development planning is an immediate need.
Subdivision controls are needed.
Consolidation of the ten percent required waterfront access routes should be permitted.
Provide zoning regulations.
Regional controls are needed to zone "certain areas as parkland, as non-salable land".
Persuade timber companies to relinquish prime development lands through taxation.

Administration:

Planning should be done by a central body.
Planning Boards should cut "red tape".
A coordinating body is needed for land development.
Regional representation is needed on new highway planning.
Subdivision seminar for developers is needed.

Development practise:

Subdivision location should be considered in terms of distance to centers.
Increase rural lot sizes.
Slow down rural area subdivision.
Provide better access to the waterfront.
Better provision for recreation should be considered.
Give more attention to sanitation and sewage disposal.
Summary

It was found that developers were quite willing to discuss their involvement in the study area. They are somewhat unfamiliar with jurisdictional boundaries, but are very familiar with subdivision activity locally and with the legal requirements for subdivision. Rural area regulations are considered reasonable.

Long range development plans of more than five years are common. Land acquisition is possible through employee familiarity with the area.

Land costs are quite uniform throughout the study area, and yearly appreciation has been evident to 1970. Lot selling prices stem from market comparisons, but may also be pushed to the limit of what the market will bear. No complete market studies are made.

There may be a shortage of inexpensive housing, but "good" housing is readily available. Developers rarely build houses. Small contractors get the building trade, and occasionally subdivide on a limited scale. Houses built on speculation are often sold before they are finished.

Where rural land is concerned, developers are mainly interested in land with a "view" amenity. Very little clearing is done during subdivision, and design methods are quite unsophisticated. There are differing opinions about the level of services to be provided in rural subdivision. These range from a bare minimum to levels almost approximating those of urban areas. Developers feel that lot sizes in excess of one-half acre are most suitable for rural areas.
Locational convenience in subdivision is given only slight consideration, since the major factor in decisions seems to be raw land cost and population pressure. Taxation measures do not appear to deter subdivision activity, but do influence staging. Competition and the possibility of more stringent controls are seen as greater threats.

Rural area residential subdivision is extensive in areas with "unique" amenities (especially waterfront) and will continue at a rapid rate for some time if present conditions remain unchanged. There seems to be a somewhat reluctant opinion that continuing uncontrolled rural area residential subdivision may have undesired effects.
The Residential Interviews

The residential questionnaire schedule was designed to permit three kinds of information to be gathered. These can be simply classified as follows:

1. Facts about the respondent and his/her household.
2. Facts about the neighborhood or subdivision.
3. Attitudes, opinions and the level of satisfaction.

Facts about respondents and households:

Simple, direct questions were used to elicit the facts listed below. It was felt that these would prove the most useful facts for use as indicators of basic community social structure.

1. length of residence in the general area.
2. length of residence in the present dwelling.
3. place of previous residence.
4. occupation.
5. distance to work.
6. place of work.
7. number of children - preschool
   - elementary
   - high school.

These facts were supplemented by noting whether the household was in a waterfront or interior lot situation. The following table lists facts about the respondents and the households:

11Appendix F.
### TABLE 7

**FACTS ABOUT RESPONDENTS AND HOUSEHOLDS**

<table>
<thead>
<tr>
<th>Interview No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Pre.</th>
<th>Elem.</th>
<th>Sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>2</td>
<td>local</td>
<td>logging</td>
<td>*</td>
<td>*</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>2½</td>
<td>local</td>
<td>millwork</td>
<td>2</td>
<td>Pulp Mill</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
<td>13</td>
<td>Vancouver</td>
<td>tradesman</td>
<td>1</td>
<td>Pulp Mill</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>50</td>
<td>15</td>
<td>local</td>
<td>teacher</td>
<td>2</td>
<td>Campbell R.</td>
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</tr>
<tr>
<td>5</td>
<td>life</td>
<td>8</td>
<td>local</td>
<td>fisherman</td>
<td>2</td>
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<td>4</td>
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<tr>
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<td>life</td>
<td>3</td>
<td>local</td>
<td>longshoring</td>
<td>2</td>
<td>Elk Falls</td>
<td>5</td>
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<td>1</td>
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<tr>
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<td>life</td>
<td>1½</td>
<td>local</td>
<td>tradesman</td>
<td>3</td>
<td>Campbell R.</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>4</td>
<td>local</td>
<td>operator</td>
<td>4</td>
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<td>7</td>
<td>1</td>
<td>1</td>
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<tr>
<td>9</td>
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<td>4</td>
<td>local</td>
<td>millwork</td>
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<td>1</td>
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<td>+</td>
<td>life</td>
<td>7</td>
<td>Minstrel Is.</td>
<td>logging</td>
<td>6</td>
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<td>1</td>
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<td>+</td>
<td>9</td>
<td>3</td>
<td>Tahsis</td>
<td>managerial</td>
<td>7</td>
<td>Campbell R.</td>
<td>10</td>
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<td>1</td>
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<tr>
<td>+</td>
<td>30</td>
<td>1 mo.</td>
<td>local</td>
<td>shipyard</td>
<td>8</td>
<td>Campbell R.</td>
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<td>1</td>
<td>1</td>
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<td>+</td>
<td>life</td>
<td>11</td>
<td>Cumberland</td>
<td>tradesman</td>
<td>9</td>
<td>Campbell R.</td>
<td>12</td>
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<td>1</td>
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<tr>
<td>+</td>
<td>life</td>
<td>5 mo.</td>
<td>local</td>
<td>managerial</td>
<td>10</td>
<td>Campbell R.</td>
<td>13</td>
<td>1</td>
<td>1</td>
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<tr>
<td>+</td>
<td>7</td>
<td>4</td>
<td>Terrace</td>
<td>tradesman</td>
<td>11</td>
<td>Campbell R.</td>
<td>14</td>
<td>1</td>
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<tr>
<td>+</td>
<td>14</td>
<td>11</td>
<td>Vancouver</td>
<td>tradesman</td>
<td>12</td>
<td>Campbell R.</td>
<td>15</td>
<td>1</td>
<td>1</td>
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<td>+</td>
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</tr>
<tr>
<td>+</td>
<td>9 mo.</td>
<td>2</td>
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<td>business</td>
<td>14</td>
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<td>1</td>
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</tr>
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<td>+</td>
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<td>3</td>
<td>local</td>
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<td>15</td>
<td>Campbell R.</td>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>+</td>
<td>12</td>
<td>6</td>
<td>Ontario</td>
<td>retired</td>
<td>16</td>
<td>Campbell R.</td>
<td>19</td>
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<td>+</td>
<td>life</td>
<td>2½</td>
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<td>17</td>
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<td>business</td>
<td>18</td>
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<td>+</td>
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<td>Ottawa</td>
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<td>+</td>
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<td>5</td>
<td>Vancouver</td>
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<td>21</td>
<td>Campbell R.</td>
<td>24</td>
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<td>+</td>
<td>12</td>
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<td>Prince Rupert</td>
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<td>22</td>
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<td>+</td>
<td>5</td>
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<td>Surrey</td>
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<td>23</td>
<td>Campbell R.</td>
<td>26</td>
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* indicates not fixed  
+ indicates waterfront lot

**CODE:**  
1. Length of residence in area  
2. Length of residence in present house  
3. Place of previous residence  
4. Occupation  
5. Distance to work  
6. Place of work  
7. Number of children
Facts, Opinions and Level of Satisfaction

With the use of open-ended questions, delivered in free, conversational style, it was possible to gain essential knowledge about the physical characteristics of the neighborhoods and the patterns of activity within them. Spontaneous responses made it possible to note key phrases and major points of emphasis, while at the same time assessing reactions of the respondents.

No distinction was made in the interview between questions dealing with facts about the neighborhood, attitudes and opinions of the respondents, or the level of satisfaction with various institutions, services and facilities. All of these were separated out in later tabulation.

The numerous facts which were revealed were related to the following:

1. Where the children play.
2. Distance to school (or school bus).
3. Recreational facilities available.
4. General shopping pattern.
5. Community hall facilities and use.
6. Church location and use.
7. Typical neighboring patterns.
8. Size of neighborhood (perceived).
11. General area attributes and liabilities.
12. Services and utilities.
The attitudes and opinions expressed about the following points provided the basis for measurement of the level of satisfaction:

1. The area as a place to live.
2. The neighborhood as a place to live.
3. The neighborhood as a place to bring up children.
4. The level of services.
5. The level of utilities.
6. The neighborhood location.
7. The cost of land.
8. Taxes.
9. Community hall facilities.
10. Neighboring ideals.
11. Tourists and tourist facilities.
12. The possibility of living in town.

Further opportunity for expression of opinion was given at the end of the interview. Respondents were asked for criticisms and suggestions pertaining to present and future development in the neighborhood and in the general area.

Methodology for Questionnaire Analysis

The questionnaire schedule for residents was designed to elicit information about individual neighborhoods, and to measure the level of satisfaction of people within those neighborhoods. However, it is also essential to make an overall analysis of correlations which may exist between variables found in the sample population.
Twenty-seven responses were obtained from the sample of thirty-eight residences. Although this appears to be a low percentage response, it should be noted that a significant number of permanent homes in the study area are in fact used as vacation homes. It was not possible to anticipate this fact from assessment information, since ninety-nine percent of dwellings are listed as permanent dwellings. Four winter vacancies were recorded in the sample, as well as one vacant for sale. There were two refusals, and four could not be reached at home during the survey period.

Response to the questionnaire was usually excellent. Residents were hospitable and willing to give information and opinion. It is the opinion of the interviewer that the general reception was better than might normally be expected in urban areas. Rural area residents may be assumed to be more sociable than their urban counterparts.

Since the number of responses is quite small, (twenty-seven responses) there are certain constraints to be considered in the selection of a testing method for correlation between variables. Chi-square testing was rejected since many expected frequencies fell below five. Tests for correlation were thus designed for selected variables. $2 \times 2$ tables were prepared for those variables selected, and Fisher's Exact Test\footnote{Sidney Siegel, \textit{Nonparametric Statistics for the Behavioral Sciences}, (New York: McGraw-Hill Book Company, 1956) p. 110} was used to test for significant correlations.

Correlations between a number of other variables arising from the questionnaire responses were regarded as non-essential.
to the purpose of this study. The group of variables pertaining to length of residence in the general area, place of previous residence, and place of work were seen to be reasonably constant, and were not subjected to testing procedures.

The correlations which are considered central to this study are shown in a matrix as follows:

**TABLE 8**

Matrix of Correlations Tested

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**MATRIX CODE**

A. Lot site (waterfront or interior).
B. Length of residence in area.
C. Length of residence in dwelling.
D. Place of previous residence.
E. Occupation.
F. Distance to work.
G. Place of work.
H. Number of children.

Opinions of respondents:
1. Of the area as a place to live.
2. Of the neighborhood as a place to live
3. Of the neighborhood as a place to bring up children.
4. Of the level of services.
5. Of the level of utilities.
6. Of the subdivision location.
7. Of the cost of land.
8. Of taxes.
9. Of community hall facilities.
10. Of neighboring.
11. Of tourists using the area.
12. Of the idea of living in town.
Measuring Opinion

The necessity of providing a measurable scale for attitudes and opinions requires an objective examination of individual responses. This is accomplished by employing the respondent's choice of words and phrases to construct opinion scales. It is conceded that words and phrases must indeed be interpreted subjectively, but in general the approach relies most strongly on recorded information.

A five-point scale of measurement is used and applied to each of the opinion questions listed in the matrix (in the preceding section). The unit of measurement is the level of satisfaction, scaled as follows:

very dissatisfied/dissatisfied/neutral/satisfied/satisfied

The question about living in town was simply measured by no - yes responses.

It should be noted that all measures used in this section reflect opinions of people and are not necessarily indicators of the physical quality of the neighborhood.

Scaled responses are tabulated as follows:
### TABLE 9

**SATISFACTION OF RESPONDENTS**

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Satisfaction Levels

The Area as a Place to Live:

Of twenty-seven respondents, four expressed some dissatisfaction with the general area as a place to live. Tests for correlation between levels of satisfaction and lot sites were made. It was found that:

1) a greater proportion of waterfront lot residents were more satisfied with the general area.

2) a greater proportion of residents who had lived in their neighborhoods for more than five years were satisfied with the area.

The Neighborhood:

None of the residents expressed even slight dissatisfaction with the neighborhoods. Nineteen were very satisfied. Tests revealed that:

1) waterfront lot residents were more satisfied with their neighborhoods than were interior lot residents.

2) residents who had lived more than five years in their neighborhoods were more satisfied.

3) residents who travelled less than five miles to their jobs were more satisfied with their neighborhoods.

4) a greater proportion of whitecollar workers than bluecollar workers were satisfied with their neighborhoods.

There was no significant difference in the levels of satisfaction expressed by families with children and those without children.
Children in the Neighborhood:

No respondents were dissatisfied with the neighborhood as a place to bring up children. Twenty expressed greater satisfaction than the others.

Level of Services:

All respondents expressed satisfaction with the level of services provided for their subdivisions. Twelve were recorded as being slightly less than totally satisfied.

A test revealed no significant difference in the level of satisfaction expressed by those residents who had lived in their neighborhoods for over five years.

Utilities:

Only two respondents expressed dissatisfaction with the level of utilities available to them. Sixteen were very satisfied and nine were less satisfied.

A test showed that residents who had lived more than five years in their neighborhoods were less satisfied with the level of utilities provided.

Location of the Subdivision:

Six respondents expressed dissatisfaction with the location of their neighborhoods. Of the remainder, twelve were very satisfied.

Tests revealed that:

1) a greater proportion of residents more than five miles from their jobs were dissatisfied with their neighborhood location.
2) families with children tended to be less satisfied with their neighborhood location.

There was no significant difference in the level of satisfaction with neighborhood location as expressed by waterfront and interior lot residents.

The Cost of Land:

Sixteen respondents were dissatisfied with the current cost of land. Of these, fourteen were very dissatisfied. There was no significant difference in opinion between:

1) waterfront and interior lot residents,
2) residents who had lived in their neighborhoods less than five years and those who had lived there more than five years.

Taxes:

Nine respondents were dissatisfied with current taxes. Five expressed some satisfaction, and thirteen were very satisfied.

Tests showed no significant difference in the levels of satisfaction with taxes between:

1) waterfront and interior lot residents.
2) residents who had lived in their neighborhoods less than five years and those who had been there longer.

Community Hall Facilities:

All respondents were satisfied with the present Community Hall facilities available to them. There was no
significant difference between the levels of satisfaction expressed by families with children and families without children.

Neighboring:

Twelve respondents indicated that they preferred only casual neighboring. Fifteen engaged in more extensive neighboring patterns.

Tests revealed that there was no significant difference in neighboring habits between:

1) those who had lived in their neighborhoods more than five years and those who had been there less than five years.

2) those families with children and those without children.

Tourists:

Eight respondents expressed dissatisfaction with tourists using their area. Six indicated moderate satisfaction and thirteen were very satisfied.

Tests showed that there was no difference in the level of satisfaction with tourists between waterfront and interior lot residents.

Choosing to Live in Town:

Only six respondents indicated that they would consider living in town if given the opportunity.

Tests for significance revealed that:

1) a greater proportion of respondents who had lived in
their neighborhoods five years or less would consider living in town.

2) a greater proportion of those who lived more than five miles from their jobs would choose to live in town.

Residents' Criticisms and Suggestions

Respondents in the sample residences were asked for criticisms and suggestions concerning the existing and future development of the area and of their neighborhoods. It was noted that more suggestions than criticisms were offered, but it may be assumed that suggestions also reflect criticisms.

Suggestions and criticisms are listed as follows:

Criticisms about the general area

- Lack of sophisticated entertainment.
- Pulp mill odor and fallout.
- Slow action on public works.
- Too many people.
- Highway traffic too heavy.
- Highway unsuited for the amount of traffic.
- Not enough employment opportunities.
- Lack of planning and development regulations.
- Poor television reception.
- Too much catering to higher income groups.
- Too isolated.
- Trees being destroyed.
- Too much American ownership of land.
- Oyster leases alienate beaches.
Criticisms about neighborhoods

Stores are too distant.
Storm drainage is poor.
Recreational opportunities are limited.
Waterfront lots are too deep.
Street lighting is inadequate.
Waterfront taxes are too high.
Steep roads.
Parks are not maintained.
Speculation drives land prices up.
Lonely for children.
Muddy roads.
Schools are too distant.
Community facilities are too distant.

Suggestions for the general area

Sewage treatment.
Less building on the waterfront.
Curb residential development.
Government reserve on waterfront for public use.
More sewer installation.
Slow down development.
Fish hatcheries to restock sport fishing.
More boating facilities.
Reroute highway.
Curb pulp mill pollution.
Restrooms for tourists.
More camping facilities.
Permit unrestricted development.
Increase recreational facilities.
Expand tourist facilities.
Conserve natural areas.
Create a marine park.
Curb water pollution.
Planning for future development.
Provide better television reception.
Hire recreation director.

Suggestions for neighborhoods

Develop more small parks and playgrounds.
Regulations for esthetic improvement.
Eliminate trailer parks from residential areas.
Expand school opportunities.
Prevent trailers on lots.
Preserve trees.
Create smaller residential lots.
Better road repair.
Avoid very small lots.
Provide community water systems.
Prevent tourists from using residential areas.
Provide better public access to the waterfront.
Local recreation facilities needed.
Drainage improvement.
Limit population density.
CHAPTER IV

PHYSICAL EVALUATIONS

Subdivision Evaluation

The following section includes a general evaluation of each of the seven subdivisions in the random sample. Two "innovative" subdivisions are also discussed. Photographs and plans are shown.

A comparative physical evaluation in terms of location and design criteria follows the general evaluations of this section.
Subdivision 1

The Painter-Barclay is the largest subdivision in the sample. It covers two major blocks of land on the waterfront, two miles north of Campbell River. Only one of the blocks was included in the random sample.

Eighty-nine permanent dwellings were recorded in the sample block, with approximately thirty empty lots. The questionnaire responses indicate that most residents have lived there from two to five years, although parts of the neighborhood are older than five years. The subdivision is two miles south of Elk Falls pulp mill, a major employer.

General Impressions

The neighborhood is generally pleasant and in good repair. Streets are laid out in contour with the slope toward the waterfront. The slope is gentle, but slightly more pronounced on the waterfront block. Streets are not well paved, and no sidewalks are provided. Wiring is overhead, and water is the only underground service. Storm drainage is by a ditch and culvert system.

An elementary school gymnasium and playfield provide recreation space for the neighborhood. The illusion of space is heightened by numerous vacant lots, although these are not well maintained.
Waterfront lots are exceptionally deep, and houses on them are water-oriented, so that the parts of the lots fronting on the street are seen as untended bush. Interior lots do not get a view of the sea. Pulp mill odor is noticeable.

Neighboring patterns are varied. Some social interaction occurs between millworkers, but residents are generally aloof. There is a definite physical break between waterfront and interior lots.

Residents are generally satisfied with the subdivision.

Residents' Observations

A neighborhood park is undeveloped because no system for maintenance was worked out by the subdivider who dedicated it. Septic disposal is "patchy" as some lots have better soil percolation.

School is very convenient.

Street layout is adequate and safe for internal traffic and pedestrians.

The lack of a neighborhood store is no problem.

Beach access is generally inadequate.

Storm drainage is no problem.

Shopping and Community hall facilities in Campbell River are "handy enough".

Pulp mill odor and ash are a daily nuisance.
SUBDIVISION 2

OYSTER BAY HILL
Subdivision 2

The Oyster Bay Hill subdivision is a typical waterfront strip subdivision with minimal interior lot development. It is situated on the Island Highway ten miles south of Campbell River, and is one mile in length. Approximately fifty percent of the lots are two-acre lots, and the rest range between one-half acre and one acre in size.

Fifty permanent residences are recorded, with approximately fifteen empty lots. The subdivision was developed over a period of more than ten years, so that dwellings range in age considerably. Length of residence varies correspondingly. The nearest established center is Willow Point, five miles to the north.

General Impressions

The waterfront portions of the neighborhood are distinctly cut off from the interior by the highway, which runs parallel to the waterfront. Waterfront residences are characteristically water-oriented, while interior development is highway-oriented.

There is a somewhat jumbled and disorganized appearance about residential development on interior lots, while waterfront residences are almost totally obscured by trees. The trees
effectively reduce view opportunities for the interior neighborhood.

Slope on the one existing side street is excessive, and since it is unpaved, there appears to be a distinct hazard for the motorist. The highway is in good repair, but a potential hazard exists with numerous driveways opening directly onto the shoulder of the highway. During hours of heavy traffic, noise and exhaust nuisances are very definitely present for the highway-oriented portions of the neighborhood.

Overhead wiring and a community water system are supplied. A ditch system adequately handles storm drainage, and septic tank drainage is good in all areas.

There are some very good homes on the waterfront. One residence in the sample was temporarily vacant, and a number of retirement homes were indicated by residents. Residents are generally satisfied with the environment.

Residents' Observations

Campbell River is too far away for shopping convenience, but most major shopping is done there.

Summer water pressures are inadequate.

The highway is a nuisance and a safety problem.

A neighborhood store is only a mile away, and quite handy.

The elementary school is quite convenient, one and a half miles distant. Bus service is provided both for the elementary school and for the secondary school in Campbell River.
There is good use (for youngsters and adults) of the elementary school gymnasium.
Community hall facilities are rarely used.
Children play on the beach, and on vacant surrounding land.
The beach is not as clean as it once was, and is not ideal for swimming.
Neighbors are friendly, but little real neighboring occurs.
There are a number of retirement homes along the waterfront, but generally the neighborhood is made up of younger families.
Fire protection is a problem because of distance.
Mothers provide a "taxi" service for children with activities in Campbell River.
The Miracle Beach subdivision is slightly less than one mile in length, with most development occurring along the waterfront. There is a single row of interior lots. The subdivision is two miles east of the Island Highway, and almost midway between Campbell River and Courtenay.

Thirty-two residences are recorded, and approximately fifty empty lots. Several dwellings are still in the construction stage, while others range in age up to more than ten years.

The subdivision lies within one mile of the Miracle Beach Provincial Park. Two private waterfront resorts also occupy the area.

General Impressions

Most lots are slightly under one-half acre in size. Waterfront lots are generally larger than interior lots. The area is heavily wooded, and little clearing has been done.

Roads are well paved, and drainage is not seen as a problem, although standing water was noted at one roadside area. The terrain is quite flat, but no ditching is noted.

The atmosphere is very pleasant, and the illusion of space is maintained because of the numerous empty lots. Several waterfront vacation homes were noted, vacant for the winter.
Access roads to the waterfront are unimproved and unmarked, so that they are indistinguishable from vacant lots. Most waterfront dwellings are water-oriented. Out-buildings on the street side of waterfront lots present a slightly cluttered appearance. The neighborhood generally lacks cohesiveness because of extremely scattered development, especially on interior portions.

Overhead wiring is provided but there is no water service. Individual wells and septic tanks are used, with good success. The view of the water is largely obscured from interior properties by trees.

Residents' Observations

Children are very happy here with wooded areas and waterfront as a playground. They are very independent.

Traffic and pedestrian safety is excellent because of the dead-end road.

Distance to employment is a definite inconvenience.

Residents appreciate their privacy.

Distance to school is inconvenient, even though bus service is provided.

Taxes are inequitable for services provided.

There is a considerable spread in age of residents.

Major shopping is done in both Courtenay and Campbell River.

Fire protection is a problem since only tank truck service is available at a great distance.

Community hall facilities at Black Creek are not widely used.

Good use is made of Miracle Beach Provincial Park.
Subdivision 4

The Hall Road subdivision is a very small subdivision located on the coast five miles directly north of Comox. It is contiguous with more extensive strip subdivision along the waterfront to the north.

Seven dwellings are noted, with twelve empty lots. Although all residences are classified permanent, observation reveals that only one is permanently occupied. The nearest major employment center is Courtenay, approximately five miles away.

General Impressions

The subdivision cannot yet be called a neighborhood, except during the season when the vacation homes are occupied. It has the appearance of simply having "happened", without much rational forethought.

Hall Road is parallel to the waterfront, immediately at the top of a forty-five degree bank approximately fifty feet high. It does not provide access to the eleven lots below the bank. The lower lots are accessible by a steep extension of Hall Road leading down to a waterfront right of way. A large lot in the middle of the subdivided strip cuts Hall Road in two.

Roads are minimally graded and gravelled. The access pattern is not logical. Drainage has not been well controlled,
so that there is a tendency to soften road beds. Public access to the waterfront has been allotted, but is quite impractical because of the excessive slope.

Overhead wiring is provided. Individual well systems and septic tanks are used. All lots are water-oriented, since no interior lots have been created. The subdivision is largely uncleared of its dense tree stand, which effectively blocks the view of the water.

Temporary residents and the one permanent resident are generally happy with the seclusion and privacy of their homes, but are not entirely happy with the road system.

Residents' Observations

The beach is the main attraction of the subdivision.
There is a problem with septic disposal because of sidehill soil conditions.
Fire protection is minimal.
The waterfront access right of way is impossible to improve.
Location in terms of work and business is no problem. Convenience shopping can be done at a store only two miles away, near the Comox air base.
There is insufficient beach frontage for public use.
Neighboring opportunities are limited.
"The natural environment is a treasure".
Boat mooring facilities are scarce.
It would be desirable to keep the subdivision as natural as possible for as long as possible.
The Astra Bay subdivision is large, with fairly extensive development in the interior as well as on the waterfront. Approximately fifty percent of the lots are slightly less than one-quarter acre in size. The others range between one-quarter and one-half acre. The subdivision is located three miles north of Comox.

Sixty-one dwellings are recorded, and approximately forty empty lots. Six vacation homes are also noted. There is a considerable age spread of dwellings within the subdivision, since the Astra Bay waterfront has been occupied for many years. Some of the houses are more than twenty years old, but they are in good repair.

Major employment opportunities are at the air base and in Courtenay.

General Impressions

The neighborhood is very pleasant, with a curving street pattern conforming to the waterfront. Waterfront lots are mainly smaller than interior lots. The trees have been thinned to provide a pleasant natural setting without undergrowth. Some interior properties enjoy partial views of the water, although slopes are gentle.
Only the major streets are paved. Side streets are firm and well gravelled. Overhead wiring and a community water system are provided. A gravelly soil base provides good natural drainage and excellent septic tank disposal. A large waterfront playground lies adjacent to the neighborhood, and is reasonably well maintained by a service club.

An interior creek with a belt of trees provides a backdrop for the interior portions of the subdivision. Waterfront dwellings have a dual orientation, since the lots are not excessively large. Curving roads and trees provide an interesting use of space.

Waterfront access rights-of-way are unmarked and sometimes cluttered. There is an abrupt, eight-foot drop to the beach, so that these rights-of-way are not altogether practical unless steps are provided.

Three groups of people are represented in the neighborhood. These are air base personnel, retired persons, and non-services families. Casual neighboring is quite common. Residents are very pleased with their neighborhood environment.

Residents' Observations

Children are very happy with the neighborhood.
There is some tourist congestion every summer.
Shopping in Courtenay is "only a ten-minute drive".
The neighborhood is especially good for retirement.
Fishing is a definite attraction.
Septic tank disposal may become a problem in time, when all lots are built on.
Community facilities are convenient at the air base. Parents drive children to Comox or Courtenay for some activities.
The neighborhood setting is "picturesque".
Natural amenities can be enjoyed without a feeling of isolation.
The neighborhood is a pleasant place to come home to.
Creek flooding occasionally floods basements.
Waterfront residents value their privacy, but interior residents would prefer better access to the waterfront. Access rights-of-way to the waterfront are sometimes cluttered.
Traffic problems are almost non-existent.
Street lighting at intersections is adequate.
**Subdivision 6**

The subdivision is situated on a topographically rugged block of land which runs contiguous with Goose Spit in Comox Bay. Geographically, the area lies approximately one mile east of Comox.

Seven dwellings are noted, and approximately thirty empty lots. Residences are five years old or less. The nearest major area of employment is Courtenay, seven miles distant.

**General Impressions**

Because of factors related to topography and vegetation this subdivision seems much more remote than it really is. There are two distinct areas within the subdivision. Fifty percent of the area is on a high slope overlooking Goose Spit. It has patchy stands of mixed trees, and several steep, grassy slopes are noted.

The rest of the subdivision lies in the interior, covered in a healthy stand of moderately tall timber. This part is laid out in grid fashion, while the portion of the subdivision on the slopes has contoured streets. No dwellings have been built in the interior portion.

Lot sizes range between one-half acre and one acre. Street slopes are quite extreme in some areas, and may present
seasonal problems. Ditching has not been used. Roadbeds have a firm gravelly base, but are exceptionally narrow in many spots. Residences are exclusively designed and are oriented to the view down the slope. Overhead wiring is provided, but individual well systems are used. Septic tank disposal is excellent because of sandy soil conditions.

The dedicated roads have not been fully developed. Unimproved slopes are rather wild-looking and untended. Level play space is somewhat limited, and the topographical separation between dwellings may act as a deterrent to casual neighboring.

There is a strong impression of abundant space and individuality. The view from the slope is excellent, and the forested interior is pleasant. People are very pleased with the natural amenities of their environment.

Residents' Observations

The woods and the beach are good places for children, but the subdivision is perhaps somewhat lonely for children. Shopping and recreation centers are three miles away by road. Fire protection is inadequate because of the lack of sufficient water.

Ground water is scarce in dry years.

Tourist traffic in summer is a minor annoyance because of the deadend street.

Neighbors are both friendly and helpful.

The neighborhood is a very relaxing place.

Streets are muddy in winter.
Access to the beach is inadequate.

"There is always something interesting" in the view over the bay.
Subdivision 7

The Fanny Bay subdivision is an old strip development almost totally fronting on the Island Highway, fifteen miles south of Courtenay. Seventeen residences are recorded, with only two empty lots. Dwellings range in age from three years to more than fifteen years.

Questionnaire responses indicate that some residents have lived there a long time. A shake mill in the immediate vicinity provided some employment in the past, but major employment now is in Courtenay.

A railroad right-of-way touches the back of most lots.

General Impressions

The neighborhood is very rural in appearance, with some signs of aging and disrepair. All driveways open onto the highway which is heavily travelled in peak periods. Some lots slope rather sharply toward the highway.

The view of the bay is partially obscured by a mixed second growth of trees and scrub. A flooded stump field presents a somewhat unpleasant view for those residents immediately opposite. Lots range in size from one-half acre to more than one acre.
Overhead wiring is provided. Water is obtained from individual well systems and from a small creek. Septic tank disposal is not entirely satisfactory. Ditching along the highway is moderately well maintained.

An old school site and a community hall provide indoor and outdoor recreation opportunities, and since lots are large there is an abundance of space generally. A neighborhood store and service station are located at the north end of the subdivision.

The nearest public access to a beach is two miles away. An elementary school is located at Union Bay, six miles distant. Fire protection is limited.

Residences are very much highway-oriented, and traffic noises are seen as a local nuisance. Casual neighboring appears to be quite common, and a local "pub" within a mile provides some social opportunities for the adult population. Residents are moderately happy with the rural atmosphere, but not altogether satisfied with the neighborhood.

Residents' Observations

The rural aspects of the subdivision offer good opportunities for children to enjoy themselves outdoors. Schools are too far away for convenience. Residents are "proud" of their community hall. Beach access is inadequate.

The neighborhood is isolated and somewhat "lonely". Individual water systems sometimes cause problems.
Traffic noises are a nuisance until residents become accustomed to them.

There is a lack of local employment.

The cost of housing would be much higher in town. Retired people can better afford to live here.

Some residents would prefer to live in town, or at least closer to town.
"Innovative" Subdivisions

A select sample of two subdivisions with "innovative" features was chosen for discussion. It should be noted that these "innovative" features are not innovative in the broad sense of the word. They are, however, features which have not been observed elsewhere in the study area, and for this reason they merit a brief, subjective discussion.

Since the subdivisions in question are very lightly settled, to date, it is not yet possible to assess the reactions of residents to the design features used. The developers of the projects are reasonably optimistic about the success of their subdivisions.
The Craigdarroch Beach subdivision is located seven miles south of Courtenay, on the Island Highway. The entire property intended for subdivision is a strip of waterfront, approximately two thousand feet by six hundred feet. The initial phase of subdivision involves a waterfront strip of one hundred by nine hundred feet.

Special permission was obtained by the developer to permit the consolidation of the required public access rights-of-way to the waterfront. Thus the developer was able to create a single, two hundred foot access strip in place of the fifty foot rights-of-way at regular intervals as normally required.

Alternating "panhandle" lots were then created. The "handle" is a twenty foot strip. With this method of lot design, two rows of lots enjoy direct access to the beach. In conventional designs, second-row residents have had to rely on public access points.

Third-row residents in this subdivision will be somewhat restricted in their use of the waterfront. They will, however, have direct access to the two hundred foot public site. Third-row lots will back onto the highway for better interior orientation. Overhead wiring and a water system are provided. Most lots are selectively cleared and wide gravelled streets have been constructed. Second growth deciduous trees provide a pleasant setting for the potential neighborhood.
Ships Point subdivision lies on a peninsula fifteen miles south of Courtenay. The subdivision covers almost the entire body of the peninsula. Lot sizes average approximately one-half acre. The waterfront access roads have been mainly consolidated at three separate sites. In addition, one thirty foot access road and one pedestrian walkway have been provided to the waterfront.

Two interior parks have been dedicated. This feature is not commonly found in the study area. The parks are unimproved "nature" parks, and have been made accessible from all parts of the subdivision by the use of pedestrian walkways. It is assumed that residents will find these to be an attractive part of their neighborhood.

Very little clearing has been done in this whole development. Overhead wiring and a community water system are provided. Roads are firm and heavily gravelled. Drainage is not considered to be a problem in the area, since there is a gravelly soil base. Curving drives and a healthy stand of second-growth trees help to create an esthetically pleasing environment.
Comparative Evaluation of Subdivisions

The methods used to arrive at a final comparative evaluation of the location and design of the sample subdivisions are based on a study conducted in the Vancouver Metropolitan area in 1965. Appendix D gives a detailed description of these methods.

The following tables show:

1) the location (in miles) of employment, community facilities, schools, and shopping for each sample subdivision.

2) The weighted locational evaluation for each sample subdivision in terms of convenience, amenities, and safety.

3) The weighted evaluation of the subdivision design for each sample subdivision in terms of land use, block and lot pattern, vehicular and pedestrian circulation.

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1 School of Community and Regional Planning, Residential Land Subdivision.

2 Weighting is described in Appendix D.

3 Ibid.
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<td>2 1/2</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1/2</td>
</tr>
<tr>
<td>Subdivision</td>
<td>Model</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td>60%</td>
<td>60</td>
<td>23.41</td>
<td>23.01</td>
<td>35.32</td>
<td>32.27</td>
<td>29.63</td>
</tr>
<tr>
<td>Amenity (Adjacent Land Use)</td>
<td>15%</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Amenity (Access Routes)</td>
<td></td>
<td>15%</td>
<td>6</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Safety (Fire Protection)</td>
<td>10%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total % Rating</td>
<td>100%</td>
<td>70</td>
<td>36.41</td>
<td>48.01</td>
<td>48.82</td>
<td>39.27</td>
<td>45.63</td>
<td>38.12</td>
</tr>
<tr>
<td>Ranking</td>
<td></td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>
TABLE 12
RATING AND RANKING OF SAMPLE SUBDIVISION DESIGNS

<table>
<thead>
<tr>
<th>SUBDIVISION</th>
<th>MODEL</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>% in streets</td>
<td>-</td>
<td>+14</td>
<td>+9</td>
<td>+7</td>
<td>+13</td>
<td>+21</td>
<td>+19</td>
<td>+12</td>
</tr>
<tr>
<td>% collectors</td>
<td>-</td>
<td>-16</td>
<td>-20</td>
<td>-18</td>
<td>-5.5</td>
<td>-14</td>
<td>-16</td>
<td>-20</td>
</tr>
<tr>
<td>% public open space</td>
<td>-</td>
<td>-1.5</td>
<td>-5</td>
<td>-5</td>
<td>-1</td>
<td>-5</td>
<td>-2.5</td>
<td>-5</td>
</tr>
<tr>
<td>Lot size</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Lot shape</td>
<td>-</td>
<td>-1</td>
<td>-2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Easements</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Block length</td>
<td>-</td>
<td>-2</td>
<td>-3</td>
<td>-</td>
<td>-1</td>
<td>-2</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>Curving streets</td>
<td>-</td>
<td>-5</td>
<td>-3</td>
<td>-2</td>
<td>-4</td>
<td>-2</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>Lots abutting side and rear yards</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Buffer strips</td>
<td>-</td>
<td>-1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>Intersections</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1.5</td>
<td>-1</td>
<td>-2.5</td>
<td>-2.5</td>
<td>-</td>
</tr>
<tr>
<td>Blind Corners</td>
<td>-</td>
<td>-1</td>
<td>-</td>
<td>-1</td>
<td>-3</td>
<td>-2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Steep grades</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Points of entry</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Offstreet parking</td>
<td>-</td>
<td>-</td>
<td>-6</td>
<td>-2</td>
<td>-</td>
<td>-</td>
<td>-4</td>
<td></td>
</tr>
<tr>
<td>Street width</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Slope</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>Sidewalks</td>
<td>-</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>0</td>
<td>-13.5</td>
<td>-33</td>
<td>-19.5</td>
<td>-3.5</td>
<td>6.75</td>
<td>-14.25</td>
<td>-16</td>
</tr>
<tr>
<td>RANKING</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

RANKING
It should be noted that the location and design comparisons of the sample subdivisions are based on a hypothetical "model" subdivision which might be found in a typical metropolitan urban setting. In the case of location evaluation, the "model" has a weighted evaluation equal to one hundred percent. For design evaluation, the "model" has weighted characteristics equal to zero.

Ranking of the sample subdivisions was accomplished by comparison to the "model" subdivision. It is seen that ranking differs significantly between location and design characteristics. This implies that some subdivisions are more satisfactory in terms of design, but less satisfactory in terms of location. At the same time others may be more satisfactorily located, but may be less satisfactorily designed.

The comparative tables also reveal that the highest ranking subdivisions fall considerably short of the desired characteristics exhibited in the "model" urban subdivision.

The final combined ranking of the sample subdivisions for location and design is as follows:

<table>
<thead>
<tr>
<th>Subdivision</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

The descriptive evaluations in this chapter have shown that most subdivisions are minimally serviced. Paved roads are not provided in all cases, nor is a community water system common to all subdivisions. Septic tank systems are
normally used, with success dependent on soil characteristics.

It has been hypothesized that subdivisions in the rural areas of Community Planning Area Number 14 do not conform to location and design standards for urban subdivisions. Evaluations have shown this to be true. It is seen, however, that the sample subdivisions all contain at least some features which conform with accepted standards. Employment distance for all subdivisions falls well within the range permitted by the "model".

The location of other facilities is greatly varied in each subdivision, and it is apparent that this factor has not been of great importance either to the subdivider or to the residents in their locational decisions.

Design features also generally fall short of the hypothetical requirements of the "model". It is seen, however, that all the subdivisions fall well within the acceptable range of land percentage allotted to streets. The non-conformity appears to be in collector roads, which appear to have the capacity of serving greater concentrations of people.

Public open space is consistently lacking within the subdivisions. In the eyes of the residents, however, this may be offset by the wealth of private, but undeveloped open space around them. The residents are pleased with the existing residential environment, and have made a conscious decision to accept their situation. This suggests that their personal
values and preferences are more fully satisfied by rural amenities than by the urban attributes which are characteristic of the "ideal" residential subdivision.
CHAPTER V

CONCLUSIONS OF THE STUDY

Summary

It has been shown in the course of this study that Community Planning Area Number 14 has undergone significant urbanization in rural areas during the past decade. These changes have been largely in the nature of speculative subdivision of land for residential purposes. Development in rural areas has been accompanied by similar growth in and adjacent to established urban areas.

From the observations made in the sample subdivisions of this study, it is suggested that approximately forty percent of subdivided lots in rural areas do not yet have dwellings on them, nor is there any indication that dwellings will be immediately built. It has been observed, however, that the land market has been extremely vigorous and competitive to the present time.

Some sources have indicated a continuing readiness on the part of one-lot speculators to buy and hold vacant lots in the hope of a quick and substantial profit. The turnover of vacant lots on waterfront sites during the past five years would suggest that such speculators have been amply rewarded for their efforts.
Land development companies and individual developers have implied that they feel land development is pursuing a normal and desirable course in Community Planning Area Number 14, and that the problem of uncontrolled development does not exist. They acknowledge, however, that there is a great abundance of subdivided land, and that speculative development continues to thrive on the creation of rural residential lots with unique amenities such as those found in waterfront areas.

Developers have revealed a definite preference for raw land with natural amenities, and it is implied that they are slightly resentful of crown reserves and timber holdings which remain effectively unavailable for development. The strong philosophy of unrestricted growth appears to obscure the consideration of possible irreversible and irremediable consequences, as in the loss of public waterfront access and recreation space.

The concern of local political bodies has been shown by the Regional District of Comox-Strathcona Board of Directors' attempts to curb "out of control" development by the immediate imposition of a moratorium to restrict subdivision within the unorganized territory of Community Planning Area Number 14. The intention was not to impede regional development, but rather to "buy" sufficient time to permit the planning and establishment of rational policies and controls.

On the basis of such political concern, it became expedient to examine existing rural residential areas in the
course of this study, as a preliminary step in providing guidelines for policy formulation. It was reasoned that the "success" of existing neighborhoods could be measured, and physical evaluations of subdivisions would then indicate what services and amenities were essential to make subdivisions in rural areas "work".

The hypothesis was put forward that rural area residential subdivisions do not conform to the standards of urban subdivisions, but that they fulfill the needs of the residents nevertheless. In order to test the hypothesis, both physical and social surveys were made in subdivisions sampled from the study area.

In the physical survey, subdivisions were found to be considerably lacking in the services and amenities which urban dwellers take for granted. It was found, on the other hand, that there were some natural amenities (particularly the waterfront and the woods) which definitely enhanced the environment.

The location of subdivisions was not found to be excessively remote, in most cases, and access was reasonably good. Layout designs generally gave evidence to the fact that subdivisions were wholly laid out in patterns conforming to such major features as waterfront or highway. It was also seen that interior lot development was much slower than was waterfront development. Hence, the effective alienation of vast stretches of shoreline from future public enjoyment.
During the social survey of residents in the subdivisions, it was immediately noted that they were very hospitable and cooperative during door-to-door calls. It was also learned that many residences, although classified permanent, were temporarily vacant during the winter months.

Residents were found to definitely appreciate the semi-rural atmosphere which prevailed in their neighborhoods. It was also found that they were exceptionally attached to the general area in which they live. Few, however, would choose a life in town within the same area. Residents found it difficult to perceive of a future, when all the lots now empty around them would be full. Most would resist such changes, if given the opportunity to do so.
Conclusions

Several overall conclusions are made in relation to the preliminary investigations of this study. The first is that the Regional District Board of Directors was correct in assuming that development in Community Planning Area Number 14 is "out of control". This is borne out both by observation and by the developers' own acknowledgement of extensive current activity.

A second conclusion suggests that while developers have a genuine concern for sound regional development and conservation, the profit motive and the growth ideal continues to overrule good intentions.

The third conclusion is that the consequences of past uncontrolled development are extensive and irreversible, but both developers and legislative bodies will accept planning measures for future development. For the developer this would mean market stability and specific guidelines, and for the legislator it would mean more rational development.

A final overall conclusion suggests that environmental considerations are growing concerns even in the relatively sparse settlements of the study area.

Further conclusions are made which are central to the hypothesis of this study. It has been possible to show that the subdivisions examined in this study do not conform to
accepted planning standards and principles for location and design. It is also concluded that the obvious lack of certain services and facilities is greatly offset by equally obvious natural amenities. The resident's appreciation for these natural amenities tends to make him accept, without complaint, any physical inconvenience which he may experience.

The needs and wants of residents in the subdivisions under study appear to differ from the needs of people who choose to settle in urban environments. A high level of satisfaction prevails among residents of the rural subdivision neighborhoods of Community Planning Area Number 14. Where deficiencies are seen, they are accepted as normal, and suggestions for change and improvement are expressed quite tentatively. There appears to be a marked tendency to resist change or further extensive development because of a strong emphasis on personal space and privacy.

The hypothesis has stated that:
RESIDENTIAL SUBDIVISIONS IN RURAL AREAS OF COMMUNITY PLANNING AREA NUMBER 14 NOT CONFORMING TO COMMONLY ACCEPTED PLANNING STANDARDS AND PRINCIPLES FOR LOCATION AND DESIGN SATISFY THE NEEDS OF THE RESIDENTS.
From the foregoing conclusions it is possible to say that the hypothesis is true. It is therefore concluded that policies for future development in the rural areas of Community Planning Area Number 14 must take into account the needs and wants of that particular group of persons who will choose to live in the semi-rural circumstances described by this study.
Sources Consulted

A. BOOKS


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Webber, Melvin


B. NEWSPAPERS AND JOURNALS

Campbell River Upper Islander. (July 15, July 22, 1970)
Comox District Free Press. (July 15, July 29, 1970; March 17, 1971)


C. STUDIES AND REPORTS


The Urban Frontier, Parts 1 and 2. New Westminster: Lower Mainland Regional Planning Board, 1963.


Weiss, Shirley F.; Kenny, Kenneth B.; and Steffens, Roger C. 


D. OTHER SOURCES


Regional District of Comox-Strathcona. A Land Use Plan and Development Controls: Electoral Area "I". Victoria: Regional Planning Division, Department of Municipal Affairs, 1970.

APPENDIX A
REGIONAL DISTRICTS IN BRITISH COLUMBIA

This foreword is intended to be an addendum to the material contained in this prospective.

For the benefit of those who are not familiar with the Province of British Columbia, particularly as it may be related to local government, the following facts are intended to place the situation in some perspective:

The Province covers a very large area of some 366,000 square miles, being roughly 700 miles long by 500 miles wide. It is almost entirely within the Cordilleran Region and because of its mountainous nature less than 2 per cent is arable farm land. The major base resources are the vast softwood timber lands, minerals, oil, and natural gas, and some 32,000,000 kilowatts of potential water power—about one-third of the national total. Because of the topography, people have settled mainly in numerous communities in the various valleys. Portions of these valleys have been established as municipalities and these comprise just over one-half of 1 per cent of the land area but contain 80 per cent of the population. Our local government structure consists of incorporated municipalities (cities, towns, villages, and districts), school districts, regional districts, improvement districts, and a number of special purpose districts. Excluding the northwest corner of the Province which borders the Alaska panhandle, the remainder of the Province is divided up into 70 school districts and 28 regional districts.

This in effect means that a number of regional districts encompass the same area as two or three school districts. These, if you like, are superimposed upon the municipalities and the non-municipal areas of the Province. Improvement districts have been created to provide usually a single service such as water or fire protection for a non-municipal community. Lastly, the single-purpose districts have been likewise established to provide a common service for a number of municipalities, for example, water on a wholesale basis to the members. In the course of time the regional districts should gradually take over from the single-purpose districts and the improvement districts. It will be noted that the local government structure is fairly straightforward and uncomplicated and in time should become even more so.

Turning now to regional districts, legislation was introduced in 1965 which made it possible to provide a federated approach to local control over problems transcending municipal boundaries in either a metropolitan area or in a non-metropolitan trading area. The structure was patterned after that employed in the Greater Vancouver Water District. However, two basic changes were made to this pattern. First, a single regional district and its governing board could be responsible for more than one activity or function, and secondly, non-municipal areas could be represented on the board and participate in its activities as if it were a municipality.

Representation on the board is by appointment of the municipal council of one or more of its members as determined by its quota on the board and by direct election in the case of non-municipal areas which for the purpose of these districts are designated electoral areas. Voting strength or rights on the board are roughly proportional to the population of the member municipality or electoral area. Decisions of the board are usually on the basis of a majority of the votes, although for some purpose it may require a majority of directors having a majority of the votes. One member of the board (called a director) may carry a maximum of five votes.

In 1967, legislation was introduced which provided for a companion corporation to assume the local responsibility for providing hospitals, with the two corporations having a common board. In 1968, provision was made for the consolidation of the two corporations, but to date this has not been implemented.

One distinction between the two is that in the case of the hospital function all member areas must participate on a common basis. For regional districts a member area may or may not participate in any given function at its own option, and costs for a function are shared only by those who are participating. Most of the powers of a regional board are set out in the Letters Patent because they both do and continue to vary as between regions. Regional districts recover their expenditures either by the sale of a commodity or service, for example, water, or by requisitioning from the member municipality, or from the Provincial Government in the case of non-municipal areas, for ultimate imposition by taxation through the Provincial property tax or through municipal taxes.

Since regional districts in a real sense are a substitution for individual municipal costs and expenditures, they do not represent an added cost and to the extent that there are economies of scale they should represent a reduction over what might otherwise be the situation.

Legislation was enacted in 1969 establishing the Municipal Finance Authority of British Columbia, the members of which are appointed by the Regional District Boards throughout the Province. The object of the Authority is to provide financing of water, sewers, and pollution control and abatement facilities for the regional districts and their member municipalities by the issue of debentures or other evidence of indebtedness and lending the proceeds to those areas on whose request the financing is undertaken.

Further information regarding the operation and activities of regional districts may be found in the annual report of the Department of Municipal Affairs and in the annual report of financial and other statistics of municipalities and regional districts in British Columbia. Both of these publications are available through the Department.
AN OUTLINE OF THE ROLE OF THE REGIONAL DISTRICT
IN THE LOCAL GOVERNMENT STRUCTURE

A regional district has two primary roles:-

FIRSTLY -

It is the regional governmental institution. In this role - the region is welded into a single governmental unit
- the views of all the people can be expressed (both municipal and non-municipal)
- representation and a voice in regional affairs is given to the non-municipal members of the region.

SECONDLY -

The regional district provides the means of co-ordinating existing services and may undertake to provide services or facilities used jointly by two or more member areas. In this role - the responsibility divides into two parts.

(1) co-ordination of existing services between two or more municipalities, or a municipality and its non-municipal fringe.

(2) provision of new services common to the whole region or to "greater communities", comprising perhaps two or more municipalities or a municipality and its non-municipal fringe, without regard to existing boundaries but with regard to the benefit of the service to the "greater community".

THE FOUR SERVICE ROLES OF THE REGIONAL DISTRICT

(1) Regional Services
- works or services for the whole of the region,
- regulatory powers extending to all of the non-municipal areas of the region and to those municipalities within the region which choose to delegate specific regulatory powers to the regional district.
(2) **Sub-Regional Services**

- works or services for parts of the region (greater community areas comprising one or more municipalities and neighbouring non-municipal communities)
- regulatory powers for parts of the region

(3) **Contract Services**

- centralized services (equipment and/or personnel) on a contract basis for municipalities and improvement districts within the region.

(4) **Local Community Services**

- works and services for non-municipal communities within the region.

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**A FEW APPLICATIONS OF THE SERVICE ROLES OF THE REGIONAL DISTRICT**

**A. FULLY REGIONAL SERVICES (over the whole)**

- hospitals (by way of companion Regional Hospital District (Regional Hospital Districts Act)
- regional parks (Regional Parks Act)
- environmental management (regional planning services and the development of the regional plan)
- community planning services - (building regulations and land use controls in the non-municipal areas)
- fireworks and firearms regulation
- health and sanitation regulations and pest control
- recreation programmes
- grants-in-aid (tourism/industrial promotion etc.)
- co-ordination of multi-regional services (Federal/Provincial development or aid programmes)
- library service
- civil defence
  (and those services in B. below that lend themselves to fully regional application)

**B. SUB-REGIONAL SERVICES (for greater communities)**

- water supply and/or distribution facilities
- sewage disposal and/or collection facilities
- garbage disposal facilities
- recreation facilities
- fire protection service
- ambulance service
  (and those services in A. above that lend themselves to sub-regional application)
C. CONTRACT SERVICES (for municipalities and improvement districts)

- centralized staffing (planning of engineering, and assessment services, building inspection, etc.)
- centralized purchasing
- equipment pools, data centers
- borrowing on behalf of member municipalities

D. LOCAL COMMUNITY SERVICES (for non-municipal communities)

- waterworks systems
- sewer systems
- fire protection service
- garbage collection and disposal service
- recreation facilities
- street lighting service

A few examples of services that may be provided on a joint basis through the regional district and shared between one or more municipalities and/or a municipality and neighbouring non-municipal areas.

- water supply
- sewage disposal
- recreation programmes
- fire protection
- ambulance service
- refuse disposal and/or collection
- recreation facilities
- parks
- specialized personnel
- specialized equipment and services

February, 1971
Department of Municipal Affairs.
1.01 In accordance with the provisions of the "Local Services Act" being chapter 224 of the Revised Statutes of British Columbia, 1960, these regulations apply to Community Planning Area Number 14 from the date of publication in the Gazette.

1.02 British Columbia Regulation 228/59 is amended by striking out Section 1 and substituting: "1. These regulations apply to Community Planning Areas Numbers 4, 9, 12, 13, 15 and 16".

1.03 These regulations shall apply to the area described as follows:

Commencing at the north-east corner of Lot 13, Newcastle District, being a point on the highwater mark of Deep Bay on the easterly shore of Vancouver Island; thence southerly along the easterly boundaries of Lots 13, 72 and 87 to the south-east corner of said Lot 87; thence westerly along the southerly boundary of said Lot 87 to the most southerly south-west corner thereof; thence northerly and westerly along the westerly and southerly boundaries of said Lot 87 to the south-east corner of Lot 95; thence westerly and northerly along the southerly and westerly boundaries of said Lot 95 to the north-west corner thereof; thence northerly, westerly and northerly along the westerly, southerly and westerly boundaries of Lot 87 to the north-west corner thereof; thence westerly, northerly and easterly along the southerly, westerly and northerly boundaries of Lot 79 to the south-west corner of Lot 47; thence northerly along the westerly boundary of said Lot 47 to the north-west corner thereof; thence westerly and northerly along the southerly and westerly boundaries of Lots 6A and 48 to the north-west corner of said Lot 48; thence westerly and northerly along the southerly and westerly boundaries of Lot 37G, Section 2, and Lots 31G, 12, 9 and 8, Nelson District to the north-west corner of Lot 8; thence westerly along the southerly boundaries of Section 6 and Lot 18 to the south-west corner.
of said Lot 18; thence northerly along the westerly boundary of said Lot 18 to the north-easterly limit of the B.C. Power Commission Right-of-Way as shown on Plan 931RW on file in the Land Registry Office, Victoria; thence north-westerly along the said north-easterly limit of the B.C. Power Commission Right-of-Way as shown on Plans 931RW and 934RW to the southerly boundary of Section 29, Township 11; thence westerly along the westerly boundaries of Sections 29 and 30, Township 11 to the north-east corner of Lot 24; thence southerly and westerly along the easterly and southerly boundaries of Lot 24 and Section 3 to the highwater mark on the easterly shore of Allen Lake; thence in a general north-westerly direction along the highwater mark on the easterly and northerly shores of said Allen Lake to the middle line of Perseverance Creek; thence in a general north-westerly direction along the said middle line of Perseverance Creek to the southerly boundary of Lot 24; thence westerly and northerly along the southerly and westerly boundaries of said Lot 24 to the north-west corner thereof; thence westerly along the southerly boundary of Fractional Section 28, Township 10, Comox District to the easterly boundary of Block 239; thence northerly along the said easterly boundary of Block 239 to the highwater mark on the southerly shore of Comox Lake; thence in a general easterly, northerly and westerly direction along the highwater mark on the southerly, easterly and northerly shores of Comox Lake to the middle line of Puntledge River; thence in a general northerly direction along the said middle line of Puntledge River to the north-easterly limit of the B.C. Power Commission Right-of-Way as shown on Registered Plan 510RW; thence in a general north-westerly direction along the said north-easterly limit of the B.C. Power Commission Right-of-Way as shown on Plans 510RW, 509RW to the northerly boundary of Lot 704, Sayward District; thence easterly along the said northerly boundary of Lot 704 to the north-east corner thereof; thence due east to the westerly boundary of Lot 1476; thence northerly and easterly along the westerly and northerly boundaries of said Lot 1476 to the north-east corner thereof; thence easterly along the northerly boundary of Lot 66 to a point due south of the south-east corner of Block 'A' of Lot 67. Registered Plan 8916; thence northerly and westerly along the easterly and northerly boundaries of said Block 'A' of Lot 67, Plan 8916 to the north-west corner thereof; thence northerly along the westerly boundaries of Lots 67 and 52 to the south-east corner of Lot 151; thence westerly along the southerly boundary of said Lot 151 to the south-west corner thereof; thence northerly along the westerly boundaries of Lots 151 and 26 to the south-east corner of Lot 130; thence westerly and northerly along the southerly and westerly boundaries of said Lot 130 to the north-west corner thereof; thence
westerly, northerly and easterly along the southerly, westerly and northerly boundaries of Lot 15 to the south-west corner of Lot 9; thence northerly along the westerly boundary of said Lot 9 to the most westerly north-west corner thereof; thence westerly and northerly along the southerly and westerly boundaries of Lots 1, 28 and 16 to the north-west corner of said Lot 16, thence easterly and southerly along the northerly and easterly boundaries of Lots 16 and 28 to the most easterly south-east corner of said Lot 28, being a point on the highwater mark of Menzies Bay on the easterly shore of Vancouver Island; thence in a general south-easterly direction along the center line of Menzies Bay and the prolongation thereof to a point on a line drawn 1,000 feet perpendicularly distant northerly from and parallel to the highwater mark on the westerly shore of Discovery Passage; thence in a general southerly direction 1,000 feet from and parallel to the aforesaid highwater mark to a point 1,000 feet perpendicularly distant from the aforesaid north-east corner of Lot 13, Newcastle District, said point being in a northerly direction perpendicularly to the general direction of the southerly highwater mark of Deep Bay; thence southerly in a straight line to the said north-east corner of Lot 13, Newcastle District being the point of commencement.
Division (2)  

Building

2.01 The regulations in Parts 2 to 8 inclusive of the National Building Code of Canada, 1953 and amendments made from time to time thereto apply to:

(a) buildings and structures; and
(b) plumbing installations;

insofar as these regulations deal with the size, shape and dimensions of buildings and structures and the installation of plumbing fixtures and equipment including the kind, composition, strength and dimensions of materials used in such buildings and structures.

2.02 Sewage disposal shall be in accordance with Section 3.01(e).

2.03 The provisions of Part I of the National Building Code of Canada, 1953 and amendments made from time to time thereto apply except:

(a) the word "building" includes "structure";
(b) the words "administrative official" mean "building inspector".

2.04 The schedule of fees to be charged for the issuance of a permit under these regulations and including the expense of inspections connected with the issuance of a permit are as follows:

(a) a fee of two dollars for each one thousand dollars or fraction thereof of the estimated cost of a building or structure up to an estimated cost of thirty five thousand dollars and fifty cents for each one thousand dollars or fraction thereof of the estimated cost of a building or structure in excess of thirty five thousand dollars;
(b) a fee of one dollar for every plumbing fixture;
(c) a fee of three dollars for every septic tank;
(d) a fee of three dollars for moving a building or structure.

2.05 The building inspector shall not issue a permit until the prescribed fee has been paid.
2.06 Any person who constructs, alters, repairs any building or structure, plumbing or septic tank, without first having obtained a permit or who does not hold a valid permit shall be deemed to be in contravention of these regulations.

Division (3)

Subdivision

3.01 No subdivision after the passing of these regulations shall be approved unless:

(a) it is suited to the configuration of the land being subdivided;
(b) it is suited to the use to which it is intended;
(c) it does not make impracticable the future subdivision of the land within the proposed subdivision or of any adjacent land;
(d) the minimum frontage that any parcel of land in the proposed subdivision has with respect to the highway upon which the parcel fronts is fifty feet or one-tenth of the perimeter of the parcel whichever is greater, unless in an exceptional case the Minister of Municipal Affairs exempts the subdivider from the provision of this clause;
(e) each parcel of land shall have an area of soil suitable for absorption of septic tank effluent to be determined by percolation tests in accordance with Appendix 7.C. of the National Building Code of Canada, 1953. Such area of soil shall be above any water table or high water mark of any body of water or watercourse. The owner shall submit evidence of percolation tests. Alternatively, disposal may be made by sand filter or other private sewage disposal system designed in accordance with recognized engineering standards. Plans for such system shall be submitted by the owner.

3.02 The minimum area of a parcel of land into which land may be subdivided is:

(a) seventy-five hundred square feet where a community water system but no community sewer system are available;
(b) fifteen thousand square feet where neither a community water system or a community sewer system are available.

3.03 The minimum highway allowance permitted in any proposed subdivision is sixty-six feet in width; except that with the assent of the District Engineer, Department of Highways, the minimum highway allowance for any highway or highways contained within a proposed subdivision is fifty feet.
3.04 In any proposed subdivision a highway which ends in a cul-de-sac shall:

(a) not have a length of more than five hundred feet measured from the last intersection with a highway;
(b) have a terminal area for a turn around with a radius of not less than fifty feet measured at any point.

3.05 Any highway within a proposed subdivision shall be so located that the gradient of any portion of the highway is not greater than:

(a) eight percentum where the highway is deemed by the approving officer to be a major traffic route;
(b) twelve percentum in all other cases.

3.06 A plan of a proposed subdivision that is not in compliance with this regulation shall not be approved by the approving officer.

Division (4)

Penalty

4.01 Any person who violated the provisions of these regulations is liable on summary conviction to a penalty not exceeding $100.00 and a person so convicted is liable on summary conviction to a further penalty of $10.00 for every week thereafter during which the violation continued.

"W.D. BLACK"
MINISTER OF MUNICIPAL AFFAIRS

AMENDMENT

COMMUNITY PLANNING AREA NUMBER 14

SUBDIVISION REGULATIONS

The subdivision regulations made by BC Reg. 228/59 pursuant to the "Local Services Act" are amended by:

1. Deleting the period at the end of subsection 3.02 (b) and substituting a semicolon.

2. Adding to section 3.02 the following subsection:

"(c) notwithstanding the requirements of subsections (a) and (b) above, existing parcels which are smaller than permitted in these regulations may be consolidated and resubdivided into new parcels provided that:

(i) all parts of all new parcels are contiguous;

(ii) as many new parcels as practicable shall meet the area requirements of these regulations;

(iii) the degree of compliance with the area requirements of these regulations is not lessened on any new parcel;

(iv) the building inspector is satisfied that sewage can be satisfactorily disposed of on an area of soil on each new parcel

(A) which is not likely to be built upon, paved or used as a roadway,

(B) which meets the requirements of section 8.03 (location of absorption fields) in the Sewage Disposal Regulations in force in the Community Planning Area."

"DAN CAMPBELL"
MINISTER OF MUNICIPAL AFFAIRS

August 7, 1967.
THAT by supplementary Letters Patent dated February 17, 1967, as amended by supplementary Letters Patent dated September 24, 1968, the Regional District of Comox-Strathcona was granted the function of Regional and Community Planning and the provisions of sections 795 to 798D, inclusive, of the Municipal Act apply to the said regional district:

AND THAT the greater portion of Community Planning Area 14 established under the Local Services Act is within the boundaries of the said regional district:

AND THAT under the Local Services Act certain regulations apply to the area known as Community Planning Area 14:

AND TO RECOMMEND THAT pursuant to the provisions of section 766 of the Municipal Act the supplementary Letters Patent hereto attached do issue to amend the supplementary Letters Patent dated February 17, 1967, as amended by supplementary Letters Patent dated September 24, 1968, to apply the regulations which are in force and effect in the area of Community Planning Area 14 as if they were by-laws adopted by the Regional Board of the Regional District of Comox-Strathcona until they are amended or repealed by by-law in accordance with the Municipal Act.

DATED this 12 day of March A.D. 1971

"Dan Campbell"
Minister of Municipal Affairs.

APPROVED this 12 day of March A.D. 1971.

"W.A.C. Bennett"
Presiding Member of the Executive Council.
APPENDIX D
SUBDIVISION LOCATION AND DESIGN
EVALUATION STANDARDS

To rate each subdivision for convenience of location criteria the time measured from the home to the facility was determined and weighted as indicated in Table 14. The total of the weighted time measurements recorded for all convenience criteria was calculated for each subdivision, and the subdivisions were thus rated for desirability of convenience of location, in proportion to the least amount of time devoted to travel.

Each subdivision was also rated according to relative amenity of location in the amount of 30% of the total location rating. This included consideration of land uses adjacent to the subdivision and land uses abutting major access routes to the subdivision. (Refer to Table 15, Location Rating and Ranking Guide (11) Amenity). Each subdivision was also rated for safety, primarily in terms of fire protection service as indicated by response time, in the amount of 10% of the total location rating. (Refer to Table 16, Location Rating and Ranking Guide (111) Safety). A summary of the results of the locational analyses of the 'model' subdivision is also given in Table 16, 'Summary of Rating and Ranking of Locations of Subdivision Cases'.

Tables 17 and 18 list design standards and principles and the summary of rating and ranking.

---

1Source of text and tables in this Appendix: School of Community and Regional Planning, Residential Land Subdivision: A Physical Evaluation, Staff Research Project 2. (Vancouver: University of B.C., 1965)
<table>
<thead>
<tr>
<th>Criterion</th>
<th>No. 1</th>
<th>No. 2</th>
<th>No. 3</th>
<th>No. 4</th>
<th>Range of Commonly Accepted Stds.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dist. Time</td>
<td>Dist. Time</td>
<td>Min. Time</td>
<td>Max. Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Miles</td>
<td>Mins.</td>
<td>Miles</td>
<td>Mins.</td>
<td>(Miles)</td>
</tr>
<tr>
<td>Employment</td>
<td>40 min.</td>
<td>-</td>
<td>20-30</td>
<td>-</td>
<td>20-30</td>
</tr>
<tr>
<td>Major Shopping</td>
<td>4 mi.</td>
<td>1-1 1/2</td>
<td>20-30</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Convenience Shopping</td>
<td>3/4 mi.</td>
<td>-</td>
<td>1/2</td>
<td>10</td>
<td>1/4</td>
</tr>
<tr>
<td>Elementary School</td>
<td>1 mi.</td>
<td>1/2</td>
<td>20</td>
<td>1/2</td>
<td>-</td>
</tr>
<tr>
<td>Jr. High School</td>
<td>2 1/2 mi.</td>
<td>1 mi.</td>
<td>15-25</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Sr. High School</td>
<td>2 1/2 mi.</td>
<td>2 mi.</td>
<td>1-1 1/2</td>
<td>20-30</td>
<td>-</td>
</tr>
<tr>
<td>Playground</td>
<td>-</td>
<td>1/2</td>
<td>20</td>
<td>1/2</td>
<td>-</td>
</tr>
<tr>
<td>Playfields</td>
<td>-</td>
<td>1 1/2 mi.</td>
<td>3/4-1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Community Park</td>
<td>-</td>
<td>2 mi.</td>
<td>1/4-1/2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>District Park</td>
<td>-</td>
<td>3 mi.</td>
<td>30-60</td>
<td>-</td>
<td>30-60</td>
</tr>
<tr>
<td>Churches</td>
<td>3 1/2 mi.</td>
<td>-</td>
<td>1-1 1/2</td>
<td>20-30</td>
<td>-</td>
</tr>
</tbody>
</table>

Sources:


**TABLE 14**

**LOCATION RATING AND RANKING GUIDE (1) CONVENIENCE**

<table>
<thead>
<tr>
<th>Types of Journey</th>
<th>Convenience Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Veh. trips per D.U/day</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Major Employment Centres</td>
<td>5.61x0.507</td>
</tr>
<tr>
<td>Metro. C.B.D.</td>
<td>3</td>
</tr>
<tr>
<td>Local C.B.D.</td>
<td>2</td>
</tr>
<tr>
<td>(2) Schools:</td>
<td>5.61x0.048</td>
</tr>
<tr>
<td>Elementary</td>
<td>1.25</td>
</tr>
<tr>
<td>Junior High</td>
<td></td>
</tr>
<tr>
<td>Senior High</td>
<td></td>
</tr>
<tr>
<td>(3) Recreation Areas:</td>
<td>5.61x0.214</td>
</tr>
<tr>
<td>Playground</td>
<td>2.0</td>
</tr>
<tr>
<td>Playfield</td>
<td>4.0</td>
</tr>
<tr>
<td>Neighbourhood Park</td>
<td>0.5</td>
</tr>
<tr>
<td>Major Park</td>
<td>0.5</td>
</tr>
<tr>
<td>Commercial Recreation</td>
<td>2.0</td>
</tr>
<tr>
<td>(4) Shopping Areas:</td>
<td>5.61x0.119</td>
</tr>
<tr>
<td>Convenience</td>
<td>4.0</td>
</tr>
<tr>
<td>Major Shopping</td>
<td>1.0</td>
</tr>
<tr>
<td>(5) Others:</td>
<td>5.61x0.112</td>
</tr>
<tr>
<td>Churches</td>
<td>0.5</td>
</tr>
<tr>
<td>Total rating for Convenience</td>
<td></td>
</tr>
</tbody>
</table>

*Model* Subdivision allowed 60% of total location rating, for 'convenience' of
<table>
<thead>
<tr>
<th>(1) Type of Land Use Adjacent to Subdivision</th>
<th>Rating Guide*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Garbage dumps; heavy industry with high degree of nuisance</td>
<td>0/4</td>
</tr>
<tr>
<td>(b) Heavy industry with slight degree of nuisance; light industry; major thoroughfares</td>
<td>3/4</td>
</tr>
<tr>
<td>(c) Large Institutions; commercial areas; low value housing</td>
<td>6/4</td>
</tr>
<tr>
<td>(d) Medium value residential; vacant land zoned residential</td>
<td>9/4</td>
</tr>
<tr>
<td>(e) High value residential; large undeveloped park and open space reserves; private open spaces such as golf courses</td>
<td>12/4</td>
</tr>
<tr>
<td>(f) Very high value residential; developed parks and high amenity areas such as lake frontage</td>
<td>15/4</td>
</tr>
</tbody>
</table>

* 'Model' subdivision allowed 15% for Adjacent Land Uses on four sides, plus 15% for Land Uses Abutting Access Routes, with total of 30% allowed for Amenity.

(2) Predominant Land Uses Abutting Major Access Routes to Subdivision

Rating Guide: This is to be a measure of (a) whether it has a 'good address' and (b) whether it is pleasant to drive to. This would take into account relative property values and condition of maintenance of properties including streets. The guide given in (1) above should be used to establish a rating with 15% of total location rating allowed for predominant land uses abutting major access routes to the subdivision.
<table>
<thead>
<tr>
<th>Fire Protection Response Time (minutes)</th>
<th>Rating Guide*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 2</td>
<td>5</td>
</tr>
<tr>
<td>2 - 3</td>
<td>4</td>
</tr>
<tr>
<td>3 - 4</td>
<td>3</td>
</tr>
<tr>
<td>4 - 5</td>
<td>2</td>
</tr>
<tr>
<td>5 - higher</td>
<td>1</td>
</tr>
</tbody>
</table>

* 'Model' subdivision allowed 5% for fire safety with an additional 5% to account for other observable safety factors, with total of 10% for safety.

### SUMMARY OF RATING AND RANKING OF LOCATIONS OF SUBDIVISION CASES

<table>
<thead>
<tr>
<th>Rating for:</th>
<th>'Model' Subdivision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>60</td>
</tr>
<tr>
<td>Amenity (1) (Adjacent Land Use)</td>
<td>15</td>
</tr>
<tr>
<td>Amenity (2) (Access Rtes.)</td>
<td>15</td>
</tr>
<tr>
<td>Safety</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL % RATING 100**

**RANKING**
<table>
<thead>
<tr>
<th>CRITERION</th>
<th>COMMONLY ACCEPTED PRINCIPLE OR STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td></td>
</tr>
<tr>
<td>% of total land use in streets</td>
<td>C.G.R.A. - 30% max.</td>
</tr>
<tr>
<td>% of streets as collectors</td>
<td>C.G.R.A. - 30% of total system max.</td>
</tr>
<tr>
<td>% of area in public open space</td>
<td>C.M.H.C. -5% of total land area min.</td>
</tr>
<tr>
<td>Block and Lot Pattern</td>
<td></td>
</tr>
<tr>
<td>Lot Size</td>
<td>C.M.H.C. min. depth 90' (25-75 lots); Not more than 1/3 of lots at min. depth 80' &amp; width 75'(for 76 or more lots).</td>
</tr>
<tr>
<td>Lot Shape</td>
<td>---</td>
</tr>
<tr>
<td>Easements through lots</td>
<td>Avoid easements on lots if possible</td>
</tr>
<tr>
<td>Block length</td>
<td>C.M.H.C. - 1200' max; 750' max. for cul-de-sac</td>
</tr>
<tr>
<td>Lots abutting side &amp; rear yards</td>
<td>C.M.H.C. - lots should not abut more than 3-4 adjacent lots on side or rear yards</td>
</tr>
<tr>
<td>Buffer strips</td>
<td>Planting and buffer strips desirable</td>
</tr>
<tr>
<td>CRITERION</td>
<td>COMMONLY ACCEPTED PRINCIPLE OR STANDARD</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>Circulation-Vehicular</strong></td>
<td></td>
</tr>
<tr>
<td>Intersections</td>
<td>C.M.H.C.-not closer than 200'</td>
</tr>
<tr>
<td>Blind corners</td>
<td>No angles less than 70°</td>
</tr>
<tr>
<td>Steep grades</td>
<td>15% max. for local streets</td>
</tr>
<tr>
<td>Points of entry</td>
<td>Should be 3 minimum</td>
</tr>
<tr>
<td>Off-Street parking</td>
<td>One off-street space for house minimum</td>
</tr>
<tr>
<td>Street widths</td>
<td>C.M.H.C. 66' major street 50' minor street</td>
</tr>
<tr>
<td><strong>Circulation-Pedestrian</strong></td>
<td></td>
</tr>
<tr>
<td>Steep grades - (no steps)</td>
<td>Must be less than 15%</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>On one side of road, asphalt, minimum.</td>
</tr>
<tr>
<td>CRITERION</td>
<td>RATING SCALE</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Land Use</td>
<td></td>
</tr>
<tr>
<td>% of total land area in streets</td>
<td>+1 for every % over or under 30%</td>
</tr>
<tr>
<td>% of area in collectors</td>
<td>-2/3 for every % over or under 30%</td>
</tr>
<tr>
<td>% of area in public open space</td>
<td>+1 for every % over or under 5%</td>
</tr>
<tr>
<td><strong>Total for land Use</strong></td>
<td></td>
</tr>
<tr>
<td>Block and Lot Pattern</td>
<td></td>
</tr>
<tr>
<td>Lot size</td>
<td>each lot less than minimum size -1</td>
</tr>
<tr>
<td>Lot shape</td>
<td>-1 for each % of lots less than min. depth or frontage</td>
</tr>
<tr>
<td>Easements through lots</td>
<td>----</td>
</tr>
<tr>
<td>Block length</td>
<td>-1/block in excess of 1200'</td>
</tr>
<tr>
<td>Curving streets</td>
<td>-1/straight run of street in excess of 750'</td>
</tr>
<tr>
<td>Side of lot abutting</td>
<td></td>
</tr>
<tr>
<td>rear of adjacent lot</td>
<td>-1 for every % greater than 10% of total lots</td>
</tr>
<tr>
<td>Lots abutting side &amp;</td>
<td></td>
</tr>
<tr>
<td>rear yards</td>
<td>-1 for every % greater than 10% of total lots</td>
</tr>
<tr>
<td>Buffer strips</td>
<td>-1 where required but absent</td>
</tr>
<tr>
<td><strong>Total for Block &amp; Lot Pattern</strong></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 18 (Cont'd)

**SUMMARY OF RATING AND RANKING OF THE SUBDIVISION LAYOUT DESIGNS**

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>RATING SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Circulation-Vehicular</strong></td>
<td></td>
</tr>
<tr>
<td>Intersections</td>
<td>-1 for each intersection in excess of 4 legs</td>
</tr>
<tr>
<td></td>
<td>-1/4 for each four-way intersection</td>
</tr>
<tr>
<td>Blind Corners</td>
<td>-1 for each blind corner</td>
</tr>
<tr>
<td>Steep grades</td>
<td>-1 if less than 150' run &amp; in excess of max. municipal grades std.</td>
</tr>
<tr>
<td>Points of entry</td>
<td>-1 for each entry in excess of three</td>
</tr>
<tr>
<td>Off-street parking</td>
<td>-1/4 for each lot without adequate space for one off-street parking space</td>
</tr>
<tr>
<td>Street widths</td>
<td>-1 for every 5' of width less than 66' for collector &amp; 50' for local streets</td>
</tr>
<tr>
<td><strong>Circulation-Pedestrian</strong></td>
<td></td>
</tr>
<tr>
<td>Steep grades (no steps)</td>
<td>-1/4 for each walk for each % grade in excess of 15%</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>-1 if no sidewalks provided</td>
</tr>
<tr>
<td></td>
<td>0 if sidewalks on one side only</td>
</tr>
<tr>
<td></td>
<td>+1 if sidewalks both sides st.</td>
</tr>
</tbody>
</table>

| Total for Circulation      |                                                                               |
| Total Rating               |                                                                               |
| Ranking                    |                                                                               |
APPENDIX E
PROCEDURE FOR SUBDIVIDING LAND WITHIN MUNICIPALITIES.

The subdivider should ascertain at the Land Registry Office:

1. In whose name is the land registered.

   Land Registry Act, Sec. 2 ("owner" and "registered owner"), Sec. 141.

2. The full and exact legal description of the land.

   Land Registry Act, Sec. 101 (for form K)

3. Is all the land proposed to be subdivided registered.

   Land Registry Act, Sec. 102(1).

4. In whose possession is the owner's copy of the Certificate of Title.

   Land Registry Act, Sec. 101.

5. Whether there are any covenants which would prevent subdivision.

6. Is subdivision, for the purpose of conveyance or charge, necessary.

   Land Registry Act, Sec. 83.

The subdivider should then ascertain from Municipal Records:

1. Is there a Municipal Zoning By-law which prevents the contemplated use of the land proposed to be subdivided.

   Municipal Act, Sec. 702.

2. Is there an "official community plan" which would prevent the construction of public works which might be necessary to serve the proposed subdivision.

   Municipal Act, Sec. 695 (definition), 697, 698 and 699.

3. Is there a municipal by-law regulating subdivision.

   Municipal Act, Sec. 711 (1)(a), (b) and (c) and 712.

4. Is there a municipal by-law prescribing the standard to which highways within the subdivision must be cleared, drained, and surfaced.

   Municipal Act, Sec. 711 (1) (d).
5. Is there a municipal by-law requiring the subdivision to be provided with water mains and, or, sanitary sewers.

Municipal Act, Sec. 711 (5).

The Municipal Approving Officer's duties:

1. In addition to considering all of the points in B, above, the Approving Officer should satisfy himself that the matters which the Registrar of Titles will be concerned with have been properly dealt with:

   (a) Is necessary and reasonable access provided to all new parcels created, and through the lands subdivided to lands lying beyond or around.

   (b) Are existing highways continued without unnecessary jogs.

   (c) Where the land subdivided borders on navigable waters, are sufficient public highways to such navigable waters provided --- at not more than 660 feet (10 chains) apart. (See too Sec. 87, Land Registry Act for relaxation provision.)

   (d) Are suitable lanes provided in continuation of existing lanes or established where lanes considered necessary by the Approving Officer.

      Land Registry Act, Sec. 86. (Shared with Registrar)

2. Consider the sufficiency of highway allowances depending on whether the land is subdivided for:

   (a) business, residential or country lands, and

   (b) also consider:

      - the configuration of the land,
      - relation of new highway to existing highways or approaches (by land or water),
      - local circumstances,
      - the future expected use of highways in regard to the question of width of highway required.

      Land Registry Act, Sec. 95.

3. Hear objections from any interested persons and refuse to approve the subdivision if in his opinion the anticipated development of the subdivision would injuriously affect the established amenities of adjoining or adjacent properties or would be against the municipality's interest.

      Land Registry Act, Sec. 96.
The Land Surveyor's Tasks:

1. Survey the Land and lay out the proposed subdivision on the ground. (The proposed subdivision should be designed subsequent to the subdivider's consultation with the Plans Approving Officer and must reflect the statutory requirements of the Registrar of Titles.

2. To compare the measurements he has taken with "The measurements shown on any plan covering the same land in whole or in part having a common boundary, already deposited ..."

   Land Registry Act, Sec. 110.

3. To prepare a survey plan acceptable to the Registrar of Titles and following the official plans presentation standards.

   Land Registry Act, Sec. 80, 80A, 81, 84 and 106.

4. If the Approving Officer so demands:

   (a) Furnish profiles of every new highway shown on the plan and such topographical details as may indicate the engineering problems to be dealt with in opening up the highways shown upon the plan.

   (b) Furnish a sketch showing that the parcels into which the land is subdivided by the plan can conveniently be further subdivided into further small parcels --- (if) there is reason to anticipate its re-subdivision.

   Land Registry Act, Sec. 92.

5. Layout of the subdivision on the ground.

   The subdivider should then:

   1. Tender the subdivision plan to the Clerk of the Municipality, for examination and approval by the Approving Officer, accompanied by:

      (a) A $2.00 examination fee.

      (b) A certificate verifying that on the land to be subdivided, all taxes are paid, and where local improvement taxes, rates, or Assessments are payable in annual instalments that all instalments owing at the date of the certificate have been paid.

      Land Registry Act, Sec. 69.

   2. The Municipal Act contemplates the subdivider completing the public works required by by-law as a condition precedent to the approval of the subdivision plan. The custom has grown up whereby the subdivider agrees with the Municipality, by contract, to carry out the required works. Generally, as soon as the
Contract is signed by the subdivider, the subdivision plan is approved,

or

On the basis of compliance with any existing municipal by-laws covering standards of construction of highways and other services, may begin construction accordingly.

Municipal Act, Sec. 711 (1)(d), (4).

The Municipal Approving Officer's duties:

1. Determine whether the final subdivision plan presented complies with the regulations and policies previously outlined to the subdivider and which form the basis of approval.

2. Insure that any subdivision agreement in lieu of actual construction has been properly completed by the subdivider.

3. Approve the plan by writing "Approved under the Land Registry Act" with the date of approval and signature of Approving Officer, together with his official designation.

4. Insure that the seal of the Municipality has been affixed to the plan officially submitted to the Municipality for approval.

Land Registry Act, Sec. 97.

Appeal

Appeal from the decision of the Municipal Approving Officer lies to a Judge of the Supreme Court in Chambers in a summary way by petition.

Land Registry Act, Sec. 91 and 98.

Subdivider submits plan to Registrar of Titles

Land Registry Act Form 13-b, together with 2 blue linens and 1 white linen.

The Registrar of Titles' duties:

1. Makes certain that the subdivision plan has been prepared according to the official plans presentation standards.

Land Registry Act, Sec. 80, 81, 84 - 86.

2. He satisfies himself that the plan has been "signed by each owner of the lands subdivided or his agent duly authorized by a written authority satisfactory to the Registrar ....".

Land Registry Act, Sec. 103 (1).
3. He may "refuse to accept any plan, the measurements of which do not correspond with the measurements shown on any plan covering the same land in whole or in part or having a common boundary ..."

4. He makes certain that all subdivision plans accepted for deposit provide: reasonable access to all new parcels and to lands lying beyond, highways without unnecessary jogs, access to navigable water, continuation of existing lanes.

Land Registry Act, Sec. 86.

5. He must examine "the application and the instruments and plan produced in support thereof, and if satisfied that they are in order --- shall assign the plan a serial deposit number and issue such new certificates of title for the parcels shown upon the plan as may be necessary."

Land Registry Act, Sec. 105.

6. Assure that the plan has been approved by the Approving Officer.

Land Registry Act, Sec. 88 and 97.

(From the files of Mr. W.T. Lane, Municipal Solicitor, The Corporation of the Township of Richmond)
SCHEDULE FOR OPEN-ENDED INTERVIEWS WITH DEVELOPERS

Part 1.
Are you familiar with CPA 14?
How much subdivision have you been involved with in this area?
How much are you working ahead of the market - raw land?
- unsold lots?

Is this the way you prefer it?
How do you go about getting raw land?
Does the price vary throughout the area?
- the cost of development?
Is there a yearly appreciation in value? - raw land?
- developed?
How is lot selling price established? - related to raw land cost?
- development cost?
- market?

Part 2.
Do you feel that present subdivision activity is easing the housing shortage?
Do you depend on market studies as a guide to your activity?
Do you subdivide only? - develop?
- build?
What kind of land do you prefer for development?
Do you clear or retain natural landscaping?
How do you design the subdivision? - who designs?
How important to you is the location of raw land in terms of
- cost?
- roads?
- jobs (workplaces)?
- schools?
- community facilities?
- recreation areas?
- business and stores?
What services do you feel should be supplied in rural areas?
What do you feel are ideal rural lot sizes? Why?
Do you dedicate - park?
- school?

Part 3.
How do you feel about present subdivision regulations in the rural areas?
How do you feel about taxation arrangements? Problems?
Is there risk involved in subdivision?
Are the proper channels clearly understood?
Do you have any criticism to make of present development in the area?
Do you have any suggestions for future development of this area?
SCHEDULE FOR OPEN-ENDED INTERVIEWS WITH HOUSEHOLDERS

Part 1.

How long have you lived here? - the general area?
- the house?
Where did you live before?
What kind of work do you do? - where?
- distance?
How many children in the family? - preschool?
- school age?
What do you think of this whole area as a place to live?
Would you choose to live in town?

Part 2.

Do you think your neighborhood is a good place to bring up children? - where do they play?
- distance to school?
- safety for children?
What recreational facilities are available here?
- playground?
- park? beach?
- other?
How do you feel about the following items: - your water system?
- your drainage system?
- your sewage disposal system?
- fire protection?
- police protection?
- traffic? street layout?

How do you feel about your location in regards to:
- neighborhood store? - distance?
- supermarket?
- businesses like repair shops etc.?
- shopping center?
(a) What do you think of the cost of land?
(b) How do you feel about your taxes?

Part 3.

Is there a community hall? - distance?
Do you use it? How?
Is there a church? - do you go?
Do you know your neighbors? - do you visit your neighbors?
- do you feel this is typical here?
How big is your neighborhood?

Part 4.

How do you feel about tourists using this whole area?
Should facilities be provided?
What do you like most about living here? (in this neighborhood?)
What do you dislike most about living here? (in this neighborhood?)
Suggestions for future development - in this general area?
- in your neighborhood?
Would you choose to live in town if the cost were equal?