THE EFFECTIVENESS OF REPLOTTING AS A COMMUNITY PLANNING IMPLEMENTATION TECHNIQUE: A CASE STUDY OF THE DISTRICT OF NORTH VANCOUVER, B. C.

bу

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B.A., University of British Columbia, 1963.

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

> In the School of Community and Regional Planning

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA April, 1968

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ABSTRACT

The pattern of land subdivision is a determinant of the quality of the physical environment. There appear to be areas of many British Columbia municipalities where subdivision design detracts from the quality of the environment, Since community planning is concerned with improving the environment, deficient subdivision is a significant planning problem, and there is need for effective implementation techniques to amend existing subdivision patterns. Commonly used implementation techniques such as subdivision controls, plans cancellation and public land acquisition are of limited value in dealing with this problem.

It is hypothesized that replotting is an effective implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia.

The British Columbia replotting legislation, found in the <u>Municipal Act</u>, allows a municipal Council to define any area of the municipality as a Replotting District. If owners representing seventy per cent of the assessed value of land in such a District consent, the land may be resubdivided, and owners of former parcels receive a new

parcel of equal value in exchange, or compensation in money. All charges and encumbrances against former parcels are transferred to the new parcels. The legislation prescribes the procedures to be followed, the basis for compensation, and the rights of appeal.

The research method used is the case study. The case study is conducted in the District of North Vancouver, a British Columbia municipality which has used replotting extensively. The topography in North Vancouver is hilly, any most developable areas were laid out prematurely in a grid pattern unsuited to the topography. The community planning process is now well established in the District. The general use of replotting in the District is outlined, and the administrative procedures followed are described. Four typical replotting schemes are then examined in detail.

An evaluation of the use of replotting in the District of North Vancouver indicates that replotting has been successful in improving the contribution of subdivision design to the quality of the environment; that replotting appears to be an economical procedure; that the technique has won public acceptance; and that it has been possible to integrate replotting successfully into community planning administration in the District.

It is concluded from the case study that, subject to certain qualifications, replotting is an effective

implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia. Replotting has a number of specific advantages and also some limitations as a technique for altering existing patterns of subdivision; further areas of research are indicated, which would help to delimit the precise parameters within which replotting is most effective. While there have been some indications of wider interest in the technique recently, at present the District of North Vancouver is the only British Columbia municipality making extensive use of replotting. It is recommended that other municipalities having the required staff skills consider the use of replotting.

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ACKNOWLEDGEMENTS

The author is indebted to a number of persons who have contributed to the completion of this study, not all of whom can be acknowledged here. Dr. Kevin Cross. then a member of the Faculty of the School of Community and Regional Planning, University of British Columbia, initially encouraged research in the general area of subdivision as a determinant of the quality of the urban environment, and aided in defining the study hypothesis. Wiesman, as the author's Thesis Advisor, provided constant advice and encouragement. Gerard Farry, Study Director of the Vancouver Urban Renewal Study, very kindly made facilities available for the production of the study illustrations, and Elizabeth Garland contributed by patiently typing the manuscript. Martin Chesworth. Director of Planning for the District of North Vancouver, made a variety of materials available to the author. Above all, the auther is indebted to R. David O'Brien, Deputy Director of Planning for the District of North Vancouver, for generous assistance in locating research material, and for the numerous interviews to which Mr. O'Brien cheerfully consented.

CHAPTER I

THE PROBLEM: THE NEED FOR EFFECTIVE MEANS TO ALTER DEFICIENT SUBDIVISION PATTERNS IN BRITISH COLUMBIA

1. THE PROBLEM IN PERSPECTIVE

Man's use of land has since early in history entailed dividing the land into defined parcels and rights-of-way for access. As progressively more intensive use is made of land, larger parcels are subdivided into smaller lots. Urbanization has accelerated this process of land subdivision; as urban communities grow, vacant or agricultural land at the periphery of the community is subdivided into streets and urban-sized lots. Subdivision has also become a speculative activity, with subdivision often occurring years before the land is actually developed.

Subdivision has a fundamental influence on the quality of the physical environment in urban communities. The patterns created by street, block, lot and easement lines is the spatial framework within which further development of the land will occur.

In planning a subdivision, the designer controls the position of roads, paths and utilities, the location of public facilities and public open space, the shape and position of lots, and perhaps also such features as landscaping, grading and

detail.---It is a strategic juncture at which a designer can often achieve a permanent effect quite easily.---Good subdivision design can prevent the worst (and) insure good circulation, adequate facilities, sufficient open space, and a basic order. 1

Furthermore, the effects of a subdivision on the quality of the environment tend to persist over time, because once a subdivision has become established, it is difficult to alter its boundaries. Lots may become encumbered with a variety of charges such as mortgages, leases, easements and rights-to-purchase. In order to change the subdivision boundaries it is necessary to deal with these legal relationships, which can be a complicated and protracted process. If development has already taken place on some of the lots, it may be necessary to move buildings or other improvements in order to change the subdivision pattern, so that considerable expense is involved.

There are clearly areas in many communities in British Columbia where the subdivision pattern is deficient in terms of its contribution to the quality of the environment. "The historical land subdivision pattern in in the West was anchored to meridians. The land was divided into mile sections, and further divided into quarters."²

¹Kevin Lynch, Site Planning (Cambridge, Massachusetts Institute of Technology Press, 1962), pp. 103-105.

²Mary Rawson, <u>Subdivision</u> <u>Casebook</u> (Vancouver: Planning Institute of British Columbia, 1963), p.5.

This initial rectangular subdivision encouraged later subdivision into streets and lots on a grid pattern.

Unfortunately, the grid pattern is poorly suited to the irregular topography which is typical of British Columbia, so that the use of grid subdivision has often resulted in streets with excessive grades and lots that are unduly expensive to develop and service. Piecemeal and haphazard subdivision, without the benefit of planning, has also left a legacy of deficiencies: - awkward and unsafe street intersections, odd-shaped parcels which are difficult to utilize, inconvenient street patterns, and double-fronting lots.

Examples of typical subdivision deficiencies are illustrated in Figures 1 to 4, on pages 4 and 5.

Furthermore, even though a pattern of subdivision may be fully adequate at the time it is established, a change in land use, or in the intensity with which the land is used, may render that pattern obsolete. The West End area of the City of Vancouver, B.C., where high-density apartment housing is replacing the original single-family housing, illustrates such obsolescence:

The WestEEnd was subdivided and developed for one-family dwellings at the turn of the century. Although the subdivision was above average for the purpose at the time, it is not ideal for high-density apartments——the existing estreet and lane subdivision and ownership pattern impose severe limitations on the depth of sites, which in turn

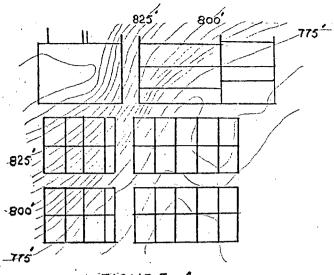


FIGURE 1

EXAMPLE OF DEFICIENT SUBDIVISION - N. VANCOUVER, B.C.

NOTE GRID PATTERN, UNRELATED TO TOPOGRAPHY, TAND EXCESSIVE STREET GRADES

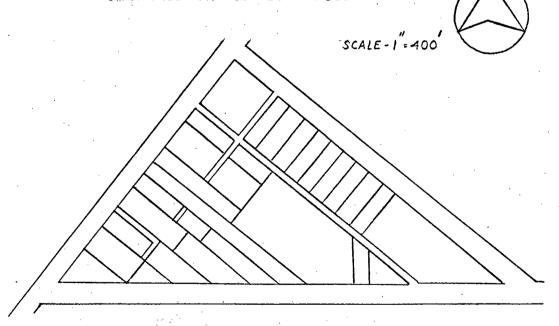


FIGURE 2

EXAMPLE OF DEFICIENT SUBDIVISION - LANGLEY, B.C.

NOTE AWKWARD INTERSECTIONS, ODD-SHAPED LOTS

SCALE-1"400"

**
SOURCE - M. RAWSON, SUBDIVISION CASEBOOK.

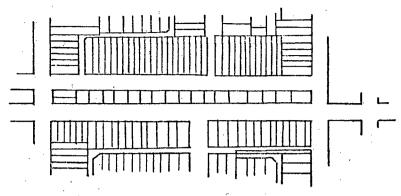


FIGURE 3

EXAMPLE OF DEFICIENT SUBDIVISION - CITY OF VANCOUVER, B.C.

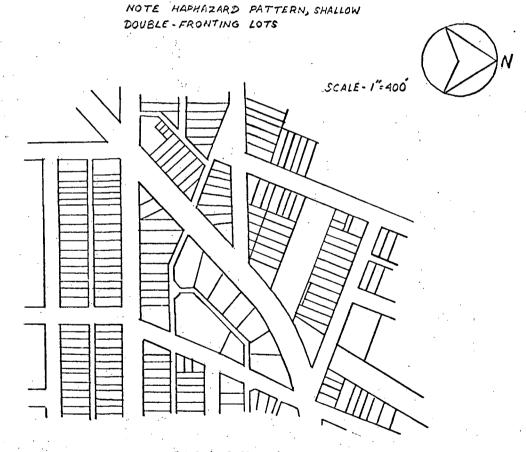


FIGURE 4

EXAMPLE OF DEFICIENT SUBDIVISION - CITY OF VANCOUVER, B.C.

NOTE POOR TRANSITION BETWEEN GRID SYSTEMS, EXCESSIVE STREET AREA

SCALE - 1"= 400

limit the attainment of desirable standards of daylighting, sunlighting, view, appearances, etc. 3

The purpose of community planning has been defined as "to improve the physical environment of the community as a setting for human activities - to make it more functional, beautiful, decent, healthful, interesting and efficient". As part of the community planning process, therefore, it may be desirable to alter the plan of subdivision in areas where subdivision design detracts from the quality of the physical environment.

To alter the existing plan of subdivision will in turn require effective implementation techniques. The problem which has given rise to this thesis, then, is the need to improve deficient subdivision patterns as part of the community planning process, and the need to find effective implementation techniques to bring about the desired changes.

II. SOME ALTERNATIVE SOLUTIONS TO THE PROBLEM

As community planning has evolved in Canada, a number of implementation techniques have come into common usage, whereby planning objectives are put into effect. Several

³Technical Planning Board, City of Vancouver, <u>Proposed</u>
Revisions to <u>Apartment Zoning Regulations</u> (Vancouver: Technical Planning Board, 1965), pp. 24,25.

⁴T. J. Kent Jr., The <u>Urban General Plan</u> (San Francisco: The Chandler Publishing Company, 1964), p.25.

of these appear to be of relevance to the problem, and therefore bear examination.

Subdivision Controls

In many jurisdictions in Canada, subdivision control by-laws, defining minimum allowable standards of subdivision have been adopted. Section 711 of the British Columbia Municipal Act 5 gives most B.C. municipalities the following powers:

- (1) The Council may regulate the subdivision of land, and for that purpose may by by-law
 - (a) regulate the area, shape and dimensions of parcels of land and the dimensions, locations, alignment, and gradient of highways in connection with the subdivision of land, and may make different regulations for different uses and for different zones of the municipality;
 - (b) prescribe minimum standards with respect to the matters contained in clauses (a) and (d);
 - (c) require that the proposed subdivision
 - (1) be suited to the configuration of the land being subdivided; and
 - (11) be suited to the use to which it is intended; and
 - (iii) shall not make impracticable the future subdivision of the land within the proposed subdivision or of any adjacent land:

⁵Municipal Act, Revised Statutes of British Columbia, 1964, c.33.

(d) require that the highways within the subdivision be cleared, drained, and surfaced to a prescribed standard, but excluding the construction of side-walks and boulevards.

These powers appear adequate to allow municipalities to prevent subdivision deficiencies in the future such as those which have occurred in the past. However, they are regulatory powers, and are of little use in correcting subdivision deficiencies which are already in existence.

Indirect controls over subdivision are also available. In Canada, the Central Mortgage and Housing Corporation sets subdivision requirements which must be met before National Housing Act loans will be made for house construction. The municipality may influence subdivision by extending or withholding water, sewer and drainage services and roads. If there is enabling legislation, the municipality may require that subdivision be compatible with an adopted community plan. Again, these are basically regulatory controls, which while they can help to prevent future abuses, are of little value in altering established subdivision patterns.

Plans Cancellation Act and Resubdivision

The British Columbia Plans Cancellations Act⁶ states

6Plans Cancellation Act, Revised Statutes of British
Columbia, 1960, c.286.

that:

(3) A plan of subdivision registered in a Land Registry Office may be cancelled or amended, in whole or in part, upon an application being made to the Registrar by the owners of all the lands covered by the plan or the part proposed to be cancelled or amended, or the owners of land representing sixty per centum of the assessed value of the lands covered by the plan or the part thereof proposed to be cancelled or amended.

This legislation clearly makes possible the amendment of unsatisfactory subdivision plans, but it also has several drawbacks for that purpose. It does not lay down a specific procedure for handling all the various charges, claims and rights other than Fee Simple that may be held against the lands involved, and thus lengthy negotiations might well be necessary before resubdivision could proceed. It makes no specific provision for allocating costs where resubdivision would require moving buildings or other improvements, and again this might require negotiation. Where an owner whose property is affected objects to resubdivision, quite costly compensation is potentially involved, according to Section 8 of the Act:-

(8) If any person other than the petitioners is the owner of any lands covered by the plan --- and objects to the cancellation or amendment, the Registrar shall decide whether the land and rights of such owner are prejudicially affected by the proposed cancellation or amendment, and if he decides that they are, he shall by order call upon the petitioners to elect between abandoning the application and exercising the right of compulsory purchase ---. If the petitioners elect to purchase the land of the

objecting owner, the Registrar shall take evidence as to and determine the value of his titles in the land; and the Registrar may by order direct that a sum equal to double the amount of the value so determined --- be tendered by the petitioners to the owner.

For these reasons, use of the <u>Plans Cancellation Act</u> specifically to improve deficient subdivision appears to be infrequent. The Act is quite useful, of course, in altering a subdivision where the lands have been consolidated in one ownership; but where ownership of the land to be resubdivided is divided, there is the problem of winning agreement between parties holding an interest in the land.

Public Land Acquisition

Divided ownership of the land involved can obviously be an obstacle to resubdivision. In Canada, municipal corporations generally have the power to expropriate land for public purposes. Conceivably, a municipal corporation could therefore purchase the properties in an area of poor subdivision, using powers of expropriation where necessary, for the public purpose of improving the pattern of subdivision once the land has been consolidated under one ownership, and the land could be resold after the subdivision improvement has been effected. Although there appear to be no examples of such use of expropriation powers for resubdivision it may be that the courts would uphold this use of expropriation powers as being in fact for a public purpose. Expropriation

powers have been used extensively in urban renewal schemes, indicating that improvement of the environment can be considered a public purpose.

While public land acquisition would meet those difficulties created by divided land ownership, it would also have several drawbacks as a means of implementing improved patterns of subdivision. One of these drawbacks is cost, for while the purchase price of the land could in all probability be recouped from the eventual sale of the land after resubdivision, large amounts of capital would be tied up for the duration of the project, with consequent interest costs. Another drawback would be the question of how any persons or businesses resident on the land acquired would be dealt with. If they are forced to relocate elsewhere, considerable disruption could result. If the resubdivision required no drastic alteration to existing improvements on the land, presumably previous owners could be given first option to purchase the resubdivided parcel containing their former improvements, but this would be a cumbersome arrangement.

Conclusions

Subdivision controls, whether direct or indirect, are regulatory measures, which are of little use in altering established deficient subdivision patterns. The <u>Plans</u>

<u>Cancellation Act</u> is more useful, but has limitations where

the ownership of the land to be resubdivided is split, and where various charges, rights and improvements are involved. Public land acquisition has the drawbacks of potentially high costs and potential disruption to residents. There is still a need, then, for an effective implementation technique for resubdivision beyond those which have been discussed.

III. REPLOTTING AS A SOLUTION TO THE PROBLEM

Hypothesis

Replotting is a relatively little used legal procedure whereby a local government may take the initiative and change the existing plan of subdivision in an area to one that is more desirable from the community's point of view. It is the hypothesis of this thesis that replotting is an effective implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia.

Definition of Replotting

For purposes of this study, replotting is defined as a legal procedure, laid down by enabling legislation, whereby a municipality may, in an area of its jurisdiction defined for that purpose, cause the existing plan of subdivision to be cancelled and to be replaced by a different

plan. In order to distinguish replotting from other implementation techniques, the following further distinctions are made:

- 1. Owners of land in replotting area receive in exchange for real property held before replotting a new parcel equal in value to the old parcel, and while equalizing compensation may be paid if the new parcel is of lesser value or if no new parcel is allotted, the basic principle is one of exchange.
- 2. An element of compulsion is involved, in that the municipality need not obtain the consent of every owner of real property in order to proceed with a replotting scheme.
- 3. All charges against or interests in a former parcel are deemed to be transferred to the new parcel for which the former parcel is exchanged.
- 4. Provision is made for compensation, and for allocating the costs of compensation, where it is necessary to move or demolish buildings or other improvements.

The Relationship of Replotting to the Community Planning Process

While it is not considered to be within the scope of this study to quantify the occurrence of deficient subdivision in British Columbia, the problem is obviously a common one, and because of its effects on the quality of the physical environment, is a significant area of interest for community planning. To the extent that the hypothesis of the thesis is proven to be correct, therefore, replotting is a valuable item in the "tool-chest" of available implementation techniques, particularly in view of the shortcomings of other techniques in dealing with unsatisfactory subdivision patterns.

There are, however, two considerations which delimit the role of replotting in the community planning process as a whole. First, it can clearly be of use in improving the quality of the environment only where an existing deficiency in subdivision layout is at fault; other factors may also contribute to a poor environment, and may require treatment at the same time. Second, replotting is an implementation technique, and presupposes some objective or objectives which it is desired to implement. The total community planning process consists of a number of steps, including problem identification, research, analysis of alternatives, decision, implementation and evaluation of results.

Implementation is but one step in a total and continuing process. Its effectiveness in the long run is tied to quality of the process as a whole, and the validity of the objectives which are set.

IV. ORGANIZATION OF THE STUDY

Objectives of the Study

The principal objective of the study is to test the above hypothesis and reach conclusions regarding the effect-iveness of replotting as a community planning implementation technique in British Columbia. In dealing with this central concern, attention is also directed to the corollary considerations of the limitations of replotting and the opportunities, if any, for expanded use of the technique.

Methodology of the Study

The case study method is used to test the hypothesis of the thesis. The case study is based on the District of North Vancouver, a British Columbia municipality which has made extensive use of replotting in a variety of situations. Both the general procedure used by the District in replotting and specific examples of replotting schemes are described.

The effectiveness of replotting in the District of North Vancouver is then evaluated in terms of improvement

to subdivision design; costs; public acceptance; and administrative requirements. The selection of these particular tests is related to the discussion in the first two sections of this chapter, in which the need for an administratively efficient implementation technique capable of improving subdivision patterns in terms of their contribution to the quality of the environment, at reasonable costs and with minimum disruption, was outlined. General conclusions are drawn from the case study, within the limitations posed by the case study method.

Scope and Limitations

Since literature on replotting is scanty, research on the subject requires extensive recourse directly to municipal files. For this reason, it was decided to use the case study method and to limit the scope of the thesis to British Columbia. Thus, the conclusions that can be drawn from the study are based on a specific context of physical problems, legislation, and planning administration, and are to that extent limited in their generality and applicability to other situations. Furthermore, while it was hoped to examine replotting in relation to subdivision for a variety of land uses, the replotting schemes carried out in the District of North Vancouver have mainly dealt with subdivision for single-family homes. These limitations are at least

partially offset by the opportunity for study in depth which the case study method offers. Also, an attempt is made throughout to indicate those circumstances which are uniquely local.

Organization of the Balance of the Study

Since the specific context of the case study qualifies the conclusions that can be drawn, Chapter II of the
thesis outlines this context. The enabling legislation
under which the District of North Vancouver conducts replotting is first reviewed. A short description of the Municipality is then given in terms of historical and physical
factors relevant to this study, and in terms of planning administration in the District. Finally, the use of replotting
in the community is described and placed in the context of
the community planning process in the District.

In Chapter III, selected examples of replotting schemes in North Vancouver are examined in depth. These examples are selected as being typical of the use of replotting in the District.

The effectiveness of replotting in terms of the criteria outlined above is evaluated in Chapter IV, and the final conclusions of the study are presented in Chapter V,

including evaluation of the limitations of replotting, and the potential for its wider use.

V. SUMMARY

The pattern of subdivision is a fundamental determinant of the quality of the physical environment. There are areas in many British Columbia communities, where the pattern of subdivision detracts from the quality of the environment. Since community planning is concerned with improving the environment, deficient subdivision is a significant planning problem, and effective implementation techniques are needed to amend existing unsatisfactory subdivision.

Commonly used implementation techniques such as subdivision controls, plans cancellation procedure and public land acquisition are of limited value in dealing with the problem.

It is hypothesized that replotting is an effective implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia.

The method of research used is the case study, which while it imposes certain limitations on the generality of the conclusions that can be drawn, does allow study in depth.

CHAPTER II

THE CASE STUDY: REPLOTTING IN THE DISTRICT OF NORTH VANCOUVER

I. THE LEGISLATIVE CONTEXT

Constitutional Basis

Canada is a federal state, and in the division of powers between the federal parliament and provincial legislatures, the power to legislate in respect of municipal institutions has been assigned to the provinces by Section 92, Subsection 8 of the British North America Act, as has the power to legislate in respect of property and civil rights by Section 92, Subsection 16.1 Municipal powers therefore derive from provincial enabling legislation. The legislation whereby the municipality of the District of North Vancouver is enabled to carry on replotting is found in Sections 823 to 856 of the British Columbia Municipal Act. 2 The Municipal Act delegates legislative power to replot to municipal councils 3 as follows:

"824. The Council may, by by-law adopted by

¹British North America Act, <u>Great Britain Stat.</u>, <u>1867</u>, 30 Victoria, c.3.

²Municipal Act, <u>Revised Statutes of British Columbia</u>, <u>1960</u> c.255.

³That is, to all municipal councils in the Province of British Columbia, with the exception of the Council of the City of Vancouver. The City operates under a separate Charter, rather than the <u>Municipal Act</u>. The Charter at present contains no replotting powers.

an affirmative vote of at least two-thirds of all the members thereof, define any part of the municipality as a district for the purpose of replotting, and authorize the preparation of a scheme, including incidental preliminary surveys, for the replotting of the district.

834. (1) Within four months after the initiation of the scheme, the council shall by resolution either

- (a) discontinue the undertaking; or
- (b) authorize the completion of the scheme and putting into effect the scheme of replotting.

The Torrens system of land registration is used in British Columbia; that is, all interests in land such as title, mortgages, liens, easements, leases over three years duration, covenants, etc., and all transactions such as transfers or subdivisions, must be registered at Land Registry Offices, and in general only have effect if so registered. Registration is governed by the British Columbia Land Registry Act. 4

Principles of the Replotting Legislation

Scope. The replotting powers delegated to municipal councils by the <u>Municipal Act</u> are subject to prescriptions on procedure, the consent of affected owners, compensation and appeal, but there is no restriction as to the number of

⁴Land Registry Act, <u>Revised Statutes of British Columbia</u>, <u>1960</u>, c.208.

and size of replotting schemes, or the repeated replotting of part or all of an area that has been replotted. A municipal council may, of course, only initiate replotting schemes within the area of the municipality.

The common mass. For the purpose of the replotting scheme, all parcels of real property including street allowances within the boundaries of the replotting district as defined by the council by-law initiating the scheme, are consolidated to form one parcel referred to as "the common mass". If the municipal council resolves within four months of initiation to proceed with the scheme, the municipality assumes title in trust to the common mass, thus extinguishing all previous title to the land. The new plan of subdivision is then registered, vesting title to the newly created parcels in the right of the owners.5

Allotment of new parcels. The legislation states that new parcels are to be alloted from the common mass so that owners of former parcels receive new parcels equal in value wherever possible to the former parcels, and so that parcels with buildings or other structures are, subject to the necessary boundary changes, returned to their former

⁵Municipal Act, op.cit., Sections 826, 834.

owners wherever possible. Compensation in money may be made to an owner of a former parcel in lieu of the allotment of a new parcel. Any surplus of land left after the allotment of new street allowance and new parcels may be sold or retained by the municipality.

Transfer of ownership and charges. "All rights, obligations, and incidents of ownership of the owner of a former parcel or of an interest therein, and all public and private legal relationships whatsoever with respect to a former parcel" are deemed to be transferred to the new parcel allotted to the owner of the former parcel. The one exception is that the municipality may purchase any charge against a former parcel and hold it as a charge against the new parcel allotted in the stead of the former parcel. 7

For example, where a former parcel is encumbered by a mortgage, the municipality could purchase this mortgage from the mortgagee and hold the mortgage, in the name of the municipality, as a charge against the new parcel.

Consent of owners. For a replotting scheme to proceed, the consent of owners representing seventy per cent of the total assessed value of all the land in the replotting

⁶Ibid., Sections 826, 827.

⁷Ibid., Sections 828, 835.

other owners in the district is not necessary in order to complete the replotting scheme. In the case of a parcel against which one or more charges are held, or which is held in tenancy for life, joint tenancy or multiple ownership, the legislation prescribes formulae for determining the value of interests in the parcel for purposes of obtaining consent. For purposes of ascertaining consent, only the value of land and not of improvements, is considered.⁸

Compensation. If a new parcel of lesser value is allotted to an owner of a former parcel, or if no new parcel is allotted in exchange for a former parcel, equalizing compensation in money may be granted, to be paid from the proceeds of the scheme. If the value of a new parcel is greater and the owner agrees, he may make payment into the scheme for the difference in value. Consenting owners are bound by the compensation or payment to which they may agree. Nonconsenting owners may claim compensation only for loss of value of the former parcel insofar as adequate compensation is not afforded by the allotment of a new parcel; for the cost of moving buildings or other improvements on the former parcel; and for the loss of income from the use of buildings or the use of the former parcel caused by the

⁸Ibid. Section 830.

replotting scheme. No compensation for other causes is provided for by the legislation.9

Rights of Appeal. The legislation makes provision for hearings to be held before a Commissioner appointed by the Supreme Court, to hear appeals pertaining to a replotting scheme. Either the municipality or a non-consenting owner may petition for the appointment of a Commissioner and the holding of hearings. Hearings before the Commissioner are limited to ruling on the sufficiency of notices given under the requirements of the legislation, and the adequacy of compensation offered to non-consenting owners. The Commissioner's decision may be appealed to the Supreme Court, and disputes with regard to interpretation of the legislation or the validity of proceedings under the legislation may be referred directly to the Supreme Court. 10

Apportionment of cost. Section 849 of the Municipal Act sets out how the net costs of the scheme are to be apportioned, the net cost being defined as the expenses of the scheme and any compensation payments, minus the value of any surplus lands allotted to the municipality, and minus any money paid to the municipality by a consenting owner for increased value of his holding as a result of the scheme.

^{9&}lt;u>Ibid.</u>, Sections 828, 838 and 839.

¹⁰ Ibid., Sections 840-846, 854.

The scheme may make any apportionment of the net costs of the scheme between the municipality or owners, or if no explicit apportionment is made, the net cost is to be shared in the same ratio as the ratio in value between the owners' lands and the municipality's lands in the replotting district upon completion of the scheme. Any awards made by a Commissioner upon successful appeal by a non-consenting owner are paid by the municipality.

The municipality's share of costs need not come from general revenue. Authority is given to raise the cost by special rates, levied on all taxable land and improvements in the municipality to pay the municipality's share, and levied on all taxable lands in the replotting district to pay the owner's share. Authority is also given to raise the required amount by borrowing on debentures, to be repayable within ten years of issue through special rates levied as above.

Replotting procedure. The Municipal Act is explicit about the procedures which the municipality is to follow in administering a replotting scheme. It prescribes the matters which a replotting scheme shall encompass; the way in which new parcels are to be allotted; the manner in which affected owners are to be notified; the manner in which percentage of assenting owners is to be determined;

the procedure for registering with the Provincial Registrar of Titles, initiation of the scheme, the common mass, the revised plan of subdivision, and title and all other interests in new parcels; how costs are to be accounted and apportioned; and how appeals are to be conducted. This detailed prescription of procedure has resulted in lengthy and complex legislation. By contrast, the replotting provisions of the Alberta Planning Act, 11 while in principle very similar to the British Columbia legislation, leave most of the detailed procedure to be prescribed by Order-in-Council, as follows:

- 30. The Lieutenant-Governor in Council, upon the advice of the (Provincial Planning) Board, may make regulations relating to
 - (a) the manner and form in which replotting schemes are to be prepared,
 - (b) the manner in which negotiations with any person having a registered interest in the land affected by a replotting scheme are to be conducted,
 - (c) the manner in which the consent or dissent of persons affected by a replotting scheme is to be evidenced,
 - (d) the notices to be given to persons affected by a replotting scheme, and
 - (e) the keeping of accounts of the costs of replotting schemes and the apportion-ment of costs,

and generally as to the procedures upon any replotting scheme.

¹¹The Planning Act, Revised Statutes of Alberta, 1963, c.43.

The advantages of the British Columbia legislation appear to be that it is a complete instrument which can be used without reference to auxiliary regulations; and that because of its comprehensiveness, it leaves few loose ends.

Replotting Legislation and the Courts

British Columbia has had replotting legislation since 1928, the legislation being revised to its present form in 1957. It was used several times by the Municipality of Point Grey when it first appeared, and since that time the legislation has seen little use other than the extensive replotting carried out by the District of North Vancouver. Although ten hearings have been held before a Commissioner to adjudicate on the sufficiency of compensation. 12 the legislation itself has not been contested in the courts and there is a paucity of case law pertaining to replotting. Saskatchewan replotting legislation has been before the In Re Regent Park Replotting Scheme. 13 decided courts once. in Saskatchewan District Court in 1959, the Court ruled that in replotting, the basis for valuation in determining compensation is that basis applying generally in expropriation proceedings, and not "bare" value of the parcels, as

¹²Bruce Young, "Grid Systems Scuttle Land Planning, But There's a Way Out": Re-plotting", Civic Administration, LII (March 1967), 51,52.

¹³ Re Regent Park Replotting Scheme, 30 Western Weekly Reports 258 (1959).

maintained by counsel for the municipality. It is unclear if this affects the British Columbia legislation, since Section 839 of the <u>Municipal Act</u> is explicit about the basis for Compensation:

839(1) In determining the amount of compensation,

- (a) a former parcel shall be valued at its market value at the time of the initiation of the undertaking, but any increase in the value thereof caused by the anticipation or initiation of the undertaking shall not be taken einto consideration; and
- (b) a new parcel shall be valued at its market valueuupon completion of the undertaking.

It is interesting to note that the 1964 Report of the British Columbia Royal Commission on Expropriation. 14 an exhaustive examination of expropriation in the Province, makes no mention of replotting, from which one would infer that replotting was not considered by the Commission to fail within the ambit of expropriation.

II. THE DISTRICT OF NORTH VANCOUVER

Physical and Historical Factors

Regional position. The District of North Vancouver is situated on the North Shore of Burrard Inlet, and is a part of the Vancouver, British Columbia, Metropolitan Area.

¹⁴The Honourable J.V.Clyne, Report of the British Columbia Royal Commission on Expropriation, (Victoria: Queen's Printer, 1964).

Within the metropolitan region, the District functions as a residential suburb, and is connected to the main metropolitan centre of employment, the City of Vancouver, by two bridges across Burrard Inlet. The location of the District in relation to the Vancouver Metropolitan Area is shown in Figure 5, page 30.

Historical Development. The District of North
Vancouver was incorporated in 1891 as a larger areal unit
than it is to-day. In 1907, the western third of the District
broke away to form the separate District Municipality of
West Vancouver, and in 1912 the urban core of North Vancouver
broke away to form a separate City. The District of North
Vancouver was left with no urban core and a population of
only 2,000 persons. Growth was slow until 1941 when the impact of the First Narrows Bridge across Burrard Inlet and of
improving economic conditions made themselves felt. In the
two decades from 1941 to 1961, the District's population grew
from 6,000 persons to 39,000 persons. Subdivision occurred before this growth; "all of the developable areas and a
great many other tracts on the mountainside were chopped

¹⁵Property and Planning Dept., the Corporation of the District of North Vancouver, Plan 64 (North Vancouver, B.C. The Property and Planning Department, 1964), p.3.

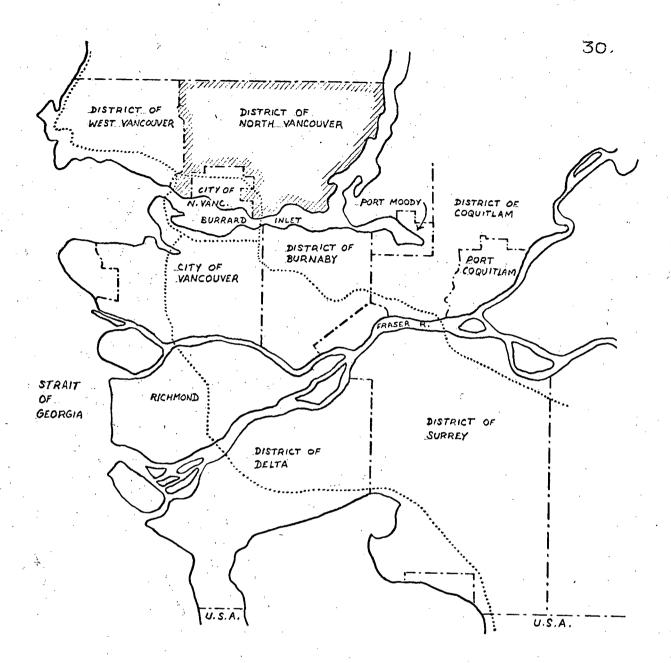


FIGURE 5

THE METROPOLITON VANCOUVER, B.C., AREA

N	MUNICIPAL BOUNDARIES	
	MAJOR HIGHWAYS	••••
		-

SCALE - 1" : 5.4 MILES

up in a relentless fashion for standard grid-iron subdivisions". Residential areas were carved directly from raw bushland, with no transitional land use, because the land is unsuited to agriculture.

Topography. The District has an area of 43,077 acres, of which only about one quarter is economically suitable for development. The Municipality extends from Burrard Inlet about seven miles to the north into mountainous country, and land capable of development is generally restricted to a narrow series of benches within several miles of the waterfront. The Capilano, Lynn and Seymour Rivers as well as a number of creeks traverse the District from North to South, so that the general southerly slope of the land is broken into a complex topography.

Land Use. North Vancouver's primary function as a residential suburb is borne out by the land use patterns:in 1963-1964, about 2,160 net acres were used for residential purposes, 17 while only 147 acres were used for commercial purposes and 329 acres for industrial purposes. 18 The

^{16&}lt;u>Ibid.</u>, p.47

¹⁷The Lower Mainland Regional Planning Board, <u>Dynamics of Residential Land Settlement</u> (New Westminster: The L.M.R.P.B., June, 1963), p.9.

¹⁸ Planning and Property Department, op. cit., pp.8,9.

residentially-used land is occupied almost entirely by single-family residences; apartment construction has occurred only in the last several years and has taken the form of low-density garden apartments. In 1962 there were 10,800 dwellings in the District with a potential for 15,400 more on ultimately available residential land, at present densities. 19 Commercial development in the District has been light, because commercial centres in the City of North Vancouver, the District of West Vancouver and the City of Vancouver have dominated the trading area. While the industrial acreage is still modest, it has grown by more than 300 per cent since 1947. 20 Figure 6, on page 33, illustrates land use in the District. It can be seen that the pattern of land development and the street system are strongly oriented toward the two bridgeheads to Vancouver City.

The Community Planning Process in North Vancouver

Problems and Opportunities. A number of specific problems and opportunities have conditioned the community planning process in the District of North Vancouver. Several of the problems stem from the premature subdivision of much of the District's developable area. Premature

^{19&}lt;sub>Ibid., p.7.</sub>

^{20&}lt;sub>Ibid., p.9</sub>.

SOURCE - PLAN '64

subdivision has encouraged a scattered form of development, except near the bridgeheads, and this form of development is more expensive to provide with services than would have been the case if development had occurred in a compact manner. (See Figure 6, page 33). Most of this premature subdivision was laid out on a grid pattern. "However, there are few places where the pitfalls of the grid system are more evident than in the mountainside community of North Vancouver. Apart from the system's overall inability to meet the functional requirements of modern living, it completely disregarded ravines, cliffs, creeks, and other topographical features."²¹

The secession of West Vancouver District and of the City of North Vancouver spawned a further set of problems. The District was left as an amorphous residential area, with no central core to give it focus or identify. The areas that remained in the District were the most poorly serviced. 22 The tax base too was affected; to a larger extent than in most other metropolitan Vancouver municipalities, property taxes fall on single-family residences:

²¹ Young, op.cit., p. 51

²²By interview with M. Chesworth, MUnicipal Planner, District of North Vancouver.

TABLE I

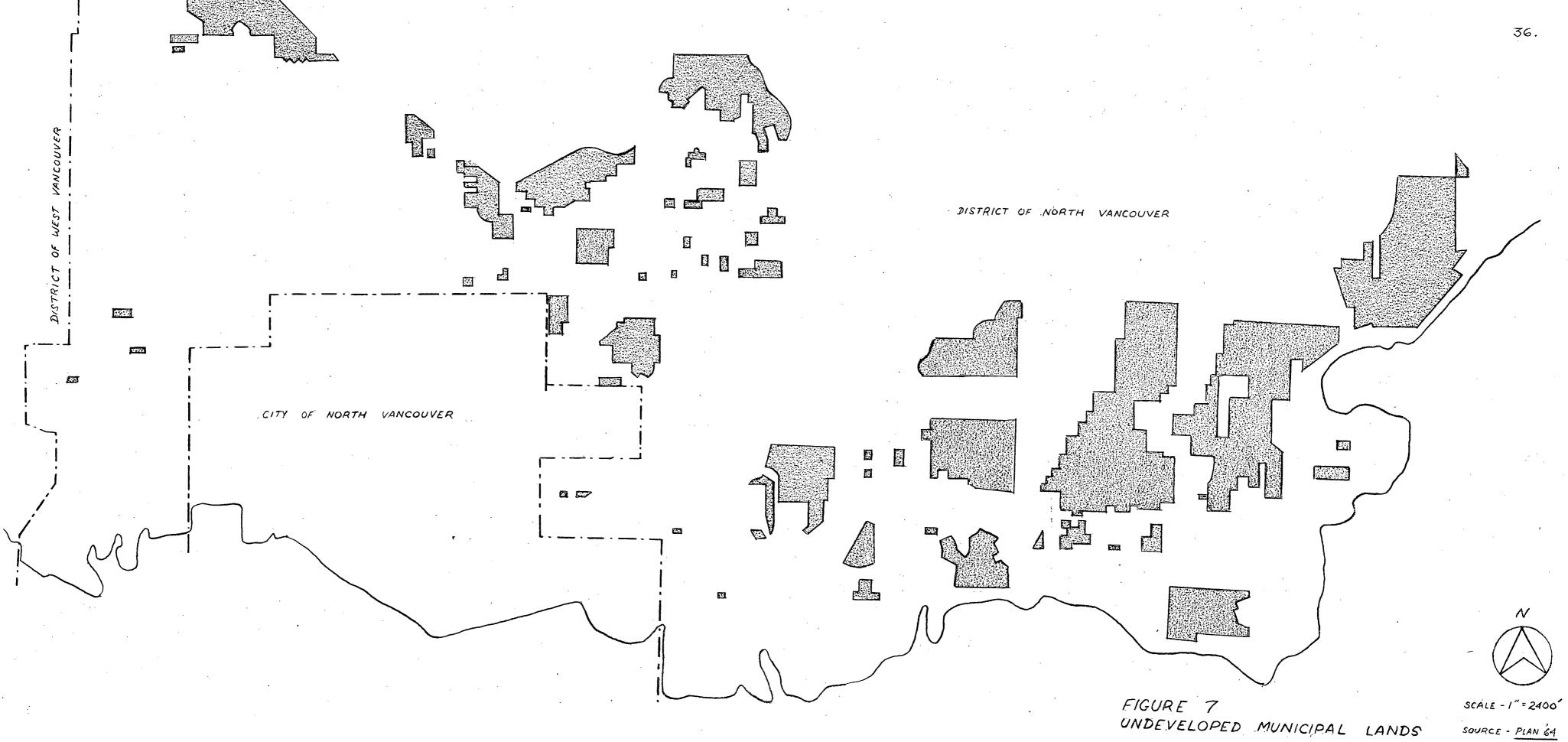
1964 COMPARATIVE TAXABLE ASSESSMENTS,
LAND AND IMPROVEMENTS*

	N.Vancouver District	N. Vancouver City	Burnaby
Residential			
- Single-family	78.49%	61.01%	61.67%
- Multiple	1.22	11.52	61.67% 4.16
Commercial	6.57	10.02	12.28
Industrial	9.42	13.92	16.50
Other	4.30	3.53	5.39
Total	100.00%	100.00%	100.00%

^{*}Planning and Property Department, op. cit., p.16

Balanced against these problems are several opportunities with which the District has been favoured. The rolling topography and presence of extensive natural vegetation have led to the development of residential areas that are more interesting and pleasant than would have been possible on level, cleared ground. The District is in the fortunate position of owning extensive parcels of land. These are for the most part prematurely subdivided lots which became municipal property during the Depression years as a result of tax delinquency. Ownership of this land gives the District considerable control over development, through a judicious sales programme. Municipally-owned lands are shown in Figure 7, page 36.

<u>Planning Administration</u>. The District of North



SOURCE - PLAN 64

Vancouver employs a Planning Department, which like other departments in the municipal administration, is responsible to the elected Council through a Municipal Manager. The Planning Department also reports from time to time to the Planning Advisory Commission, a nine-member body of citizens appointed by Council, which advises Council on planning matters. Internally, the Planning Department is divided into a long-range section, directly under the Municipal Planner, and an implementation section, supervised by the Deputy Municipal Planner. The long-range section is responsible for basic mesearch, policy recommendations and the District's general plan, while the implementation section concerns itself with the detailed administration and implementation of planning matters.

A general plan for the District, entitled <u>Plan '64</u>, was prepared by the Planning Department in 1964, and while it has no legal weight, it has been endorsed in principle by Council. <u>Plan '64</u> sets out general policies on:-

- the overall physical structure of the community,
- residential, commercial and industrial development,
- municipal services and facilities,
- the major street network,
- the phasing of development,
- means for implementing the plan proposals.

In addition tentative subdivision plans have been prepared for undeveloped areas of the District. While these subdivision plans have no official status, an attempt is made to persuade land developers to use them as a guide when developing new subdivisions.

Three by-laws are used to control development in the District:

- a zoning by-law, regulating the use of land and buildings, the shape, size and location of buildings, and the provision of parking and loading spaces.
- a subdivision by-law, setting out design criteria and the standard of services which a subdivider may be required to install.
- a building by-law, requiring that construction in the District meet the standards of the National Building Code.

In short, the community planning process is established in the District of North Vancouver. The District employs professional planning staff, has to some extent defined planning objectives, and has in operation some controls over land development.

III. THE USE OF REPLOTTING IN NORTH VANCOUVER

History of Use to Date

The District began to use replotting extensively in 1959. By mid-1967, 40 replotting schemes were completed and another six were in various states of progress. The location

and areal extent of the completed schemes are shown in Figure 8, page 40. Approximately 475 owners of land other than the municipality were involved. Only ten non-consenting owners exercised their right to appeal the compensation offered. In all ten cases, the commissioners before whom hearings were held ruled that the exchange or compensation allocated was substantially adequate.

Until 1964, replotting schemes had "Come about in response to outside pressures: from developers and subdividers and from the North Vancouver School Board in the main." 23 While these schemes did improve some extensive areas of poor subdivision and did provide numerous benefits for both the land owners and the municipality, they were not the outgrowth of an explicit planning policy.

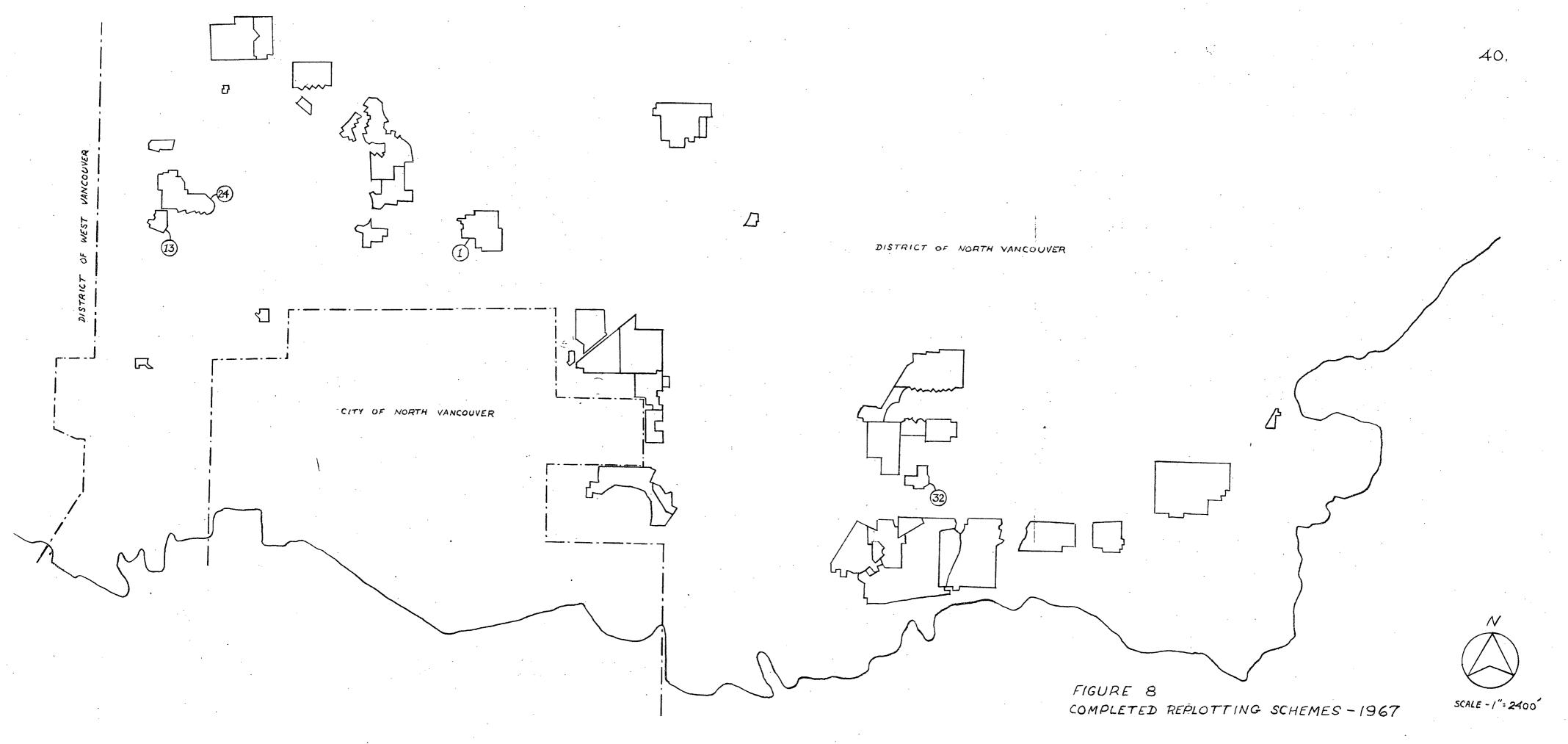
Such a policy was put forward in Plan •64:

A new positive emphasis is required ---. Once the new comprehensive Zoning By-law has been presented to Council, the Implementation Division should be empowered to launch upon a positive programme of action in the replotting field, with a view to the promotion of development in the inner areas (infilling) and the orderly expansion of new development areas in accordances with the general and detailed plans. 24

The Plan 64 document outlines a number of areas where

²³Planning and Property Department, op.cit., p.47.

²⁴ Ibid.



such a replotting policy should eventually be implemented. The Planning Department also maintains a list of about thirty potential replotting schemes, including those set out in Plan 64, and the schemes on the list are ranked by priorities set in consultation with the Municipal Manager.

North Vancouver Replotting Procedures 25

Replotting schemes are administered by Mr. R. D. O'Brien, Deputy Municipal Planner, assisted by other members of the implementation section of the Planning Department. The initial suggestion for a scheme may come from sources external to the Planning Department, such as the District School Board, a land owner or developer; or the suggestion may be the result of studies carried out by the Planning Department. The need for the suggested replotting scheme, and the requirements it would have to meet, are next evaluated within the framework of the District's general plan and any detailed studies the Planning Department may have carried out for the area of the proposed scheme. If the scheme appears called for, it is included on the list of potential schemes and given a priority. Further work on the scheme is undertaken when it has received highest priority, and as

²⁵The information in this section of the thesis is based on lecture delivered by Mr.R. D. O'Brien, Deputy Municipal Planner, to students of the School of Community and Regional Planning, Univers; ity of British Columbia, at the District of North Vancouver Municipal Hall on Dec. 5, 1965; and on various interviews with Mr. O'Brien by the author.

staff becomes available. The normal procedure is as follows:

- 1. A base map for the area concerned is prepared.

 the location of buildings and other improvements
 such as septic tanks, driveways, trees and
 fences is carefully recorded by a gound survey.
- 2. A thorough search of title is made for every property concerned and all charges, incumbrances etc., are recorded.
- 3. The District's Assessment Department is consulted for a tentative appraisal of the value of the properties involved.
- 4. An "ideal" design solution is worked out, which would best meet the District's planning requirements.
 - 5. A rough estimate of costs is made, and how the costs might be allocated.
 - 6. A tentative replotting design is drawn up, usually representing a compromise with the "ideal" solution because of cost factors revealed by the cost estimates.
 - 7. The District Engineering Department is consulted, since replotting schemes usually involve the

- moving or installation of services, and suggestions by the Municipal Engineer may be incorporated into the tentative design.
- 8. Negotiations for consent with owners are now begun in earnest, although some preliminary contacts may already have been made. likely to consent are approached first; their written consent may act as an example to other owners having reservations about the scheme. Occupiers of the land are approached first, but of course all parties having an interest in the land must be contacted eventually. adjustments in the tentative scheme may be made at the beginning of negotiations, in order to satisfy owners who would like to see some minor changes in the scheme. cases. successful completion of the scheme would allow the municipality to extend some services, such as water or sewers to properties in the scheme earlier than would otherwise be the case, which can be an added inducement. The District's subdivision by-law sets out the standard of services which a subdivider may be required to provide, and normally servicing

requirements are administered under this by-In some cases, where an owner of unsubdivided land in a replotting scheme is anxious to proceed with development, servicing agreements are negotiated. whereby the owner agrees to install or pay for certain services, and while such servicing agreements are not dealt with explicitly by the replotting legislation, it has, in such cases, been found convenient to append these servicing agreements to the replotting consent agreement. Negotiations are carried out individually with owners; the process of negotiating is a delicate one, and holding a public meeting to discuss the scheme with owners collectively has proven disastrous.

9. While the District Council should theoretically pass a by-law defining the replotting district before negotiations are undertaken, this step is often left until negotiations are well under way, to allow last minute adjustments in scheme boundaries to be made. After passing such a by-law, and after giving notice to all owners involved, when it appears that the consent of

owners representing seventy per cent of the value of the land involved is forthcoming, the Municipal Council, if it approves by a two-thirds majority, passes a resolution to authorize the undertaking and completion of the scheme. This resolution is filed with the Land Registry Office.

- 10. Negotiations are continued with non-consenting owners; most of the latter usually consent when it appears that the scheme will proceed without their agreement in any case.
- ll. The scheme is prepared in final form, including plan of resubdivision, cost estimates, allocation of new parcels, and allocation of costs.

 Included in the cost estimates is an estimate of the cost to the municipality of administering the scheme; since no detailed record is kept of staff time required for a given scheme, and since some leeway must normally be left for unforeseen contingencies, the estimate of administration costs is a matter of judgment. A survey is made of the "common mass" 26 and of the new plan of subdivision. The necessary documents

²⁶See page 21 above.

to register the "common mass" and to transfer ownership from the "common mass" to the new owners are prepared for the Land Registry Office.

- 12. A resolution by the Municipal Council now completes the scheme, and all the required documents are deposited at the Land Registry Office. This resolution must come within four months of initiation of the schemes.
- 13. Upon completion of the scheme, any works involved, such as the moving of buildings, installation of services, etc., may be undertaken.
- 14. If there are non-consenting owners who wish to appeal, the Supreme Court is petitioned to appoint a Commissioner who will then hold a hearing.

IV. SUMMARY

British Columbia municipalities derive replotting powers from the provincial enabling legislation found in Section 823 to 856 of the <u>Municipal Act</u>. A municipal

council may define any area of the municipality as a Replotting District. If owners representing seventy per cent of the value of land consent, the land in the replotting district is thrown together to form a "common mass", and a new plan of subdivision is registered. Owners of former parcels receive new parcels of equal value in exchange, or compensation in money. All charges and encumbrances against the old parcels are transferred to the new parcels. The legislation is a fairly complete instrument and prescribes the procedures to be followed, the basis for compensation, and the rights of appeal. The legislation has not been seriously challenged in the courts.

The municipality chosen for the case study, the District of North Vancouver, is a residential suburb in the Vancouver, B. C., metropolitan area. The topography of the District is generally hilly and complex. Most of the developable area was subdivided prematurely and in grid patterns unsuited to the topography. Land in the District is used predominantly for single-family residential purposes, and this is reflected in the tax base. The District is fortunate in owning considerable land with which it can influence development. The community planning process is established in the District; Council employs a Planning Department, has accepted a general plan in principle and operates land

development controls.

North Vancouver has completed 48 replotting schemes from 1959 to 1967, and has begun to integrate replotting more closely into the planning process since 1964. A definite procedure is followed in replotting schemes; all relevant information is first collected, and a tentative replotting scheme is designed. This preliminary scheme is modified to keep costs at a reasonable level, and may be adjusted as a result of negotiations with land owners.

Negotiations are a critical step in the process.

CHAPTER III

THE CASE STUDY: SELECTED EXAMPLES OF REPLOTTING SCHEMES IN NORTH VANCOUVER

I. THE FRAMEWORK FOR REVIEW

Selection of Examples

In this chapter, four replotting schemes completed by the District of North Vancouver are examined in depth. The purpose of this examination is two-fold: first, to illustrate the use of replotting by specific examples; and second to provide a concrete basis to which criteria can be applied, for evaluating the effectiveness of replotting in Chapter IV.

At the time data was being collected for this study, there were files in the office of the District Planning Department covering forty completed schemes. These forty files were scanned, and four schemes which appeared to constitute a cross-section of the District's use of replotting were selected for further study. These four schemes were selected as being typical of the problem situations which have led to replotting in the District, and of the replotting solutions which have been applied.

Presentation of the Examples

A small and relatively straightforward scheme is discussed first, and then the examination moves on to three more complex schemes. For each of these four schemes, the problem situation leading to replotting is first discussed, the replotting solution is then briefly described and any special features of the scheme, such as subsidiary servicing agreements, are noted. For each scheme the following information is also given:

- 1. A diagram of the subdivision before replotting.
- 2. A diagram of the subdivision after replotting.
- 3. A table of land ownership in the scheme. Because of space limitations, it was only possible to indicate ownership by letter symbols on the diagrams of subdivision before and after replotting. The full land ownership pattern can be discerned by relating these symbols to the corresponding symbols in the ownership table.
- 4. A table of the costs as set out in the scheme, and how these costs were apportioned.

Except where otherwise noted, the information in this Chapter is derived from municipal files for the schemes described.

I. REPLOT NO. 32

The Problem

In 1963, when this scheme was undertaken, residential development had already occurred on the south side of Carnation Street and west side of Berkley Road, (see Figure 9. page 52). Messrs. Lennie, Manner and McCoy, joint owners of the parcels marked "C" in Figure 9, wished to subdivide and develop their land. While their land was ripe for development, the Municipality did not wish to see development occur on the existing grid pattern. The existing subdivision completely disregarded topography; the Lytton Street right-ofway followed a creek-bed between Carnation Street and Belloc Street, while north of Keats it recrossed the same creek and ran up an excessive grade. The existence of Keats Street east of Lytton was undesirable; developing a street here would not only require an expensive crossing over the creek, it would also mean putting an unnecessary street between the school site on the east bank of the creek, and a park which was planned to the north of the school. Many of the lots held by the Municipality were too narrow, and could not be developed because they were on steep grades or were traversed by the creek. Belloc Street east of Berkley Road had a temporary gravel surface, but could not be fully

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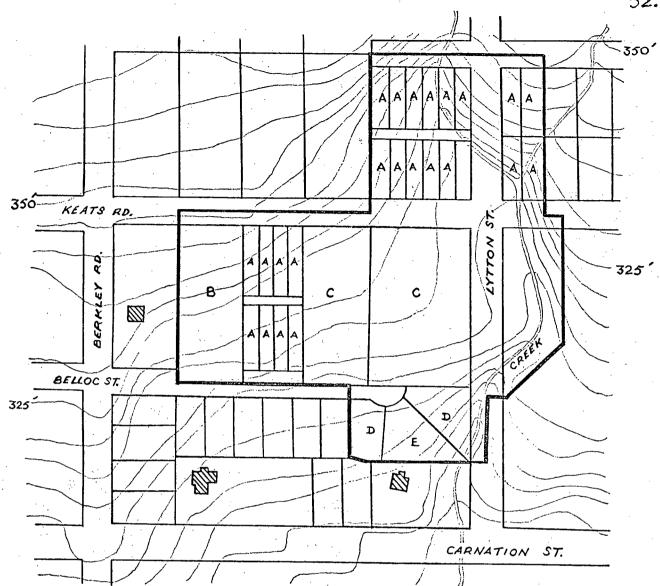
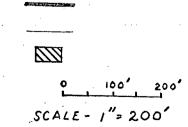


FIGURE 9

REPLOT NO. 32 - BEFORE REPLOTTING

PROPERTY LINES REPLOTTING DISTRICT CONTOUR LINES BUILDINGS





developed because the right-of-way was as narrow as 33 feet at some points. There were no improvements within the Replotting District, aside from some dilapidated turkey sheds, which were scheduled for demolition in any case.

The Solution

In order to allow the development of the land held by Lennie, Manner and McCloy to proceed, and in order to produce a more useful layout for the municipally-owned lands in the area, the replotting solution illustrated in Figure 10, page 54, was worked out by the District Planning Department and implemented in June, 1963.

The ownership pattern prior to replotting and the allotment of new parcels in the replotting scheme is shown by Figures 9 and 10, in connection with the following table:

TABLE II

REPLOT NO. 32 - LAND OWNERSHIP

	·		
Owner	Former Parcel(s) (Figure 9)	New Parcel(s) (Figure 10)	
Corporation of the Dis- trict of North Vancouver	"A"	"A"	
R.A.Gilson	"B"	"B"	
Lennie, Manner & McCloy	"C"	"C"	
Centennial Mortgage Corp.	"D"	"D"	
J.A. & J.M. Lachance	"E"	"E"	

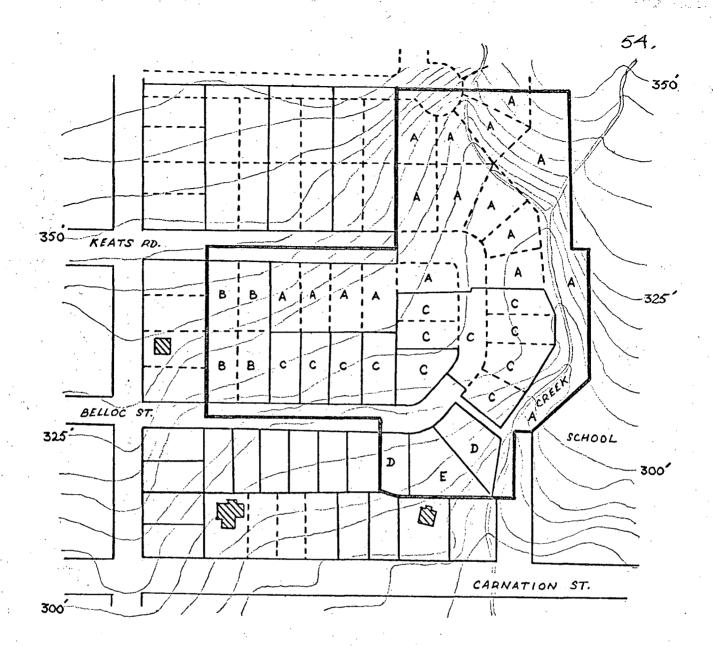


FIGURE 10

REPLOT NO. 32 - AFTER REPLOTTING

 $\bigwedge^{\prime\prime}$

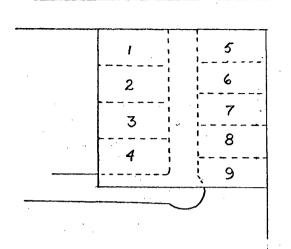
PROPERTY LINES
REPLOTTING DISTRICT
CONTOUR LINES
BUILDINGS
FUTURE SUBDIVISION

SCALE - 1" 200'

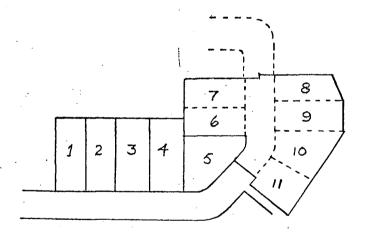
The replotting solution has produced an improved traffic circulation pattern by eliminating a potential intersection and steep grade. The length of road and services required to develop the land in the scheme area has been reduced. Land utilization has been improved by eliminating unnecessary street right-of-ways and by redrawing lot lines so that each lot will constitute a buildable site.

The Municipality has obviously benefitted from the scheme. The east bank of the creek can now be integrated into the proposed municipal park to the north and east; the reduced length of street and services will result in lower maintenance costs; and those residential lots owned by the municipality, which could not have been developed previously because of topography have been reclaimed.

Private owners in the scheme have benefitted also, particularly Messrs. Lennie, Manner and McCloy. Their holding would have yielded nine lots as shown in Figure 11, spage 56, had replotting not taken place; as a result of replotting, their holding will eventually yield eleven lots. In view of the benefits which they derived, Lennie, Manner and McCloy agreed to pay the total costs of the scheme.



(A) PROBABLE SUBDIVISION WITH NO REPLOTTING



(B) PROBABLE SUBDIVISION AFTER REPLOTTING

FIGURE 11

REPLOT NO. 32 - ALTERNATIVE SUBDIVISIONS
OF LAND HELD BY MESSRS. LENNIE,
MANNER AND MCLOY



0 100 200 SCALE - 1" = 200'

TABLE III.

REPLOT NO. 32 -

COSTS AS SET OUT IN THE SCHEME

EXPENSES Surveys Legal Expenses Advertisements Administration & Contingencies	\$ 830.00 70.00 20.00 1.080.00
TOTAL EXPENSES	\$ 2,000.00
INCOME Lennie, Manner & McCloy	\$ 2,000.00
MUNICIPAL SHARE OF COST	NIL

In their agreement consenting to the scheme, Lennie, Manner and McCloy also agreed to:

- (a) Reserve a right-of-way across their holding for Belloc Street, as shown on Figure 10, and to register this right-of-way with the Land Registry Office before subdividing the unsubdivided portion of their land.
- (b) Deposit with the Municipality \$5,000.00 to cover the cost relocating a ditch and culvert on Belloc Street, widening Belloc Street, and extending water mains.

These items, while not part of the scheme proper, would have had to be resolved in any case; including them in the consent agreement was a convenient manner of leaving no loose ends.

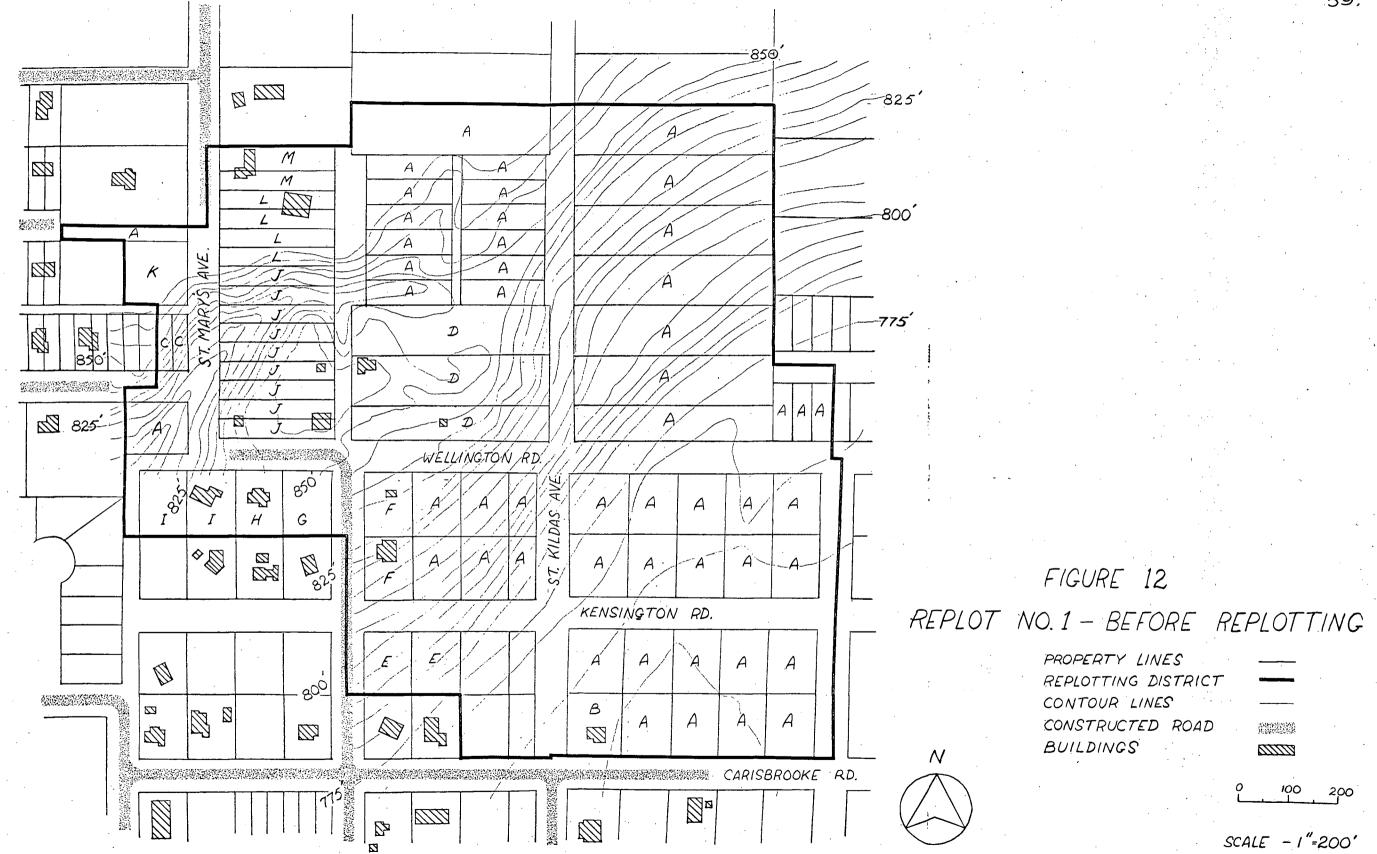
III. REPLOT NO. 1

The Problem

Three main factors led the District to consider a replotting scheme in 1958 for the area shown in Figure 12, page 59. First, the North Vancouver School Board required a school site in the area. While the District owned considerable land here which could be sold to the School Board, this land was cut up by street allowances and did not comprise a suitable site. Second, studies by the Planning Department indicated that there was need to provide a right-of-way for an eventual arterial street through the north-west corner of the area. Third, the existing grid subdivision was not suited to the sloping topography of the area, and the larger parcels could, therefore, not be economically further subdivided. In the opinion of the Deputy Municipal Planner:

"The completion of the present road system is impossible in many cases from an engineering standpoint and will inflict undue expenses on an owner wishing to subdivide."

Letter, R.D.O'Brien to W.J.Barker, (a property owner in the area), October 10, 1958.



As can be seen from Figure 12, there were already eight houses built and a considerable length of road constructed in the area which it was proposed to replot.

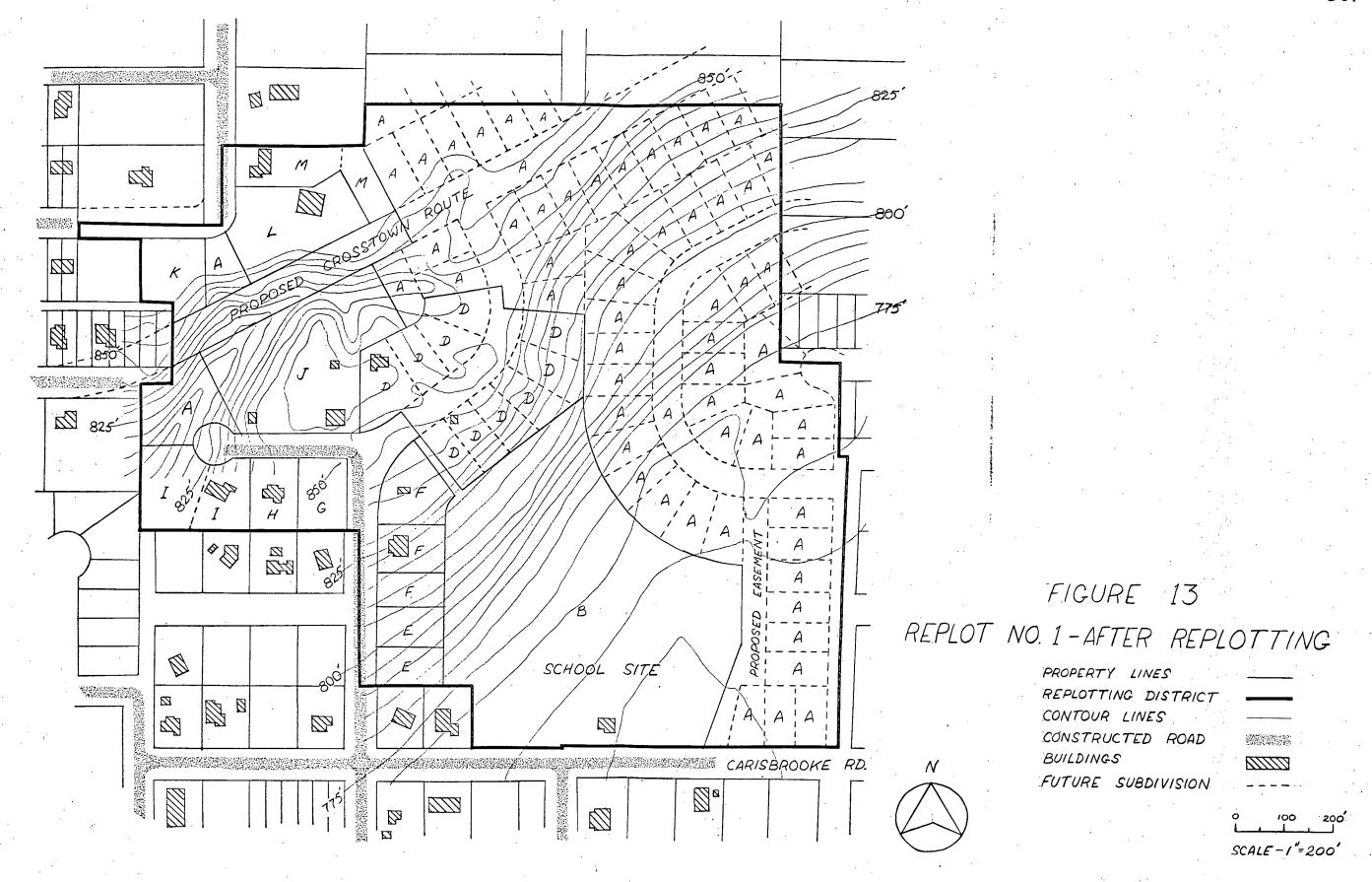
The Solution

The replotting solution shown in Figure 13, page 61, was implemented in 1959. It provides a right-of-way for the proposed arterial street; a school site consolidated into a suitable parcel; and an improved framework for further subdivision.

Despite a very drastic change in the subdivision pattern, a comparison of Figures 12 and 13 demonstrates that the replotting solution has had little effect on existing improvements. Existing road construction has been fitted into the new street pattern; existing structures remain in the same ownership; and most houses retain their original orientation toward the streets.

Table IV, page 63, in conjunction with Figures 12 and 13, relates the ownership pattern before and after repletting. Table IV, page 64, shows the costs as set out in the scheme. The items referred to under "Compensation" in Table 5 deal with the following matters:

"Barker": Barker held two small lots in the original subdivision, (marked "C" in Figure
 Since both lots were of marginal value



because of their slope, Barker's interest was compensated in money, rather than through the allotment of a new parcel.

- 2. "Whalen": The replotting scheme involved minor disruption to improvements on the Whalen property.
- 3. "Hills": Hills held a right-to-purchase on the former Murphy parcel, and the District agreed to compensate him in money for his interest, rather than transferring the charge to the new parcel.
- 4. "Corporation of the District of North Vancouver":

 The compensation paid to the District is in effect
 the purchase of the school site from the District
 by the School Board.

The School Board's total payment of \$31,000.00 toward the cost of the scheme includes the cost to the District of providing certain services for the school site. The School Board's payment can be broken down as follows:

- 1. Contribution toward general costs of the scheme: \$3,935.00.
- 2. Cost of road improvements and water services required for the school site: \$4,610.00.
- 3. Compensation to the District for the school site: \$22,455.00.

It is not entirely clear from the files on this

scheme why the costs of services paid by the School Board were made a direct part of the scheme.

TABLE IV

REPLOT NO. 1 - LAND OWNERSHIP

Owner	Former Parcel(s) (Figure 12)	New Parcel(s) (Figure 13)
Corporation of the District of North Van.	"Д"	"A" (plus \$22,455 compensation)
School Board	úBu	"B"
Barker	"C"	\$1,916.40 compensation
Whalen		"D" (plus \$75.00 compensation)
Lawson	"E"	"E"
Barclay	n Fu	"F"
J. Hargitt	"G"	"G"
Drew	"H"	"H"
Culver	"I"	"I"
E. Hargitt	"J"	"J"
Melnechuk	"K"	"K"
Murphy	"L"	"L"
Waller	"M"	"M.

TABLE V

REPLOT NO. 1 - COSTS AS SET OUT IN THE SCHEME

EXPENSES Surveys Legal Expenses	\$	1,285.00 155.85
Compensation Barker Whalen Hills District of North Vancouver		1.916.40 75.00 300.00 22,455.00
Services Water Road Administration	-	710.00 3,900.00 367.75
TOTAL EXPENSES:	\$	31,165.00
INCOME School Board Cotton E. Hargitt Culver	\$	31,000.00 30.00 75.00 60.00
TOTAL INCOME:	\$	31,165.00
MUNICIPAL SHARE OF COST:		NIL

IV. REPLOT NO. 13

The Problem

By 1960, the perimeter of the area bounded by Mt. Crown Road, Lewister Road, Edgemont Road and Capilano Road had been almost completely developed, but the interior of the area remained largely vacant and effectively blocked from further development. (See Figure 14, page 66.) While topography posed no problems, unplanned subdivision in the past and divided ownership of the land made it impossible to devise a further subdivision of the large interiorfparcels that would utilize the land economically. Studies by the Planning Department indicated that by use of replotting. a subdivision for single-family residences could be achieved. but that servicing costs would be relatively high -- about \$2,200.00 per lot, because of the length of road needed to service such a subdivision. It appeared unlikely that the owners of the interior lots would be able to raise the \$46,000.00 cost of services as required under the subdivision by-law, for the proposed single-family subdivision, and assembly of the land into one ownership by an outside developer would be difficult because of the seven separate existing land ownerships in the interior area.2

²Memorandum, R.D.O'Brien to C. Henderson, August 5, 1960.

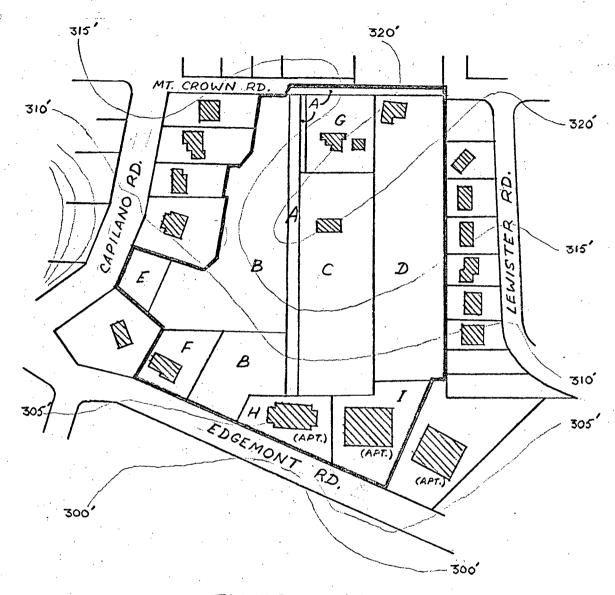
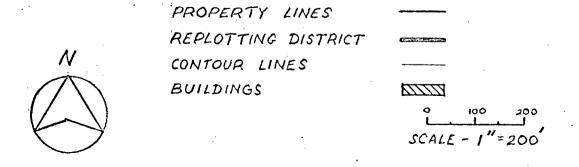


FIGURE 14

REPLOT NO. 13 - BEFORE REPLOTTING



This general area was zoned for single-family residential use, with the exception of the three lots on the north side of Edgemont Road marked "(APT.)" in Figure 14, which were zoned for low-density garden apartments, as were the adjacent lots on the south side of Edgemont Road. In a 1959 report on apartment development in the District, 3 the Planning Department had recommended that rezoning of further land on the north side of Edgemont Road from single-family to garden apartment use be given consideration.

The District held no land in the proposed replotting area other than a narrow north-south easement running from Mt. Crown Road almost to Edgemont Road. Road access to the interior area would have to be on Edgemont Road; Mt.Crown Road was narrow and unpaved, while access to Capilano Road through the one undeveloped parcel on that road would mean producing a new intersection too close to the existing busy intersection of Capilano and Edgemont Roads.

The Solution

Replot No. 13 was initiated by By-law on July 12, 1960. The replotting solution, shown in Figure 15, page 68, further subdivided some of the larger lots on the perimeter

³District of North Vancouver Planning Department, Apartments, (North Vancouver, B.C., The Planning Department, October, 1959), p.63.

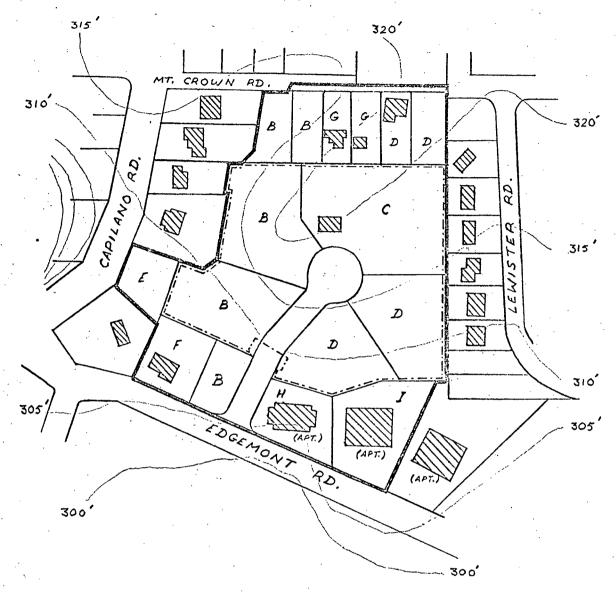


FIGURE 15

REPLOT NO. 13 - AFTER REPLOTTING

PROPERTY LINES

REPLOTTING DISTRICT

CONTOUR LINES

BUILDINGS

AREA REZONED, CONSOLIDATED,
AND SOLD TO B.C.T.F. CO-OP.

SCALE - 1"=200"

of the area for single-family dwelling sites, and produced five garden apartments sites in the interior of the area, clustered around a cul-de-sac connecting to Edgemont Road. It was made a condition of the consent agreements signed by the owners Kulak, Bain and Lefeaux, who were the owners of the new interior lots, that the District would rezone these five lots to a "Special Use District", allowing garden apartment development, but at a relatively low building density of one dwelling unit per 3,600 square feet of site area, and with buildings to cover no more than fifty per cent of the site area, in order to ensure that apartment development would be compatible with the surrounding single-family develop-These owners contracted, also as part of their conment. sent agreements, to deposit \$22,350.00 with the District to cover the cost to the District of servicing the apartment The change in land ownership resulting from the scheme is shown by Table VI, page 70, in conjunction with Figures 14 and 15.

At about the same time as the scheme was undertaken the British Columbia Teachers Federation Co-operative, which had been seeking a site for a proposed apartment development, secured an agreement with Kulak, Bain and Lefeaux to purchase the five interior aparcels, to pay these owners' share of the replotting scheme costs and to take

TABLE VI
REPLOT NO. 13 - LAND OWNERSHIP

Owner	Former Parcel(s) (Figure 14)	New Parcel(s) (Figure 15)
Corporation of the District of North Vancouver	"A" (Easement)	Street allowance
Kulak	"B"	"B"
Lefeaux	"C"	"C"
Bain	"D"	"D"
O'Brien	uEu	"E"
McCloy	"F"	u Łu
Dinsdale	"G"	"G"
Mortlock	"I"	"I" (plus \$45.00 compensation

responsibility for the service deposit, on the condition that the replotting scheme proceed and that the owners consolidate the five parcels under the Plans Cancellation Act. After the scheme was completed, the five apartment sites were consolidated, the road access being revised as shown by the dashed lines in Figure 15, and the consolidated parcel was purchased by the Teachers' Co-operative. Since the consolidated parcel proved far less expensive to service than five separate sites, the Co-operative eventually received a refund of \$16,450.00 from its servicing deposit.

The costs as set out in Replotting Scheme 13 are shown in Table VII, page 72. "Administration and Contingencies" is byyfar the largest item of cost; the Scheme involved the District in prolonged negotiations and the drawing up of complex agreements with the owners and the Teachers' Cooperative, and there was also some uncertainty as to what compensation might have to be paid, since A.N. Mortlock was a non-consenting owner. Mr. Mortlock appealed against the scheme, and was, in fact, awarded a token judgment of \$45.00.

See page 8, supra.

TABLE VII
REPLOT NO. 13 - COSTS AS SET OUT IN THE SCHEME

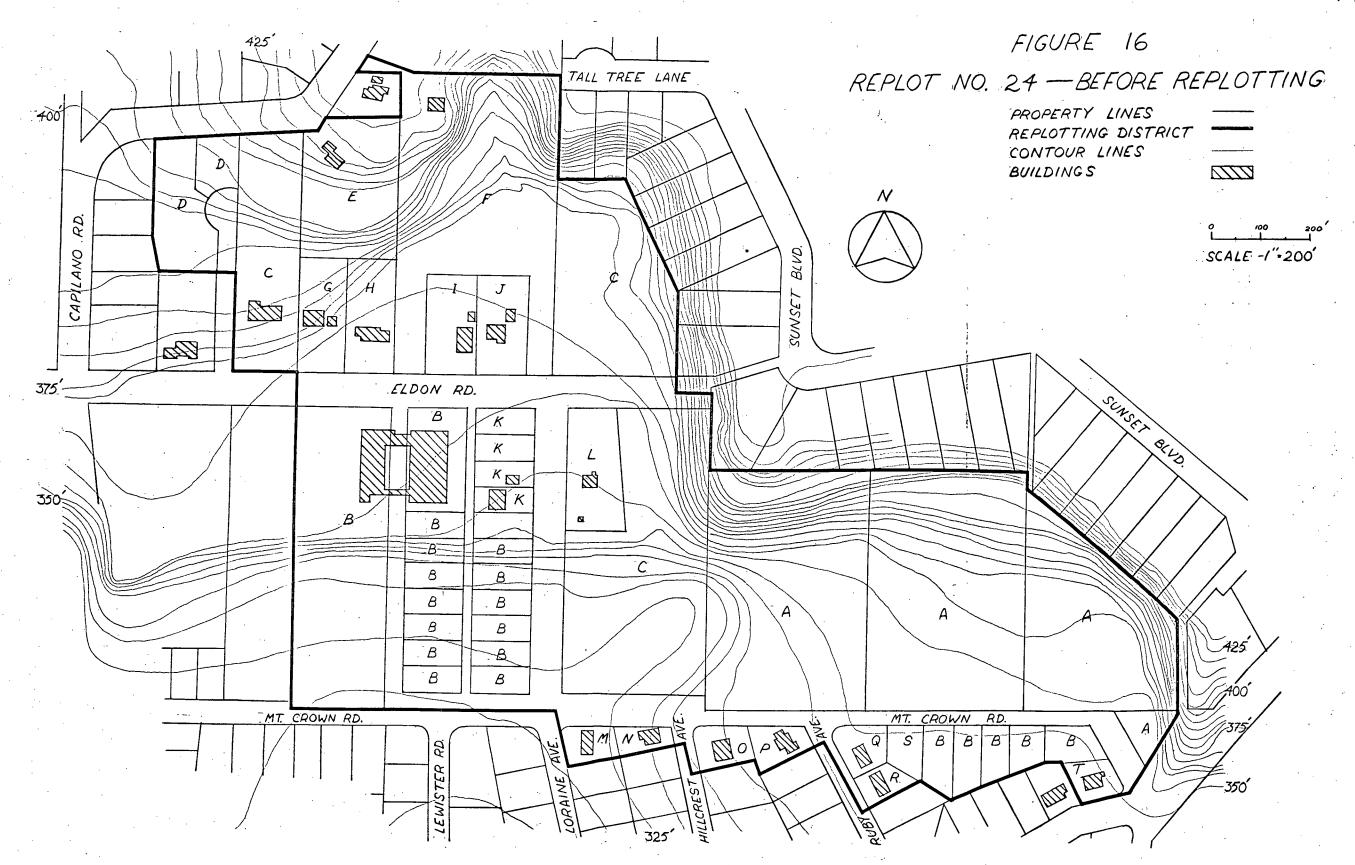
\$ 750.00 200.00 3.500.00 \$ 4,450.00
\$ 4,450.00
\$ 300.00 4.150.00*
\$ 4,450.00
NIL

^{*}Assumed by the British Columbia Teachers' Federation Co-operative.

The Problem

By 1963 the area shown in Figure 16, page 74, was ripe for further development. Considerable development had occurred on the periphery and along Eldon Road, and several owners of large parcels in the area wished to subdivide their land. The existing subdivision pattern, however, wery much limited the possibilities of further subdivision because it bore little relationship to the topography. In order to be able to proceed with subdivision, these owners therefore approached the District and requested that the municipality undertake a replotting scheme.

The District itself faced several problems in this area. A school site existed at the western edge of the area, (lots marked "B" in Figure 16), between Mt. Crown and Eldon Roads, but the numerous smaller parcels comprising the site had never been consolidated, and in fact, the school building had been constructed across an unused road right-of-way. The District held a park site in the eastern tip of the area, (lots marked "A" in Figure 16), but the potential usefulness of the site for park purposes was limited by the fact that access to the site existed only from Mt. Crown Road. An easement was needed for a proposed sewer main



connection between Eldon Road and Mt. Crown Road east of Loraine Avenue. Previous Planning Department studies had indicated that in order to provide an efficient traffic circulation in this part of the municipality, a road link between Ruby Avenue and the eastern end of Eldon Road would be desirable.

For these reasons, the District had already considered undertaking a limited replotting scheme south of Eldon Road. Rather than carry out another separate scheme to meet the needs of the landowners referred to above, the proposed scheme was enlarged to include lands north of Eldon Road. Once it appeared certain that the replotting scheme would proceed and that their lands could be sold at a price reflecting an improved potential for subdivision, three of the landowners in the area sold their properties (lots marked "C" in Figure 16) to A. Montador, before the scheme was initiated. Several other owners later also sold all or part of their holdings to Montador, but this was made part of the scheme; Montador making payment through his contribution to the scheme, and the owners receiving payment in terms of cash compensation from the scheme. (See Tables VIII and IX. pages 78 and 79.)

The Solution

The replotting solution shown in Figure 17, page 77, was completed in February, 1964. The revised subdivision gives improved access to the proposed park; provides a right-of-way for a road and sewer between Eldon Road and the former northerly end of Ruby Avenue; and consolidates the school site. Since the new road connection makes the easterly portion of Mt. Crown Road redundant, the latter has been removed. The layout of land between the school site and park site, and north of Eldon Road, has been revised drastically to form a subdivision of single-family residential lots north of Eldon Road, and to make further subdivision possible in the balance of the area.

Land ownership in the Scheme before and after replotting is set out by Table VIII on page 78, together with Figures 16 and 17. The costs of the replot as set out in the Scheme are shown in Table IX, page 79. The compensation paid to Mushet obtained the release of a right-to-purchase that Mushet held on the Clarke property. The compensation paid to Rosenthal, Crompton and Taylor, in effect represents a purchase by Montador, to which reference has already been made. Since Montador paid almost the total cost of the scheme and another private owner paid the balance, the municipality achieved its aims at no cost.

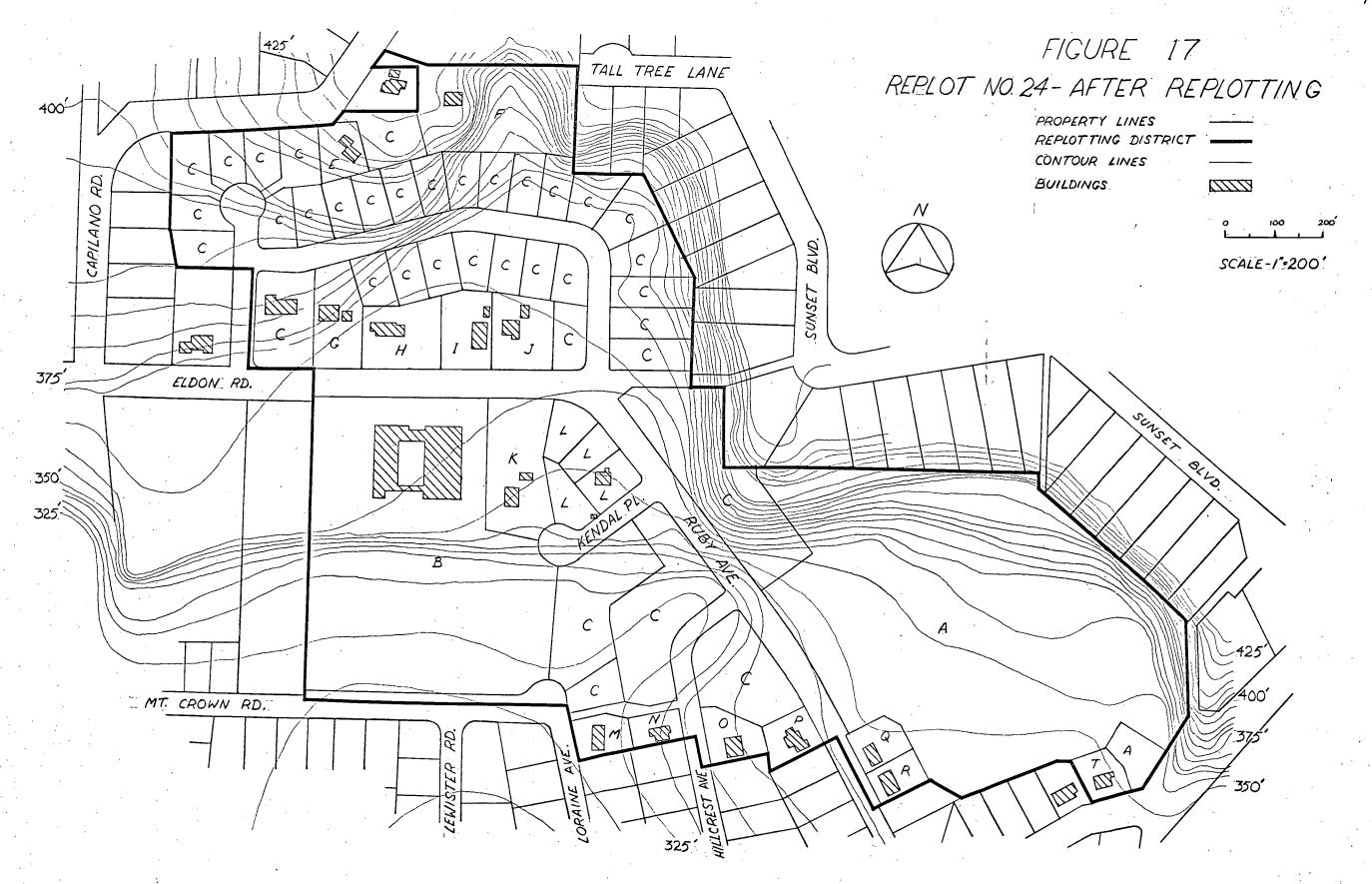


TABLE VIII
REPLOT NO. 24 - LAND OWNERSHIP

Owner	Former Parcel(s) (Figure 16)	New Parcel(s) (Figure 17)
Componentian of the Digtmint		
Corporation of the District of North Vancouver	"A"	"A"
•=	"B"	"B"
School Board Montador	"G" D	"C"
nontador	Č	(plus \$6,300 compensation
Rosenthal	"D"	- -
Crompton	"E"	(\$8,000 com- pensation) "E"
Taylor	# F ##	(plus \$10,000 compensation "F"
Halmshaw	и С . п.	(plus \$17,500 compensation)
		(plus \$350
		compensation)
Bustwell	"H"	"H"
Clarke	"I"	"I"
Fraser	"J"	"J"
Marter	"K"	"K"
Locke	"L"	"L"
Stubbs	"M"	" M "
Elliott	., N .,	"N"
White	" O"	" O "
Chamberlain	"P"	"P"
Davidson	"Q"	"Q"
Erlebach	"R"	"R"
Kay	"S"	_
		(\$1,540 com-
		pensation)
Lindsay	"T"	n.Lu

TABLE IX

REPLOT NO. 24 - COSTS AS SET OUT IN THE SCHEME

EXPENSES	
Surveys	\$ 2,700
Legal expenses and advertisements	500
Payment to tax sales fund	1,750
Administration and contingencies Compensation	5,260
Montador	6,300
Rosenthal	8,000
Crompton	10,000
Taylor Mushet	17,500
Halmshaw	7⁄50 350
Kay	1,540
TOTAL EXPENSES:	\$ 54,650
INCOME:	
Montador	\$ 54,500
Elliott	150
TOTAL INCOME:	\$ 54,650
MUNICIPAL SHARE OF COSTS:	NIL

VI. SUMMARY

The four replotting schemes described in this Chapter were selected as being typical of the use made of replotting by the District of North Vancouver. Replotting Scheme No. 32 was undertaken to adapt subdivision to topography and to eliminate redundant road rights-of-way. Replotting Scheme No. 1 provided a school site, arterial street right-of-way and a frame work for further subdivision adapted to topography. Replotting Scheme No. 13 opened to garden apartment development, a largely vacant block interior area that was effectively blocked from further subdivision by previous development. Replotting Scheme No. 24 consolidated a school site, improved access to a park site, provided a right-of-way for a sewer and road link, and altered an existing subdivision that would have been difficult to develop because of topography and the pattern of previous development.

CHAPTER IV.

THE CASE STUDY: AN EVALUATION OF THE EFFECTIVENESS OF REPLOTTING IN THE DISTRICT OF NORTH VANCOUVER

1. FRAMEWORK FOR EVALUATION

In the four schemes reviewed in Chapter III, replotting was clearly an effective implementation technique in the narrow sense of achieving the objectives for which the schemes were undertaken. A more comprehensive evaluation of the effectiveness of replotting in the District of North Vancouver requires consideration of at least the following factors, referred to in Chapter I of this study:-

- 1. Improvement to Subdivision Design: Does replotting actually result in improved subdivision design, from the point of view of the contribution that subdivision design makes to the quality of the physical environment?
- 2. Costs: Is replotting an economical implementation technique, both from the point of view of the Municipality and of the private owners involved in replotting schemes?
- 3. Public acceptance: To what extent is

replotting accepted as a part of the activities of municipal government, by the Municipal Council and by the general public?

4. Administrative Requirements: - What demands does replotting place on municipal administration generally, and on community planning administration in particular, in the District?

II. IMPROMEMENT TO SUBDIVISION DESIGN

Subdivision design affects the quality of the physical environment; for example, a subdivision with excessively long blocks increases the length of trips necessary for motorists and pedestrians to circulate within the subdivision, and therefore detracts from the convenience of the environment. Dr. Kevin Cross, in his study Residential Land Subdivision: A Physical Evaluation, has identified criteria by which subdivision design can be evaluated. These criteria are listed in Table X, pages 84-85, together with what Cross found to be commonly accepted standards in Canada for the criteria, and a short note on the potential

Kevin J. Cross, <u>Residential Land Subdivision</u>: <u>A Physical Evaluation</u>. (Vancouver, University of British Columbia, 1965), pp. 83, 84.

significance of each criterion for the quality of the physical environment. This list of criteria is not an exhaustive one, and is oriented mainly toward subdivision for single-family residential use, but was found by Cross to be a useful framework for evaluation.²

Cross developed these criteria to evaluate subdivision designed or proposed as a unit. For use in this study, where fragments of subdivision are dealt with, several of the criteria are of limited relevance, and have not been used. In Table XI, page 86, the four replotting solutions described in Chapter III are compared with the previously existing subdivision patterns, and a check mark has been allocated beside each criterion in respect to which the replotting solution represents a design improvement.

It is obvious from Table XI, that in the case of the four schemes described, replotting has achieved concrete improvement in subdivision design, in terms of effect on the quality of the physical environment. At the same time, it cannot be claimed that the replotting solutions represent an ideal design; Replotting Scheme No. 24, for example, has created two double-fronting lots on the north side of Eldon Road, an uneconomical arrangement which lowers the amenity of these two lots. However, such deficiencies appear ²Ibid., p. 92.

TABLE X SUBDIVISION DESIGN CRITERIA

COMMONLY	SIGNIFICANCE
ACCEPTED	TO QUALITY OF
STANDARDS	ENVIRONMENT
30% maximum	Excess street area is uneconomical,
	lowers amenity.
30% maximum	Excess arterial streets are
	uneconomical, lower amenity.
5% minimum	Public open space
	increases amenity.
Minimum depth 90' (Width dependent on local standards)	Adequate lot size contributes to privacy, daylighting ensures economical building site.
Irregular shapes (e.g., triangular) undesirable.	Uneconomical use of land in terms of building site.
To be avoided if possible.	
1,200 maximum	Excess block length makes circulation inconvenient.
	30% maximum 30% maximum 5% minimum Minimum depth 90' (Width dependent on local standards) Irregular shapes (e.g., triangular) undesirable. To be avoided if possible.

(Cont'd)

TABLE X (Cont'd)
SUBDIVISION DESIGN CRITERIA

Lots abutting side and rear yards. Buffer strips Buffer strips Planting and buffer strips desirable Circulation— Vehicular Intersection Not closer than 200'. Blind corner No intersection angles less than 70°. Steep grades Points of entry (to a given subdivision) Street widths Lots should not abut more than abut more than subdivision Lots should not subdivision Amenity (view f subject lot; pr subje	ı		·
abut more than 3-4 adjacent lots on side or rear yards. Buffer strips Planting and buffer strips desirable Planting and lots arterial industrial comm land uses, etc. fering increase amenity. Circulation- Vehicular Intersection Not closer than 200'. Safety-closely intersection in accident hazard Blind corner No intersection angles less than angles less than 70°. Steep grades 15% maximum for local streets. Safety-steep grane are hazardous. Points of entry (to a given subdivision) Street widths 66' major streets-50' Convenience & sexcessively nar	CRITERION	ACCEPTED	TO QUALITY OF
buffer strips desirable abuts arterial industrial commuland uses, etc. fering increase amenity. Circulation- Vehicular Intersection Not closer than 200'. Safety-closely intersection in accident hazard Blind corner No intersection angles less than intersection retrict vision. Steep grades 15% maximum for 10cal streets. Safety-steep grades are hazardous. Points of entry (to a given subdivision) Street widths 66' major Convenience & sexcessively nar	side and rear	abut more than 3-4 adjacent lots on side or	Amenity (view from subject lot; privacy)
Intersection Not closer than Safety-closely 200'. intersection in accident hazard Blind corner No intersection Safety-acute an angles less than intersection retrict vision. Steep grades 15% maximum for Safety-steep grades are hazardous. Points of entry (to a given subdivision) Street widths 66' major Convenience & sexcessively nare	Buffer strips	buffer strips	Where residential use abuts arterial street industrial commercial land uses, etc., buffering increases amenity.
Blind corner No intersection accident hazard No intersection Safety-acute an intersection retrict vision. Steep grades 15% maximum for Safety-steep grades are hazardous. Points of entry (to a given subdivision) Street widths 66' major Convenience & streets-50' excessively nare			
angles less than intersection retrict vision. Steep grades 15% maximum for Safety-steep grades local streets. Points of entry (to a given subdivision) Street widths 66' major Convenience & safety-steep grades are hazardous.	Intersection		Safety-closely spaced intersection increase accident hazard.
local streets. are hazardous. Points of entry (to a given minimum. subdivision) Street widths 66' major Convenience & streets-50' excessively nare	Blind corner	angles less than	
(to a given minimum. subdivision) Street widths 66' major Convenience & streets-50' excessively nar	Steep grades		Safety-steep grades are hazardous.
streets-50' excessively nar	(to a given		Convenience of access
lation, while estimates a sively wide str	Street widths	66' major streets-50' minor streets.	Convenience & safety- excessively narrow streets hinder circu- lation, while exces- sively wide streets are uneconomical.

TABLE XI

ANALYSIS OF SUBDIVISION DESIGN IMPROVEMENTS
ACHIEVED IN FOUR REPLOTTING SCHEMES

	REPLOTT	ING SC	CHEME N	0.
CRITERION	32,	1,	13,	24.
% of total land area in streets.	x	x	-	· -
Lot size	x	x	409	-
Lot shape		-	x	-
Easements through lots	-	-	x	- '
Block length	-	-	-	x
Lots abutting side and rear yards.	-	-	-	- ·
Buffer strips	x	-	-	-
Intersections (spacing and number)	x	x	-	X
Blind corners	-	-	- '	-
Steep grades	×	x	-	••
Street width	x	ж .	x	x

x = Improvement over previously existing subdivision
pattern.

minor in relation to the improvements which have been achieved. Furthermore, the specific nature of the criteria used in Table X masks some of the design improvements of a more general nature achieved by the replotting schemes, such as the substitution of a residential loop street, with higher amenity, for the previously existing continuous grid street system in Replotting Scheme No. 32.

III. COSTS

No implementation technique can be considered effective if the costs exceed the benefit derived. There is not enough detailed cost information in the municipal files to allow a rigorous cost-benefit analysis of replotting in the District of North Vancouver, or systematic cost comparison with alternative implementation techniques, but the available evidence is sufficient to arrive at some tentative conclusions regarding replotting costs.

Costs to Municipalityes

In the four schemes described in Chapter III, the District did not contribute directly to the costs of replotting. This is typical of the replotting schemes the District has completed to date; generally other parties than the municipality have borne the direct costs of the scheme, except where the municipality has acquired additional land as

part of the scheme.

This leaves unanswered the question of whether the payment to the District under "Administration" in fact covers the cost to the District of administering replotting. The "Administration" payments in the four schemes which were reviewed are typical:

Replotting Scheme No. 32 - \$1,080.00

Replotting Scheme No. 1 - \$ 367.75

Replotting Scheme No. 13 - \$ 3,500.00

Replotting Scheme No. 24 - \$ 5,260.00

The amount set out under "Administration" is based on the Planning Department's judgment, and no record is kept of the man-hours required to complete schemes. The Deputy Municipal Planner and an assistant spend a large proportion of their time on replotting, a part of the drafting and stenographic resources of the Planning Department go into replotting, and from time-to-time other municipal staff such as the District Engineer contribute some of their time. Usually several replotting schemes are being planned or implemented at the same time. Schemes take from several months to over

³See Tables III, page 57, Table V, page 64, Table VII, page 72 and Table IX, page 79.

a year to complete, and within the time span required to complete a given scheme, there is considerable fluctuation in the rate at which staff time is being invested. Without more specific data, however, it is not possible to state whether the District does in fact recover its costs of administration from the scheme payments.

At the same time, the District does receive other direct and indirect economic benefits from replotting. In Replotting Scheme No. 1, for example, the District acquired at no cost a portion of right-of-way for a needed arterial street. In several of the schemes that were reviewed in Chapter III, the total length of streets, sewer mains and water mains required. was reduced. While under the District's subdivision by-law, the capital cost of providing roads and certain services to their property is largely the responsibility of subdividers, the District should realize savings on maintenance costs in the long run, from having to maintain less road and service length. In the long run also, it seems probably that the more economical use of land made possible by replotting will be reflected in higher assessments and a stronger tax base. On balance, then, replotting appears to be an economical procedure for the District of North Vancouver.

Costs to Private Owners

ensure that owners involved in a replotting scheme will receive a new parcel equal in market value to their former parcel, or cash compensation where a new parcel of lesser value or no new parcel is allocated; and cash compensation for the cost of any moving of structures or any loss of revenue from the former parcel or buildings, necessitated by the replotting scheme. Owners are therefore protected from any drastic economic loss due to replotting.

At the same time, owners of land other than the municipality have generally borne the costs of replotting in the District. It would appear that the direct economic benefits of replotting easily justify these costs. In Replotting Scheme No. 32, for example, the property owned by Lennie, Manner and McCloy would have yielded only nine lots without replotting. As a result of replotting, their property will yield an extra two lots, which more than compensates these owners for the \$2,000.00 which they paid toward the scheme. (See Figure 11, page 56).

In Replotting Scheme No. 24, Montador paid \$54,500.00 toward the scheme, \$45,500 of which represented purchases of land from other owners or purchases of surplus land left over at completion of the scheme, and \$9,000.00 of which was

paid toward the actual costs of replotting. The land held by Montador south of Eldon Road would, according to estimates in the municipal file on this scheme, have yielded 14 lots without replotting. As a result of replotting, it will be possible to produce 17 lots of approximately equal value. In addition, the scheme also made possible a more economic layout of Montador's holdings north of Eldon Road then would thave been possible without replotting, and by making a number of land purchases part of the scheme, replotting saved Montador the time and expense of separate negotiations. Montador therefore seems to have received full value for his payment of \$9,000.00 toward the cost of replotting.

In addition, to making possible more economic use of land, replotting often reduces the length of road and service required. Since the construction of roads and certain other services is an expense which the subdivider must normally bear under the District Subdivision Control By-law, these savings are a direct benefit to private land owners in replotting schemes.

Table XII., page 923, illustrates the economic gain due to more efficient use of land and reduced servicing costs achieved by Replotting Scheme No. 2, at the :corner of Lynn Valley Road and Rufus Avenue in the Vinedale neighbourhood.

TABLE XII.

ECONOMICS OF DEVELOPMENT - REPLOTTING

SCHEME NO. 2

	ORIGINAL PATTERN	AS REPLOTTED
Gross acreage	27.04 ac.	27.04 ac.
No. of lots	91	103
School Site	2.33 ac.	2.22 ac.
Length of Road	3,130 ft.	2,870 ft.
Useable Land	83.7%	86.0%
Estimated Gross Value	\$270,000	\$309,000
Servicing Costs	\$90,400	\$86,000
Replotting Costs	- '	\$1,300
Net Value	\$180,600	\$221,700
Estimated gain due to replo	otting - \$41,10	0

SOURCE: District of North Vancouver Planning Dept.,
Planning Explanatory Pamphlet 4, Replotting, p.5.

\$41,100.00 over the most economic subdivision that could be achieved without replotting, while the total cost of replotting, paid by private owners, was only \$1,300.00.

There are also indirect economic benefits to private owners. Because of the improvement in the quality of the environment which it is possible to achieve by replotting, property in replotting schemes is likely to find a stronger demand on the market and retain its value better. In reference to Replotting Scheme No. 1, the Districts' Assessor, D. Nichols, in a memorandum dated October 6, 1958, stated that in his opinion:

"From an appraisal standpoint the --- proposed layout of a contoured subdivision is far superior to the former 'grid' plan and would create a better market and demand a higher price for the lots, and assist materially in holding the value of the land."

Replotting, therefore, can be concluded to be an economic procedure for private owners of land in replotting schemes, as well as for the municipality. This conclusion is borne out by the willingness private owners have showning numerous replotting schemes, to pay the costs or replotting.

IV. PUBLIC ACCEPTANCE

Land ownership has generally been given a positive value in North American culture, and activities by government which impinge upon the perogative of private land ownership run a risk of political unpopularity. This factor presumably exerts particular weight in a community such as the District of North Vancouver, where there is an above average proportion of property in the form of owner-occupied single-family residences. For this reason, it is relevant to examine the extent which replotting has found acceptance with private property owners and the Municipal Council in the District of North Vancouver.

The evidence is relatively straightforward. That private owners have accepted replotting is borne out by the fact that in forty completed schemes involving roughly 475 owners, only 10 owners, or slightly more than 2%, exercised their rights of appeal. This is not to say that 98% of owners immediately agree to a replotting proposal; lengthy negotiations are often necessary. However, once the proportion of consenting owners necessary to proceed has been obtained, (sometimes by a process of "gerrymandering" the proposed replotting district boundaries), the hold-outs usually join the neighbourhood consensus and agree to consent.

The municipal Council's acceptance of replotting is borne out by the fact that not only has Council agreed to about fifty schemes over a period of almost a decade, but Council has also endorsed in principle the policy of further extensive replotting as set out in the Plan '64 document. The municipal Council's acceptance of replotting is no doubt influenced by the ready acceptance which replotting has received from private land owners in the District.

The acceptance of replotting in the District of North Vancouver is probably related to three factors. First, as has been demonstrated in Section III of this Chapter. replotting normally produces concrete economic benefits for both the District and private land-owners, in excess of the cost of replotting. Second, while replotting does allow an element of compulsion to be exercised against a small minority of non-consenting land-owners, the process is basically voluntary and depends upon consent. The consent of owners representing seventy per cent of the assessed value of land in the replotting district must be won before a scheme can proceed. Third, it can be seen from the diagrams and descriptions in Chapter III that replotting has not required any extensive moving of existing structures, and has caused little disruption to land-owners. (It might be hypothesized, however, that higher levels of disruption would result had replotting been undertaken in more fully built-up areas.

V. ADMINISTRATIVE REQUIREMENTS

The replotting procedure prescribed by the enabling legislation is complex and must necessarily be so:

"---for replotting eats away at the very roots of our land ownership system. It combines expropriation, exchange and also the power to compulsorally add land to an unwilling owner. It deals with and indeed it must, all facts of land ownership - the Fee Simple, the Right to Purchase, claims, notices, and charges, e.g., Mechanics Liens, Mortgages, Lis Pendens, Restrictive Covenants, Wife's Protective Act cases, D.V.A. holdings, Rights of Way and Easements.

This complexity is due in large measure to the fact that replotting deals with a number of properties in varying states of ownership at one time."

Furthermore, the process requires a variety of skills.

Judging from the experience in the District of North

Vancouver, at least the following skills are required:

- 1. Knowledge of property valuation and assessment.
- 2. Fairly detailed knowledge of land development economics.
- 3. Extensive knowledge of the law relating to land ownership.
- 4. Subdivision design skills, including rudimentary knowledge of cost estimating and subdivision

engineering.

District of the North Vancouver Planning Department,

Planning Explanatory Pamphlet 4, Replotting (North Vancouver,
B.C., The Planning Department, April 15, 1959), p.1.

- 5. Drafting and secretarial skills.
- 6. Of extreme importance, negotiations skills.
- 7. A general knowledge of land-use planning, and particular familiarity with the community planning process, in the District.

In view of the complexity of the process and the wide variety of skills required, the question arises, what demands does replotting place on municipal administration generally, and the community planning process in particular, in the District of North Vancouver?

objective of altering an established pattern of subdivision, and given the complexity of legal relationships that can exist in relation to the lands involved, replotting with its principle of shifting the legal relationships pertaining to former parcels to the corresponding new parcels, is very much simpler than the negotiation of each of these relationships separately that would likely be required were any other implementation technique between used. In fact, replotting legislation appears to be used in other jurisdictions outside of British Columbia for such relatively simple matters as street and lane closings, merely because replotting is simpler than using any other technique, even where

the required change is not very complex.⁵

In the District of North Vancouver, the prime responsibility for administering replotting lies with the implementation section of the Planning Department, and replotting is one of the section's principal activities. The Deputy Municipal Planner, Mr. R. D. O'Brien, who heads the implementation section, has from previous experience acquired considerable knowledge of property valuation, land development economics, and the law relating to land ownership. Judging from correspondence between Mr. O'Brien and private land owners, to be found in the municipal replotting files, the Deputy Municipal Planner is also an accomplished negotiator. Mr. O'Brien and other members of the Planning Department contribute the subdivision design skills required, and the drafting and secretarial resources of the Planning Department are utilized. The framework of land-use planning for the District which forms the context within which replotting solutions are devised is of course the responsibility of the long-range section of the Planning Department. The process whereby priorities for replotting schemes are set, and whereby replotting is fitted into the general process of community planning in the District, has already

⁵By interview with H. Froelich, formerly Deputy Municipal Planner, City of Saskatoon, Saskatchewan, March 29, 1967.

been described in Section III, Chapter II, of this Study.

There is also consultation as required with municipal staff outside the Planning Department, chiefly with the District Manager, the District Assessor, the District Solicitor and the District Engineer. The demand placed on these staff members appears to be minor.

It is obvious from discussion with Mr. O'Brien that experience has contributed a great deal to improving the efficiency of replotting administration. It has been possible to routinize certain aspects of the procedure and to avoid difficulties that were encountered in the first schemes.

In conclusion, then, it appears that while replotting is complex and requires a variety of skills, the replotting process does not place undue strain on municipal administration generally, and is well integrated into the process of community planning, in the District of North Vancouver. The demands placed upon the Planning Department by replotting do not seem unreasonable in terms of the extent to which replotting contributes to achieving planning objectives in the District. At the same time, it must be borne in mind that the District if fortunate in having Mr. O'Brien's particular combination of skills at its disposal; that the District is large enough to have an assessor, solicitor and engineer on staff; and that the District already has

considerable experience in replotting.

VI. SUMMARY

While the replotting schemes described in Chapter III were obviously effective in the sense of achieving the objectives for which they were undertaken, an examination of whether subdivision design has been improved, costs, vs. benefits, public acceptance, and administrative requirements is relevant to a more comprehensive evaluation of the effectiveness of replotting in the District of North Van-Replotting has been successful in improving the contribution of subdivision design to the quality of the physical environment in the case of the four schemes which were reviewed in detail. Although there was insufficient data available for rigorous cost-benefit analysis, replotting does appear to be an economical procedure for both the municipality and private land owners. There can be little doubt as to the acceptance of replotting in the District. on the part of both the municipal Council and land owners. Replotting is complex and requires a variety of skills, but sit has been possible to successfully integrate replotting into municipal administration and into the community planning process in the District.

CHAPTER V.

TOWARD A MUNICIPAL POLICY ON REPLOTTING

1. GENERAL CONCLUSIONS

The case study affirms the hypothesis of this paper, i.e., that replotting is an effective implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia. However, this general conclusion must be qualified since it rests on the specific context of a case study.

The District of North Vancouver, where the case study was conducted, has an established community planning process; A Planning Department forms part of the municipal staff; a general plan of policies for physical development of the District has been accepted in principle by the municipal Council; and a zoning by-law, subdivision by-law and building by-law are in force. There is, therefore, an existing framework of land-use planning to which replotting can be oriented, and the staff skills needed to implement replotting are available, particularly in the person of Mr. O'Brien, the Deputy Municipal Planner.

Topography in the District is unusually difficult,

and accentuates the undesirable effects of poor subdivision design. Since the District has a comparatively weak tax base, with an above average proportion of single-family residences, the extent to which the District can undertake capital expenditures is limited. These circumstances have probably made replotting seem particularly attractive to the District as a means of implementing Planning objectives.

The District's use of replotting has generally been confined to areas that were sparsely built up at the time of replotting, and that were originally laid out as single-family residential subdivisions. Evidence from the case study as to the effectiveness of replotting in circumstances other than these is quite limited. It can by hypothesized that where urban development is more advanced and the density of existing structures is higher, higher replotting costs, in terms of compensation, moving of buildings and services, etc., would have to be paid, or replotting solutions of a much less effective nature would have to be accepted.

The District is fortunate in owning a large area of undeveloped lands. These lands give the municipality a considerable amount of leverage in utilizing replotting, for municipal lands often form a major part of replotting districts, and thereby lessen the problem of achieving the

proportion of consent required for a scheme to proceed.

Even when these qualifications are recognized, it seems remarkable that the District of North Vancouver is the only British Columbia municipality tommake extensive use of replotting. There appears to be potential for wider use of the technique.

II. ADVANTAGES OF REPLOTTING

Based on the case study, and subject to limitations set out in a following section of this chapter, replotting offers the following advantages as an implementation technique for raltering existing subdivision patterns:

Environment

fic community planning objectives that may arise out of the process of planning the urban environment, by utilizing replotting. For example, the case study demonstrates that it is possible to acquire rights-of-way for proposed arterial streets; to consolidate large sites for land uses such as schools and parks; and to change an existing subdivision pattern to suit a proposed change in land use, (from single-family residential use to garden apartment use).

2. Replotting is capable of considerably improving the contribution which subdivision design makes totthe safety, convenience and amenity of the physical environment.

Economics

- 3. Replotting can make possible more economic use of land, and can reduce servicing costs, by reducing the length of roads and services required.
- 4. It is likely that by improving the quality of the environment, replotting permanently strengthens property values in replotting areas, and as a corollary, also strengthens the municipal tax baxe.
- 5. The direct costs of replotting appear modest, especially when considered relative to the economic benefits derived by both private owners and the municipality.

Administration

6. Since replotting causes minimum disruption, is basically voluntary, and produces demomstrable economic benefits for both private land owners

and the municipality, it is likely toffind easy acceptance with municipal councils and private owners.

- 7. Replotting is a manageable procedure for dealing with the complex legal relationships that must be dealt with where changes in existing subdivision patterns are proposed.
- 8. Since the replotting legislation allows an element of compulsion to be exercised, it is possible to alter existing subdivision even where land ownership is divided and a minority of owners oppose change.
- 9. Replotting is capable of combination with other aspects of community planning implementation:servicing agreements and rezoning agreements between the municipality and private owners are examples demonstrated in the case study.

III. LIMITATIONS TO THE USE OF REPLOTTING

It can also be concluded from the case study that replotting has a number of limitations:

1. The effectiveness of replotting is closely tied to the degree to which there is effective landuse planning in the community. There must be a clear conception of the future physical framework of the area surrounding a proposed replotting scheme, for example where arterial roads will be needed, if the replotting solution is to produce a maximum positive impact. Replotting is, after all, an implementation technique and presupposes some definition of objectives.

- 2. Replotting legislation is complex, as is the process of replotting. Some streamlining of the legislation and of replotting procedure may be possible; this could well be the subject of further research, but the basic complexity must remain since replotting deals with a complex subject, the law of land ownership.
- 3. A fairly wide variety of skills are required; these skills may not be available in smaller municipal administrations.
- 4. The consent of owners representing seventy per cent of the total assessed value of all the land in the replotting district must be obtained before a scheme can be completed. Replotting solutions can, therefore, normally not be imposed solutions; careful negotiation between

the municipality and private land owners is necessary, and may prove time-consuming.

IV. TOWARD WIDER USE OF REPLOTTING IN BRITISH COLUMBIA

The ultimate purpose of community planning has been defined as improvement of the physical environment of the community as a setting for human activities. The planning process consists of a number of steps, but a critical link in the whole chain is implementation, for even the best of plans can have little impact unless there are means of implementation available.

Replotting is an effective implementation technique for the purpose of altering existing subdivision layouts that are deficient in terms of their contribution to the environment. Problems related to deficiencies in subdivision design in British Columbia are obviously not limited to the District of North Vancouver; since the District is the only British Columbia municipality making extensive use of replotting, some comment is warranted. 1

laccording to Mr. O'Brien, planning departments in several municipalities, including Richmond, B.C., and Surrey, B.C., have recently expressed serious interest in the technique to him. They have not, as yet, embarked on a replotting program. In addition, Mr. O'Brien has acted as a consultant to the Municipality of Smithers, B.C., in the completion of one scheme, and to the Municipality of Houston, B.C., in the preparation of another.

From discussion with community planners in the metropolitan Vancouver area, it is apparent that one reason for reluctance to use replotting even where there is a felt need for altering existing subdivision, is that the replotting legislation and procedures are held to be too complex. Replotting must by its nature be complex. but it may be possible to simplify the legislation somewhat by redrafting. It should also be possible to produce a replotting manual, perhaps using "critical path" analysis, which would be an aid in the use of replotting for municipal staff without previous experience of the technique. Research into these questions would be desirable. The basic complexity of the technique and the variety of skills needed, however, limit the use of replotting in smaller municipalities which have no community planning staff. Such smaller municipalities might retain a consultant planning firm to carry on replotting; there seems to be no inherent reason why replotting could not be carried out by a consultant, but it would be desirable for the same consultant to also be involved in wider land-use planning for the community.

The case study deals with replotting on the "urban fringe", i.e., in areas into which urban development is spreading, but in which urban densities have not yet been

achieved. Although there is no conclusive evidence from the case study, it seems reasonable to assume that replotting would be more difficult in areas where the density of existing structures is higher. Research to test this assumption would help to define more closely than was possible in this study, the parameters within which replotting is more effective than other forms of action. approach might be to design and analyze hypothetical replotting solutions to subdivision problems in a variety of situations, using density of development and types of land uses as variables. Another consideration which such research might include, is the possibility of using replotting where a change in land use is proposed or occurring, and where existing structures will be removed. Where such redevelopment occurs, the original subdivision may not be appropriate for the proposed land use, and the removal of existing structures might provide an opportunity for replotting at little cost. The staging of redevelopment would obviously be critical; the redevelopment of a fairly large area at: one time would obviously provide the best opportunity for replotting.

The suggested research outlined above would help to define the potential for wider use of replotting more precisely. Nevertheless, there is enough evidence from the

case study to support a recommendation that British Columbia municipalities in which the community planning process is established, and which have available the necessary staff skills, should give serious consideration to the use of replotting as part of the planning implementation program in the community.

V. SUMMARY

The evidence of the case study supports the hypothesis that replotting is an effective implementation technique for improving the physical pattern of urban land subdivision as part of the community planning process in British Columbia. This general conclusion is subject to qualifications springing from the use of the case study method.

Replotting has a number of specific advantages as an implementation technique for altering existing subdivision layouts, and also has definite limitations. Further research would help to delimit the precise parameters within which replotting is most effective, and might somewhat simplify the replotting process. The District of North Vancouver is the only British Columbia Municipality using replotting extensively and it is recommended that other municipalities having the required staff skills consider the use of replotting.

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F. OTHER SOURCES

Municipal Files - In addition to the sources listed above, and numerous interviews with members of the District of North Vancouver Planning Department, considerable recourse was had to files on replotting schemes maintained by the District of North Vancouver Planning Department. A set of files is maintained for each scheme, and although the format varies, each set generally covers the following matters:

- 1. Land Registry Office searches of title for all properties in the scheme.
- 2. Correspondence and memoranda related to the scheme.
- 3. Working notes, e.g. property appraisal estimates, cost estimates related to the scheme, design alternatives etc. (These notes vary from scheme to scheme, as to subject matter and degree of documentation.)
- 4. Copies of consent agreements and other legal documents related to the scheme.
- 5. Maps of the previously existing subdivision, "the common mass", and of the replotted subdivision.

APPENDIX

Copies of the following documents used for replotting purposes in the District of North Vancouver are appended:

- 1. A consent form.
- 2. A sample replotting by-law.
- 3. A sample of the statement sent by the municipality to land owners in a replotting district, to give notice of the scheme.

CONSENT Pursuant to Section 829 (c) of the Municipal Act

Replotting Scheme No.

KNOW ALL MEN BY THESE PRESENTS:									
THAT, WHEREAS I, am the holder									
of a registered interest or estate namely a									
registered in the Land Registry Office in the City of Vancouver, Province of									
British Columbia under No in the following lands:									
All in Group 1, New Westminster District (hereinafter called "the said lands").									
AND WHEREAS the Corporation of the District of North Vancouver has prepared a proposed Replotting Scheme as indicated on the plans herewith submitted;									
AND WHEREAS I am an "owner" as defined in the Replotting Sections of the Municipal Act R.S.B.C. 1960 c.255 ss. 823-856.									
AND WHEREAS I am of the opinion that the exchange in respect of the said lands, upon the terms set forth herein, would be beneficial;									
NOW THEREFORE I HEREBY CONSENT:									
(1) To the execution of such a Replotting Scheme affecting the said lands as set forth on the said plans;									
(2) To the exchange of all my right, title and interest in and to the said lands for an equivalent right, title and interest in and to a parcel or parcels of land substantially in the form cutlined in Blue on Map "B" attached hereto and marked thereon.									
I HEREEY FURTHER AGREE to pay to the Corporation of the District of North Vancouver the sum of \$ on or before completion of the said scheme.									
The true market value of the said property is \$ and the amount or proportion thereof which is my interest is \$									
Wherever the singular or masculine is used throughout this instrument, the same shall be construed as meaning the plural or feminine or body corporate or politic where the context or the parties hereto so require.									
IN WITNESS WHEREOF I have hereunto set my hand and seal this day									
of 196									
Signed, sealed and delivered in the presence of: (Seal)									
Witness:									
Address:									
Occupation:)									
The Corporate Seal of: (Seal)									
was hereto affixed in the presence of:)									
and horowo divined in the presence of:									

Municipal Clerk

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER
BYLaw
A By-law to define a part of the municipality as a district for the purpose of replotting and to authorize the preparation of a scheme for the replotting of the district.
WHEREAS pursuant to Section 824 of the Municipal Act, the Council may by by-law define any part of the Municipality as a "district" for the purpose of replotting and may authorize the preparation of a scheme, including incidental preliminary surveys, for the replotting of the district;
AND WHEREAS the Council deem it desirable to undertake the replotting of certain lands in the vicinity of Keith Road East, Indian Reserve Road, Indian Reserve Number Three and Windsor Park Subdivision, New Westminster District;
NOW THEREFORE the Council of The Corporation of the District of North Vancouver enacts the following:
ATTO OF NOTON ANTIONAL DESCRIPTION OF TOTAL STATES.
1. This By-law may be cited for all purposes as "DISTRICT OF NORTH VANCOUVER REPLOTTING SCHEME BY-LAW 39, 1968".
2. That the lands shown outlined in red on Plan "A" attached hereto and forming an integral part of this By-law be defined as a "district" for the purpose of replotting.
3. It shall be lawful for The Corporation of The District of North Vancouver to prepare a scheme, including preliminary surveys, for the replotting of the "district" as shown outlined in red on Plan "A" hereto.
PASSED by an affirmative vote of at least two-thirds of all the members of the Council on the day of , 1968.
RECONSIDERED AND ADOPTED by an affirmative vote of at least two- thirds of all the members of the Council on the day of , 1968.
Reev

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER

1	'n	•

District Municipal Hall,

Date		• •																
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STATEMENT PURSUANT TO SECTION 829 OF THE MUNICIPAL ACT

RE: REPLOTTING SCHEME NO.....

This is to advise that:

- 1) It is proposed that the area outlined in RED on Plan "A" attached hereto be defined by By-law as a "District" for the purposes of replotting in accordance with Section 824 of the Municipal Act; this Plan also shows the property within the "district" as presently subdivided.
- 2) Plan "B" attached hereto shows the "district" as if repletted in accordance with the proposed Scheme.
- 3) The estimated total cost of the scheme is:
- 4) The estimated portion of the cost, to be borne by the Municipality is:
- 5) The estimated total cost of the scheme to be borne by owners other than the Municipality is: \$......
- The estimated portion of the cost to be borne by the above named owner in respect of the new parcel or parcels mentioned below is:
- 7) It is requested that a cheque for the amount shown in (6) above be returned with the completed consent form.
- 8) The amount shown in (6) above may be paid by installments as follows:

First Installment - enclosed with consent form Remaining amount payable upon the First working day of the first month following the completion of the scheme and the First working day of every month thereafter.

Amount of Installment Payment: \$.. With interest payable at 6% p.a. on the unpaid balance Number of Payments:

9) This scheme proposes that the land shown outlined in BLUE and marked
....... on Plan "B" attached hereto, be exchanged for the land
described as Lot
Block
, District Lot
, Group 1, New
Westminster District, Plan No.

NOTE: CERTIFICATE OF TITLE: If the duplicate copy of the title to the above described property is not on file in the Land Registry Office, Court House, Vancouver, we would suggest that it be deposited as soon as possible or forwarded to the undersigned for deposit. The Registrar of Titles will not issue a new certificate for the new parcel of land, to either consenting or non-consenting owners, until the duplicate certificate for the former parcel has been deposited.

CHEQUES: Cheques should be made payable to: The Corporation of the District of North Vancouver.

R.D. O'Brien DEPUTY PLANNER