MUNICIPAL POLICY AND URBAN LANDSCAPE:
A COMPARATIVE ANALYSIS OF RESIDENTIAL SUBDIVISIONS IN MAPLE RIDGE AND LANGLEY, 1955-1974

by

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B. Ed., Simon Fraser University, 1979

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS in the Department of Geography

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Municipal Policy And Urban Landscape: A Comparative Analysis Of

Residential Subdivisions In Maple Ridge And Langley, 1955-1974

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July 28, 1994

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ABSTRACT

As residential subdivision development expanded between 1955 and 1974, the municipal governments of Maple Ridge and Langley saw the need to adopt by-laws to regulate the subdivision of land. Under the provisions of the Municipal Acts of 1948 and 1960, the municipal councils had the power to enact by-laws which would promote the harmonious and economical development of their municipalities.

A comparative approach has been used to assess the nature and extent that municipal residential subdivision by-laws had on developers of residential subdivisions. Three questions were asked of each municipality:

1) Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?
2) What were the residential subdivisions by-laws implemented by the municipal governments which affected the development of residential subdivision in the urban core areas?
3) What developmental cost increases occurred in residential subdivision development as a result of these particular municipal by-laws?

An examination of the municipal cadastral maps, survey plans and the residential subdivision by-laws was used to
test the hypothesis that particular municipal by-laws played an integral part in causing a shift from original, individual owner developing subdivisions, to land companies dominating the process in the urban core areas of Maple Ridge and Langley between 1955 and 1974. After the initial comparison between the municipal by-laws and the developers within each municipality a second comparison was made between the two municipalities.

The conclusions show that the residential subdivision by-laws adopted by the municipalities played a major role in changing the agent who subdivided property. The additional by-laws made the subdivision process far too complicated in relation to the ease with which subdivisions had been developed and far too costly in time for the original, individual property owners. Land companies, with the expertise to interpret and implement the by-laws dominated the subdivision development process, in both municipalities, by the end of the twenty-year study period.
TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Notes</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>7</td>
</tr>
<tr>
<td>Statement of the Research Questions</td>
<td>7</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td>Research Material</td>
<td>13</td>
</tr>
<tr>
<td>Analysis of the Material</td>
<td>14</td>
</tr>
<tr>
<td>Time Period and Location Examined in the Thesis</td>
<td>16</td>
</tr>
<tr>
<td>Development of the Thesis Material</td>
<td>17</td>
</tr>
</tbody>
</table>

CHAPTER TWO: LITERATURE REVIEW AND THE COMPARATIVE APPROACH

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Geography</td>
<td>20</td>
</tr>
<tr>
<td>Urban History</td>
<td>22</td>
</tr>
<tr>
<td>Historical Geography</td>
<td>28</td>
</tr>
<tr>
<td>Combining Urban Geography and Historical Geography</td>
<td>33</td>
</tr>
<tr>
<td>The Comparative Approach</td>
<td>37</td>
</tr>
</tbody>
</table>

CHAPTER THREE: DEVELOPERS OF RESIDENTIAL SUBDIVISIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maple Ridge</td>
<td>40</td>
</tr>
<tr>
<td>Langley</td>
<td>52</td>
</tr>
<tr>
<td>Comparison of Maple Ridge and Langley</td>
<td>62</td>
</tr>
</tbody>
</table>

CHAPTER FOUR: SUBDIVISION BY-LAWS OF MAPLE RIDGE AND LANGLEY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maple Ridge</td>
<td>66</td>
</tr>
<tr>
<td>Langley</td>
<td>80</td>
</tr>
<tr>
<td>Comparison of Maple Ridge and Langley</td>
<td>88</td>
</tr>
</tbody>
</table>

CHAPTER FIVE: DEVELOPMENTAL COST INCREASES

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maple Ridge</td>
<td>91</td>
</tr>
<tr>
<td>Langley</td>
<td>109</td>
</tr>
<tr>
<td>Comparison of Maple Ridge and Langley</td>
<td>120</td>
</tr>
</tbody>
</table>
ILLUSTRATIONS

MAP 1. This map shows the locations of MAPLE RIDGE and LANGLEY in relation to each other within the FRASER VALLEY area of BRITISH COLUMBIA. (Source: Canadian Cartographics Ltd.)

MAP 2. THE URBAN CORE AREA OF THE MUNICIPALITY OF MAPLE RIDGE. (Source: The Municipality of Maple Ridge)

MAP 3. THE URBAN CORE AREAS OF THE TOWNSHIP OF LANGLEY. (Source: The Township of Langley)


MAP 4. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1955 - 1959 (Source: Survey Plans, Date:1994)

MAP 5. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1960 - 1964 (Source: Survey Plans, Date:1994)

MAP 6. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1965 - 1969 (Source: Survey Plans, Date:1994)

MAP 7. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1970 - 1974 (Source: Survey Plans, Date:1994)

MAP 8. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1955 - 1974 (Source: Survey Plans, Date:1994)


MAP 9. SUBDIVISION DEVELOPERS IN LANGLEY 1955 - 1959 (Source: Survey Plans, Date:1994)

MAP 10. SUBDIVISION DEVELOPERS IN LANGLEY 1960 - 1964 (Source: Survey Plans, Date:1994)
MAP 11. SUBDIVISION DEVELOPERS IN LANGLEY 1965 - 1969
(Source: Survey Plans, Date: 1994)

MAP 12. SUBDIVISION DEVELOPERS IN LANGLEY 1970 - 1974
(Source: Survey Plans, Date: 1994)

MAP 13. SUBDIVISION DEVELOPERS IN LANGLEY 1955 - 1974
(Source: Survey Plans, Date: 1994)

(Source: Survey Plans, Date: 1994)

(Source: Survey Plans, Date: 1994)

PHOTOGRAPH 1. 1955 PLAN #15943 ADAIR STREET
(Source: L. Holloway, 1989)

PHOTOGRAPH 2. 1959 PLAN #20395 202 STREET
(Source: L. Holloway, 1989)

PHOTOGRAPH 3. 1960 PLAN #21837 228 STREET
(Source: L. Holloway, 1989)

PHOTOGRAPH 4. 1963 PLAN #25555 FLETCHER STREET
(Source: L. Holloway, 1989)

PHOTOGRAPH 5. 1969 PLAN #35806 PATTERSON AVENUE
(Source: L. Holloway, 1989)

PHOTOGRAPH 6. 1969 PLAN #36099 HOWISON AVENUE
(Source: L. Holloway, 1989)

PHOTOGRAPH 7. 1973 PLAN #45355 GILLEY AVENUE
(Source: L. Holloway, 1989)

PHOTOGRAPH 8. 1974 PLAN #46564 CLIFF PLACE
(Source: L. Holloway, 1989)


PHOTOGRAPH 9. 1958 PLAN #18888 WRIGHT STREET (Source: L. Holloway, 1994)

PHOTOGRAPH 10. 1958 PLAN #19383 MOWAT CRESCENT (Source: L. Holloway, 1994)

PHOTOGRAPH 11. 1962 PLAN #24303 WAGON WHEEL (Source: L. Holloway, 1994)

PHOTOGRAPH 12. 1963 PLAN #25216 KING STREET (Source: L. Holloway, 1994)

PHOTOGRAPH 13. 1966 PLAN #30528 BARTLETT STREET (Source: L. Holloway, 1994)


PHOTOGRAPH 15. 1971 PLAN #39147 HUDSON BAY STREET (Source: L. Holloway, 1994)

PHOTOGRAPH 16. 1972 PLAN #41184 201 STREET (Source: L. Holloway, 1994)
CHAPTER ONE: INTRODUCTION

HISTORICAL NOTES

To put this thesis into an historical perspective a brief discussion of specific events which took place in Maple Ridge and Langley follows.

Both the Municipality of Maple Ridge and the Township of Langley were established along the banks of the Fraser River directly opposite one another, Maple Ridge on the north side, Langley on the south. (Refer to Map.1). The original Fort Langley was built in 1827-28 and a European population has been present in the area ever since. The earliest settlers in the Maple Ridge area were no doubtingly from Fort Langley (Waite 1977). The fine soil conditions, abundant timber, ample water supply and ready access to Fort Langley made the region ideal for homesteading. Samuel Robertson, the first farmer in Maple Ridge, had been a boat builder and carpenter in Fort Langley. He took out the first pre-emption papers for Maple Ridge on February 7, 1858.

In November 1858, at the site of the original Fort Langley, which by then had been renamed Derby, the first subdivided building lots of Langley were placed on the market in Victoria. The first small lot subdivisions to appear on the north side of the Fraser River in Maple Ridge were surveyed at Port Hammond in 1883 and at Port Haney in 1889.
MAP 1. This map shows the locations of MAPLE RIDGE and LANGLEY in relation to each other within the FRASER VALLEY area of BRITISH COLUMBIA. Scale 1:200 000 (Source: Canadian Cartographics Ltd.)
The provincial government passed the Municipalities' Act in 1872 and both Fort Langley and Maple Ridge quickly applied for incorporation. Fort Langley was granted incorporation in 1873 and extended its boundaries to its present day area in 1895. Maple Ridge was incorporated on September 12, 1874.

Prior to 1885 both communities were dependent upon the river for transportation. All supplies had to be shipped in from Victoria or New Westminster and any products for sale were shipped out in the same manner.

In 1885 the Canadian Pacific Railway came through the north side of the Fraser River. The railway certainly had national significance but on a local level the impact was also tremendously important. Waite (1977) indicates that the economy of Langley greatly improved when construction workers came to live in the area once the railway was completed. In Maple Ridge local residents certainly preferred the faster, more convenient service offered by the train and, not long after the first trains rumbled through, most river boats met their demise.

The railway provided the pioneer farmers of Maple Ridge swift and easy access to the markets in New Westminster and Vancouver. The isolation of pioneer life began to break down and further settlement to the Maple Ridge area was encouraged. Workers were needed to maintain the track and
the stations and many of these employees choice to settle in the area.

The appearance of railway stations had a profound affect on the social life of the rural areas. Town centres began to develop as general stores, post offices and community halls were established beside the stations. Trails that led to the railroad station were being favoured over those that led to the river bank and in time these trails became roads.

The coming of the railroad to Maple Ridge also promoted the development of the logging industry. Initially, the forest industry was based on cutting timber to build settlers' homes and clearing land for farming. When the railway came through the Fraser Valley, timber was needed for railroad ties. By the turn of the century, as efficient methods of logging developed, loggers and enterprising entrepreneurs began establishing a forest industry. Due to the availability of timber, the forest industry had a greater influence on the economy of Maple Ridge than it did in Langley. The industry is still present in both municipalities today, however, timber is now brought in from elsewhere in the province.

In its effort to get the logs to lumber and shingle mills on the Fraser River the forest industry developed transportation routes within the Maple Ridge. Skid roads
were built to pull logs by oxen team, steam engine took over for the oxen, then railways were built to haul the logs and finally, in the 1920’s, logging trucks were introduced. To facilitate the use of the logging truck roadways were cut throughout Maple Ridge. Until the end of the 1920’s most roadways, however, were little more than muddy tracks used by horse and buggy.

By the 1930’s the automobile became an increasingly popular means of transportation. This popularity, coupled with the need to create employment, led to the construction of the Lougheed Highway along the north side of the Fraser River. This paved highway, completed in 1931, provided easy access to the Vancouver market and all the varied employment opportunities in between.

By the end of the 1930’s the small farms, which had been established in the Haney and Fort Langley areas, were famous for their berry production, especially strawberries. The Japanese farmers in these areas were noted for producing some of the finest fruit in the Valley and the local industry suffered greatly after their evacuation in 1942. In 1943 most of the Japanese farms were sold. Many of the new farmers were not as diligent at berry farming as the Japanese had been. The vast majority of Japanese did not return at the end of the war.
By the 1950's new methods of berry cultivation were being introduced which stressed cultivating huge, level fields. These types of fields were found on the south side of the Fraser River in central and southern Langley, not in the Haney or Fort Langley areas. Conditions for the small farmer were changing, a trend towards establishing bigger and bigger dairy and fruit farms developed. The small farm was no longer economically viable and the only hope the small owner saw to make a profit from his property was to subdivide into building lots.

Between 1955 and 1974 the population of the Greater Vancouver area nearly doubled. But, the population of Maple Ridge “more” than doubled and the population of Langley “tripled.” This expanding population required not only housing, which the small farm owner was attempting to supply, but educational facilities and social programs. The municipal funds available for planning and residential subdivision improvements were being diverted into establishing these other essential facilities. The municipalities were then faced with the challenge of how to supply the growing residential population with essential subdivision services such as water, sewers, paved roads, and street lighting.
STATEMENT OF THE PROBLEM

How particular municipal residential subdivision by-laws have affected developers of residential subdivisions in the Lower Mainland of British Columbia has not been a subject of any historical geographical study. Municipal by-laws were established to create change in the design of and services to residential subdivisions. Along with the intended changes in subdivision design, it appears that these particular by-laws caused an unintended change in the development process. The introduction of increased specifications for residential subdivision development seems to have also brought about the need for a more highly skilled developer. The original property owner, very likely a farmer, may not have had the skills or confidence to proceed with subdividing his own property. Nor may he have had the time to develop these necessary skills. What were the nature and extent that these municipal residential subdivision by-laws had on developers of residential and The Township of Langley between 1955 and 1974? What changes did the additions of municipal residential subdivision by-laws have on the landscape of these two municipalities?

STATEMENT OF RESEARCH QUESTIONS

It will be argued that the implementation of particular municipal residential subdivision by-laws played an integral
part in causing a shift from original, individual property owners developing residential subdivisions to land development companies dominating the process in both Maple Ridge and Langley between 1955 and 1974. Three basic questions were asked of each municipality:

1) Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?
2) What were the residential subdivision by-laws implemented by the municipal governments which affected the development of residential subdivisions in the urban core areas of each municipality between 1955 and 1974?
3) What "developmental cost increases" occurred in residential subdivision developments due to these particular municipal by-laws being introduced?

The initial comparison, which considers each municipality separately, is between the implementation of municipal residential subdivision by-laws and the shift in developer from original, individual property owner to land development companies. A second comparison will examine the similarities and differences found in the initial comparison between the two municipalities. Specific landscape differences which will be examined include those that are required services for building lots. These include road finishing, electrical wiring, drainage, and street lighting.
DEFINITION OF TERMS

The municipal by-laws examined include only those which pertained specifically to the division of land for residential purposes in both Maple Ridge and Langley between 1955 and 1974.

The residential subdivisions examined were only those within specific urban core areas which are outlined on MAP 2 of Maple Ridge and MAP 3 of Langley. The urban core area of Maple Ridge is bordered by the municipality of Pitt Meadows on the west (200th Street); the Fraser River on the south; a line running roughly between 126th Avenue and 127th Avenue to the north; and to the east extending to 240th Street. This includes District Lots 216, 222, 241, 242, 243, 244, 245, 247, 248, 249, 250, 263, 277, 278, 279, 395, 396, 397, 398, 399, 400, 401, 402, 403 and Sections 16, 17, 20 and 21 of Township 12.

There were three separate urban core areas examined in Langley. One core area is composed of sections 23, 25, and 26 of township 7. This area is bordered by 200th Street on the west and 40th Avenue on the north. To the east, the boundary is 216th Street, a jog along the south boundary at 32nd Avenue, east again at 208th Street and another south boundary at 24th Avenue.

The second core area consists of sections 4, 9, and 10 from township 11. This area is bordered by 232nd Street on
MAP 2. THE URBAN CORE AREA OF THE MUNICIPALITY OF MAPLE RIDGE

The blackened area on this map shows the urban core area of Maple Ridge examined in this study. Scale 1:100 000
(Source: The Municipality of Maple Ridge)
MAP 3. THE URBAN CORE AREAS OF THE TOWNSHIP OF LANGLEY
The three blackened areas on this map show the urban core areas of Langley which were examined in this study. Scale 1:25 000 (Source: The Township of Langley)
the west and 64th Avenue on the north. The east border is 248th Street, jogging along the south at 56th Avenue, east again at 240th Street and a south boundary at 48th Avenue.

The third core area is comprised of sections 32 and 33 of township 11. This area is bordered by Wright Street on the west; the C.N.R. Right-of-way and Bedford Channel to the north; Hudson Bay Street to the east; and 88th Avenue to the south.

The properties within the urban core areas which were subdivided into residential lots were developed by either the original, individual owner, by a land development company or by the two working together. The word “who” used in question one refers to either an individual owner or a land company. An original, individual owner refers to a private property owner who signed the official survey plan which was registered with the municipality at the time the property was subdivided. A land development company refers to a registered company which appears on the survey plan as the owner of the property being subdivided. All survey plans registered with the municipalities were completed and sworn to by a licensed surveyor.

The term developmental cost increases refers not to the increase in the dollar cost of developing a subdivision but instead to the increased time and expertise required to fully understand and implement the municipality's additional
residential subdivision by-laws. Changes in the dollar costs of development certainly did increase over this twenty-year period but these increases could be recouped by simply raising the selling price of the building lots. The costs of the increase in time and expertise required to understand the by-laws could not be recouped with money, instead the entire process of development had to change.

RESEARCH MATERIAL

Most of the materials relevant to this thesis were found in the municipal halls of Maple Ridge and Langley. The relevant materials examined included cadastral maps, survey plans and copies of the residential subdivision by-laws.

The copies of eight cadastral maps of the urban core area of Maple Ridge were obtained from the Engineering Department. The select survey plans available for public examination are filed on microfiche and stored in three and one half drawers of a twenty centimeter by thirty centimeters by forty centimeter cabinet which is kept in the Planning Department. The original residential subdivision by-laws are kept in file folders in the Administration Department and are only available upon request.

From Langley, eight cadastral maps covering four different urban core areas were examined. The original survey plans of Langley are kept in file folders in two
filing cabinets which take up a total wall space of one hundred eighty-four centimeters by two hundred centimeters in the Planning Department. The original copies of the residential subdivision by-laws are also kept in file folders in the Administration Department.

ANALYSIS OF THE MATERIAL

From careful examination of the cadastral maps, it was possible to identify which lots were referred to by which survey "Plan" numbers. The maps used were current as no original cadastral maps are maintained by the municipalities. By initially referring to the maps of the urban core areas being studied, it was possible to record just the "Plan" number of the subdivisions which consisted of three or more lots. Although it was necessary for an applicant to follow the same procedure to subdivide off one or two lots as three or more lots, the author decided that a truer sense of "subdivision development" would emerge if only plan numbers containing three or more lots were used. As well, subdivisions of three or more lots were more inclined to be for residential purposes where often a subdivision of one or two lots was for commercial purposes.

After extracting the "Plan" number from the map it was possible to then find the original survey plan in order to confirm the number of lots actually subdivided at that time.
Since the time period being examined, 1955 to 1974, there has been continuous ongoing subdivision of land and what appeared on some of the current maps was not, in fact, what was originally subdivided. In order for the maps included in this thesis to be accurate, it was necessary to compare the current maps with the original survey plans. Both the maps and the survey plans contained the dimensions of the lots which were subdivided.

As well, to ensure that the subdivisions chosen to be studied were in fact used for residential purposes, it was necessary to take a visual survey of the urban core areas.

The original survey plans also contain the name or names of the original individual owner or the land development company who signed the survey as the legally registered owner of the property that had been surveyed for subdivision. This information was used to divide the subdivisions by developer to show the change over the twenty-year period being studied.

The date extracted from the survey plans used in this study was the date that the survey was actually completed; that is, the date that the surveyor signed the survey plan as the completion date of that particular survey.

Ten maps have been included, five of the urban core area examined in the Maple Ridge and five of the areas examined in Langley. The scale of these maps is one to
twelve thousand five hundred in Maple Ridge and one to five thousand in Langley. The first four maps of each municipality illustrate the developer of the subdivisions in five-year intervals: 1955 to 1959; 1960 to 1964; 1965 to 1969; 1970 to 1974. The fifth map for each municipality is an accumulation of the entire twenty-year time period.

TIME PERIOD AND LOCATION EXAMINED IN THE THESIS

The twenty-year period, 1955 to 1974, examined in this thesis was chosen for a number of reasons. There was a substantial population increase in both Maple Ridge and Langley during this twenty-year period which resulted in the need for additional housing. Maple Ridge experienced a marked increase during the late 1950s and again during the late 1960s. Langley experienced its increase during the late 1960s and the mid 1970s.

The introduction of municipal by-laws for residential subdivision development was not a major concern of either Maple Ridge or Langley prior to 1955. Although Maple Ridge did have a one page by-law dealing with land subdivision in 1945, it was not amended for ten years. However, during the ten years following the 1955 by-laws, three amendments were made. Then, during the next ten-year period, seven additional changes were made. Langley also had a one page by-law concerning the division of land in 1946 and no
amendments were made to that until 1957. Between 1957 and 1973 seven additional changes were then made.

DEVELOPMENT OF THE THESIS MATERIAL

The second chapter contains a literature review of Urban Geography, Urban History and Historical Geography pertinent to a geographical study of the subdivision process. A discussion of combining Urban and Historical Geography is included along with a discussion of the comparative approach.

Chapter three will examine the question, "Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?" The boundaries of the urban core areas being examined will be defined with the assistance of ten maps. These maps will also be imprinted with information about who the registered owner of the land was at the time the subdivision took place. Two graphs will illustrate the number of subdivisions and the number of lots created by individual owners, land companies and both working together during each of the five-year time periods for both municipalities. There will also be a discussion comparing the differences and similarities of the developers involved in Maple Ridge and Langley.

Chapter four will examine the question, "What were the residential subdivision by-laws implemented by the municipal
governments which affected the development of residential subdivisions in the urban core areas of each municipality between 1955 and 1974?" Included is a description of the residential subdivision by-laws introduced by each municipality. Again, there is a comparison between the municipalities in terms of what by-laws were introduced and at what time the by-laws were introduced.

Chapter five will examine the question, "What 'developmental cost increases' occurred in residential subdivision development due to particular municipal by-laws being introduced in both municipalities between 1955 and 1974?" The discussion will centre on how the by-laws, discussed in chapter four, resulted in individual property owners having to seek more and more professional assistance in order to proceed with development. Included is discussion of the number of subdivisions and building lots created between the introduction of each of the by-laws within each of the municipalities. This information will also be illustrated on four graphs. Sixteen photographs, eight of each municipality, will supply a visual dimension to the change in development caused by the by-laws. As well, a comparison will be made between the two municipalities.

The final chapter will include a summery of the study and an evaluation of the research problem. The conclusions show that the introduction of municipal residential
subdivision by-laws did cause a change in the development process, as more complicated by-laws were adopted and companies became more involved in subdivision development. The introduction of municipal residential subdivision by-laws also resulted in a visible change to the landscape as building lots were supplied with the additional services.
CHAPTER TWO

LITERATURE REVIEW AND THE COMPARATIVE APPROACH

The study of the subdivision of land for residential purposes and how this process was affected by municipal subdivision by-laws has not been a popular research topic in Canada. It appears from a review of the literature that aspects of urban geography, urban history and historical geography all offer relevant studies to draw from for the examination of this particular study.

URBAN GEOGRAPHY

The urban fringe is one of the many topics examined by urban geographers. The urban fringe is generally considered the area at the edge of the city into which that town or city is extending. It is a region of mixed land-use where the rural way of life is being replaced by the urban way of life. The residents may live in the "country" but they are socially and economically dependent upon the city.

It was not until the early 1940's that this urban sub-region was considered distinct within itself, experiencing its own particular characteristics and problems and thus the need for its own independent study. The majority of studies written between 1940 and the early 1960's concentrated on the physical delimitation and defining features of the urban fringe. By the mid 1960's researchers began concerning themselves with the social issues created by and within the
urban fringe. In 1967, Harold Mayer identified problems associated with the competitions for land and the preservation of open space as areas greatly in need of research.

By the mid 1970's areas of research began to include such topics as the change in recreational demands within the urban fringe, land use conflicts and policy processes. Such studies as R.W. Archer's (1973) "Land Speculation and Scattered Development, Failure in the Urban Fringe Land Market" and A.J. Stachan's (1972) "The Social and Economic Interactions of Urban and Rural Land-uses on the Western Periphery of Edinburgh" appeared.

Edward M. Gibson (1976) in his study The Urbanization of the Strait of Georgia Region discusses the urban-fringe problem in the Fraser Valley, of which Maple Ridge and Langley were a part. He discussed and mapped in great detail land conversion in the urban-fringe areas of Surrey and Nanaimo to 1975. Many of the factors which affected the urbanization process in these two municipalities were equally present in Maple Ridge and Langley.

L.J. Evenden's (1978) article "Shaping The Vancouver Suburbs", in Vancouver Western Metropolis, compares Richmond, Delta and Surrey as growing suburbs of Vancouver. He discussed the suburban development and the resulting
urban-rural conflict which existed within each of these areas as road access to these regions expanded.

As the Greater Vancouver area experienced increased land prices due to an increasing lack of space, families began to locate their homes in the fringe areas. Between 1955 and 1974, municipalities such as Maple Ridge and Langley were a part of that urban fringe. The intent of the families who moved was simply to avoid the high land costs and high taxes of the city. Little, if any, thought was given to the long-term costs of the unorganized manner in which residential development took place within the fringe areas.

As urban dwellers began to move into the fringe areas they brought with them the necessity and the desire to acquire some of the amenities they had become accustomed to in the city. At the same time, government and civic organizations recognized the dire need for appropriate policies to control this growth and supply these amenities.

URBAN HISTORY

The systematic study of city history in North America can trace its roots back to the 1870's when it became fashionable for amateur historians to write the history of particular cities in respect to the achievements of the upper classes. These Americans wrote in the narrative
tradition with an idealist and romantic style. When it was realized that the process of urbanization involved more than just the achievements of the upper classes, a new wave of urban studies emerged. These "new" studies of "the contrast between rich and poor" serve as the central theme of the "classics" of urban literature which include works by Adna F. Weber (1899), Arthur M. Schlesinger, Sr. (1933) and Lewis Mumford (1938) (Sharpless and Warner 1977). These authors each convey the idea that one must understand the process of urbanization in order to understand urbanization.

From the turn of the century until after World War II, few of the urban studies conducted went beyond the bounds of the already established contemporary historiography. After World War II, historians themselves began to realize that the American urban experience had been a neglected subject and called for research in the area. The initial rush of young scholars resulted in the post war period being one of the most creative in American historiography. Although historians of the 1940's and 1950's focused greater attention on urban history, their methodology differed little from the previous studies.

It was not until the late 1950's that historians began to develop a scientific methodology for the study of urban history. And, it was the 1960's which saw the most dramatic change. American society was in an upheaval. Civil rights
and social change were in the forefront, universities were being used as institutions to promote change and students were pushing for these changes. Historical inquiry was becoming more and more focused on the history of America's ordinary people and their everyday lives.

It is felt by some historians (Frisch 1979 and Ebner 1981) that Stephan Thernstrom's Poverty and Progress (1964) was a turning point in the study of urban history. According to Frisch (1979), it "was the historical study to be based on hard data and quantification." Thernstrom was able to bring "together a number of diverse concerns central to the historiographical movement, and seemed able to address them all simultaneously and effectively" (Frisch 1979). Although Thernstrom's work dealt with a very specific focus and was primitive in methodology, it prompted a number of scholars to undertake similar research projects.

A geographical approach to urban studies actually preceded the historical approach and concepts from the geographic discipline were incorporated into historical studies. Specifically, geography contributed "the concepts of spatial hierarchies of social and economic function." The 1960's saw geography convert much of its research methods to formal model building, hypotheses testing and data collection. This "new" quantitative methodology caught the
attention of the young historians who sought to incorporate this methodology into urban studies.

Geographers have continued to play a role in the development of urban historical studies. In fact three geographers, Martyn J. Bowden, Peter G. Goheen and Allan R. Pred, contributed to "The New Urban History" conference held in 1970. The papers presented by Pred and Bowden were subsequently published by Leo Schnore, in the text The New Urban History, Quantitative Explorations by American Historians (Schnore 1975). Bowden's was a comparative study of trading systems during the sixteenth and seventeenth centuries between London and the eastern seaboard of North America. Pred's article dealt with how pre-electronic urban centers developed and served the larger social systems.

The most popular research themes employed by urban historians in the 1970's can be described in three hypotheses: hypotheses of free-market competition, hypotheses of settlement patterns and hypotheses of hierarchically arranged communication and activity patterns (Sharpless and Warner 1977).

The hypotheses of free-market competition examined people, activities and institutions shifting their places in response to the pricing of land, labour and capital. These served as useful factors for examining or explaining the changing patterns of urban settlement.
The general hypotheses of settlement patterns included the examination of three specific hypotheses. First, a personal income and land value hypotheses stated that an urban population will distribute itself according to an individual's personal income. Second, congregating-segregation hypotheses stated that an urban population will distribute itself according to its own culture desire of antipathy among the city's social groups. The third stated that people settle according to their position in the human life cycle.

The hierarchical hypotheses focused on human communication and activity patterns. This hypothesis prepossesses that, because of the economic advantage of centrality, the location of jobs and homes within an urban settlement will be arranged in a hierarchical fashion. As well, relations between urban settlements will fall into the same ordering. Within any given settlement, a single centre or cluster of centres will concentrate the largest number and variety of messages and activities. This centre will in turn reach out to dominate the subcentres; the subcentre will in turn reach out to dominate the lesser subcentres and so on until every gathering place in a city is nested into a single hierarchy graded according to the number and variety of its messages and activities. The same logic was assumed
to apply to the relationship among all human settlements in a region or nation.

Such an orderly fashion of activities and communication patterns has never existed within a city or between any cities. However, research in the area has proven profitable because it goes to the very heart of urban life, communication.

An additional advantage to this sort of research may be the possible links to an understanding of the power relationship in society. The actors in communications history are often part of an institution --- businesses, unions, cultural or charitable institutions, political parties, and governments. Powerful individuals might also play a part. Their ordering of space does not explain all of their behavior, rather it is an indication of their presence. Concepts that hypothesize orderly spatial-communication patterns for institutions and human activities would continue to prove rewarding ways to link urban history with more general concern of economic, social, cultural and political change. The following study examines how the policies of local governments' caused change in the subdivision of land in the urban fringe.

Interest into the study of Canadian urban history intensified in the early 1970's and then, in 1977, the first national conference of Canadian urban history was held.
Canadian scholars wanted to break from the dominant concepts and methodologies of the Americans and concentrate on the Canadian experience. By 1981, the bibliography, Canada's Urban Past, with over 7,000 entries, was published (Stelter and Artibise 1984).

The urban history of the 1980's dealt with, among other topics, "how the power structure of society is related to the formation of cities and how it affects the nature of urban society" (Stelter and Artibise 1984). The 1980's also saw the increased use of the comparative approach in urban history.

HISTORICAL GEOGRAPHY

Historical geography is recognized as a distinctive and substantial component of geography. Although there have been many attempts to specifically define historical geography, the field is far too diverse to limit by a simple definition. Most of its practitioners are independent-minded individuals whose interests and outlooks vary widely; in fact, so widely that no statement can adequately summarize the views of all of even a majority.

Instead of attempting a specific definition scholars in the late 1960's and the early 1970's (Newcomb 1969, Prince 1971) developed classifications to the approaches of historical geography in order to encompass all the varying
methods being employed. Within the classification developed by Prince (1971) were three basic categories: the real world, the perceived world and the abstract world. Although significant growth has occurred in the latter two categories, it has been the category of the real world which continues to dominate research.

The two major approaches within this category of the real world are studies of the past and of change through time. They are relatively easy to distinguish, at least in terms of major emphasis (Johnston 1983). However, Mitchell, as early as 1954, referred to "a new line of approach" which embraced both studies of the past and studies of change:

The great themes of historic geographer concern then the long lasting, stable elements of the geographical scene... The great themes are also those rapid changes in a region that man's increasing ability to adapt himself to his environment and to modify bring about....(p. 14-15).

The initial and, as Smith (1965) says, the "most orthodox approach of historical geography is the study of the past." From approximately 1920 to 1950, this approach was the most widely accepted because it fit well with the prevailing methodological approach to the geography of the time. The study of the past has often been considered the British approach because of the work of H.C. Darby. However, Brown (1943) also used this approach to describe the geography of the eastern seaboard of the United States for
the year 1810 as it might have been written by a geographer of that time using only pre-1810 material. Darby's (1962) particular study consisted of regional historical geographies aimed at reconstructing eleventh-century England based on one data source, the Domesday Book. Both of these studies utilized the technique of the cross-section, a description and analysis of a past landscape at a particular time without substantive reference to the periods preceding or succeeding that of the immediate interest.

Although this approach has been criticized for being too static, it has emerged and developed as one standard practice for historical geographers to employ, especially where the research problem or data required its use.

A second popular approach to the study of historical geography is the study of change through time which has been considered to be more of an American approach and has centered on the works of C.O. Sauer and his associates. The focus of this approach is on the ongoing processes leading to landscape change up to and including the present and beginning at the prehuman stages of occupancy (Mikesell 1969).

Sauer's (1925) initial philosophy limited geographical inquiry to the study of landscapes, emphasizing their cultural features. In later years Sauer (1941 and 1956) encouraged researchers to examine a much broader field but
to still emphasize the study of culture landscapes and the benefits of anthropology.

The most forceful statement advocating this approach was provided by Clark (1954), a student of Sauer's, with historical geography being defined as "the study of the past circumstances of, or of changes in, phenomena of concern to geography." The emphases of this view were clearly on geographical change, time and processes. Thus, this approach proved to be the dominant view of historical geography for two reasons. First, as an approach, a means of analysis, it proved much less restrictive than the somewhat contrived past geography. Second, it is directly concerned with causes of processes, and is, therefore, more oriented towards explanation. Clark (1954), furthered the rationale of this approach by stating that:

through its study we may be able to find more complete and better answers to the problem of interpretation of the world both as it is now and as it has been at different times in the past (p. 95).

This second, and generally preferred approach, is most widely used by historical geographers because of the great variety of methods and techniques it offers.

The past in the present approach can be distinguished from the other two approaches noted above by its view that many insights into the character of past landscapes are offered by the present landscape. One is able to examine or
utilize the present landscape as a means of understanding the past. The retrogressive method permits the reconstruction of the past from the present by means of proceeding from the relatively well-known present to the less well-known past. Baker's (1966) study of field systems of Holmsdale uses this retrogressive method. Jager (1972) states that, in Germany, historical geography used a predominantly retrogressive approach.

The retrospective approach focuses attention on the present landscape but uses the past to understand this present landscape; it "embodies the study of early or past conditions for the light which they throw upon later or present conditions." An advocate of this approach, Roger Dion, emphasizes the viewpoint "that a consideration of the present landscape poses problems of explanation which can only be solved by a retrospective search for their origins" (Baker 1968). H.C. Prince, in his article, "The Origin of Pits ad Depressions in Norfork", (Prince 1964) uses the retrospective approach to explain marl pits in Norfork as landscape phenomena.

The impact of spatial analytic development upon the work of the historical geographer has not been especially evident although it was anticipated by several writers. Smith (1965) expected an increase in the use of statistics and theory, especially in historical urban studies; a
tendency for new trends to transgress the boundaries of the many views of historical geography; and an explicit attempt to focus on process as a means of understanding geographical change through time.

Much of historical geography has been focused upon landscapes transformed by man rather than upon man as an agent of landscape change, upon artifacts rather than upon ideas, upon actions rather than upon attitudes, upon external forms rather than internal processes. In short, much historical geography is open to many of the criticisms which have become leveled against the geographical fraternity of spatial analysis. Consideration of man as a passive object rather than an active subject is, the most serious criticism which might be made of much work both in traditional geography and in modern spatial analysis. (Baker 1979 p.561)

The study which follows views "man", represented by the municipal government, as the "active subject" who caused change in the subdivision of land in the urban fringe.

**COMBINING URBAN GEOGRAPHY AND HISTORICAL GEOGRAPHY**

Urban geographers tend to rely more upon the collection of numerical data while historical geographers, on the other hand, have tended to shy away from quantification. The methodological conviction of the historical geographer results in more holistic studies, ones which include a number of interrelated aspects of the landscape of a particular region. Most urban studies are more thematic in nature. It may also be said that historical geographers are more process oriented and urban geographers are form oriented.
A merger of these two branches of geography has been noted in a number of Canadian studies. This current study also uses the merger of these two branches by blending the data collected from the survey plans and the interpretation of the subdivision by-laws and by examining a specific process from two different municipal urban cores in the urban fringe of Southwestern British Columbia.

An example of one study which combines the methodologies of both urban and historical geography is Isobel Ganton's study (1982) "Land Subdivision in Toronto, 1851-1883."

The data sources Ganton used in her study were the registered survey plans of subdivided properties. She found, as this author did, that "the registered plans, with some omissions, record the names of land owners (or their agents) and surveyors, the dates of survey and registration, and dimensions and orientation of lots, lanes and streets."

Ganton also used, as this author did, the "earliest known date that could be assigned" to the registered plan. She states that, "The aim in every case has been to come as close to the date of the decision to subdivide as possible." As well, she relied on the number of registered survey plans which indicated "number of decisions to subdivide", although this information does not indicate "on the surface" how much land was actually subdivided. This information becomes clear
when the plans for each subdivision are mapped and there is a visual correspondence between the plans and the amount of land involved. These maps are also "reinforced by the tabulation of the number of urban lots created each year."

Another example of a study which combined the methodologies of urban and historical geography is Richard Taylor’s 1979 report for the Dewdney-Alouette Regional District Planning Department entitled, An Urban Subdivision History of the Dewdney-Alouette Regional District. This report consisted of a general discussion of "the trends and geographical distribution of urban subdivision activities" which occurred between 1880 and 1979, in the entire Dewdney-Alouette Regional District, of which Maple Ridge is a part. Mr. Taylor included in his report an outline of the methodology that he used to analyze the data he collected. The data he collected was, as well, from cadastral maps and survey plans.

Mr. Taylor explains that he experienced limitations in the approach he choose which included the reliance on plan numbers as shown on the composite cadastral maps, the application of estimation and judgment in determining parcel sizes in certain instances and the assignment of Explanatory, Reference and Sketch Plans to an "undetermined" category since the number of these plans did not conform to the subdivision plan numbering system prior to about 1960.
As this study includes only subdivisions in which the required information was accessible and reliable, the problems Mr. Taylor encountered were not experienced by this author.

As well, in Mr. Taylor's report "the number of lots attributed to each period is not an estimate of the total number subdivided in that period, but is an estimate of the number of lots which remain at present which can be attributed to subdivisions occurring within the specified period." The following study, along with the maps, represents the landscape as it appeared at the time the subdivisions were created. There may have been additional subdivision of property since that time.

A masters thesis entitled *Changing Patterns of Residential Land Use In The Municipality of Maple Ridge, 1930 - 1960* was written by Henrey I. Ivanisko, in 1964. This thesis only went so far as to discuss the general trend of residential land use spreading outward from the original townsites of Haney and Hammond, within the municipality of Maple Ridge. Many of his insights into what problems the municipality would face after 1960 were altered by the introduction of the subdivision by-laws. The following study will shed some light on exactly how the by-laws contributed to these alterations.
THE COMPARATIVE APPROACH

The comparative approach to geographical study is used extensively in urban geography and, to a lesser degree, in historical geography.

In order to use a comparative approach to examine a problem there must be sufficient properties between the elements being compared to allow for meaningful comparison. These properties may reflect both similarities and differences.

The use of the comparative approach in urban research began its popularity in the late 1960's and, by the early 1970's, a number of comparative studies was being published. This research included comparative studies between developed nations (Bryant and White 1976, Aiken 1976), developing nations (Leeds and Leeds 1976) and specific topics within the urban systems of each (Koehn 1976, Keyfitz 1965).

Significant comparative studies in historical geography include D. W. Meinig's (1962) "A Comparative Historical Geography of the Two Railnets: Columbia Basin and South Australia" and David Ward's (1964) "A Comparative Historical Geography of Streetcar Suburbs in Boston, Massachusetts and Leeds, England: 1850-1920." Donna McCririck and Graeme Wynn's (1990) study "Building "Self-respect and Hopefulness": The Development of Blue-Collar Suburbs in Early Vancouver" involves the comparison of two working-
class suburbs of Vancouver, Hillcrest and Grandview, prior to 1914.

The following study will compare the residential subdivision development process within a single municipality. That is, how the introduction of municipal by-laws effected the ability of individuals to subdivide their property and when land companies began to dominate the process. As well, how this change effected the residential landscape will also be discussed. The study will then compare this process change between the two municipalities of Maple Ridge and Langley.
CHAPTER THREE:
DEVELOPERS OF RESIDENTIAL SUBDIVISIONS

The following chapter will answer the question, "Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?" In order to determine who was responsible for developing the residential subdivisions, it was necessary to examine the survey plans from that period. All survey plans were signed by the owners of the property at the time the land was subdivided.

The twenty-year study period was examined in five-year intervals to facilitate a logical means of comparing the two municipalities and to allow for a systematic means of mapping. Included in the chapter is a comparison between Maple Ridge and Langley of the agents involved in subdivision development. Because the different residential subdivision by-laws appeared at different times in the two municipalities, it was more practical to divide the time period up into five-year intervals in order to map the general change over time than to attempt to use the time periods between by-law introduction. A discussion of development using the intervals between by-law introduction appears in chapter five.
A total of one hundred and thirty-four residential subdivisions, consisting of three lots or more, were examined in the urban core area of Maple Ridge between 1955 and 1974.

Between 1955 and 1959, forty-six residential subdivisions were created, of these almost 90% was developed by individual owners and less than 4% was developed by land companies. The remaining 6.5% was developed by a combination of individual owner and land company. During this five-year period, 34.3% of the total number of subdivisions was developed, the greatest number during this twenty-year period. (Refer to GRAPH. 1).

In 1955, a total of eight subdivisions was developed, six of these by individual owners, one by a land company and one by a combination of individual owner and land company. All ten subdivisions created in 1956 and all four created in 1957 were developed by individual owners. In 1958, ten more were developed by individual owners and one by a combination of individual owner and land company. 1959 was the last year that a large number of developments were produced by individual owners when eleven subdivisions were formed. One more subdivision was created by a land company and one more, a joint effort. The largest number of separate subdivisions developed during a single year, within the twenty-year
period being examined, was in 1959 when thirteen subdivisions were created. (Refer to MAP. 4).

Between 1960 and 1964, a total of twenty three subdivisions was developed, the smallest number of developments in the four five-year periods examined. Of the twenty-three subdivisions, 69.6% was developed by individual owners, 13% by land companies and 17.4% by individual owners and land companies working together. Only 17.2% of the total number of subdivisions developed was formed during this five-year period, the smallest percentage of the four five-year periods being studied.

In 1960, only six subdivisions were developed by individual owners. That was almost half the number of the previous year. Two more subdivisions were the work of land companies and another one by a combination, bringing the total for 1960 to nine. In 1961, only two subdivisions were developed, one by an individual owner and one a combination of individual owner and land company. In 1962, five subdivisions were developed by individual owners. Those were the only subdivisions created. In 1963, three subdivisions were developed by individual owners, another subdivision was created by a land company and another by an individual owner and land company together. Development fell again in 1964 to one subdivision by an individual owner and one by a land company. (Refer to MAP. 5).
THE MUNICIPALITY OF MAPLE RIDGE

1960 - 1964

MAP 5. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1960 - 1964
(Source: Survey Plans, Date: 1994)

Scale: 1:12,500
The five-year period, 1965 to 1969, was significant as the turning point for involvement by land development companies. There was an equal number of subdivisions created by both individual owners and land companies. During this time period, twenty-nine subdivisions were created; individual owners and land companies each created 37.9% and the remaining 24.1% was created by the two working together. During this period, 21.6% of the total number of subdivisions developed was created.

In 1965, of the five subdivision developments, two were by individual owners, two were by land development companies and one by a combination. This changed in 1966 to one by an individual owner and one by a combination. In 1967, not one subdivision was developed by an individual owner but three were by land development companies and two were by a combination of land company and individual owner. Activity picked up in 1968, with two subdivisions being developed by individual owners, three by land companies and one by a combination. There was a great increase of development in 1969, with a total of eleven subdivisions, six by individual owners, three by land companies and two by a combination. (Refer to MAP. 6).

Between 1970 and 1974, the second largest number of subdivisions was created, thirty-six, and the number developed by land companies more than tripled those
developed by individual owners. Nineteen point four percent of the thirty-six was developed by individual owners, 52.8% by land companies and another 27.8% by the two groups working together. During this five-year period 26.9% of the total number of subdivisions were created.

In 1970, not a single subdivision was created. In 1971 there were ten created, five by individual owners and five by land companies. Over the next three years, 1972, '73, and '74, only two subdivisions were developed by individual owners, one in 1973 and one in 1974. Land companies developed five in each of '72 and '73, and four in '74. Land companies and individual owners together created three subdivisions in 1972, five in 1973 and two more in 1974. (Refer to MAP. 7).

From a more general point of view, of the one hundred thirty-four subdivisions developed over the twenty-year period, 1955 to 1974, individual owners contributed to the creation of seventy-five, or 55.9% of these. Land development companies created less that half that number, thirty-six or 26.9%. A combination of individual owner and land company made up the remaining twenty-three, or 17.2%. (Refer to MAP. 8).

Examining the same subdivisions during the same time period, from the point of view of the number of lots within each subdivision, a slightly different picture emerges. A
MAP 8. SUBDIVISION DEVELOPERS IN MAPLE RIDGE 1955 - 1974
(Source: Survey Plans, Date: 1994)

THE MUNICIPALITY OF MAPLE RIDGE
1955 - 1974

- Individual Owner
- Individual Owner and Land Development Company
- Land Development Company

Scale 1:12,500
total of two thousand three hundred fifty-six lots was created between 1955 and 1974, eight hundred fifty-two, or 36.2%, by individual owners, one thousand fifty-seven, or 44.8%, by land companies and four hundred forty-seven, or 19%, by the two together. (Refer to GRAPH. 2). Comparing the number of lots actually created by both individual owners and land companies, within each of the five-year time periods, shows the actual amount of property each developed. This comparison illustrates the extent of influence each group had on changing the landscape from rural to urban use.

From 1955 to 1959, a total of six hundred fifty-seven lots, 27.9% of the total number, was created within the forty-six subdivisions developed. Of these, five hundred fifty-four, or 84.3%, were created by individual owners, only fifty-six, or 8.5%, were created by land companies and a further forty-seven, or 7.2%, were created by individual owners and land companies working together. From the point of view of lot development, it is important to note that the individual owner had the greatest influence on landscape change during this time period, ten times that of land companies and three times greater than any other period.

Between 1960 and 1964, two hundred thirty-five lots, only 10% of the total, were created. Individual owners created, one hundred one or 43%, of these, land companies' eighty-five, or 36.2%, and both together an additional

(Source: Survey Plans, Date: 1994)
forty-nine, or 20.8%. During the period 1965 to 1969, a total of four hundred fifty-four lots, 19.3%, was created, ninety-four, or 20.7%, by individual owners, two hundred fifty, or 55.1%, by land companies and one hundred ten, or 24.2%, by the two working together.

The next large disparity in the number of lots developed by each group came in the 1970 to 1974 period when the number of lots developed by land companies outnumbered those developed by individual owners by more than one to six. During this time period, one thousand ten lots, 42.8% of the total, were created, one hundred three, or 10.2%, by individual owners, six hundred sixty-six, or 65.9%, by land companies and another two hundred forty-one, or 23.9%, by individual owners and land companies together.

An examination of Langley, using the same procedure as that used to examine Maple Ridge, will follow.

**LANGLEY**

A total of seventy-seven residential subdivisions consisting of three lots or more were examined in four different urban core areas in Langley between 1955 and 1974.

Between 1955 and 1959, 100% of the subdivision development was completed by individual owners. (Refer to GRAPH. 1).
In 1955 and 1956, no residential subdivision development was undertaken by either individual owners or land companies. In 1957, one subdivision was developed, in 1958 four and in 1959, again only one. These six subdivisions, representing 7.8% of the total developed over the twenty-year period, were all developed by individual owners. Land development companies were not involved in any of the subdivision developments surveyed during the latter half of the 1950's. (Refer to MAP. 9).

Compared to the previous period, activity actually increased between 1960 and 1964 when seven residential subdivisions appeared. This amounted to 9.1% of the total number of subdivisions created. Individual owners and land companies both created three, or 42.85%, respectively, and the two working together created another one, the remaining 14.3%.

In 1960, one subdivision was developed by an individual owner. The same occurred in 1961, along with one by an individual owner and land company together. Then, in 1962, for the first time, a land development company created one subdivision. In 1963, two more subdivisions were created by land development companies. No subdivisions were created in 1964. (Refer to MAP. 10).

From 1965 to 1969, more than double the number of subdivisions was created as compared to the previous period.
THE TOWNSHIP OF LANGLEY

1955 - 1959

- Individual Owner
- Individual Owner and Land Development Company
- Land Company

Scale 1:5,000

MAP 3. SUBDIVISION DEVELOPERS IN LANGLEY 1955 - 1959
(Source: Survey Plans, Date: 1994)
MAP 10. SUBDIVISION DEVELOPERS IN LANGLEY 1960 - 1964 (Source: Survey Plans, Date: 1994)
These thirteen subdivisions accounted for 16.9% of the total developed during this twenty-year period. Individual owners were once again more prevalent, developing eight, or 61.5%, of the subdivisions. Land companies created four, or 30.8%. The remaining one, or 7.7%, was developed by an individual owner and a land company together.

No subdivisions were created in 1965. In 1966, one subdivision was created by an individual owner; then, once again, not a single subdivision was developed in 1967. Significant change began in 1968 with the development of seven subdivisions, four by individual owners and three by land companies. In 1969, three were created by individual owners, one by a land company and one by a combination of the two. (Refer to MAP. 11).

The period 1970 and 1974 was the most active during this twenty-year period with a total of fifty-one subdivisions developed, 66% of the total. Land companies truly made their presence felt by developing 52.9% of the subdivisions. Individual owners created 33.3% and the two together created the remaining 13.7%.

The subdivision of land slowed in 1970 and only five subdivisions were created, two by individual owners, two by land companies and one by both working together. There was a total of thirteen subdivisions created in 1971; seven of these were developed by land companies. This was the first
THE TOWNSHIP OF LANGLEY

1965 - 1969

- Individual Owner
- Individual Owner and Land Development Company
- Land Development Company

Scale 1:5,000

MAP 11. SUBDIVISION DEVELOPERS IN LANGLEY 1965 - 1969
(Source: Survey Plans, Date: 1994)
year that land companies developed more than individual owners who only created five. One more was created by individual owners and land companies together.

In 1972, a total of twenty subdivisions was developed, fourteen by land companies, four by individual owners and three by a combination of the two.

Compared to 1972, development slowed significantly in 1973 when only ten subdivisions were created, four by individual owners, four by land companies and two more by a combination of the two. In 1974, only two subdivisions were developed and both were done by individual owners. (Refer to MAP. 12).

During this twenty-year period, 1955 to 1974, both individual owners and land companies created thirty-four, or 44.15\%, of the subdivisions. Together, the two groups developed another nine or 11.7\%. (Refer to MAP. 13).

Except for a couple of notable differences, examining the number of lots each group developed will give a similar picture to subdivision development. A total of seven hundred ninety-one-one lots was created during this twenty-year period, two hundred forty-four, or 30.8\%, by individual owners, four hundred thirty-nine, or 55.5\%, by land companies and another one hundred eight, or 13.7\%, by the two groups working together. (Refer to GRAPH. 2).
MAP 12. SUBDIVISION DEVELOPERS IN LANGLEY 1970 - 1974
(Source: Survey Plans, Date: 1984)
MAP 13. SUBDIVISION DEVELOPERS IN LANGLEY 1955 - 1974
(Source: Survey Plans, Date: 1994)
From 1955 to 1959, the six subdivisions developed contained forty-three lots and individual owners created 100% of these lots.

The situation started changing very slowly during the next period, 1960 to 1964, when land development companies first appeared. An equal number of lots was created by both individual owners and land companies. Both developed three subdivisions and both created twenty-four lots, or 45.3% of the total. One additional subdivision consisting of five lots, or 9.4% of the total, was created by both groups working together. The total of fifty-three lots represented 6.7% of the total over the twenty-year period.

Between 1965 and 1969, a total of one hundred thirty lots was created, 16.4% of the total. It was during this time period that the influence of land companies exceeded that of individual owners. Land companies created fifty-five, or 42.3%, of these lots, individual owners created only fifty four, or 41.5%, and the two together created another twenty-one, or 16.2%.

Compared to the previous time periods, lot development boomed between 1970 and 1974. Land companies firmly took over the market, creating almost three times the lots that individual owners did. Seventy-one point four percent of the lots created in Langley between 1955 and 1974 was created during this time period. Of the five hundred sixty-five lots
created, three hundred sixty, or 63.7%, were surveyed by land companies while only one hundred twenty-three, or 21.8%, were surveyed by individual owners. Another eighty-two, or 14.5%, were created by the combined efforts of land companies and individual owners together.

**COMPARISON OF MAPLE RIDGE AND LANGLEY**

An examination of subdivision development between Maple Ridge and Langley shows several marked differences. Although the general trend in both municipalities was an increase in the influence of land development companies and a comparative decrease in the influence of individual owners, the timing and the amount of change in this influence differs between the municipalities.

During the period 1955 to 1959, individual owners dominated subdivision development in both Maple Ridge and Langley. However, for the forty-one subdivisions developed by individual owners in Maple Ridge, only six were developed in Langley. In terms of the number of lots created, the comparison is five hundred fifty-four to forty-three. In Maple Ridge, even though land development companies only surveyed two subdivisions on their own and were involved in three others with individual owners, they were at least present. Of the areas examined in Langley, no land company was present.
Subdivision development activity slowed dramatically in Maple Ridge between 1960 and 1964 but remained consistent in Langley. Individual owners, however, no longer dominated development in Langley. Land companies created an equal number of subdivisions and lots as compared to individual owners. And even though development had slowed down in Maple Ridge, individual owners did develop more than four times as many subdivisions and created three times the number of lots as compared to individual owners in Langley.

Land companies were also far more active in Maple Ridge than Langley at this time. Land companies developed three subdivisions in Langley and four in Maple Ridge but the sizes of the subdivisions in Maple Ridge were substantial larger. There were three and a half times as many lots created by land companies in Maple Ridge as there were in Langley.

With one exception, the number of subdivisions and the number of lots created in both municipalities increased during the period 1965 to 1969. Although individual owners in Maple Ridge created more than double the number of lots from the previous time period, they actually developed two fewer subdivisions. In Maple Ridge, individual owners surveyed almost four times the number of lots than they did in Langley, land companies almost three times as many and the two groups together, more than five times as many.
A noticeable change occurred during the next time period, 1970 to 1974. Although activity was still greater in Maple Ridge, the amount of subdivision and lot development in Langley substantially increased. The number of subdivisions developed by individual owners in Langley was more than double the number developed in Maple Ridge. This difference, however, was not reflected in the number of lots created: there were only twenty additional lots in Langley. Land companies in Langley also developed twenty-seven subdivisions compared to nineteen in Maple Ridge. However, the subdivisions in Maple Ridge were considerably larger than the ones in Langley and resulted in six hundred sixty-six lots in Maple Ridge compared to three hundred sixty in Langley. Land companies and individual owners working together were far more active in Maple Ridge than Langley, developing more subdivisions and an additional one hundred fifty-nine lots.

The number of lots created in Maple Ridge over the twenty-year period was almost three times the number created in Langley, two thousand three hundred fifty-six to seven ninety-one. Individual owners in Maple Ridge created almost three and a half times as many lots, and land companies created more than two times the amount. Individual owners and land companies together created more than four times the number of lots in Maple Ridge as compared to Langley.
The examination of the research material indicates a definite change from individual owners developing residential subdivisions at the beginning of the study period to land companies dominating the process by the end of the study period. Clearly the process of developing subdivisions and building lots in Maple Ridge was taken over by land companies by the middle of the 1970's. In Langley, although individual owners were still very involved in the subdivision of land through to the end of the study period, they tended to develop fewer building lots within these subdivisions than land companies developed. In Langley land companies did develop more subdivisions than the individual owners but the disparity was not as great as it was in Maple Ridge. In both municipalities, land companies tended to develop more building lots within each of their subdivisions. The results being that, by the end of the study period, land companies played a more significant role in the residential subdivision development process than individual owners.
CHAPTER FOUR:

THE SUBDIVISION BY-LAWS OF MAPLE RIDGE AND LANGLEY

The argument of this thesis is that the residential subdivision by-laws became far too complicated for the individual owner to digest and implement. The following chapter answers the question, "What were the residential subdivision by-laws implemented by the municipal governments which affected the development of residential subdivision in the urban core areas of each municipality between 1955 and 1974?" Included in the chapter is a review of the residential subdivision by-laws relevant to this study, as well as a comparison, between Maple Ridge and Langley, of the different times at which the by-laws were adopted.

MAPLE RIDGE

Between 1955 and 1974, the various councils of the municipality of Maple Ridge passed eleven different by-laws regulating the subdivision of lands. Of these, eight are appropriate for this study. These include By-laws No. 393 "A" of 1955, No. 482 of 1958, No. 830 of 1967, No. 1018 of 1971, No. 1088 of 1972, No. 2048 of 1972, No. 2137 of 1974 and No. 2138 of 1974.

By-law No. 393 "A" was adopted by council on the 30th of March, 1955 and repealed By-law, No. 159 "A" from 1945, which had been the first subdivision by-law. The less than
two page By-law No. 393 "A" simply described, in greater detail than No. 159 "A", what was required by the municipality for the construction of roads and lanes when a property was subdivided into smaller lots. This by-law stated that before a subdivision plan could be approved by the municipality's Approving Officer, a plan had to be submitted which included provisions to clear, drain, gravel, provide culverts and contour grade all roads or lanes shown on the plan.

It was required by the municipality that all roads fifty feet wide and over be contour graded a minimum of eighteen feet on both sides of the centre line and all roads under 50 feet be contour graded a minimum of sixteen feet on both sides of the centre line. All lanes were to be cleared and contour graded their full allowance.

Road and land drainage was required and culverts and cement pipes were to be used where feasible. The by-law also specifies that ditches shall be constructed, of sufficient size and depth, on the outer edge of the contour grade.

The by-law specifies that all roads and lanes shall be graveled at the rate of two cubic yards of gravel to each three running feet with racks in the gravel no larger than four inches in diameter.

To ensure that the construction of roads and lanes outlined by this by-law be performed, the Municipal Council
made provisions that they could, by resolution, accept a sufficient cash bond. In lieu of the requirement of this by-law, the developer could deposit with the municipality a cash bond in the amount sufficient to have the work completed themselves.

In August 1958, By-law No. 482 was adopted and called the Maple Ridge Subdivision Plan Approval Amendment By-law. This by-law was written to amend By-law No. 393 "A" only in so far as to add greater detail to what already existed for the requirement of road building and drainage. It consisted of two and a half pages, a page of which made up Schedule "A" Specification for Paved Roads.

Schedule "A", Specification for Paved Roads, outlined the requirements that the municipality expected developers to follow in the "opening, construction and completion of subdivision roads". Paragraphs one through four discuss the requirements of building a road from clearing the land to applying the first five-inch layer of sub-base. A second layer of five-inch sub-base was to be applied "following a winter period of compaction (unless approved mechanical means of compact is used.)"

The subdivision plan could then be registered, without delay, if the spreading of the first lift of sub-base material met the engineer's approval and "a bank certified
cheque is deposited with the Municipality to cover the cost of completing the construction of the road."

Paragraph six goes on to explain that the certified cheque had to be made out in the amount that the Engineer estimated the cost of completing the roads would be according to the requirements outlined in the rest of the paragraph. This road construction program began with the second five-inch layer of sub-base and ended with two inches of asphalt and graded shoulders.

The by-law further defined that drainage ditches dug on the subdivided property shall be connected to an existing ditch of sufficient size to carry the drainage off to the nearest natural water course.

Plans submitted to the municipality prior to the official survey could be drawn to a "convenient scale" and had to clearly define the dimensions of all proposed lots and road allowances. Unless otherwise granted, such a tentative plan was in affect for ninety days. A surveyor's final plan was expected within these ninety days or a new application had to be submitted.

Each application for subdivision was now to be accompanied with a $2.00 fee. It was decided that a "large" subdivision could be completed in sections provided that a master plan for the entire subdivision be submitted. And
lastly, no road was to have a grade exceeding seven "per centum", unless the engineer permitted.

In 1967 the most extensive by-law to regulate the subdivision of lands within the municipality was introduced. By-law No. 830 became the Maple Ridge Subdivision By-law and repealed By-law No.393 "A" and all amendments to that by-law. A total of thirty-two pages made up the new by-law, which was massive compared to the one or two pages of the past subdivision by-laws.

The first section of the by-law consisted of nine pages and was divided into ten "Parts". The second section contained a series of "Schedules". Part one dealt with the scope of the by-law and basically stated that no lands could be subdivided without the approval of the Approving Officer and that the Approving Officer would not give this approval unless all relevant requirements of By-law No. 830 have been met.

Part two contained six paragraphs which dealt with the preliminary application. The municipality now insisted that anyone applying to subdivide his property obtain approval in principle prior to any "alteration to be marked by survey posts on the ground". The applicant had to apply to the Approving Officer for this approval in principle by submitting a sketch plan drawn to a convenient scale but not less than two hundred feet to one inch. This sketch map had
to include the estimated dimensions of the proposed new or altered parcels, the proposed new streets and lanes, the location of all existing buildings, structures, sanitary disposal facilities, watercourses, and steep banks.

Every application still had to be accompanied with a $2.00 processing fee.

Upon receipt of all required information, the Approving Officer was to give the applicant his decision of approval within thirty days. This approval in principle was not valid after three months, unless the applicant applied for and received a written extension from the Approving Officer.

Part three of the by-law outlined in another six paragraphs any "additional information which may be required" by the Approving Officer in order for him to approve a subdivision in principle.

It was required that the applicant produce satisfactory evidence that he was duly authorized by the owner or owners of the land to make an application to subdivided land under this by-law.

If the Approving Officer had reason to anticipate any further re-subdivision of the lands in question, the applicant might also have had to furnish a sketch plan showing the ultimate method of subdivision and showing how the present intermediate step fit into the ultimate subdivision.
The Approving Officer would also require from the applicant profiles of every proposed new street and such topographical details that indicated any engineering problems which could arise. The applicant could be required to supply information pertaining to any unusual soil or drainage conditions.

The Approving Officer could require the applicant to produce a plan or sketch, verified by a B.C. Land Surveyor, showing the proposed new boundary or boundaries in relation to the affected parcels and to any buildings thereon. The same plan or sketch could also be required to show the location of any building, structure, watercourse or high bank situated on adjacent or adjoining properties that might affect the property which was to be subdivided.

The fourth part dealt with the effects of the proposed subdivision on other parties. Now the applicant had to also be concerned with how the proposed subdivision would affect properties adjoining or adjacent to the proposed development. The Approving Officer could require the applicant to give written notice of the proposed subdivision to any owner or other persons whose land or interest in land could be detrimentally affected by it. If there was any objection to the proposed subdivision, the Approving Officer would hear these and refuse to approve the subdivision if, in his opinion, the proposed development would adversely
affect the adjacent properties, or would increase the general cost of public utilities or be otherwise against the public interest and/or welfare.

Part five of By-law No. 830, which was made up of ten paragraphs, brought in the regulation that the applicant must comply with the relevant provision of the Building, Sanitary, Zoning, Community Plan and Building Lien By-laws in the municipality as they may apply to the applicant.

By-law 830 also made reference to the zones that the municipality had been divided into. Within these zones, specific reference was made to the minimum width, depth and area for each lot.

This section went into further detail about lot sizes. The minimum lot size for residential purposes was sixty feet by one hundred feet or seven thousand two hundred square feet. The frontal of a parcel on a street was not to be less than one-tenth of the perimeter. Specifics about how the width of the lots was to be determined in relation to the side boundary lines was included.

When considering any proposed plan for subdivision, the Approving Officer had to determine if the proposed street system would be adequate not only for the anticipated traffic within the new subdivision but also for the street already established. Major streets were to continue through the subdivision without jogs, to a width of no less than 73
sixty feet. Minor streets were not to be of a width less than fifty feet. Details are given for applicants in cases where any jogs, curves or bends are in a street or lane. If the proposed subdivision bordered or contained a controlled access highway, the owner had to refer to the "Controlled Highway Act" to determine if a separate access road was needed to provide access to the lots. The gradient of major streets was not to exceed eight percent and minor streets not more than twelve percent. This information was detailed under Schedule A Specifications For Road Construction And Paving.

It was emphasized that all new roads within the subdivision, including widening of existing roads, cul-de-sacs and lanes, be constructed in accordance with the general requirements of the different zones.

Road requirements were now to include such major improvements as curbs and gutters, storm sewers, sanitary sewers and water mains.

If the property to be subdivided was two thousand feet or more from the established trunk water main, the owner of the property had to install water mains, including trunk water mains, from the established trunk water main to the proposed subdivision. Any trunk water main could not be less than eight inches in diameter and, depending on the size of the subdivision, would have to be as much as twelve inches
in diameter. The water mains within the subdivision could not be less than six inches in diameter. All water mains had to be constructed to meet American Water Works Association standards.

If the proposed subdivision would contain or bordered a natural watercourse, that watercourse was to be shown on the subdivision plan.

Part six was made up of three main paragraphs and dealt with the services that each subdivision required. The majority of this part continues to deal with the construction of streets and lanes and, more specifically, with the drainage of these. The applicant had to prove to the satisfaction of the Municipal Engineer that each lot within the subdivision would be connected to an existing or proposed municipal sanitary sewer system.

It also stated specifically that "All services required herein for a proposed subdivision of lands within the Municipality shall be installed at the sole expense of the owner of such lands and to the satisfaction of the Approving Officer. The applicant shall enter into an agreement in writing with the Municipality, secured by cash or first mortgage for the due installation of such services."

The submission of the final application was discussed in three paragraphs within part seven. Naturally the final subdivision was to conform substantially to the approved
preliminary plan. However, the application for final approval need not necessarily cover the whole project in one application. If the subdivision project was submitted in sections, a separate application could have been made to cover each section. If the application to develop a subdivision was accompanied with a subdivision plan, the applicant had to submit "two blue or white print paper copies" of that plan which would be retained by the Municipality. If a subdivision plan was used in an application and that plan was based on a survey that had been completed more than three month prior to the application, the Approving Officer could require the surveyor to re-inspect the property and certify the re-inspection.

One paragraph in part eight explains that a subdivision could have been registered prior to completion of roads and required services provided that a certified cheque was deposited with the Municipality in the amount to cover the cost of completing these. The amount of the deposit was based on:

- a minimum deposit of $1.75 per lineal foot to complete sub-base groveling requirements
- a minimum deposit of $.80 per lineal foot for 3/4 inch gravel
- a variable but minimum deposit of $1.50 per square yard for asphalt surface
- cost of water to be based on size of pipe and estimate of requirement at time subdivision is developed
- sanitary sewer to be based on estimate of requirement
- storm sewer to be based on estimate of cost for work required
- curbs and gutters to be based on estimated cost of work required

The ninth part of the by-law contains six paragraphs and discusses the Approving Officer's decision. The Approving Officer would furnish his decision to the applicant within thirty days of when the application was submitted or thirty days of all further information, which the Approving Officer requested, being submitted. If an application, which included a plan, was approved, the plan was signed by the Approving Officer. If the application did not include a plan, the Approving Officer would sign and date a certificate. The signed plan or certificate would then be used to register the subdivision at the Land Titles office.

The final part simply states that By-law No.393 "A" - 1955 and amendments thereof are repealed and By-law 830 - 1967, are in effect.
By-law No. 830 also contained twenty-two pages of "Schedules". These consisted of Schedule A Specifications For Road Construction and Paving, Schedule B Requirements for Sanitary Sewer Installation, Schedule C Storm Sewer Specifications and Water Services Requirements.

By-law No. 1018 - 1971, was to amend and form part of subdivision By-law No. 830 - 1967, as of May 25, 1971. Under this one page amendment all newly created lots were to be serviced with underground wiring. The estimated cost of installing the underground wiring was added to the required amount of the certified cheque which was deposited with the municipality in order to have the subdivision plan registered prior to completion.

As well, if no community sanitary sewer was available for the subdivision, even if community water was, the lot size within the subdivision could not be less than one acre.

The next by-law to amend and form part of By-law No. 830 - 1967 was By-law No. 1088 - 1972, which came into effect on May 9, 1972. The municipality deemed it desirable to provide a more sophisticated and efficient system of drainage throughout the undeveloped areas of Maple Ridge. The Council added a subsection stating that if a developer subdivides property on an existing road into lots of a half acre of less in an RS-1 (One Family Urban Residential) Zone, that developer was responsible for all costs involved in
installing, along that existing road, a storm sewer complete with manholes, catch basins and a service connection to each lot.

On August 27, 1974, in another two pages, By-law 2137 - 1974 amended part five, Section 22, subsection (ii) which specifies the road and lane requirements for the different zones within the municipality. The residential zones within the urban core area had to now include boulevard treatment, sidewalks and ornamental lighting in the road requirements. As well, all lanes had to now be of asphalt.

Part eight was deleted in its entirety and substituted with a paragraph which gave the developer the choice of having the subdivision completed in compliance with the by-law before the subdivision plan was approved or the developer had to enter into a written agreement with the Municipality to secure the completion of the subdivision plan approved prior to completion.

The last subdivision by-law passed during the time period being studied that was relevant to the study was No. 2138 - 1974 which amended section eight and increased the application fee to $25.00 for the first lot created in the new subdivision and $10.00 for each additional lot. This was in addition to the $2.00 Plan Approval Fee. This one page amendment came into affect on August 27, 1974.
LANGLEY

During the period 1955 to 1974 the various councils of The Township of Langley brought in eight different by-laws to regulate the subdivision of land. Of these eight, seven are applicable to this study: By-law No. 907 - 1957, No. 977 - 1959, No. 1138 - 1964, No. 1183 - 1966, No. 1364 - 1972, No. 1379 - 1972, and No. 1443 - 1973.

The Langley Sub-Division Control By-Law No. 907 - 1957, was a seven-page, forty-paragraph document which replaced the "Langley Maps and Plans Approval By-Law, 1946" No. 631. The Township of Langley determined that "a by-law to regulate the subdivision of land" was desirable "in order to promote the harmonious and economical development of the municipality." No land within the municipality of Langley could be subdivided without the approval of the Approving Officer. The Approving Officer was not to approve the subdivision of any parcel of land without ensuring that all the relevant requirements of the by-law were observed.

Preliminary approval for the subdivision could be made prior to having the area marked by a land surveyor. The preliminary application had to "be accompanied by a sketch plan drawn to a convenient scale, showing the proposed subdivision with estimated dimensions of the lots, streets and lanes to be created". Each application was to be
accompanied with a $2.00 administration fee plus a minimum $2.00 examination fee.

The Approving Officer would notify the applicant within sixty days as to whether or not the preliminary plan was approved. Preliminary approval did not mean final approval for any project and preliminary approval for a project could be revoked by the Approving Officer at anytime. Unless an extension had been granted, the preliminary approval was valid for a three-month period during which time the applicant was to submit the final plan. If the final plan was not submitted within the three months, the applicant had to start the procedure over from the beginning.

The final subdivision plan had to conform "substantially" to the approved preliminary plan but the application for final approval did not have to cover the whole project in one application. Separate applications could be made covering the different sections at different times as long as the applications were made within the prescribed three-month time period.

Every final application for subdivision approval had to be made in writing and include the subdivision plan or, where a plan was not necessary, a sketch, giving the correct legal description of the parcel to be subdivided.

The by-law specified that if the application for subdivision approval was not being made by the owner of the
property in question, that other person had to produce satisfactory evidence that he was duly authorized by the owner to make such application.

Within sixty days of a final application being made or sixty days after the Approving Officer receives any additionally required information, the application was to be approved or rejected.

The subdivision plan, to be included with the application for subdivision, was to include two blue or white copies. These copies were to be retained by the municipality and only the approved or rejected application was returned.

A final certification of approval was valid for thirty days and had to be registered within that time period or "approval shall be deemed to have been revoked." The applicant could request a further extension of thirty days provided that request did not exceed thirty days.

It was necessary for the applicant of the subdivision to notify all adjoining or neighboring property owners that would be affected by the subdivision proposal. The applicant was to then supply the Approving Officer with sufficient evidence that such notification was given. Sufficient form was considered to be a statement, in writing, to each affected property owner.
Applications which involved establishing boundaries due to existing buildings or where the proposed boundary could not be sufficiently identified during a group inspection by the Approving Officer were required to produce a plan or sketch, verified by a British Columbian Land Surveyor, at the expense of the applicant, prior to approval.

Lots in the proposed residential subdivision were required to be a width of seventy feet and a depth of one hundred twenty feet. Corner lots had to have a frontage of eighty-seven feet and a depth of one hundred seventy feet.

In an area where existing lots did not conform with the allowable minimums or were based in a multiple of sixty-six feet, the Municipal Council could demand a master plan of the area showing the dimensions of all lots, roads and lanes.

Lots were to be subdivided in a uniform manner; thus the applicant was to avoid creating lots which had a frontage on more than one street, triangular or irregular shaped lots, lots less than one hundred twenty feet in depth or with a depth greater than four times the width.

If the Approving Officer anticipated further re-subdivision of the land, the applicant would be required to furnish an sketch plan showing this ultimate future method of subdivision. This plan would have to show how the present intermediate step would fit into the future subdivision.
The submitted subdivision plan would also be examined for the sufficiency and suitability of its proposed street system, not only for the area being subdivided but also in regard to the street system already established in adjoining areas and to the general street pattern of the municipality. The standards expected to be followed by the applicant included:

- Major streets are to be continued, without jogs, at a width appropriate.

Langley Subdivision Control By-law Amendment By-law No. 977 was adopted on August 31, 1959. This six-page amendment by-law resulted in the change of three sections of Schedule No.1 Road Construction.

The amendments consisted of a statement that all provisions of the by-law had to be complied with prior to the Approving Officer giving his approval to any subdivision. A revised section made reference to the new Schedule No.1 stating that the schedule contained the minimum requirements for road construction and could be altered at the discretion of the Superintendent of the Board of Works.

The third section that was amended reinforced the municipality's position that the costs of all work required for the subdivision of any land was to be borne solely by the owner of that land. Approval of a subdivision would not
be given by the Approving Officer unless the work was completed satisfactorily or a written agreement had been entered into between the municipality and the owner allowing for the municipality to carry out, on the owners behalf and at his expense, any and all work necessary to gain approval.

The specifications for road construction were outlined in a far greater detail, over four and a half pages plus a one page diagram. On the first page of general specifications such headings as extent of work, night work, lines and grades, maintenance and repairs, inspections, defects to be made good, bond, road construction, and paving were included.

The extent of work specified that owners were to "furnish all materials and equipment ... and do everything to complete the work in accordance with the specifications." The engineer could require some or all of the work to be carried out at night, all at the owners expense. Again, the owners had to supply, at their expense, all the necessary forms and materials required for setting the lines, levels and grades for road construction. All of which had to be approved by the engineer before any work could commence.

The owner was responsible for the maintenance and repair of all work undertaken for a period of twelve months after completion.
Four inspections were to be made of the road construction. One after excavation of the topsoil just prior to the subbase being laid, again after the eight inches of subbase and four inches of base course were laid. The third inspection came after paving was complete and the road was ready for the substantial completion certificate. The final inspection was to come one year after the third inspection. If, during any of these inspections, any defects, faults or omissions were found, the problem was to be fixed and no further work could be undertaken until the problem was resolved and approved.

Prior to the paving, the applicant was to post a cash bond in the estimated amount of the work. Ten percent was to be retained for one year after the approval of the paving in case the road needed to be brought up to standard.

On October 26, 1964 Amendment By-law No. 1138 brought in the first steps to zoning. A map of the Township of Langley illustrated minimum acreage areas and all subdivision of land had to conform to the map.

The next amendment by-law to be introduced was No. 1183 which was adopted on September 18, 1966. Most of this amendment dealt with changes to the map introduced in amendment by-law No. 1138 which specified minimum lot sizes. It also dealt with road construction requirements adjacent to the proposed subdivision.
Amendment By-law No. 1364, which was adopted on the 27th of March, 1972, made two amendments to By-law No. 907, both concerning fee increases. Each application now had to "be accompanied by a fee equal to $5.00 multiplied by the number of additional lots to be created by the proposed subdivision". In addition to this fee, an inspection fee equal to four "per centum" of the cost of installing all roads, streets, lanes, alleys, right-of-ways, utility lines and all other works required, had to be submitted before subdivision approval would be granted.

The next Subdivision Control By-law Amendment By-law was adopted on July 10, 1972. In By-law 1379 a paragraph was added which allowed the municipality to demand that the applicant acquire sufficient land to support, protect and drain a roadway which, in the opinion of the Approving Officer, had soil and terrain problem and required that extra space.

This amendment also added the demand for two sets of subdivision plans to be prepared by a qualified professional engineer if roads and lanes were to be part of the subdivision. The plan had to show all roads in profile and cross-section. The drainage plans had to show the profile and cross-section of all ditches, as well as the flow of the drainage. The engineer had to guarantee that the drainage
would work in a satisfactory manner and would not cause hardship to adjacent properties.

Also, if requested, the applicant had to supply a plot plan showing spot elevation on a one hundred foot grid over the whole of the property to be subdivided.

The last by-law amendment adopted during the period being studied, No. 1443, was passed in December 3, 1973 and as of that date the developers of all subdivisions, where the lots were to be less than a half an acre, were required to supply paved roads, drainage, water mains, sewers, underground wiring, ornamental lights and sidewalks. However, the municipal council had the authority to require only those services which were considered necessary essentials.

There were significant differences and similarities between the by-laws adopted by the two municipalities. The following discussion will examine these.

COMPARISON OF MAPLE RIDGE AND LANGLEY

Initially, Langley had a far more extensive residential subdivision by-law than Maple Ridge. The by-law was introduced in Langley in 1957 and expanded upon in 1959. It was ten years later, 1967, before Maple Ridge introduced a comprehensive by-law, one which exceeded the regulations in
Langley. Langley introduced major amendments in 1973 and by 1974 the regulations in each municipality were very similar.

From 1955 to 1967 the residential subdivision by-laws of Maple Ridge dealt predominantly with the construction of roads, initially graveled, then paved. In 1958 a preliminary plan was required to be submitted with a $2.00 fee. Although the Langley by-laws of 1957 and 1959 also dealt predominantly with road construction the specifications for their construction were outlined in far greater detail. Preliminary approval was required in 1957 along with a minimum fee of $4.00. In 1957 regulations involving domestic water supply and sanitary sewer systems appeared in the by-law. Developers were also instructed to consult with the Langley zoning by-law and the building by-law.

In 1964 Langley introduced a zoning map, which formed a part of the by-law, that outlined the minimum parcel sizes into which land could be subdivided. Such a map was never used to form part of the Maple Ridge by-law.

In 1967, Maple Ridge introduced a comprehensive by-law to regulate the subdivision of lands. The written requirements of road construction in the Maple Ridge by-law were accompanied by six detailed diagrams. Langley had only one diagram. Reference was now made to the applicant having to consult with the other municipal by-laws relevant to subdivision development. These included the building by-law,
the sanitary by-law, the zoning by-law, the building line by-law, as well as the community plan and the controlled access highway act.

The demand for underground wiring was introduced in Maple Ridge in 1971. It was 1973 before underground wiring became part of the Langley by-law. However, sidewalks and ornamental lighting were a part of Langley's 1973 by-law amendment but were not introduced to Maple Ridge until 1974. As well, Langley introduced a substantial fee increase in 1972 and Maple Ridge did not do this until 1974.

At the beginning of the study period, 1955 to 1974, Langley had a more comprehensive residential subdivision by-law. However, by the end of the study period, it would appear that Maple Ridge had the more detailed and refined by-law.
CHAPTER FIVE:
DEVELOPMENTAL COST INCREASES

The following chapter will examine the "developmental cost increases" which occurred as a result of each new residential subdivision by-law introduced between 1955 and 1974 in both Maple Ridge and Langley. The term "developmental cost increases" does not refer just to the monetary increase of building lot development. There is no doubt that with each additional development requirement the dollar cost of development would increase. These dollar costs, however, were simply passed along from the developer to the purchaser of the lot. It is not the objective of this study to determine if the selling price of residential building lots increased between 1955 and 1974. Lot prices did increase during this period for a number of reasons.

Developmental costs increased as the need for additional time and expertise became essential to understand and implement each new residential subdivision by-law that was introduced. Each new by-law made the subdivision process more complicated and time consuming causing individual owners to shun the idea of subdividing their property.

MAPLE RIDGE

Prior to 1955, subdividing property into residential building lots was a simple procedure. The majority of
properties were small farms. If the owner of one of these small farms decided to subdivide all or part of the farm, the general procedure followed was to inform the municipal council of his decision, hire a licensed surveyor to survey the lots, submit two copies of the survey to the municipal clerk, and, on approval, which was standard, register one copy with the Land Titles office in New Westminster.

In 1955, the "Maple Ridge Subdivision Plans Approval Bylaw", 1945 No. 159"A" was repealed and replaced with By-law No. 393"A", a one page by-law which dealt basically with the construction of roads within the subdivision being planned.

After the introduction of By-law 393"A", the potential property developer would initially discuss his proposals with the municipal council then decide whether he would seek a resolution from the municipal council allowing him to deposit a cash bond with the Municipal Treasurer to cover the costs of road construction or to hire a contractor to construct the roads. It was the applicant's responsibility to ensure that all roads and lanes which appeared on the survey plan were constructed to the minimal standards outlined in the by-law. During this time period it was necessary to install adequate ditching and to lay gravel roads.
Although the subdivision was not to be approved by the Approving Officer for registration at the land titles office unless the owner complied with all the requirements of the by-laws, these requirements could be altered. The developer could request that council passes a resolution to alter the by-law requirements. Development at this time was very much a political decision and alterations could easily be obtained from the council.

Between 1955, the start of the study period, and the next by-law, adopted on August 13, 1958, individual owners developed twenty-nine subdivisions which included four hundred thirty-five building lots. A land company created only one which included a mere thirty-two lots and a land company and individual owner together developed two more with another thirteen lots. (Refer to GRAPH 3 and 4). These figures indicate that during this time period individual owners were very active in real estate development and did not find the by-law to be a deterrent to subdividing their own property.

Photograph 1 is an illustration of property subdivided in 1955. The ditch along side the road is still present, the road edge is graveled and there is overhead wiring. A street light has been added to the power pole.

The 1958 By-law No. 482, was only an amendment to the 1955 by-law. However, significant amendments were introduced
Graph 3. Shows the number of subdivisions developed in the urban core area of Maple Ridge between the introduction of the residential subdivision by-laws, 1955 to 1974.

The Municipality of Maple Ridge

Number of Subdivisions


(Source: Survey Plans, Date: 1994)

(Source: Survey Plans, Date: 1994)
THE MUNICIPALITY OF MAPLE RIDGE

PHOTOGRAPH 1. 1955 - PLAN #15943 ADAIR STREET
BY-LAW 393"A" - DITCH PRESENT, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHT ADDED. (Source: L. Holloway, 1989)

PHOTOGRAPH 2. 1959 - PLAN #20395 202 STREET
BY-LAW 393"A", 482 - DITCH PRESENT, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, NO STREET LIGHT. (Source: L. Holloway, 1989)
which did result in cost increases for a developer. A two-page schedule was included to outline road construction specifications which now required laying asphalt. Developers had to now ensure that drainage was carried to the nearest natural water course. Developers also had to have sufficient funds to supply the municipality with a certified cheque in an amount to cover the cost of final road construction. A pre-approval plan had to be submitted along with a $2.00 application fee.

Photographs 2, 3, and 4 illustrate locations which were subdivided under By-laws No. 393"A" and 482. All three locations have overhead wiring and unfinished road edges. In Photograph 2 the ditch is present and no street light has been added. In both Photographs 3 and 4 a storm sewer system has replaced the original ditches. A street light has since been added at the site of Photograph 3 but not in Photograph 4.

Between the introduction of the 1958 by-law and the adoption of the 1967 by-law on August 8, 1967, there was a total of forty-eight subdivisions developed, which included five hundred forty lots. Individual owners developed two hundred forty of these lots within thirty-one subdivisions, land companies developed one hundred eighty-one lots within ten subdivisions and together they developed another one hundred nineteen lots in seven subdivisions.
PHOTOGRAPH 3. 1960 - PLAN #21837 228 STREET
BY-LAW 393"A", 482 - DITCH FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHT ADDED.(Source:L. Holloway, 1989)

PHOTOGRAPH 4. 1963 - PLAN #25555 FLETCHER STREET
BY-LAW 393"A", 482 - DITCH FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, NO STREET LIGHT.(Source:L. Holloway, 1989)
On August 8, 1967, the municipality of Maple Ridge adopted a highly detailed, thirty-two pages, "By-law to regulate the subdivision of lands". By-law No. 830 completely replaced By-laws 393"A" and 482 and the subdivision process changed dramatically after the adoption of this by-law. Subdivision applicants had to now go through four basic stages prior to acquiring the approval necessary to register the subdivision at the Land Registry Office in New Westminster.

In the first stage, the applicant had to obtain "layout" approval. A draft layout of the proposed subdivision was to be submitted to the planning office so that any potential problems could be assessed. This draft layout was to be drawn to a convenient scale and include the dimensions of all proposed new lots, streets, lanes, and all existing buildings, structures, sanitary disposal facilities, water courses and steep banks. The applicant was also expected to anticipate any future re-subdivision to the property being divided and "furnish a sketch plan showing the ultimate method of subdivision." Even if the applicant had the skills to compile this draft layout on his own, he could still be required to have the layout verified by a licensed B.C. Land Surveyor. As well, the applicant had to become familiar with the Building, Sanitary, Zoning, and Building Line By-Laws, as well as the Community Plan, in
order to determine if any sections of these would be relevant to the residential subdivision being proposed.

The second step at this stage was to hire a surveyor to lay out the subdivision on the ground and to prepare all legal plans that were required under the Land Registry Act.

It was also the applicant's responsibility to investigate and notify the Planning Office of any easements or right-of-ways that may have affected the property to be subdivided or any of the lands surrounding the property to be subdivided. It was now the responsibility of the applicant to give notice in writing to any and all owners or other persons whose land or interest would be detrimentally affected by the proposed new subdivision. The applicant had to write the required number of notices and ensure their delivery or hire someone to do this. The applicant also had to ensure that he was able to address any and all objections to the proposed subdivision. It was to his advantage to be completely aware of how this subdivision would injuriously affect the established amenities on adjoining or adjacent properties or how the subdivision would increase the general costs of public utilities or be injurious to public interest or welfare.

The second stage dwelt on the proposed design of the new subdivision. The applicant was to hire an engineer to compile all the necessary ground profiles and plans of every
proposed new street and lane showing any topographical
details which indicated any engineering problems. Also
required was a detailed report on soil and drainage
conditions. The engineer's report was then submitted to the
Municipal Engineer for approval.

After all engineering designs were approved, the
applicant proceeded to the third stage. The first step here
was to hire a contractor to construct all roads, lanes and
other works according to approved engineer's design. The
applicant was responsible for ensuring that the various
stages of road construction were inspected in accordance
with the schedule outlined in the thirty-two page
subdivision by-law.

The first step in the fourth stage required that the
applicant make all necessary payments against the property
such as property taxes, water rates, and any utility or
works installations done by the Municipality.

After the completion of all the required work as
outlined in the by-law, the Municipal Engineer could give
his approval to the legal plan. This legal plan was then
submitted to the Approving Officer for his signature. Under
section VIII of By-law No. 830, the applicant could also
acquire plan approval prior to the completion of roads and
required services if he provided the municipality with a
certified cheque in the amount to cover the costs of
completion. This amount was determined by the Municipal Engineer.

After the Approving Officer signed the legal plan and returned it to the applicant, the applicant had sixty days in which to register the plan at the Land Registry Office in New Westminster.

Photographs 5 and 6 are of property subdivided in 1969. The additions of storm sewers and road side curbing compared to the first two photographs are obvious. Overhead wiring continued to be the standard and supplying street lights was not yet mandatory, although one is seen in Photograph 6.

Between the adoption of by-law No. 830 until the next amendment in May of 1971, individual owners created only ninety-four building lots within nine subdivisions. This was more than a 60% decrease in development from the period after the introduction of the 1958 by-law and more than a 78% decrease in development from the period after the 1955 by-law.

During this same time period, land companies, however, increased their activity to developing two hundred twelve building lots within eight subdivisions. Although they actually created fewer subdivisions between 1967 and 1971 as compared to 1958 and 1967, they created thirty-one more lots. Although this represented only a 15% increase, if a comparison is made between the 1955 to 1958 and the 1967 to
PHOTOGRAPH 5. 1969 - PLAN #35806 PATTERSON AVENUE

BY-LAW 830 - STORM SEWERS, OVERHEAD WIRING,
CURBED ROAD EDGING, NO STREET LIGHT. (Source: L. Holloway, 1989)

PHOTOGRAPH 6. 1969 - PLAN #36099 HOWISON AVENUE

BY-LAW 830 - STORM SEWER, OVERHEAD WIRING,
CURBED ROAD EDGING, STREET LIGHT ADDED. (Source: L. Holloway, 1989)
1971 time periods, we find an 85% increase in the number of lots created by land companies. We also find more than an 85% increase in the number of subdivisions which were developed.

Individual owners and land companies working together created an additional seventy-four lots in four subdivisions which was approximately 40% fewer lots and fewer subdivisions than had been developed in the previous time period. However, the seventy-four lots represented a 82% increase in lot development over the 1955 to 1958 time period and the number of subdivisions created doubled comparing these same two time periods.

In May 1971, underground wiring was included in the list of services which the applicant was required to add when constructing roadways. With the addition of underground wiring had come the requirement of using electricians and telephone employees to ensure that the placement of the underground wiring met all code requirements.

Between May 1971 and May 1972, individual owners created another sixty-eight lots in four subdivisions, land companies created one hundred one lots, also in four subdivisions, and none were created in a collaboration of the two parties.

In May 1972, it was "deemed expedient and desirable to provide a more sophisticated and efficient system of
drainage than ditching throughout the undeveloped areas of Maple Ridge." Thus it became mandatory to install storm sewers, complete with manholes, catch basins and service connections to each lot that was one half acre or less in a one family urban residential zone if the building lots being subdivided were on existing roads. The storm sewer system had to be constructed in accordance with the Municipality's Engineer standards outlined in By-law No.830. Again it became the applicant's responsibility to ensure that the contractor hired to construct the roadways also constructed an appropriate storm sewer system and tied it into the existing roadway. Adequate funds would have to be available to the applicant in order to pay the contractor for these additional costs.

Between May 1972 and January 1973, when by-law amendment No.2048 was adopted, a total of nine subdivisions were developed, not one by an individual owner. Land companies developed five which contained two hundred seventy-four building lots. Individual owners and land companies working together developed the other four subdivisions which included sixty-six more building lots.

Although the amendment by-law No. 2048 consisted of only one page, a developer could only make sense of the amendment if he referred back to by-law amendment No.1018 which in turn referred back to by-law No. 830. Amendment No.
2048 was adopted to clarify an amendment in No.1018 which dealt with Section 22 of by-law No. 830. The clarification was made by adding the words, "in an RS-1 Zone", which referred to the single family dwelling zone, to the section which dealt with the applicant having to supply a community water system but not a community sanitary sewer system. Lots could only be created under these circumstances if they were not less than one-half acre and documentation had been received from the Local Medical Health Officer assuring that there would be no health hazard within the proposed subdivision or to adjacent lands if septic tanks were installed.

The properties illustrated in Photographs 7 and 8 were subdivided under By-laws 830, 1018, 1088 and 2048. Both subdivisions are complete with storm sewer, underground wiring and curbed road sides. The by-law amendment demanding ornamental lighting and sidewalks were not officially adopted until August 27, 1974. The survey plan for the property illustrated in Photograph 8 was signed on March 30, 1974. Because the subdivision development would not have been completed until after the passing of the by-law amendment the developer would have been expected to meet the requirements of the new amendments. Both the ornamental lighting and the sidewalks are present in Photograph 8.
PHOTOGRAPH 7. 1973 - PLAN #45355: GILLEY AVENUE
BY-LAW 830, 1018, 1088, 2048 - STORM SEWERS, UNDERGROUND WIRING, CURBED ROAD EDGING, NO STREET LIGHT. (Source: L. Holloway, 1989)

PHOTOGRAPH 8. 1974 - PLAN #46564: CLIFF PLACE
BY-LAW 830, 1018, 1088, 2048 - STORM SEWERS, UNDERGROUND WIRING, CURBED ROAD EDGING, STREET LIGHT, SIDEWALKS. (Source: L. Holloway, 1989)
Between January 25, 1973 and August 27, 1974, the time of the next by-law amendments, individual owner created only fifteen building lots in two subdivisions. Land companies, however, developed eight subdivisions with two hundred fifty-seven lots. Land companies and individual owner worked together to create an additional one hundred seventy-five lots within another six subdivisions.

The next two relevant by-laws were both adopted in August 1974. Boulevard treatment, sidewalks and ornamental lighting were added to the list of requirements needed to be included with the construction of all new roads within the subdivision. Precisely what was meant by "Boulevard Treatment and Ornamental Lighting" was not specified within the by-law thus further investigation by the applicant, involving the Approving Officer and Municipal Engineer, was required.

The municipality also raised the fees which had to be submitted along with the subdivision application and plan. This fee increase was substantial and non-refundable. Along with the previously required $2.00 Plan Approval Fee, the application was to be accompanied with a non-refundable $25.00 fee for the first parcel to be created by the proposed subdivision and $10.00 for each additional parcel. It became essential then for the applicant to ensure that all aspects of the by-law were understood and addressed.
prior to making the formal application in order to avoid any costly errors afterwards.

Between August 1974 and the end of the study period, December 1974, no new subdivisions were developed, which may have more to do with the limited time period than lack of real development activity.

LANGLEY

Between 1955 and August 26, 1957, the subdivision of property within the Township of Langley was regulated by "Langley Maps and Plans Approval By-Law, 1946" No. 631. This was a basic one page by-law which outlined the requirement of developers to submit their survey plan for approval by the municipal council and submit one copy of the plan to the Land Registry Office in New Westminster.

During this time period, only one subdivision was created and that was by an individual owner. This subdivision contained four lots. (Refer to GRAPH 5 and 6).

On August 26, 1957 "Langley Sub-Division Control By-Law, 1957" No. 907 was adopted. Compared to the previous by-law, this seven page by-law resulted in the applicant having to go through a time consuming four stage process to subdivide property.

The initial stage included submitting a sketch plan, drawn to scale, showing the dimensions of all proposed lots,
Graph 5: Shows the number of subdivisions developed in the urban core areas of Langley between the introduction of the residential subdivision by-laws, 1955 to 1974.

(Source: Survey Plans, Date: 1994)
streets and lanes. This preliminary application had to be accompanied by a $2.00 fee. It could take up to sixty days for the Approving Officer to grant approval of the preliminary application and once given it was valid for three months.

Once the preliminary approval was given, the applicant was to submit another minimum $2.00 examination fee for the approval of the subdivision application. The applicant had sixty days in which to provide satisfactory evidence to the Approving Officer that all of the relevant provisions of the by-law have been duly complied with.

The overhead wiring and the uncurbed road edging illustrated in Photographs 9 and 10 are remnants of By-law 907. The ditches in both locations have since been filled and at the location in Photograph 10 street lights have been added.

Between 1957 and August 31, 1959, five subdivisions were created, again all by individual owners. These five subdivisions contained thirty-nine lots.

On August 31, 1959, amendment by-law No.977 was adopted. The basis of this amendment was to give greater specification for road construction and to reiterate that "all work required to be done hereunder in connection with the subdivision of any lands shall be carried out at the sole expense of the owner of such lands ...." All the
PHOTOGRAPH 9. 1958 - PLAN #18888 WRIGHT STREET
BY-LAW 907 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, NO STREET LIGHT.(Source:L. Holloway, 1994)

PHOTOGRAPH 10. 1958 - PLAN #19383 MOWAT CRESCENT
BY-LAW 907 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHT ADDED.(Source:L. Holloway, 1994)
general specifications for road construction were outlined in the five pages of schedule No. 1. These, however, were only the minimum requirements and could "be altered from time to time at the discretion of the Superintendent of the Board of Works."

The properties subdivided in Photographs 11 and 12 come under the regulations of By-laws 907 and 977. The original overhead wiring and unfinished road edging remain but the ditches have been filled and street lights added.

From 1959 until October 26, 1964, a total of seven subdivisions was created, three by individual owners, three by land companies and one by these two groups together. Individual owners and land companies also created the same number of building lots during this time period---twenty-four. A further five lots were created by the individual owner and land company together.

By-law amendment No.1138 was adopted October 26, 1964 and added a second schedule to the main By-law No.907. This schedule consisted of a map which indicated minimum acreage or lots sizes for the entire municipality. Prior to applying for subdivision approval, the developer had to ensure that the minimum lots sizes within his proposed subdivision met with this schedule.

No development took place between 1964 and September 18, 1966.
PHOTOGRAPH 11. 1962 - PLAN #24303 WAGON WHEEL
BY-LAW 907,977 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHT ADDED. (Source: L. Holloway, 1994)

PHOTOGRAPH 12. 1963 - PLAN #25216 KING STREET
BY-LAW 907,977 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHT ADDED. (Source: L. Holloway, 1994)
In September 1966, schedule No.2 from By-law amendment No.1138 was changed under amendment By-law No.1183. A lengthy, written description was included so it was necessary for the applicant to review the by-law carefully to ensure that the dimensions he planned to subdivide his property into met the by-law specifications.

Photographs 13 and 14 picture property subdivided under By-laws 907, 977, 1138 and 1183. As seen in the previous two photographs the overhead wiring and the unfinished road edges are still evident today. As well the ditches have been filled but no street lights have been added.

The subdivided property illustrated in Photograph 15, again, appears little different from the six previous photographs except that street lights have been added.

Between 1966 and March 27, 1972 a total of thirty-six subdivisions was created, seventeen by individual owners, fifteen by land companies and a further four by individual owners and land companies together. Although individual owners created more subdivisions, they created only ninety-six building lots compared to the two hundred five created by land companies. Individual owners and land companies working together developed an additional fifty lots.

On March 27, 1972, the $2.00 application fee was increased to $5.00 multiplied by the number of additional lots to be created by the proposed subdivision. As well, an
THE TOWNSHIP OF LANGLEY

PHOTOGRAPH 13. 1966 - PLAN #30526 BARTLETT STREET
BY-LAW 907,977, 1138, 1183 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, NO STREET LIGHT.(Source:L. Holloway, 1994)

PHOTOGRAPH 14. 1968 - PLAN #34321 200 A STREET
BY-LAW 907,977,1138, 1183 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, NO STREET LIGHT.(Source:L. Holloway, 1994)
THE TOWNSHIP OF LANGLEY

PHOTOGRAPH 15. 1971 - PLAN #39147 HUDSON BAY STREET
BY-LAW 907, 977, 1138, 1183, 1364 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHTS ADDED. (Source: L. Holloway, 1994)

PHOTOGRAPH 16. 1972 - PLAN #41184 201 STREET
BY-LAW 907, 977, 1138, 1183, 1364, 1379 - DITCHES FILLED, OVERHEAD WIRING,
UNFINISHED ROAD EDGING, STREET LIGHTS ADDED. (Source: L. Holloway, 1994)
inspection fee of 4% of the cost of installing all roads, streets, lanes, alleys, right-of-ways, utility lines and all other works required to be done had to be paid as a condition of granting approval for the subdivision. These charges had to be paid by the applicant prior to receiving any profits from the sale of the building lots.

The final photograph, 16, illustrates the same filled ditches, overhead wiring, unfinished road edging, and added street lights that the other photographs of Langley have. The addition of storm sewers, underground wiring, ornamental lighting and sidewalks was still more than a year away.

Between March 27, 1972 and July 10, 1972, individual owners developed only one subdivision which included five lots. Land companies created nine subdivisions which included one hundred thirty-six lots and the two groups together developed one more subdivision which had six lots.

With the adoption of by-law amendment No.1379, the applicant had to now furnish two sets of road construction plans prepared by a qualified professional engineer. These plans had to illustrate all roads and lanes and the drainage of these in profile and in cross section. The application for subdivision had to also be accompanied by a plot plan showing spot elevations on a one hundred foot grid of the entire property being subdivided.
Between July 1972 and December 3, 1973, fifteen more subdivisions were developed, five by individual owners, seven by land companies and another three by the two groups working together. One hundred seventy-eight building lots were produced within these fifteen subdivisions. Fifty-seven by individual owners, seventy-four by land companies and forty-seven by the two groups together.

The last by-law to be examined in this study was adopted on December 3, 1973. The municipal government was finding it too costly to supply the services demanded by the subdivisions and developments within the municipality and thus demanded that services be installed by the subdivider. For building lots of one-half acre or less these services included paved roads, drainage, water mains, sewers, underground wiring, ornamental lights and sidewalks.

From December 3, 1973 until the end of December 1974, only two subdivisions were developed, both by individual owners. These contained nineteen building lots.

COMPARISON OF MAPLE RIDGE AND LANGLEY

In the one hundred fifty-one and a half months from the beginning of 1955 until August 8, 1967 when Maple Ridge adopted by-law No. 830, a total of eighty subdivisions with one thousand twenty building lots was developed. Individual owners developed sixty of these subdivisions which included
six hundred seventy-five lots, land companies created eleven subdivisions with two hundred thirteen lots and, working together, they developed another nine subdivision with one hundred thirty-two lots.

Of the total number of subdivisions created over the twenty-year study period, the amount developed prior to the adoption of By-law No. 830 represents 60%. Of the total number of building lots, the amount developed prior to By-law No. 830 represents 43.3%. After the introduction of this comprehensive subdivision by-law, 56.7% of the building lots was created when only 40% of the subdivisions was.

In the eighty-eight and a half months after By-law 830 was introduced, another fifty-four subdivisions, including one thousand three hundred thirty-six building lots, were created. Individual owners produced another fifteen subdivisions with one hundred seventy-seven lots, land companies developed twenty-five subdivisions with eight hundred forty-four lots and together they created fourteen subdivision with three hundred fifteen lots.

Before By-law No. 830, individual owners had produced 75% of the subdivisions and 66.2% of the lots, land companies had developed only 13.5% of the subdivisions and only 20.9% of the building lots. Individual owners and land companies together created 11.5% of the subdivisions and 12.9% of the lots.
After By-law No. 830, individual owners produced 27.7% of the subdivisions but only 13.1% of the building lots, which was less than a fifth of the lots produced prior to By-law 830. Land companies more than tripled the percentage of both subdivisions and lots they developed; that was 46.3% of the subdivisions and 63.3% of the lots. Individual owners and land companies together created 26% of the subdivisions and 23.6% of the lots.

If the one hundred thirty-four subdivisions and two thousand three hundred fifty-six lots, developed over the entire twenty-year, are divided in percentages by individual owner, land company and the two together, individual owners created 44.8% of the subdivisions prior to By-law 830 and only 11.2% afterward. Land companies produced 8.3% before By-law 830 and 18.7% afterward and the two groups together developed 6.7% before By-law 830 and 10.4% after. Examining the building lots in the same manner shows that, prior to by-law No. 830, 28.7% was created by individual owners, 9% was developed by land companies and 5.6% was produced by the two groups together. After the introduction of By-law No. 830, individual owners developed only 7.5% of the lots, land companies produced 35.8% and together they created another 13.4%.

The most substantial by-law controlling residential subdivision development in Langley during the twenty-year
study period was introduced in 1957 with By-law No. 907. In the thirty-two months from the beginning of the study period to the adoption of By-law 907, an individual owner created one subdivision with four lots. Activity increased only slightly in the twenty-four months between 1957 and the introduction of the major by-law amendment in 1959. Individual owners developed five subdivisions with thirty-nine lots.

The actual turning point in subdivision development in Langley came in 1966. Prior to this a total of thirteen subdivisions was created which included ninety-six building lots. In the one hundred forty-one months between the start of the study period in 1955 and the introduction of By-law Amendment No. 1183 on September 18, 1966, individual owners created 70% of both the subdivisions and the building lots. That was nine subdivisions and sixty-seven lots. Land companies developed three, or 23%, of the subdivisions and twenty-four, or 25%, of the lots. Individual owners and land companies together produced one, or 7%, of the subdivisions and five, or 5%, of the lots. Only 17% of the subdivisions and 12.1% of the building lots developed during the entire twenty-year study period were produced in these one hundred forty-one months.

In the ninety-nine months after By-law No. 1183, to the end of the study period, a total of sixty-four subdivisions
was created which included six hundred ninety-five building lots. Individual owners developed twenty-five, or 40%, of the subdivisions but only one hundred seventy-seven, or 25.5% of the building lots. Land companies created thirty-one, or 48.5%, of the subdivisions and four hundred fifteen, or 59.7% of the lots. Together they produced eight, or 11.5%, subdivisions and one hundred three, or 14.8%, of the lots. Eighty-three percent of the subdivisions and 87.9% of the building lots developed during the entire twenty-year study period were produced during the last ninety-nine months.

If the seventy-seven subdivisions and seven hundred ninety-one building lots, developed over the entire twenty-year, are divided in percentages by individual owner, land company and the two together, individual owners created 11.7% of the subdivisions prior to By-law 1183 and 32.4% afterwards. Land companies produced 4% before By-law 1183 and 40.2% after and the two groups together developed 1.3% prior to By-law 1183 and 10.4% afterwards. Examining the building lots in the same manner shows that, prior to By-law No. 1183, 8.5% was created by individual owners, 3% was developed by land companies and .6% was produced by the two groups together. After the introduction of By-law 1183, individual owners developed 22.4% of the lots, land
companies produced 52.5% and together they created another 13%.
CHAPTER SIX: CONCLUSIONS

SUMMARY OF THE THESIS

The problem addressed in this thesis is, "What was the nature and extent that municipal residential subdivision by-laws had on the developers of residential subdivisions in the urban core areas of Maple Ridge and Langley between 1955 and 1974?" Within the field of geography, the affects that municipal residential subdivision by-laws have had on the developers of residential subdivisions has been given little attention. Although a number of studies has considered the subdivision of property, none has compared the subdivision process with the municipal subdivision by-laws. The hypothesis proposed in this thesis is that particular municipal residential subdivision by-laws played an integral part in causing a shift from original, individual property owners developing residential subdivisions, to land companies dominating the process within the urban core areas of both Maple Ridge and Langley between 1955 and 1974. The documentation used to investigate the thesis included cadastral maps, survey plans and the residential subdivision by-laws.

In chapter two, a review of the literature has shown that the effects of municipal residential subdivision by-laws on the agents involved in subdivision development is not a popular research topic. Studies from urban geography,
urban history and historical geography have been consulted in order to develop a framework in which to examine the topic of this thesis. This study combines the quantitative methodology preferred by urban geographers and the qualitative methodology preferred by historical geographers. A comparative approach is used to examine the relationship between the subdivision developers and the subdivision by-laws; then, again, to compare and contrast this relationship between Maple Ridge and Langley.

Chapter three answers the research question, "Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?" The twenty-year study was examined in five-year intervals to allow for a logical means of comparing the two study municipalities and to facilitate a systematic method of mapping the information. The evidence shows that, during the first five years of the twenty-year study period, individual owners dominated the subdivision process in both Maple Ridge and Langley. During the second five years, individual owners continued to dominate in Maple Ridge, although not to the extent that they had. At the same time in Langley, individual owners and land companies were equally involved. During the third five-year period, land companies reversed the trend in Maple Ridge and took over property development. Individual owners and land companies continued to be equally
involved in Langley. By the last five-year period, land companies were fully entrenched in Maple Ridge and although land companies were a stronger presence than individual owners in Langley, the individual owner was actually more involved in property development during this period than any other.

(A number of events that took place prior to 1955 which contributed to setting the stage for municipal residential subdivision by-laws to cause this shift in developer. During the 1920's and 30's Japanese citizens were forced into farming as most other occupations were closed to them due to the prejudicial provincial legislation of the time. A number of Japanese moved into the Maple Ridge area, most settled on farms, five to twenty acres in size, in the Haney area. The Haney area is the bases of the urban core area of Maple Ridge examined in this study.

The virtues of hard work and self-denial resulted in the Japanese producing some of the best berry farms in the Fraser Valley. This, however, abruptly changed when, in 1942, as a result of the bombing of Pearl Harbor, all Japanese were evacuated from the coast of British Columbia to internment camps in the Interior or on the Prairies. All Japanese holdings, which had not been sold or given away prior to their evacuation, were placed under the management of the Custodian of Enemy Property. In January 1943, the
Custodian proceeded to sell the Japanese chattel, including any farms, by means of public auction.

Many of the white farmers who had taken over the Japanese berry farms found that they could not approach the Japanese in cultivation success. Despite the new farmers lack of ability, the demand for berries remained high during the war years, but demand dropped sharply after the war ended. Along with the new farmers' inability to produce what the Japanese had, by the mid 1950's, they were also face with declining prices, changes in berry cultivation methods and inappropriate marketing legislation. The new berry cultivation methods stressed production on huge, level fields like those found in central and south Langley, not in Fort Langley or Maple Ridge.

Frustrated farmers who could not earn an adequate profit from producing berries choose instead to profit from subdividing their property into building lots. Henry Ivaniski (1964) found that in 1959 municipal officials estimated there to be enough vacant building lots in Maple Ridge to accommodate population growth for three or four years. Without the more stringent subdivision control by-laws which were already present in Langley, small farm owners in Maple Ridge had few complications or costs involved in subdividing their property.

129
In this thesis the “who”, referred to in the question “Who developed the residential subdivisions in the urban core areas of each municipality between 1955 and 1974?”, was defined simply as the individual owner or the land company. Further research is required into the influence specific individuals and specific land companies had on the landscape of each municipality. As well, an examination of land companies who developed subdivisions in both municipalities could yield significant information.

A thorough examination of the municipalities' residential subdivision by-laws, which were adopted between 1955 and 1974, was made in chapter four. The question, "What were the residential subdivision by-laws implemented by the municipal governments which affected the development of residential subdivisions in the urban core areas of each municipality between 1955 and 1974?" was answered. This discussion clearly outlines how lengthy and complicated the by-laws became over the twenty-year study period. Initially, the subdivision process was more complex in the Township of Langley than in Maple Ridge. In 1957, Langley introduced an extensive by-law to control the subdivision of land and in 1959, added an amendment of equal length. Then in 1967, Maple Ridge introduced its new by-law to regulate the subdivision of property. It exceeded Langley's by-law by more than double the length. After 1959, Langley made five
additional amendments to the 1957 by-law which were relevant to this study. Maple Ridge also made five amendments to its 1967 by-law. Each amendment demanded the installation of additional services to the building lots, additional fee payments to the municipalities or additional expertise on the part of the developer.

Langley's economy has been based far more on agriculture than the economy of Maple Ridge. The desire to protect this agricultural base may account, in part, for Langley introducing stricter subdivision control by-laws a full ten years earlier than Maple Ridge. In fact, development in Langley, by either individual owners or land companies, was not substantial until 1968. As well, the Trans-Canada Highway and Port Mann Bridge, which supplied Langley with a direct transportation route into Vancouver, was not opened until 1963.

Lot development in Maple Ridge, however, was booming in the 1950's. Improvements to the Lougheed Highway and the Pitt River Bridge in the 1950's greatly reduced the commuting distance to the growing industrial areas and employment opportunities of Burnaby. It was uncontrolled, scattered development which did not ensure that the appropriate services and facilities were available to the building lots. The costs of supplying such services as paved roads, water, sewers, street lighting and such facilities as
police and fire protection, parks and schools to such greatly scattered building lots were in excess of what the municipality could afford to pay. At the time the cost of providing these municipal services was borne by the whole municipality through taxation. By the mid 1960's the municipality of Maple Ridge did not have the tax base to supply the needed services and facilities. Provincial fiscal policy, over which the municipalities had not control, resulted in extra tax revenues, which an increase in property tax payers would have created, being channeled into education and social programs rather than street lights and sidewalks.

The municipalities had to find means in which to supply the essential services and facilities to its growing population without overburdening the existing community with excess taxation. the solution was to use the Municipal Act to create subdivision control by-laws which would put the onus of supplying building lots with the required services on the developer of those building lots.

In chapter five, the question, "What 'developmental cost increases' occurred in residential subdivision developments as a result of these particular municipal by-laws being introduced?" is answered. Developmental cost increases refer to the increase in time and expertise required on the part of the property
developers to be able to understand and implement the requirements of the subdivision by-laws. The by-laws discussed in chapter four were examined in relation to the number of subdivisions and building lots that were developed between the adoption of each by-law. The findings revealed that, prior to the introduction of the thirty-two page By-law No. 830 in 1967, individual owners dominated the subdivision development process in Maple Ridge. After 1967, land companies dominated. The findings in Langley are similar land companies did dominate the process by the end of the study period, except individual owners continued, throughout the twenty-year study period, to play more of a role than they did in Maple Ridge.

In the late 1960's and early 1970's, when the World War II baby boom generation reached the stage of requiring their own family homes and the Federal Government relaxed immigration, the demand for affordable housing escalated. Both Maple Ridge and Langley were viewed upon by the city dwellers as idyllic settings for country living. Families could not afford the ever increasing land costs and high property taxes of the city and looked to the urban fringe areas for lower cost housing. The intent was to escape the high costs of the city without consideration to the problems associated with this movement. Having come from the city where the services and facilities had been readily available
these transplanted city dwellers were soon demanding the amenities that they had enjoyed in the city.

The increasing population was also exerting great pressure on facilities which were not equipped for rapid expansion. Adequate water distribution systems and sewer systems were necessities. Land for schools and parks had to be acquired. Planning for future industrial and commercial sites was required and plans for streets and main traffic routes were essential for controlled growth.

The municipalities did not have the means to finance the necessary work and thus had to pass the financial burden onto the developer by way of residential subdivision by-laws. The original developers, being the individual owners of the property, had neither the financial means nor the expertise to interpret the new subdivision control by-laws and thus found the process far too complicated and costly. Land development companies, which had both the financial backing and expertise to interpret the by-laws and saw the opportunity to make substantial profits then dominated the process.

SOME IMPLICATIONS OF THIS STUDY

Although it is not the intent of this thesis to examine any differences in housing and gardening styles, over the twenty-year study period, it is apparent that such
differences did develop. By the end of the 1960's, as a result of the introduction of municipal by-laws, land development companies dominated the subdivision process and, so it appears, the home building process. As has been previously discussed, individual owners tended to subdivide fewer building lots at one time than land companies did. Individual owners were generally satisfied by making a profit from selling raw land and the purchaser of that land would either build his own home or acquire his own builder. Initially, land companies viewed the process in the same manner and sold just the building lots. However, land companies soon realized the profits that could be acquired if they could also supply the potential home owner with a builder. As demand for housing grew, and sales remained brisk, it became advantageous for land companies not only to supply individual land purchasers with a builder but to also build the house and sell the entire package.

The photographs included in the thesis were taken to show examples of the services supplied to the building lots at different times over the twenty-year study period; they were not taken to show examples of housing and gardening styles. However, after viewing the urban core areas and using the photographs as examples it is possible to give a brief discussion of the changes that did occur and of the research lines that could be followed in the future.
Photographs 1, 2, 9, and 10 illustrate land subdivided by individual owners in the late 1950's. Although much of the housing and detached buildings in these photographs are concealed by dense vegetation there is evidence, and it was viewed in the field, that smaller, one story bungalow or rancher style houses were most common. Generally exterior finishing was of wood and/or stucco with an asphalt shingle roof. The garage or work shed was generally a building detached from the main house. Most driveways, as can be seen in Photograph 1, were gravel. Building location, or set backs from the property line on the road, was not necessarily uniform between houses.

Houses were built on an individual basis, and became the principal residence of the person who purchased the property. The style and building materials used varied greatly from house to house. In fact, it was common to pick a style of home that could be constructed in stages so that as the funds became available the house could be expanded. Construction could take several years.

In the early 1960's land companies were establishing themselves and Photographs 3, 4, and 11 show examples of subdivisions created by them. Photograph 12 depicts an area subdivided by an individual owner in the same time period. The two story, basement home began to gain popularity in these areas. Potential home owners were finding that, for
not much more than the price of a single story home, they could have a partially underground basement home.

The two story, basement home continued to develop during the late 1960’s. Property developed by land companies did have a more homogeneous appearance than areas subdivided by individual owners. An example is the property shown in Photograph 5 that was subdivided by an individual owner. Unlike what most land companies were doing at the time, each home along this street was built on an individual basis and each home is quite distinctly different.

By the early 1970’s land companies were developing a number of substantially sized subdivision areas. Although these areas were larger in Maple Ridge than in Langley the same general housing style is apparent in both municipalities. Subdivided areas tended to be dominated by the house style which came to be known as the “B.C. Box” (a term used by real estate sales people to describe what Statistics Canada calls a bungalow), a three bedroom, 3/4 basement home with an attached carport, or in the slightly more expensive home, a garage. Although stucco continued to be used, it was more common to see stained cedar siding or aluminum siding. Aluminum framed windows were also replacing wooden framed windows.

As land companies began to avail themselves of economies of scale in subdivision development and realize
the true profits which could be obtained in the Maple and Langley areas they began to buy larger tracks of subdividable land with the intention of selling the building lot and "ready to move in" house. The cost of building houses could be dramatically reduced by purchasing all the required building materials in bulk quantities. This method of stream-lining house construction resulted in large subdivided areas having the same general appearance regardless of whether it was Maple Ridge, Langley or any other municipality in the Fraser Valley.

Photograph 7 and 15 show excellent examples of the very typical "B.C. Box" which appeared in an average subdivided area. Photograph 8 contains slightly more upscale and expensive versions of the "Box". Although developers began to include some landscaping with the sale of a house this often included only a grassed front yard with a few inappropriately planted trees or shrubs.

More research is required to document the detailed effects that the change from individual owner to land company subdivisions and residential developments had on the visual appearance of mid-twentieth century urbanization in the Fraser Valley.

This thesis explores the nature and extent that municipal residential subdivision by-laws had on residential subdivisions in the urban core areas of Maple Ridge and
Langley between 1955 and 1974. It is evident that the by-laws had a profound effect on the subdivision development process, both on the developers and on the landscape. It is hoped that this examination will further contribute to the understanding of how the urbanization process has developed within British Columbia and will prompt further examination on the subject.
REFERENCE LIST


Maps: Sections 23, 25, & 26 of Township 7; Sections 4, 9, 10, 32, & 33, of Township 11. The Corporation of the Township of Langley: Engineering Department. Scale 1:5 000.


Survey Plans. Langley: Municipal Hall, Planning Department.

Survey Plans. Maple Ridge: Municipal Hall, Planning Department.


