

THE INCIDENCE OF UNCONTROLLED LAND DIVISIONS  
IN MANITOBA

A Thesis  
Presented to  
the Faculty of Graduate Studies  
University of Manitoba

In Partial Fulfillment  
of the Requirements for the Degree  
Master of City Planning  
in the Department  
of  
City Planning

by  
Gordon Lester Haggerty, A.L.S.

April, 1976.



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GORDON LESTER HAGGERTY

A dissertation submitted to the Faculty of Graduate Studies of  
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MASTER OF CITY PLANNING

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DEDICATION

This thesis is dedicated to my wife, Mary Ellen,  
and my son, John Luke.

## ACKNOWLEDGEMENTS

Special acknowledgement is due to my advisor, Professor Basil Rotoff for his guidance, and my readers, Dr. Kent Gerecke and Dr. Len Sawatzky for their advice.

My research was assisted by the co-operation of Mr. Fred Pritchard and the staff at the Municipal Planning Branch, the Land Titles Office and the Assessment Office in Winnipeg.

Finally, thanks to Mrs. Therese Buettner who typed the final manuscript.

Gordon L. Haggerty

## ABSTRACT

The purpose of this thesis is to analyze the problem of controlled and uncontrolled land divisions in Manitoba and show that uncontrolled land divisions:

- 1) are predominant,
- 2) are causing development problems, and
- 3) can be controlled by planning.

The hypothesis of the thesis is that land divisions play a dominant role in the orderly and economical development of the land, that the method of land division relates to the control or lack of control of development, and that uncontrolled land divisions predominate in Manitoba.

The steps of this research are as follows:

- 1) The importance of land divisions and their effect upon settlement patterns are established by a historical analysis of the early methods of land divisions in Manitoba.
- 2) Using both a general, and a detailed study area representative of the early land division methods and present land uses in Manitoba, the predominance of uncontrolled land divisions was established. The land divisions were researched and analyzed according to the different methods by which they occur, their location patterns, acreages, degree to which they are developed, and the interrelationships which exist among the different methods;
- 3) The development problems caused by uncontrolled land

divisions were considered in terms of physical, social and economic characteristics by studying existing research on development problems in the rural urban fringe.

4) A discussion of the new Planning Act indicated how a solution to the essential problem of this paper might be implemented. Implementation problems are obvious. However, in time responsible authorities will be able to effectively administer land division control.

## PREFACE

In order that a society can function it is essential that individual persons take responsibility for their actions. The land we own has been one of the focal points of the development of this continent and the right to own land one of the fundamental attributes of our society. One segment within which responsibility has often been lacking is the area of land divisions. This thesis traces the irresponsible way in which land divisions were carried out in the past and shows why continuance of similar practices in the future is not acceptable.

The occurrence of land divisions is a universal phenomenon which has been in existence since man first laid claim to specific parcels of land. Although the Province of Manitoba is used as the laboratory for the study of land divisions, the methodology and development of concepts are applicable wherever there is land which is or will be divided.

The philosophy portrayed in the following thesis is one which is best expressed in a poem which the author considers most appropriate:

'AN EASIER TRAIL', By Douglas Mallock

I had a comrade long ago  
A fellow that I used to know,  
Who had a habit that was odd,  
On ev'ry trail we ever trod  
He used to stop to move a stone,  
Or cut a branch that low had grown,  
Pick up a bit of broken glass  
That folks might step on as they pass,  
Or fill a hollow with some sand,  
Or anything he found at hand  
Or make a bridge a bit more strong  
For other men who came along.

Then I was young, as young folks are,  
And often, with the journey far  
Or evening near, I used to say,  
"Why stop and fool your time away?"  
Then he would smile, and answer, "Son  
When I am through, my travel done,  
I want to think I left behind  
An easier trail for men to find.  
A stronger bridge, a smoother road  
To bear some other fellows load,  
That someone's path will better be,  
When I am gone because of me."

Then I was young; and now I'm old,  
The tale of life is nearly told.  
But I am glad he taught me so  
That lesson in the long ago.  
For life's a road and I have tried  
To take the time to turn aside  
To fix the way for other men  
Who follow after. Now as then  
I like to think, as down the years  
The final camping place appears,  
The world I leave behind will be,  
An easier trail because of me.



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## INTRODUCTION



## INTRODUCTION

The purpose of this thesis is to analyze the problem of controlled and uncontrolled land divisions in Manitoba and show how uncontrolled land divisions are predominant, and are causing development problems. These problems can be controlled by planning. The hypothesis of this research is that land divisions play a dominant role in rural and urban development and, if uncontrolled, result in developments which do not maximize on physical, social, and economic potentials. This development, though physical in nature, determines social patterns and, as such, affects the very essence of society.

This thesis was conceived as a result of the authors previous involvement in the study of uncontrolled land divisions in Manitoba. In this study a methodology was applied which combined the fields of land surveying and planning. As research data was tabulated it became apparent that controlled land divisions were few in number and were not having their intended effect. Field inspections showed that sporadic development was common and was occurring between and within controlled land divisions. The development problems being created were obvious.

In order to understand the framework within which land divisions are operating and the effect they are having on future and present development, a methodology has been

developed in this thesis. The methodology sets out to do the following:

- 1) to gain an understanding of the historical development of land divisions and the land division patterns which we have inherited,
- 2) to explain the legal process of land divisions in a non-technical sense so that responsible laity can understand this important process which is affecting their life patterns,
- 3) to establish and carry out general and detailed studies on the land division process,
- 4) to analyze the findings of the study and to look into the problems caused by uncontrolled land divisions, and
- 5) to consider the findings of the study in the light of the new Planning Act of Manitoba which came into effect just prior to the completion of this thesis.

It is perhaps this last point which particularly reflects the validity of this research. The Planning Act recognizes the importance of the land division process and legislates accordingly. Much of the data used in this thesis was made available to the Municipal Planning Department of Manitoba prior to the compilation of the new Planning Act. This research removed all possible doubt concerning the importance of the land division process and supplied the necessary tool for responsible authorities to legislate. Important though this legislation may be, its implementation is not possible without a basic understanding of the land division process and the effects which the

resulting patterns have on society.

The thesis has been divided into four chapters, plus a conclusion. Each chapter contains a short introduction, the main text, and a summary. Because of the unfamiliar terminology presented and the confusion which exists between some of the terms, an appendices on 'Definition of Terms' has been included. In Appendix A, the following terms are defined; surveying, lot and parcel, land division, controlled and uncontrolled land division, rural urban fringe, and description of land. Reference to these terms should clarify any misunderstandings or confusions which might exist in the readers mind.

The first chapter, 'The Problem of Land Divisions', defines the problem of land divisions and is intended to supply the reader with general background information which will assist in the understanding of this topic. A review of related literature is contained and discussed.

The second chapter examines the 'History of Land Divisions in Manitoba', from the very earliest land claims by the Hudson Bay Co., to the land patterns and developments resulting from the settlements by different ethnic groups; the Scottish and French settling within the river lot system, the British settling within the township system, the Icelanders settling within the combined river lot and township system, the Mennonites, Swedish and Jewish settling within the street village system and the numerous village, town and city plans which resulted in Gridiron,

Cross Roads and Curvilinear settlements. Although settlement patterns and ethnic backgrounds were varied, the methods by which these land patterns were registered are not. All land claims were registered within the Land Titles Office, first under the Registry Act and later under the Real Property Act. Within these registry systems initial parcels of land were recorded, often however, the parcels were later divided up into ever smaller pieces by the land division methods of Metes and Bounds, Explanatory Plans, and Subdivision Plans. It is these methods of land division which we are concerned with today in as much as they are the methods operating within the patterns established by the early ethnic settlements. To aid the reader in visualizing the early land division patterns, and the present methods by which land divisions occur, illustrations are liberally included throughout the text.

The third chapter, 'The Case Study of Land Divisions', analyzes, in general and in detail, the methods by which land divisions are presently occurring in Manitoba and the resulting patterns of development. Trends and interrelationships are discussed and a land division scenario is developed. The research data for the Case Study is presented by Tables and Figures in Appendix B, C, D and E and these are summarized within the text of chapter three. The research looks directly into 'The Incidence of Uncontrolled Land Divisions in Manitoba' and the findings clearly portray trends and patterns. Of particular importance are those

established by the occurrence of uncontrolled land divisions.

The fourth chapter, 'Uncontrolled Land Divisions: Problems and Solutions', deals with the impending physical, social and economic problems resulting from uncontrolled land divisions. These problems have been discussed by other authors, however the problems have previously only been viewed in terms of the effect which they are having on society and not in terms of a cause-effect relationship. By analyzing development problems in terms of uncontrolled land divisions a direct relationship is established and the necessary solution is obvious. The solution to uncontrolled land divisions is found within provincial legislation which was proclaimed on January 1, 1976. A discussion of the legislation on land division control is presented and implementation problems are seriously considered. In light of this discussion and the preceding background data, it is felt that within time the exercise of responsible authority in the area of land divisions will develop.

Finally, a 'Conclusion', sums up the entire thesis and contains a brief description of the problem, the research methodology, the findings and the conclusion.

## THE PROBLEM OF LAND DIVISIONS

- Definition of the Problem
- Review of Related Literature

CHAPTER I

## CHAPTER I

### THE PROBLEM OF LAND DIVISIONS

The existence of land divisions and their occurrence within our society is a fact which is perceived but not understood. A discussion of the effects of land divisions upon society is a topic which has not been considered by researchers and writers. This chapter sets out to define the basic problem of land divisions and review the literature related to this field.

#### A. Definition of the Problem

Our land is a precious yet unrenowable resource.<sup>1</sup> The division of land into ever smaller pieces has far reaching implications upon the development of our society. The fragmentation of land divisions has plagued many cultures throughout history, from the dismemberment of large empires, to the consecutive division of land among progeny to the point of rendering it unfit for any viable use. In the past, Manitoba has experienced a steady increase in population and a constant demand for its land. Initially the demand was primarily for rural land and large tracts were divided into parcels readily available for

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1. Lands in Asia Minor and the Eastern Mediterranean were once fertile but have become what they are through man's interference.

settlement and speculation. The major land use was agricultural but as intensified land uses increased, large land holdings began to be 'surveyed'<sup>2</sup> into smaller 'parcels or lots'<sup>3</sup> and the trend towards urbanization was apparent. In the spirit of free enterprise and laissez-faire, these divisions were allowed to occur without the benefit of community influence or planning guidelines.

As Manitoba's cities grew horizontally they necessarily expanded into and encroached upon an area of less intense land use - usually agricultural in nature. The existing system of land use, with its well established ownership patterns, complicated the new forms of development and, in like manner, was disrupted and became unstable itself. In response to this instability the planning function was developed, however, planners tried to achieve economic and orderly development without understanding the importance of the tools at their disposal, that is, the importance of controlling land divisions. The role of the planner should have been to see that the land division process occurred in an orderly and economic manner and that the transition from rural to urban occurred in as efficient a way as possible, physically, socially and economically. By initially controlling the division of land, development

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2. Refer to Appendix A for a definition of the term, page 140.

3. Refer to Appendix A for a definition of the term, page 140.



could have been directed and controlled, however, the above did not occur. Instead 'land divisions'<sup>4</sup> occurred by both 'controlled and uncontrolled'<sup>5</sup> methods. Controlled land divisions required planning input and community influence and were thought to predominate the more settled areas of the Province of Manitoba, with uncontrolled land divisions occurring in less densely settled areas, to facilitate the transaction of large parcels of land. This intended phenomenon did not occur and due to a number of reasons uncontrolled land divisions became predominant within settled areas. Two decades ago a comprehensive report on 'Planning in Manitoba' advised that the sale of land by uncontrolled land divisions ". . . in actuality, accomplishes the subdivision of land without benefit of community influence".<sup>6</sup> The report recommended that uncontrolled land divisions be limited to relatively large parcels of land with a minimum area of ten acres. The recommendation was not followed by the Provincial government, for whom the report was prepared, and in 1973 the Deputy Examiner of Surveys reported that by far the majority of land divisions were accomplished by uncontrolled rather than by controlled

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4. Refer to Appendix A for a definition of the term, page 142.

5. Refer to Appendix A for a definition of the terms, page 143.

6. Gerald A.P. Carrothers, "Planning in Manitoba" (unpublished, University of Manitoba, 1953), p. 86.

methods.<sup>7</sup>

Land divisions, controlled or uncontrolled, mostly occur on the periphery of a city in an area often referred to as the 'rural urban fringe'.<sup>8</sup> This area should not be thought of however in the usual limited visual sense since the land division process occurs far beyond and ahead of development, engulfing distant rural lands. Long before development is evident, new land ownership patterns are established and solidified, thus hampering future attempts at planned development.<sup>9</sup> The phenomenon occurs wherever a demand for land exists - it is no respecter of land uses.

#### B. Review of Related Literature

Having defined the problem of land divisions, one would expect that the land division process would be well researched and understood, however, such is not the case. "We know surprisingly little about how the land conversion

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7. L.E. Boutilier, "Land Title Examination of Surveys in Manitoba" (paper presented to the joint meeting of the Minnesota Land Surveyors Association and the Association of Manitoba Land Surveyors, Duluth, September 15, 1973), p. 65.

8. Refer to Appendix A for a definition of the term, page 144.

9. Thomas Adams, "Rural Planning and Development" (Ottawa: Canadian Commission of Conservation, 1917), p. 110 - 111. Adams further commented that in every Canadian community large tracts of land have been divided and are lying empty, disrupting cultivation and development. This was occurring up to a ten mile radius past urban growth.

process functions or its real impact . . .",<sup>10</sup> and little research has been done into the process by which land divisions are used to transform an area from a rural to an urban character.<sup>11</sup> A major problem encountered in this thesis was that land surveyors and planners have not worked closely together in the past and for this reason a language barrier exists between the two professions. Legal terminology concerning land divisions is scattered, a cadastre or land information system does not exist and in studying land divisions a complex coordination of the Land Title, Assessment Branch and Planning Branch departments is necessary.

In an effort to locate all possible previous research data and literature concerning land divisions, a computer printout was run at the initial stage of the thesis by the "Intergovernmental Committee of Urban and Regional Research". Of over two hundred titles received, two dozen appeared to be of possible value, however, in the final analysis only one report, 'Consents in Lambton County', dealt specifically with the topic of land divisions.

". . . Suburban land conversion is a field notably lacking in

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10. "Urban Growth and Land Development", (Land Conversion Process Report of the Land Use Subcommittee to the Department of Housing and Urban Development, Washington, D.C.: National Academy of Science, 1972), p. 2.

11. There is a tremendous amount of information on sprawl and this literature is supportive to the problem of this thesis but it does not deal directly with the problem.

solid data of clear meaning."<sup>12</sup>

Past research in this field has been inadequate for a number of reasons. The legal and local usage of terminology is confusing. An attempt at legal clarification involves searching through Planning Acts, Real Property Acts and Municipal Acts only to find that many terms are not defined. Furthermore a study of land divisions involves a coordination of ideas from lawyers, surveyors, land titles, assessment, local reeves, real estate personnel and developers. Colloquial terminology, professional jargon, and differing ideologies do not lend themselves to conformity.

Traditionally planners have directed their efforts towards geographical and sociological concepts of development not realizing that within the free enterprise system, the link between the land and development is through the activities of individual land owners. It is they who divide their land in response to existing or expected demands. In essence, planners have conducted massive studies on the results of uncontrolled land divisions without having understood the nature of the cause. Having failed to understand this cause it has been nearly impossible to control the effect.

Literature used in this thesis comes for the most part from the works of planners, lawyers, and surveyors.

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12. M. Clawson, *Suburban Land Conversion in the United States* (Baltimore, John Hopkins Press, 1971), p. 3.

Of necessity, the land division process operates within a legal context, a context of law which deals with land transactions. Surveyors consider land divisions to occur by different methods - Metes and Bounds, Explanatory Plans, and Subdivision Plans, while planners view land divisions according to whether they are controlled or uncontrolled. By coordinating the knowledge and terminology of each profession and viewing these within the 'description of land'<sup>13</sup> a scenario of the land division process emerges. This process is dealt with and developed in the following pages.

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13. Refer to Appendix A for a definition of the term, page 147.

## HISTORY OF LAND DIVISIONS IN MANITOBA

- Early Land Divisions
- The River Lot System
- The Township System
- Other Early Systems of Land Division
- The Land Titles Office and the  
Description of Land
- Methods by which Land Divisions are  
Presently Occurring
- Summary

CHAPTER II

## CHAPTER II

### HISTORY OF LAND DIVISIONS IN MANITOBA

From the earliest land claims, to the present forms of land ownership, land divisions have always affected settlement patterns. Their effect is not only immediate but also long lasting and for this reason their study is important. As Charles Haar states, "Just as the ruins of early erections make difficult redevelopment of a building site, so these remnants of an earlier system of land use, solidified into a pattern of ownership, complicated the new system of development."<sup>1</sup> In attempting to gain a better understanding of this process it is important that the historical perspective be investigated and understood. The intent of this chapter is to describe the historical development of land divisions in Manitoba so that the present day methods by which they are occurring can be understood and responded to in an adequate manner.

The chapter studies the early land divisions (1670-1811); the River Lot System (starting in 1812); the Township System (starting in 1869); the Combined River Lot and Township System; the Street Village System

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1. Charles M. Haar, Law and Land: Anglo-American Planning Practise (Cambridge, Massachusetts: Harvard University Press and the M.I.T. Press, 1964), p. 5.

and Village, Town and City Plans, to gain some understanding of the early patterns of land division and how they were affected by ethnicity. Within these patterns other methods of land divisions have been occurring (Metes and Bounds, Explanatory Plans and Subdivision Plans) and are still occurring today. By studying the methods of land registration within Land Titles, the different methods of land division are distinguished and understood in their legal perspective. A historical examination of the development of a land unit is analyzed and illustrated to show how land divisions have been and are occurring.

The chapter contains many illustrations which leave the reader with a visual picture of land division patterns established throughout Manitoba's history.

#### A. Early Land Divisions

The Hudson's Bay Charter of 1670, granted on behalf of Charles II of Great Britain to his cousin Prince Rupert, is the first record of land dealings in Manitoba. The Charter, granted to 'The Governor and Company of Adventurers of England Trading into Hudson's Bay', covered all the land that drained into Hudson Bay. The area was known as Rupertsland. In 1811, a portion of Rupertsland comprising all the land in the District of Assiniboia, was granted to Thomas Douglas, the 5th Earl of Selkirk. This included much of Manitoba, southeastern Saskatchewan, and the land north of the division of the waters draining into Hudson's



Bay and the Gulf of Mexico. Assiniboia, as it was called became the first territory to be delimited within Rupertsland for separate governmental purposes, as distinct from a trading district.<sup>2</sup> Figure 1 depicts the Assiniboia area. It contained 116,000 square miles.<sup>3</sup>

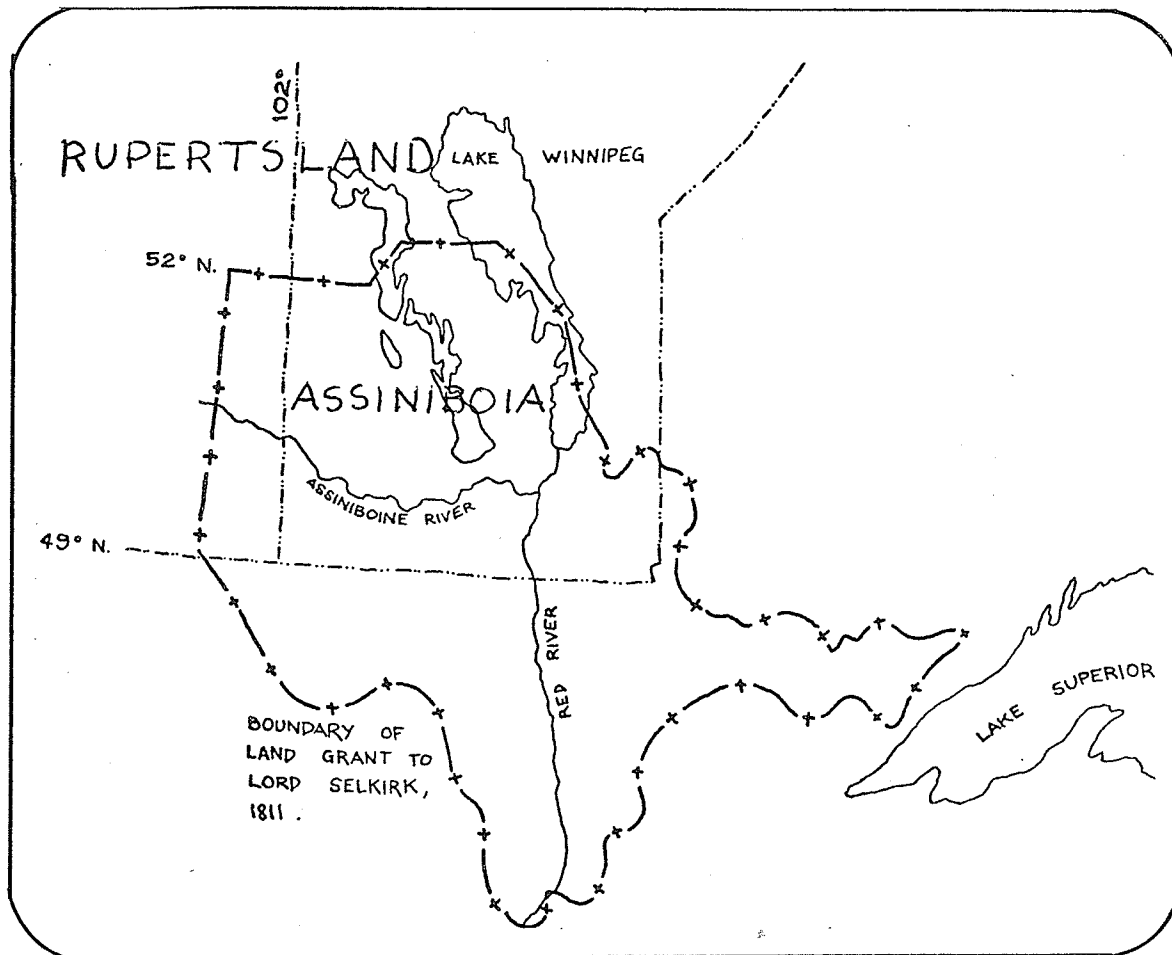


Figure 1. The Land Grant To Lord Selkirk in 1811

2. John Warkentin and Richard I. Ruggles, Historical Atlas of Manitoba. (Winnipeg, Manitoba: Historical Society, 1970), p. 157.

3. Warkentin, p. 166.

## B. The River Lot System

### 1. Historical Setting

In 1812, settlers (most from Scotland), began arriving to settle near the forks of the Red and Assiniboine Rivers, at a site which is presently contained within Winnipeg. Settlement along waterways was common since this was the main mode of transportation at that time. In 1813, Peter Fidler (a trader<sup>4</sup> and surveyor for the Hudson's Bay Company who ranks with David Thompson for his early surveys of the western interior<sup>5</sup>), under instructions from Governor Miles Macdonell, surveyed the first farm lots at the Red River Settlement. This was the first subdivision surveyed in Manitoba. The lots were long and narrow, modelled after the river lot system of Quebec.<sup>6</sup>

In Quebec the strip-field agricultural system, with its ribbon or lineal villages, had developed as an adaption to the irregular lands of the French Feudal System.<sup>7</sup> The lineal village, though popular in Quebec, was not considered to be the best pattern for development since it did not enable farmers to enjoy the social and other

---

4. Warkentin, p. 146.

5. Warkentin, p. 137.

6. Warkentin, p. 183.

7. Michael Hugo-Brunt, The History of City Planning (Montreal: Harvest House, 1972), p. 257.

advantages resulting from community life.<sup>8</sup> Lord Selkirk had hoped to establish agricultural villages as were common in Europe<sup>9</sup>, however the decision by Governor Miles Macdonell to lay out long narrow lots fronting the river altered this. Figure 2 shows how the first settlement related to the river, wooded area, open prairie, roadway and survey pattern. It was located four miles north of the junction of the Red and Assiniboine Rivers.

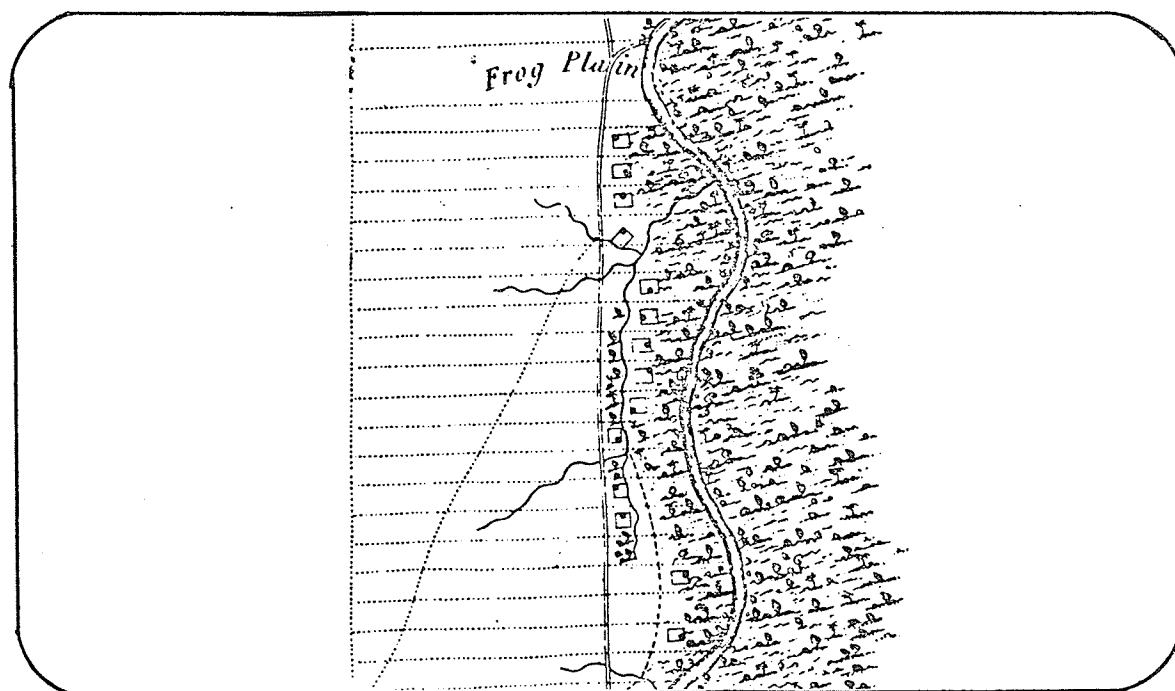


Figure 2. The Red River Settlement Pattern<sup>10</sup>

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8. E. Deville, "Radial Hamlet Settlement Schemes", Plan Canada (March, 1975), p. 44.

9. Warkentin, p. 183.

10. Warkentin, p. 182.

Lord Selkirk died in 1820 and his interests in Assiniboia were transferred back to the Hudson's Bay Company. In 1825, the Governor of the Hudson's Bay Company notified the settlers that a Colony register was being prepared for entry of title deed for land. This was apparently the first attempt at recording land titles in Manitoba. By 1838, the major survey characteristics of the Red River Settlement had been established. The lots varied in width and orientation, and special subdivisions had occurred, resulting in groups of uniform lots.<sup>11</sup> In 1869, the Hudson's Bay Company transferred land interests to the Dominion of Canada by a Deed of Surrender which assured that all existing titles would be recognized.<sup>12</sup> The beginning of the Township System of surveys was laid out in this year, and later it was decided that the river lots should be extended from two to four miles in length to match up with the Township System. All lands registered in Manitoba from 1870 to 1885 were registered under The Registry Act, while lands registered from 1885 to the present are under The Real Property Act. These two methods of land registration will be dealt with in the latter part of this chapter.

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11. Warkentin, p. 191.

12. L.E. Boutilier, "Land Title Examination of Surveys in Manitoba" (paper presented to the joint meeting of the Minnesota Land Surveyors Association and the Association of Manitoba Land Surveyors, Duluth, September 15, 1973), p. 61-62.

## 2. Description of the System

The basic river lot surveys were laid out as shown in the following figure.

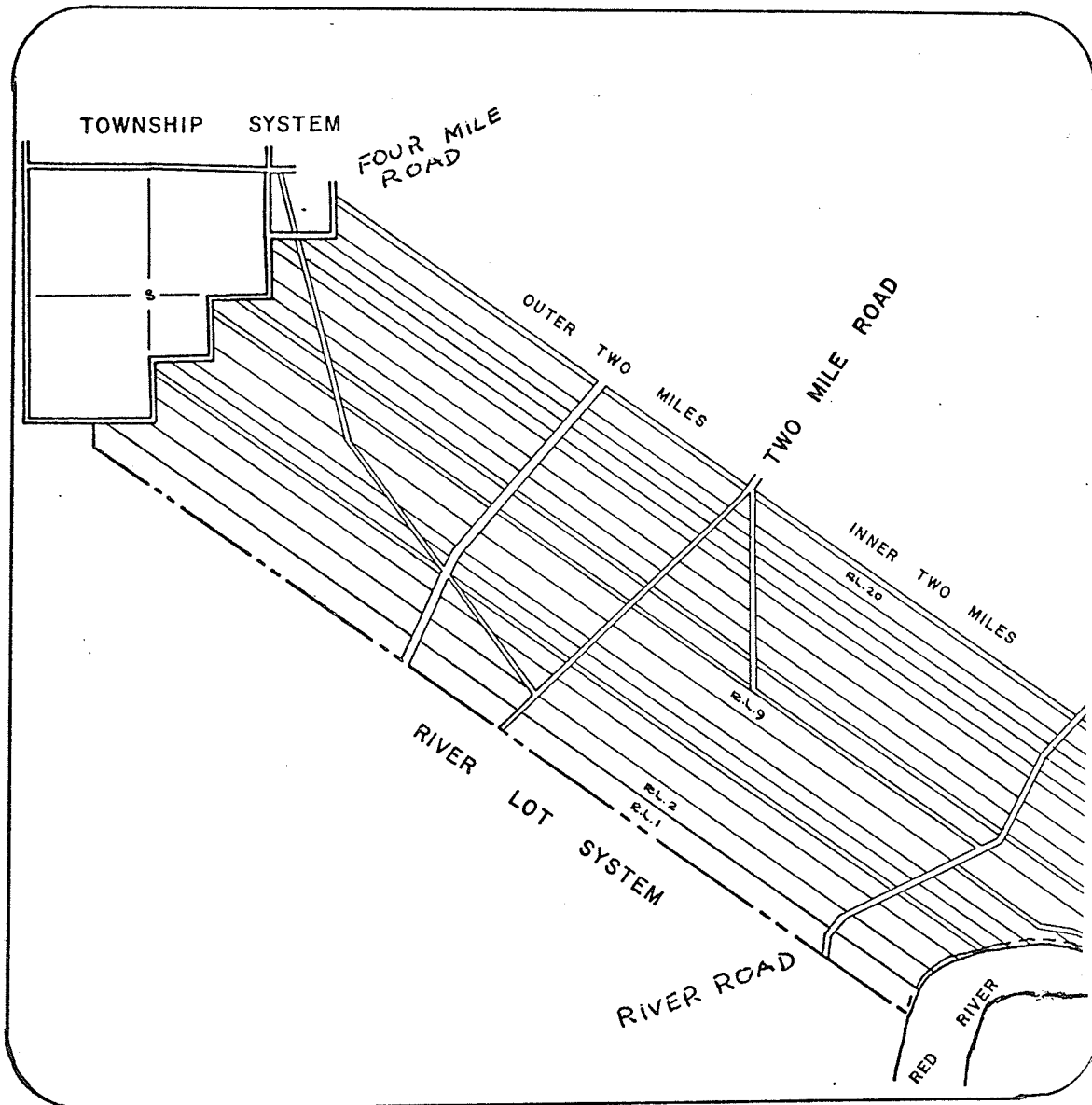


Figure 3. The River Lot System and Its Later Union With the Township System

A base line was run parallel to the general direction of the river (excluding meanders) and property boundaries were marked about every 330 feet.<sup>13</sup> The depth of a river lot was about two miles, and ran at right angles ( $90^\circ$ ), to the base line. Each River Lot contained about 80 acres. The river lots were numbered consecutively and contained within districts called Parishes.<sup>14</sup> The road nearest the river was called the "river road" and the road at the outer extremity the "two mile road". Both roads ran approximately parallel to the river. Beyond the "two mile road", hay meadows were allowed, being known as "Park Lots". "Wood Lots" were also allotted to the owners. Later the river lots were extended two miles further to enlarge their acreage and join the Township System. The road at this extremity was known as the "four mile road" as is shown in Figure 3.

### 3. The Significance

The City of Winnipeg lies at the centre of two intersecting River Lot Systems: the Red and the Assiniboine.

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	13. Conversion factors for lengths and areas.	
<u>lengths:</u>	1 mile	= 80 chains (gunter's)
	(U.S. statute)	= 1609.3 meters
		= 5280 feet
<u>areas:</u>	1 acre	= 1 square chain x $10^1$
		= 4047 square meters or .4047 hectares
		= 43560 square feet

14. A Parish is a territory of land within a diocese (of which a Bishop is in charge) with its own church and pastor.

Due to its location, the history of Winnipeg has been greatly affected by the lot system. The long residential streets and the major roadways paralleling the rivers, resulted directly from the form of land divisions established from the beginning. As with the early settlers, major activities focus on the roadways, with the isolated interior land being hard to service and less economical to deal with.

The River Lot System, due to its design, gave direction to establishment of urban centres, and promoted a community way of life in which "proximity to one's neighbor" was emphasized at the expense of a more economic way of day to day farming. In these ways the River Lot System, which contains over half of the population of Manitoba, was far superior to the Township System.<sup>15</sup>

### C. The Township System<sup>16</sup>

#### 1. Historical Setting

The surveying of the Principal Meridian in 1869 marked the beginning of the Dominion Lands Township System or the Township System of Surveys which was to dominate western Canada. The system used was a rectangular one which provided a simple, reliable, definite, and easily understood form of land identification with legal

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15. Warkentin, p. 337.

16. The word "Township" as used in Europe refers to the district of a town. In Canada it has been used to describe a block of land.

description. It was borrowed from the United States<sup>17</sup> where it had been implemented in 1785, and became the pattern for surveying and recording public lands throughout most of the new territories of the United States.<sup>18</sup> In Canada, William McDougall, Minister of Public Works in the Sir John A. MacDonald government, with the assistance of Lieutenant Colonel J.S. Dennis, an Ontario Provincial Land Surveyor studied the American system and decided to adopt it with some alterations. Rather than laying out townships 6 x 6 miles which contained 36 sections of 640 acres each as in the American system, it was decided that the township should be  $9\frac{1}{2} \times 9\frac{1}{2}$  miles, containing 64 sections of 800 acres each. When sections were divided into quarters, they would each contain 200 acres as was common in Ontario. From 1869-1871 this pattern was used but in 1871 Adams Archibald, Lieutenant Governor of Manitoba, ordered that the established surveys should be resurveyed to conform to the 640 acre sections in the United States. This would allow conformity between the United States and Canadian systems and make it easier for immigrants (many of whom were already familiar with the southern system) but most important of all, many more homesteads would be made available by the smaller

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17. Thomas Jefferson gave strong leadership to the adaptation of the rectangular system having townships 6 x 6 miles which contained 36 sections of 640 acres each.

18. Don W. Thomson, Men and Meridians, Vol. 2 (Ottawa: Queens Printer, 1967), p. 22.



section size.<sup>19</sup> This system was to become the pattern of surveys for most of Western Canada.

The Manitoba Act came into force in 1870, as a result of the 1869-1870 Riel Resistance. The territory within the Red River Settlement became known as Manitoba, one of the Provinces of the Dominion. In 1871, the subdivision of the Prairies for settlement began in earnest to enable the settler to obtain legal possession of a farm lot. It was a dynamic survey period as the following statement reveals.

What might be called the Heroic Age of surveying in Canada began around 1872, when the newly acquired "Northwest Territories" were declared Dominion lands and the southern portions (now the three prairie provinces) were surveyed and opened to settlement. To spearhead that enormous task, a body of Dominion Land Surveyors was created in 1874. The banner year was 1883, when 119 survey parties were at work on Dominion Land, comprising 1200 men. In that survey season, 1221 townships were subdivided and a further 1,380 were outlined, and the total mileage of lines surveyed came to 81,300.<sup>20</sup>

The land divisions were controlled by the Dominion Land Act first established in 1872 and administered by the Canada Department of the Interior. The Land Titles Office, or Dominion Lands Office as it was then called, was located in Winnipeg and served the Northwest Territories and Manitoba.<sup>21</sup>

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19. Warkentin, p. 231-233.

20. Surveying As A Career (Ottawa: Canadian Institute of Surveying, 1967), p. 4.

21. Don W. Thomson and R.O. Semper. "The Location Hunters", The Canadian Surveyor (December, 1975), p. 557.

## 2. Description of the System

The Township System of Surveys is referenced to the Principal Meridian which is a control survey line running true north-south, located on longitude  $97^{\circ} 27' 38''$  west of Greenwich, England. The Principal Meridian is marked by a cairn located three miles west of Headingly, Manitoba. A plaque is affixed to the cairn and shows the Principal Meridian and the area of land covered by the Township System along with the following words:

Depicting the Principal and main Control Meridians of the Canadian Prairies Township System of Survey. The Principal Meridian was the first control line surveyed by the Dominion Government commencing in 1869. Together, these meridians now control over 300,000 square miles, a phenomenal achievement in that the majority was surveyed prior to 1885. This is one of the greatest single uniform systems of survey in the world. It is unique in its simplicity, in its scientific and practical features and in the almost entire absence of litigation over land boundaries.

Viewed from the air this pattern comprised of Townships of 36 sections, each being one square mile divided into quarter sections or 16 legal subdivisions of 40 acres is considered to be one of the most outstanding sights to greet the visitor to the North American Continent and conjures visions of a great scope of cultural development.

In addition to the Principal Meridian, five other control meridians were located every  $4^{\circ}$  longitude west. See Figure 4.

A system of numbering was developed in which the location of land could easily be found by homesteaders and also accurately described legally. Starting at the Principal Meridian and  $49^{\circ}$  latitude, one mile distances were laid out running east, west, and north. Every six of these were considered a unit of one range on the latitude and one township on the meridian as shown in Figure 5. By referring to Township 3, Range 1 W.P.M. (the shaded square in Figure 5) one can easily locate the 6 mile by 6 mile square referred to. This land is referred to as a "Township". A Township

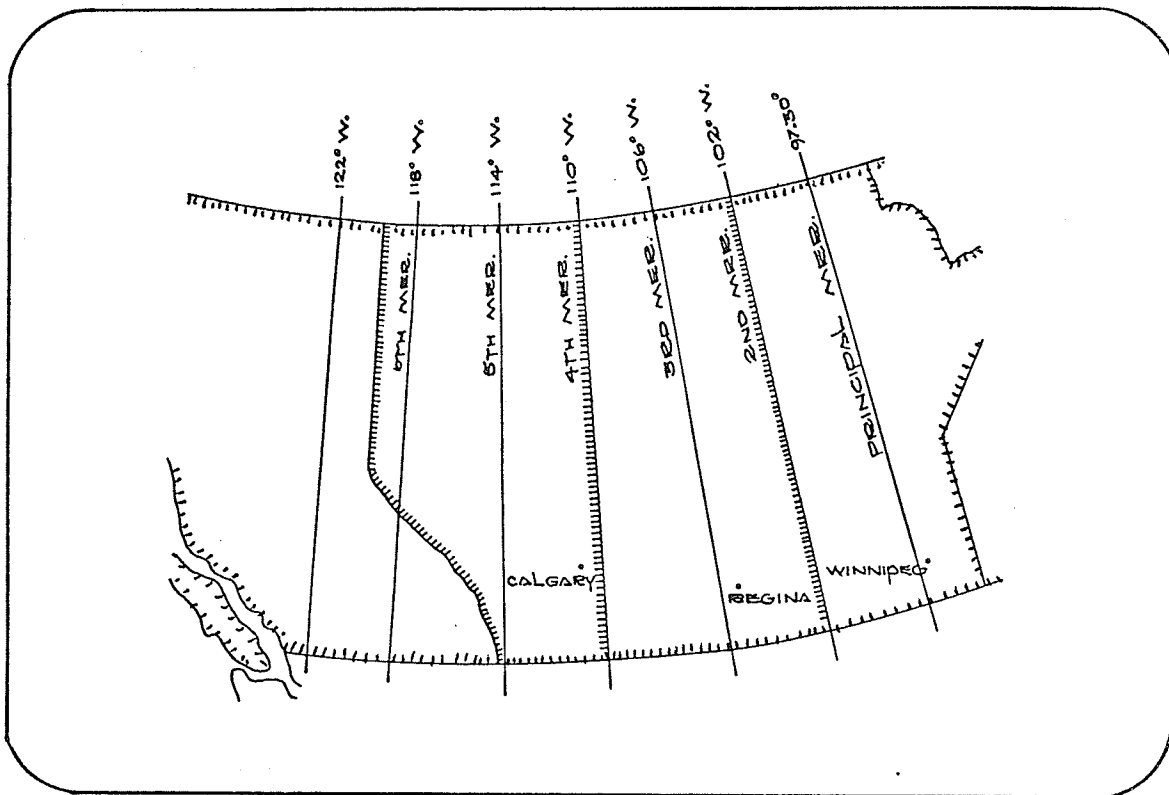


Figure 4. The Principal and Control Meridians of the Township System

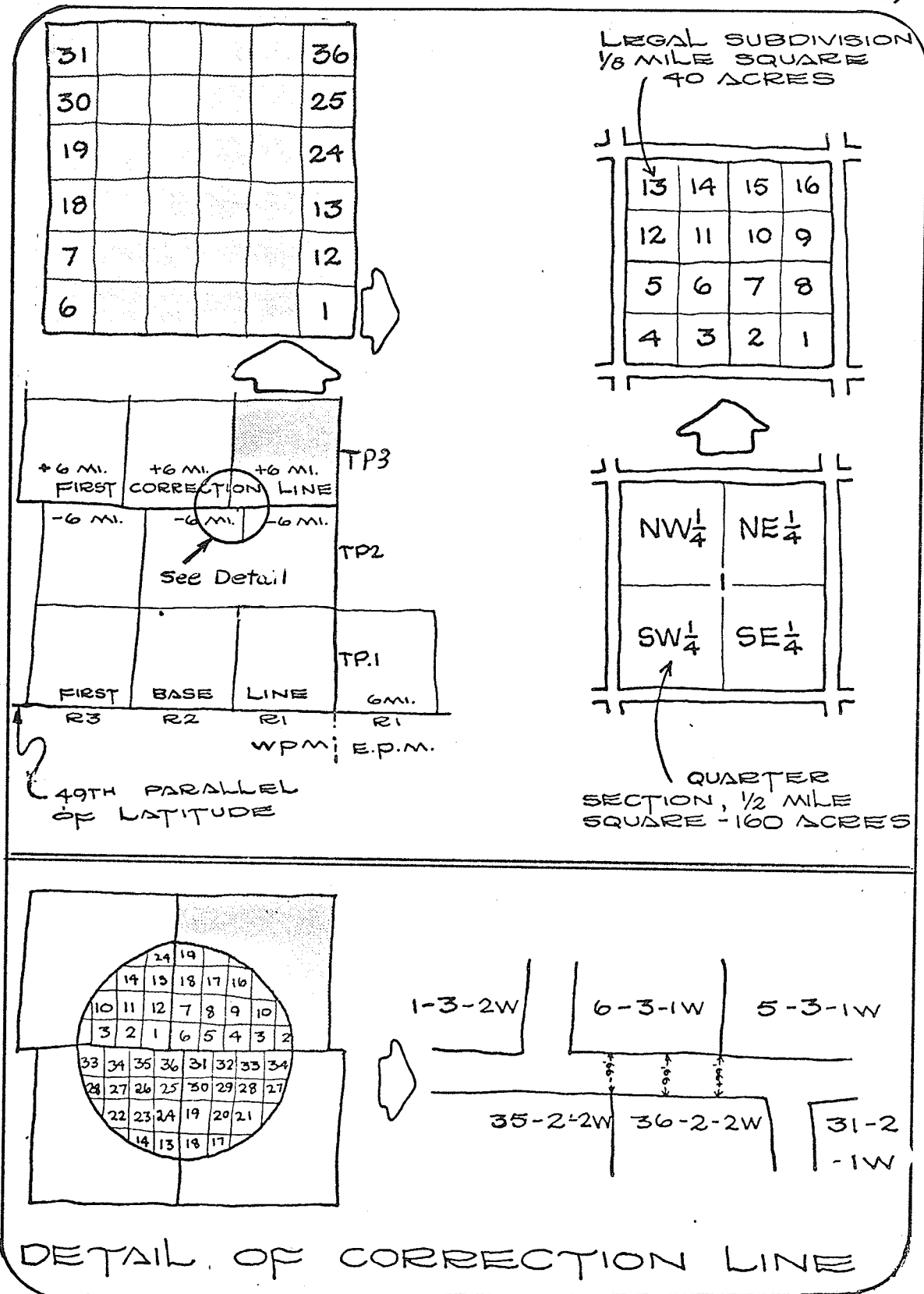


Figure 5. Township and Range Breakdown

contains 36 sections of land, each one mile square. (Area = length x width). Each of the 36 sections (containing about 640 acres) are broken down into four parts called "quarter sections". The quarter sections (containing about 160 acres each) are referred to as the N.E., S.E., S.W. and N.W. quarters of a particular section. Each quarter section is divided into four parts called "legal subdivisions" which contain about 40 acres each. This system of land division easily facilitated the description of a parcel of land in Land Titles on the certificate of title by using the legal subdivision or quarter section, section, township, range and meridian.

A correction line occurs every 24 miles as you proceed north and is used to correct the convergence of meridians to the North Pole. The correction line is necessary if one is to control the size of the grid. A mile width at  $49^{\circ}$  N latitude becomes less than a mile width as you proceed north, applying convergence to your lines. See Figure 6. Correction lines run east and west between townships and midway between the base lines. The base line is used to control the township and section size while the correction line controls the distortion which results from convergence. Refer to Figure 5.

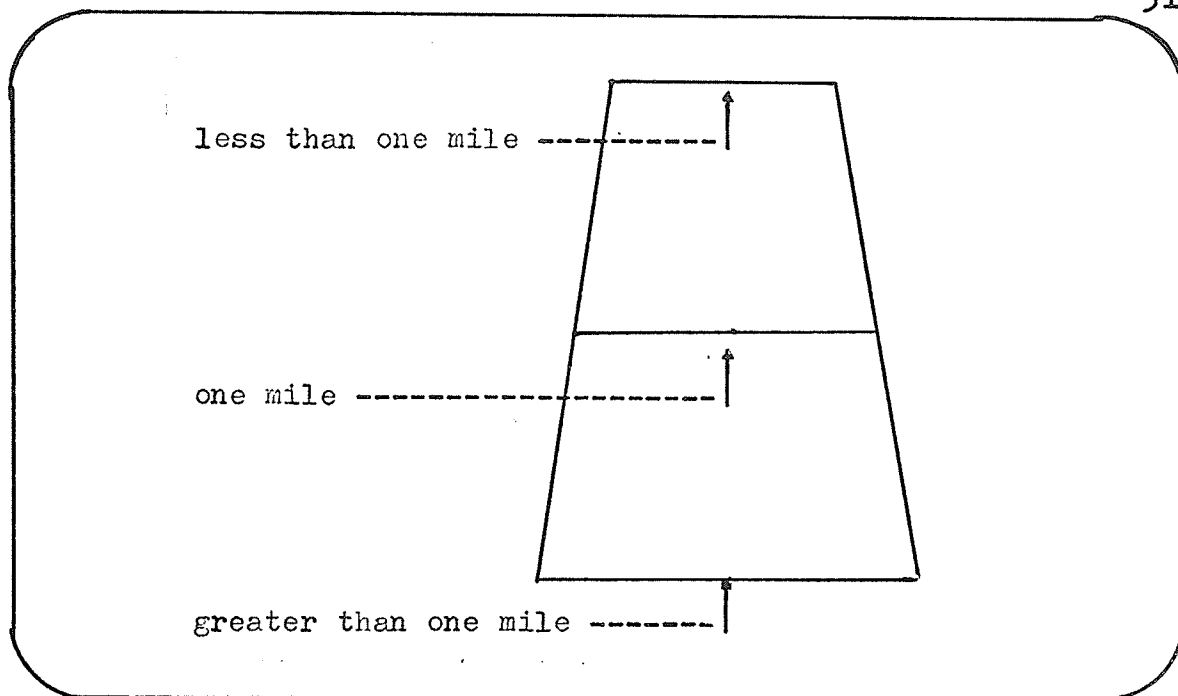


Figure 6. Principal of Convergence

There are five basic systems of township survey in Western Canada. Each uses the grid pattern but contains small differences which reflect the time and topography of the surveys. Because this method of surveying was relatively new in the 19th Century, it was necessary to update it periodically in an attempt to obtain the best grid layout. Different opinions concerning the frequency of road allowances prevailed, resulting in some regions having roads every mile (southern Manitoba) while other regions had no roads surveyed on the grid pattern (British Columbia). The difference led to the five basic systems<sup>22</sup> as shown in Figure 7. Manitoba contains the first and

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22. Surveys and Mapping Branch, Manual of Instructions for the Survey of Canada Lands (Ottawa: Department of Mines and Technical Surveys, 1961), Appendix C.

third systems and these will be described in more detail below.

The First System of surveys, lying in southern Manitoba, is the simplest of the five systems and contains the earliest surveys of Western Canada. Basically, the first system contains one-mile square sections of land with 99 foot N/S roads being parallel to the eastern township boundary. The township boundaries converge to the North Pole but the individual N/S section lines do not. This results in some west quarter sections not being 160 acres.

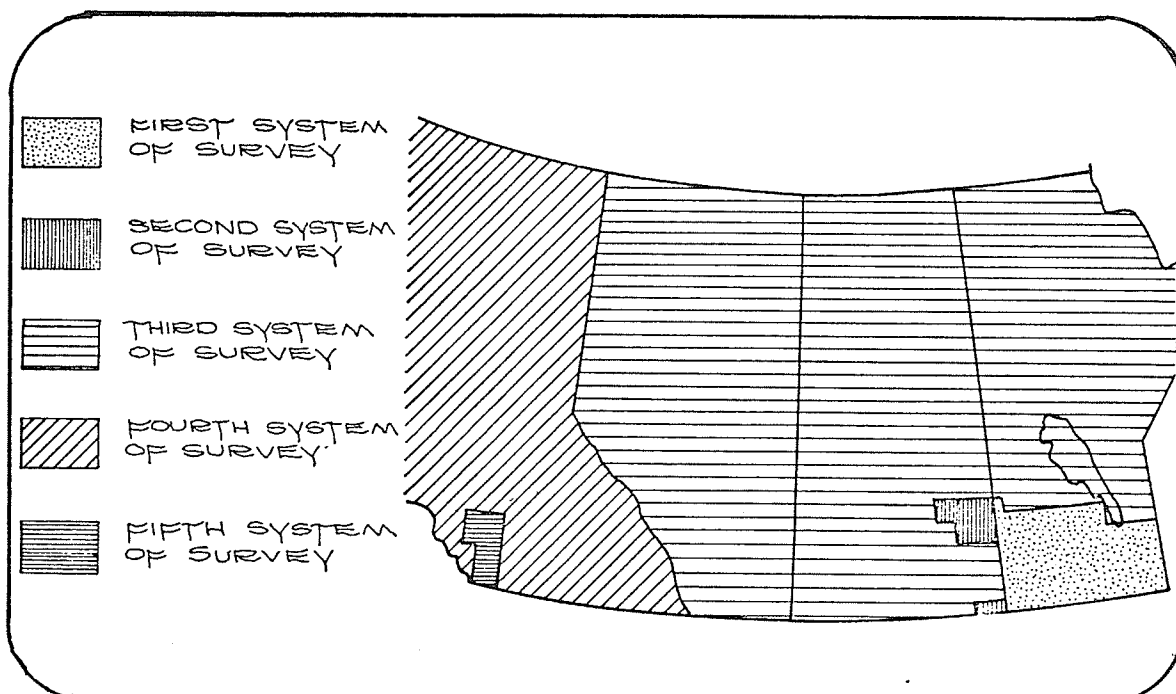


Figure 7. The Five Systems of Township Survey

To better account for the convergence of meridians, the Third System of Surveys was derived. All of the N/S lines in this system are calculated to be in line with the North Pole rather than parallel to one township boundary as in the First System. In this way all the sections contain about 640 acres.<sup>23</sup> As in the First System, a correction line occurs 12 miles south and north of every base line. The base line is surveyed perpendicular to the principal meridian. Along every mile on the base line a N/S line is surveyed for 12 miles, convergence to the Poles being applied. The correction line occurs where the two meridian lines from two base lines meet.<sup>24</sup> The Third System is the most extensive of the Five Systems. It contains 66 foot road allowances every mile running N/S and every two miles running E/W. The road allowance has been increased to 99 feet in many areas for road widening. In some areas, the first and third systems have been modified in other small ways.

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23. The second system is similar to the first system except that all its section lines converge to the north pole as in the third system.

24. The Fourth System of Survey or System of Surveying in the Railway Belt of British Columbia, is like the Third System except the road allowances are not specifically laid out. Instead a road allowance of three acres is contained within the one hundred and sixty acres of each quarter section. The Fifth System of Survey is a combination of the Third and Fourth Systems plus a local reference meridian, the Coast Meridian.



### 3. Significance

The township system superimposed a grid pattern over the landscape with no regard for the physical landscape of the country. Topography, soils, drainage, and vegetation were overlooked, and rural sociologists have criticized the system for the isolated life which it induced.<sup>25</sup> The most rational land division, the square, may be found in need of adjustment to environment when the land is actually in use. The system, as explained, was a simple grid. An alternative to this would have been a cadastral survey based on landscape features. Though far superior, it would not have allowed for the convenient disposal of the public domain.

The following Figure 8 shows a settlement pattern prior to the survey of 1872. The dwellings were located near roads, woods, and springs. Whether on open prairie, or along waterways, the grid patterns made no adjustments, cutting through buildings and fields previously established. Today, the basic settlement pattern of Manitoba is one of scattered farm homes located close to roadways, not unlike that of the nineteenth century. Initially, each farm contained 160 acres; as of 1966 the average farm size was 480 acres. It is interesting to note that today this system of land division, which covers the majority of the Province, contains less than half the population.<sup>26</sup>

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25. J. Friesen, "Expansion of Settlement in Manitoba: 1870-1900" Unpublished, p. 36.

26. Warkentin, p. 340.

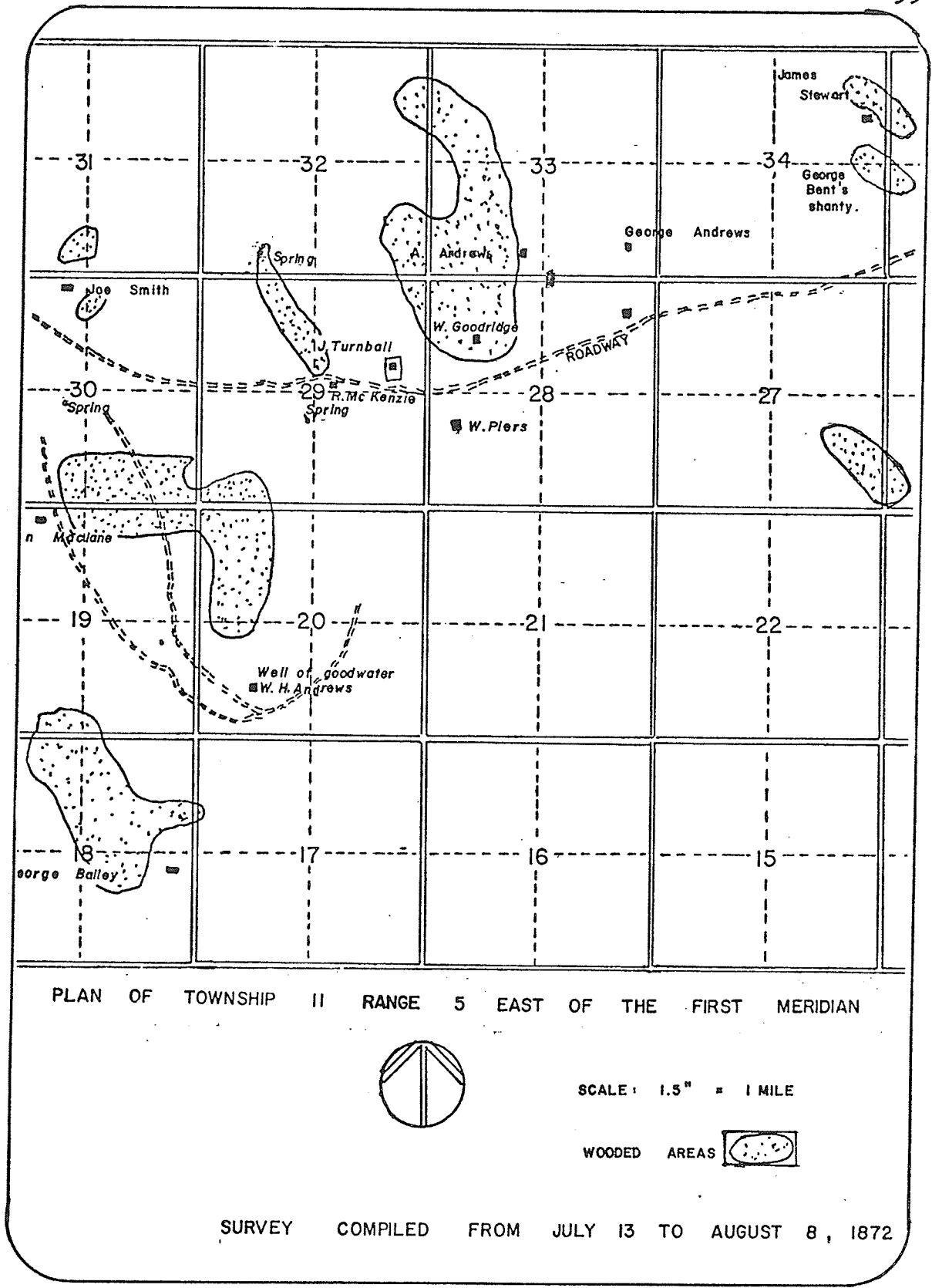


Figure 8. Roadway Settlement Patterns

The choice of the grid system resulted from a political decision which required a regular and comprehensive system to enable large areas to be surveyed in advance of settlement.<sup>27</sup> Translated into survey language, this involved the quick and accurate mapping of the territory on a geometric plan. In considering these narrow parameters, it is likely that it was the best system of surveying the land which could have been used. As urban centers have expanded, these large areas of land have been easier to convert into urban forms than the long narrow river lots, due to the number of land owners involved. However, the method was a failure. In 1917, Thomas Adams stated that:

The surveyor should not only measure the land, but make a survey of its conditions in the real sense; and the rectangular survey should not be the plan for settlement, but only provide the basis on which a proper development plan for each township should be prepared. [italics in original].<sup>28</sup>

He went on to say that the Township Survey system is not a plan of land development at all, nor is it suitable for such a plan. It has been an error to take this method of survey designed for one purpose and use it as a plan for

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27. Thomas Adams, Rural Planning and Development (Ottawa: Canada Commission of Conservation, 1917), p. 11.

28. Adams, p. 53. Along the section lines (or road allowances), the surveyor did record information concerning class and depth of soil, water courses, and drainage patterns, type and extent of wooded areas, existing trails, and any other topographical features that were noteworthy. This data however was not used for the preparation of development plans. (refer to the original "Field Notes of Subdivision Surveys".)

another without regard for soil, topography, or future development. Worse yet, farms are divided into smaller land divisions and roads located without any properly conceived development plan. On a larger scale, the social costs of uneconomical settlement which were rectified by the disasters of the depression, abandoned homesteads and farm buildings and the mass of broken dreams should also be accounted for in evaluating the Township system. They have not been and the system of land divisions, designed for the expedient disposal of public lands, continues to affect the ways in which settlements occur.

#### D. Other Early Systems of Land Division

As large groups of European immigrants began to settle in Manitoba, it is understandable that other forms of land settlement were attempted. Some of these settlements existed prior to the introduction of surveys. Others came after. The examples to be studied are settlements which were contained within the Township or River Lot systems.

##### 1. The Combined River Lot and Township Systems

The Icelandic settlement, located on the Icelandic River 75 miles north of Winnipeg, began in 1875 with the Canadian Parliament passing an Order in Council establishing the Icelandic Reserve which granted the Icelandic people exclusive settlement rights in the area. This special status was to remain until 1897. Within these years there

were large fluctuations in the population (for example, in 1875-76 the population rose from 235 to 1200 and then later dropped to 250). Their settlement area faced many hardships and abuses from nature, unequalled in other settlement areas.<sup>29</sup>

Having arrived prior to any system of surveys, the Icelandic settlers freely established a settlement pattern along the Icelandic River, which was very similar to the pattern established by the River Lot System (the road paralleling the waterway, and the homes established along this road way). The difference was that the Icelandic homes were much farther apart from each other than in the River Lot settlements. With the coming of the Township system of surveys in 1883 and 1901, a problem of fitting the established settlement into the grid pattern of sections and quarter sections was encountered. The following Figure 9 shows how this problem was solved. Four River lots, each one quarter of a mile wide, were established within each section and the lots were extended to the river. The existing houses, stables, River Road, and land ownership were recorded in the surveyors field notes and are shown as they were at the time of the 1883 and 1901 surveys.

The Icelandic settlement pattern, and the ensuing method of land division, helped to alleviate social

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29. Interlake Flyer. (July, 1974), p. 31-34.

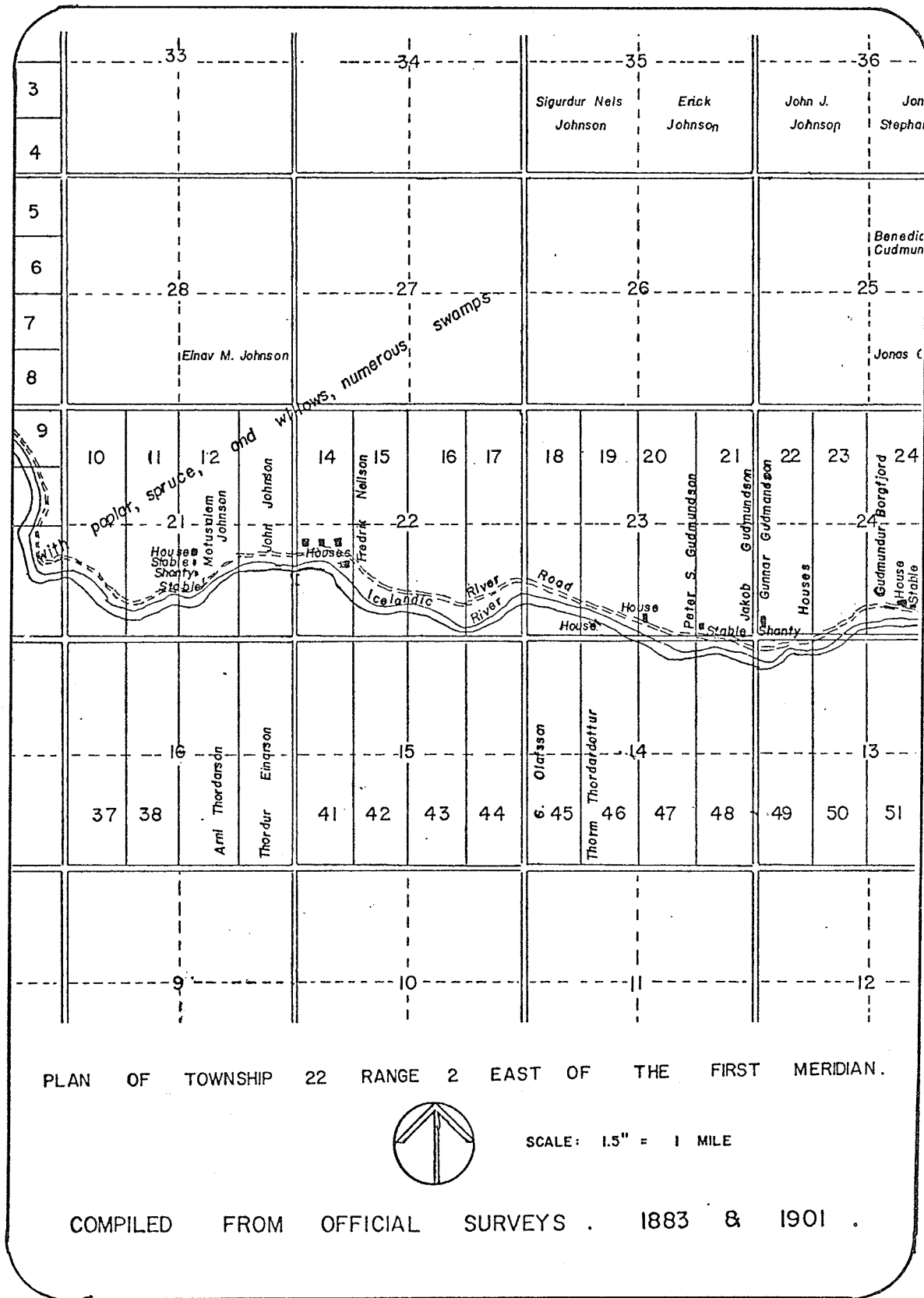


Figure 9. Icelandic Settlement Patterns

isolation, and also conformed to the natural features of the land. Along the Birch, Whitemouth, and the Carrot River at The Pas, similar settlements were planned in the twentieth century.

Properly laid out, the long lot can provide both social efficiency, by permitting the people to be reasonably close to one another, and economic efficiency, by allowing services to be arranged in a linear pattern. The lots, however, must be wide enough to ensure efficient field operations.<sup>30</sup>

## 2. The Street Village System

The Street Village system of settlement was attempted by the Mennonite, Swedish, Jewish, and the Hutterites in the late 19th and early 20th centuries in Manitoba. The Hutterite settlements were not true Street Villages, but rather colonies (Haufendorfer) within which 70-120 persons lived, owning all their land in common. Examples of these colonies as shown in Figure 10 can be found in the Elie area, about 40 miles west of Winnipeg.

A sizeable Jewish colony was established at Bender Hamlet in the Interlake Region, in 1903, as a farm operator Street Village. It was located 70 miles north of Winnipeg (7 miles south of the present day Chatfield). Each of the settlers owned 160 acres and up to 20 farmers lived in the village. The village contained 20 - 8 acre sites, strung along a main road. All the houses were built on the north side of the road, with gardens, farm buildings,

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30. Warkentin, p. 338.

and pastures located further back. This concept overcame the loneliness of farm life, but poor soils, bad roads, and long distances to scattered fields hampered the settlement from its inception. Though it once contained 38 families, a synagogue, store and school, by 1930 none of the early settlers remained.<sup>31</sup>

Shortly after World War I, a Swedish group settled in a Street Village near Meadows, Manitoba. This settlement was like the ones established by the Mennonites in southern Manitoba in the 1870's.

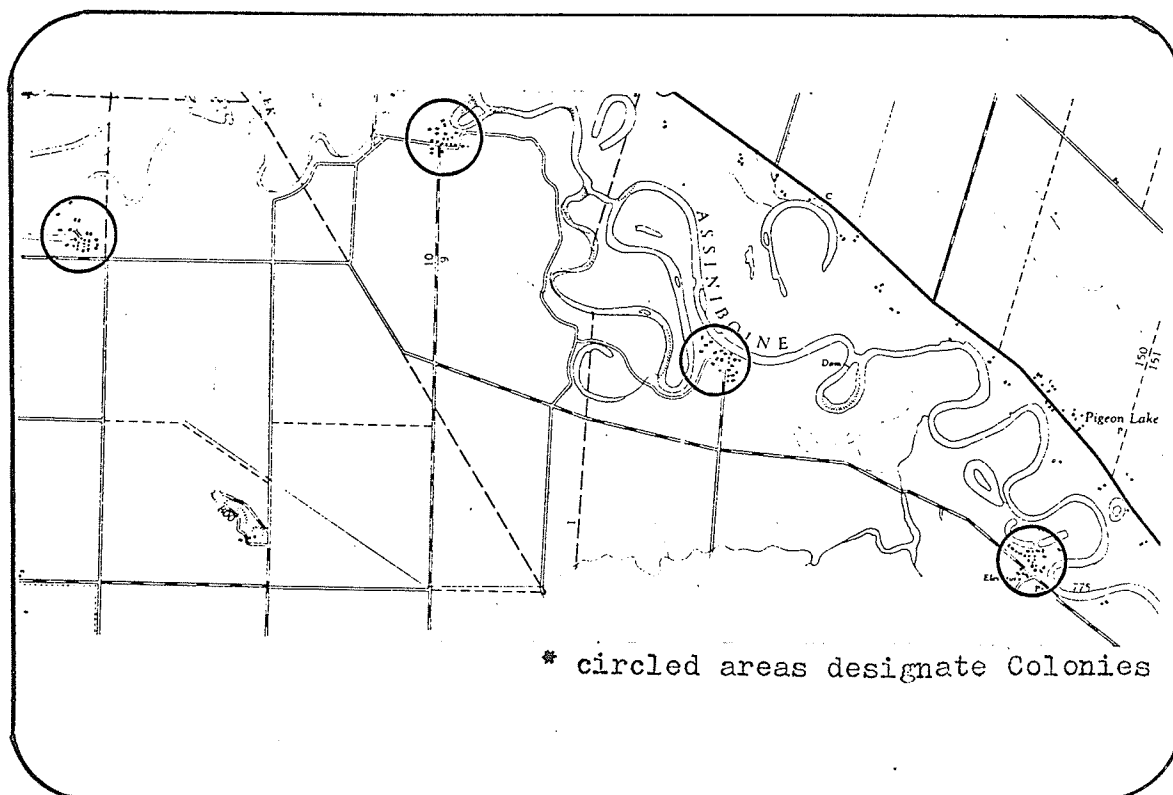


Figure 10. A Colony Settlement<sup>32</sup>

31. Interlake Flyer, p. 50-52.

32. Warkentin, p. 342.



The Mennonites established over 100 farm operator Street Villages of a type similar to the layout of the Jewish villages. Each unit contained about twenty farmers. The village consisted of a street lined on one or both sides with houses as shown in Figure 11. Work shops were attached to the house with the barn attached to the workshop. The Mennonite house-barn combination was an adaptation to the necessity of setting buildings on mounds of dirt in wetlands in their former homelands in Holland and Danzig. On the steppes in Southern Russia and later the Prairies, this design proved most valuable in the harsh winters. The village layout itself is an adaptation to

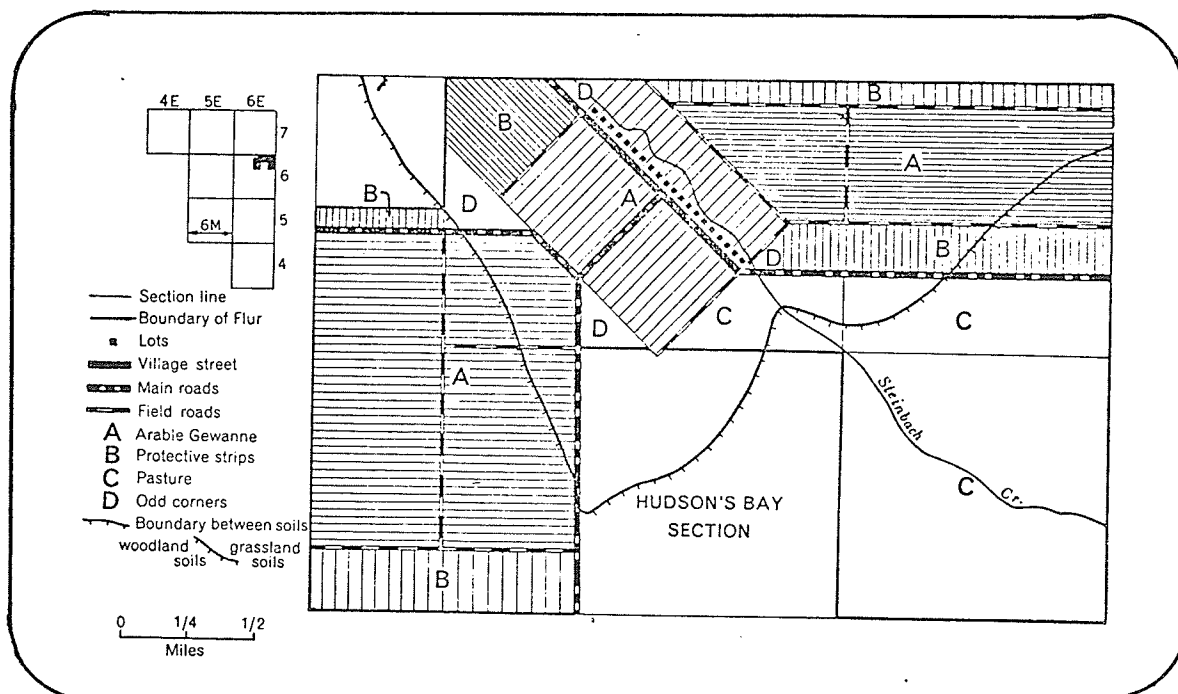


Figure 11. Field, Building and Road Patterns of the Street Village System

drainage patterns.<sup>34</sup> The fields were laid out around the village in long narrow strips. The farmers operated within the section survey by pooling their homesteads, and then redistributing the lands to suit their needs. The village itself often related to topographical features such as wooded areas, or water courses. Out of the one hundred villages, only seventeen remain. The land is no longer farmed in strips.

### 3. Village, Town and City Plans

The previous examples of settlement patterns imposed and adapted traditional forms to the rigid section and river lot system and resulted in the establishment of urban centers along village streets. Manitoba does not contain a wide variety of design layouts within its urban areas. It is important however to consider these land divisions because they contain areas of dense population. It must be realized that most of the new land divisions occur around, rather than within, already established urban centers. The Gridiron Plan dominates the settlements with scattered examples of Cross Road Villages and Curvilinear Streets also being present. The gridiron plan came to Manitoba from Ontario, from where many surveyors and settlers originated. Because of its ease of survey, subdivision and expansion, and application to the Grid and River Lot systems, it was readily accepted with few controls

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34. Warkentin, p. 338.

(other than road width) being exercised. Lot size and depth varied considerably; but long, narrow lots, 33' x 120' were dominant. Distinctions between major and minor streets were not made. In cases where the railroad passed through the town, the street pattern was oriented to the railroad line, but still contained within the Township survey system as shown in Figure 12. The lots facing the tracks contained the business section, and only if the town grew would perpendicular streets become commercial as well.<sup>35</sup> Some towns did not incorporate the railroad orientation of the main street (Carman, Morris, Minnedosa, and Souris) by being well established prior to its coming. Of these, only Souris has escaped the effects of having a main highway cut through its heart and dismembering the central area.<sup>36</sup>

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35. Warkentin, 359.

36. Warkentin, p. 372.

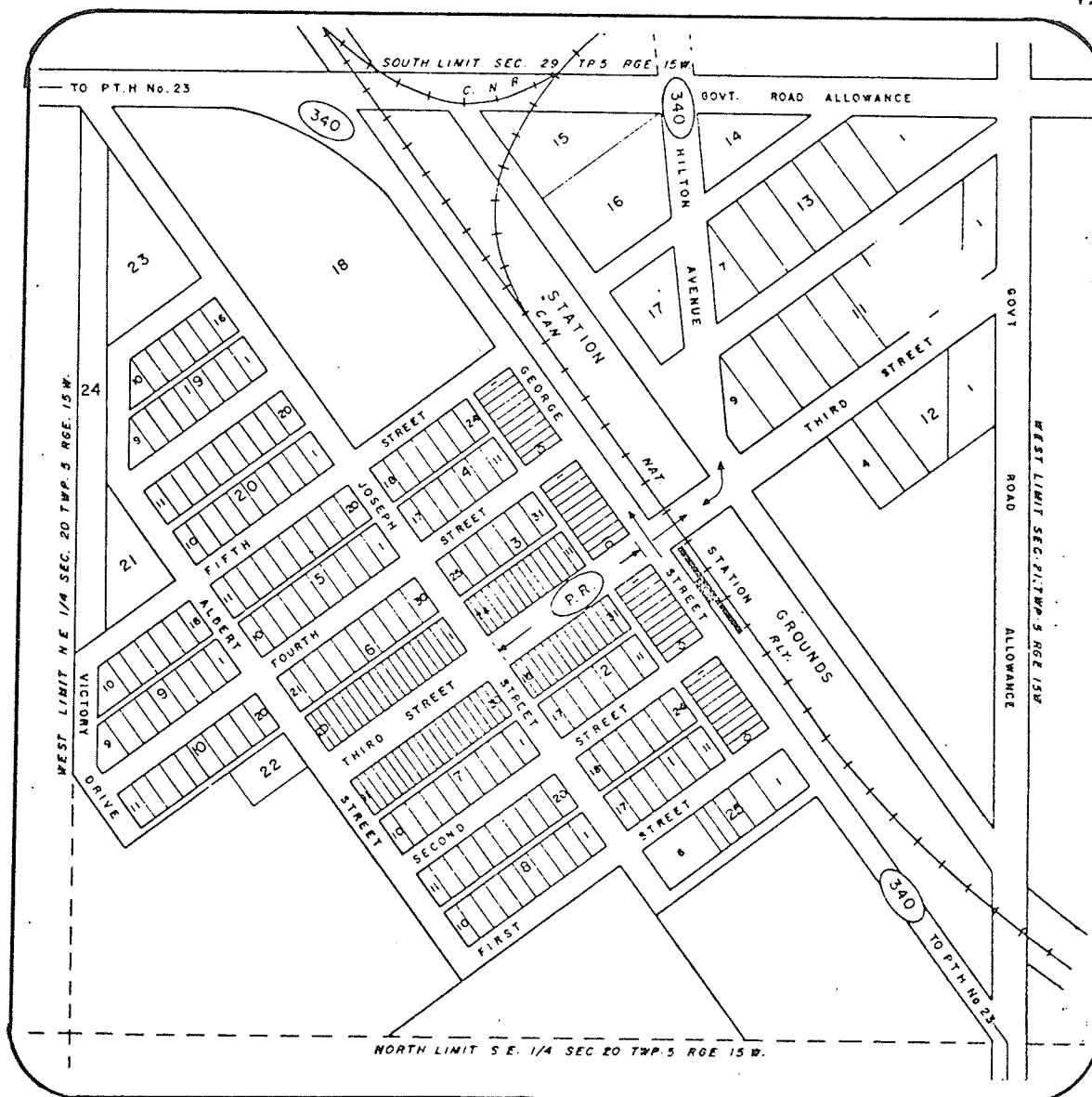


Figure 12. The Grid Plan<sup>37</sup>

The crossroad villages, though few in number, are of particular interest since their development followed lines of natural evolution. St. Pierre as shown in Figure 13, developed within the River Lot system of Rat River and gradually evolved into a village which focused

37. Warkentin, p. 367.

about the church, a few shops, and a central public square. The railroad by-passed the village, but highway #59 has cut through it, disturbing the placid harmony which once existed there.

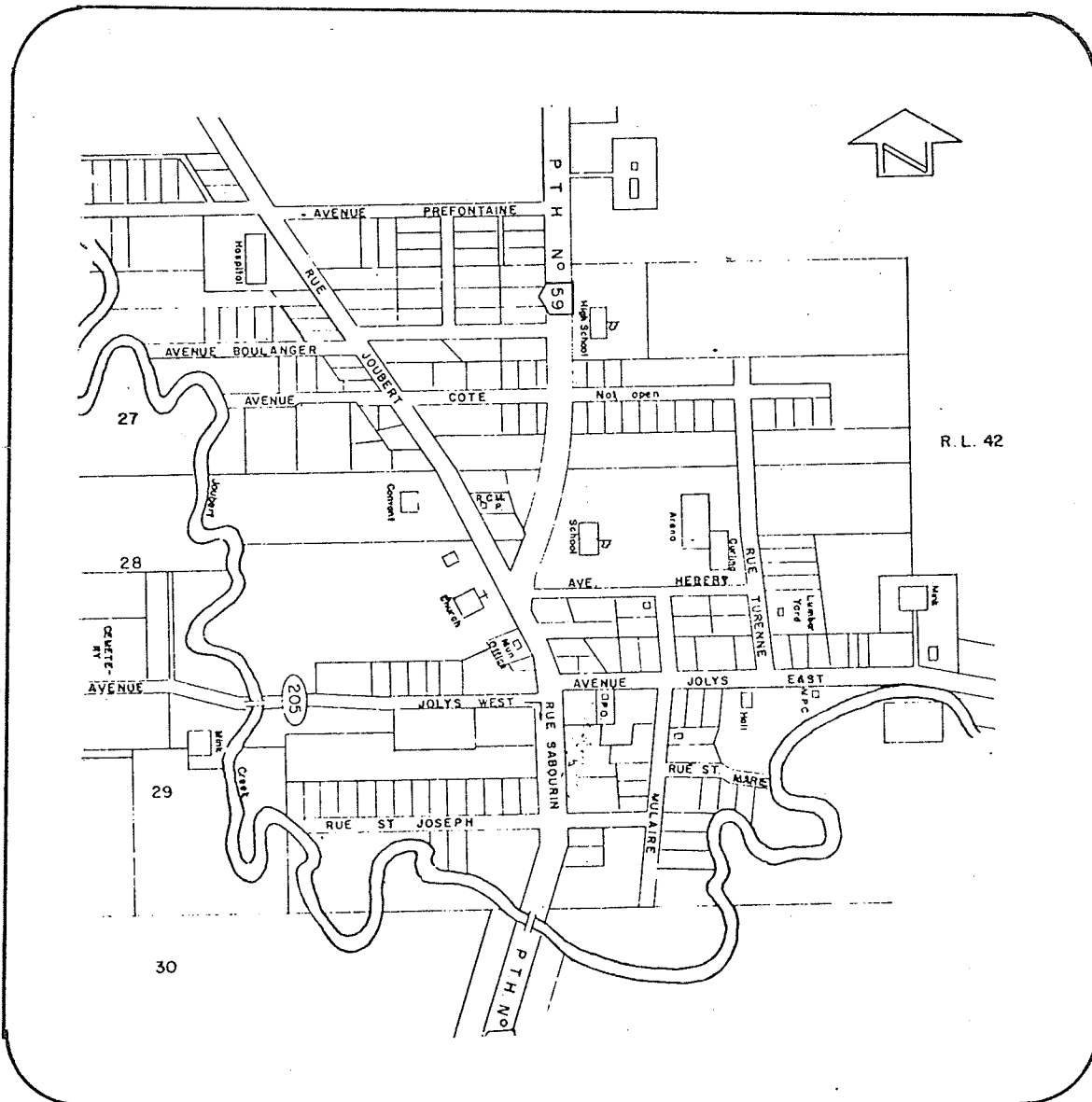


Figure 13. A Crossroads Village<sup>38</sup>

Sandilands and St. Leon are two crossroad hamlets. The first, though on a railroad line, has escaped the grid stamp, and remained entirely as an unplanned hamlet. As Figure 14 illustrates, trails lead out from the railroad station to wood cutting areas beyond. It is along these trails that the homes, stores, and church are located. St. Leon and many hamlets like it, are located along section road allowances, and as such, have a linear or strip type of configuration.<sup>39</sup>

Urban settlements containing curvilinear streets have been almost non-existent in Manitoba until recently, except for the town of Pine Falls (a company paper town, which was laid out in the 1920's). Pine Falls consists of curved residential streets focusing on a shopping center and recreational facilities. It is the first town in Manitoba

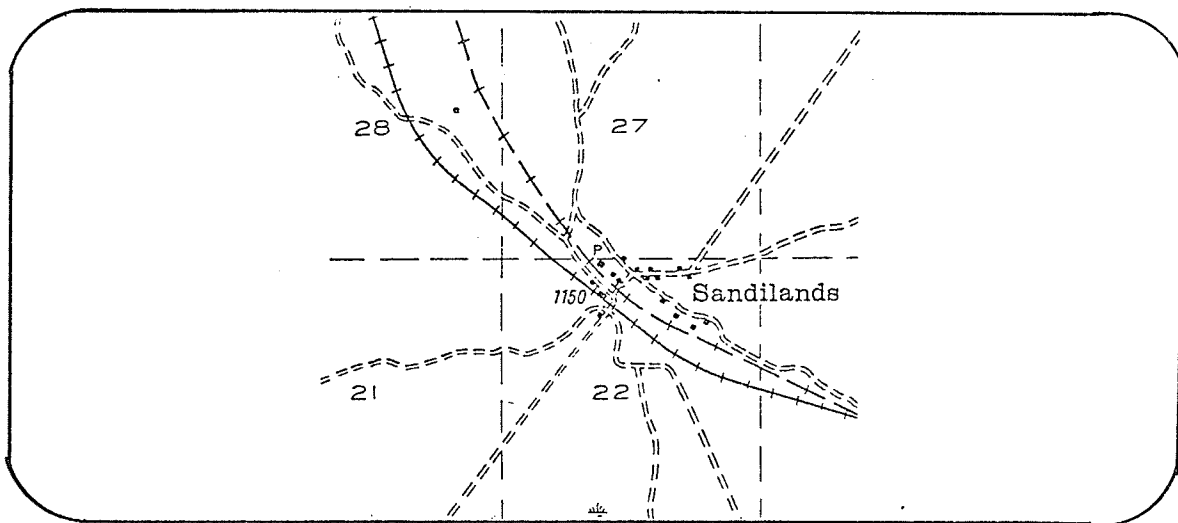


Figure 14. A Crossroads Hamlet<sup>40</sup>

39. Warkentin, p. 370.

40. Warkentin, p. 371.

that was conceived as a Master Plan, and in which planners attempted to break from the traditional straight line. Refer to Figure 15. Since then, Thompson and Pinawa have been built on the curvilinear concept, and many new subdivisions in old grid pattern settlements as well.<sup>41</sup>

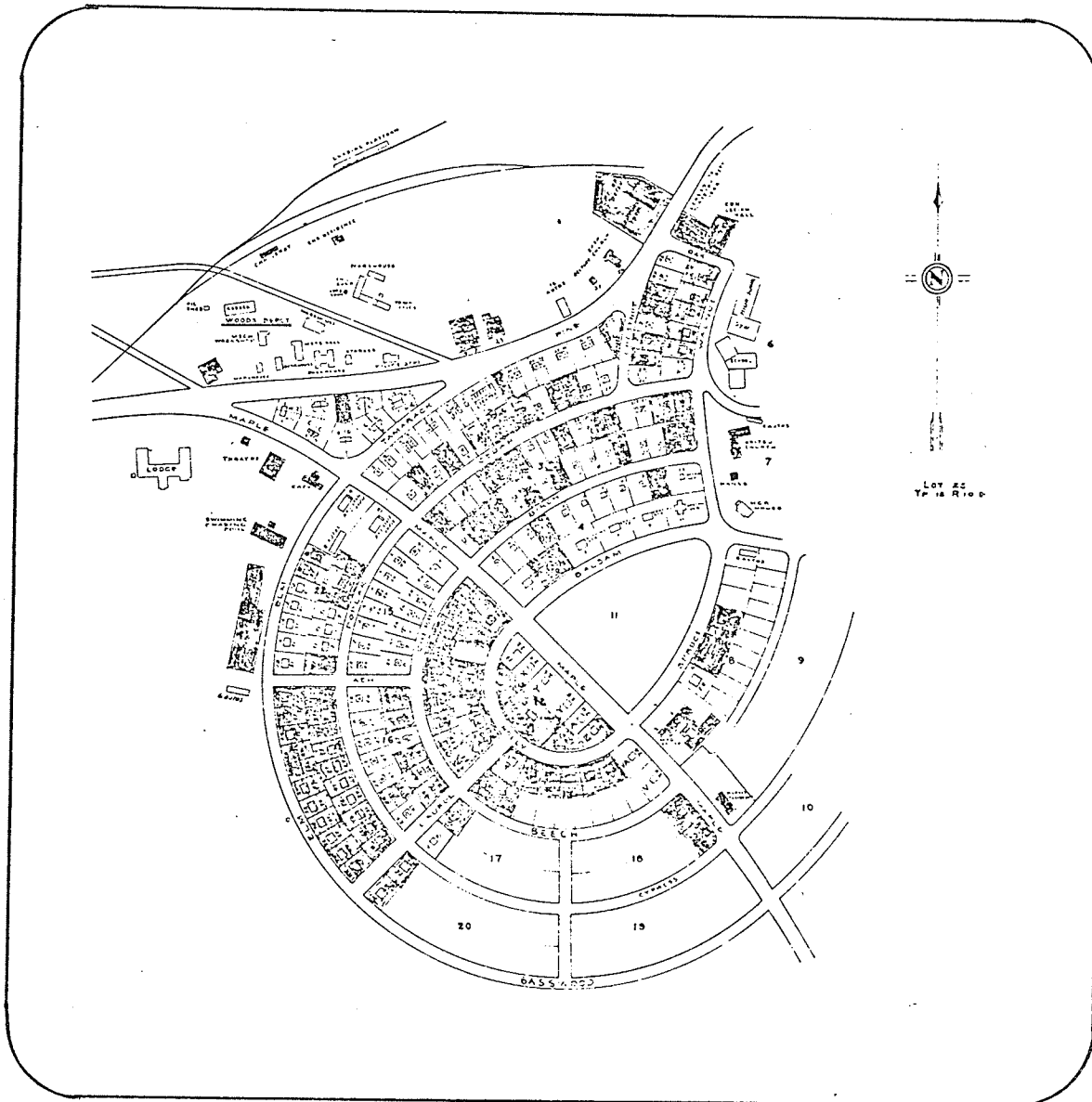


Figure 15. A Curvilinear Town<sup>42</sup>

41. Warkentin, p. 378.

42. Warkentin, p. 371.

## E. The Land Titles Office and the Description of Land

The previous sections have dealt with the ways in which land divisions first occurred in Manitoba. Since that time, with increased population, these lands have undergone and are undergoing drastic changes. Before looking at the way in which the land divisions are occurring, it is necessary to study the Land Titles System as well as the existing (past and present) techniques of recording, in order to understand the methods by which the changes can occur.

### 1. The Registry and the Land Titles System

In 1867, the British North America Act placed the administration of real property laws within the exclusive jurisdiction of the Provinces, and Provincial Acts have placed the control of Land Titles Offices under the Attorney-General of the Province. The Registrar General is the head of the Manitoba Land Titles District, which is broken down into seven Land Titles Offices. They are located at Winnipeg, Brandon, Portage la Prairie, Morden, Boissevain, Neepawa, and Dauphin. Each is directed by a District Registrar who is a Barrister-at-Law. All plans to be registered in the Land Titles must be prepared by a Manitoba Land Surveyor.

All lands registered in Manitoba from July 15, 1870 to July 1, 1885 were registered under The Registry Act, the (old) Registry System, a deed system used throughout Eastern Canada and the United States. Title to land



was based upon the description contained in the deed conveying it. "The deed is the instrument by which title is passed from one person to another."<sup>43</sup> In transferring titles, a long search of deeds was required to establish that the vendor had good title to the land. Even after a long search, however, there still was no assurance that all important deeds were present.

In 1885, the Real Property Act came into effect in Manitoba, with the objective of offering security, simplicity, accuracy, cheapness, expedition, and suitability. All lands registered after July 1, 1885, were under this system; lands registered prior to this generally had the option of remaining under the old system. The (new) Land Titles or Torrens System resulted in a system of state registration of title to land in which all transactions against the title must be recorded on a certificate of title.<sup>44</sup> Every certificate of title is conclusive evidence that the person named therein is entitled to the land, and if he should desire to sell part of his land, a new certificate must be drawn to depict this change in ownership.

The Certificate of Title then is the all important

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43. Les Scher, Finding and Buying Your Place in the Country (New York: MacMillan, 1974), p. 322.

44. Cameron Harvey, An Introduction to Law and Local Government for University of Manitoba City Planning Students (unpublished lecture notes, Winnipeg: Faculty of Law, University of Manitoba, 1975), p. 49-51.

document in the Land Titles System, indicating undeniable proof of ownership. Every certificate of title may be regarded as consisting of two essential parts:

a) ownership - that which defines the relation between the parties as to their respective interest in the land (a matter of drawing up a legal document which should usually be done by a lawyer).

b) description - that which defines the actual position and extent of the land itself.

## 2. The Description of Land

A description defines the boundaries of an area of land by numbers or words.<sup>45</sup> In ancient times boundaries to land were only described verbally but as time passed and divisions became more numerous and complex, it became necessary that they be written down. Because of the complexity of some descriptions and the difficulty in knowing that the description adequately described the land, it became a common practise to mark the corners of properties with rocks or posts and measure the distances and angles between these markers. This procedure, called surveying, not only established the property corners in a physical sense, it also enabled a plan to be drawn. The description could then refer to the plan (which contained all the distances and measurements).

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<sup>45</sup>. Allan Spence, "Descriptions of Land". (unpublished, Alberta, 1969), p. 3.

The description, often called a land description or legal description, is of particular interest in this thesis since it is in noting the different types of descriptions that the different methods of land divisions can be distinguished. There are a number of ways in which descriptions have been classified, however the method which seems most logical in Canada is by reference to the Township and River Lot System, by Metes and Bounds and by reference to a registered plan. In Australia descriptions are classified as being by abuttals (adjoiners), Metes and Bounds (courses and distance) and plans (plots).<sup>46</sup> In the United States they are classified by reference to the Township System of Surveys, by Metes and Bounds (or the Monument and Marker System), and by reference to a recorded map, plat or tract system.<sup>47</sup> Descriptions can also be referred to as being by remainder (the remainder of an original parcel after one or more parcels have been conveyed by description) and by exception (when the descriptions are expressed by exceptions rather than remainders).

There is a basic disagreement between lawyers, land surveyors and land titles personnel on what the exact classifications should be. Within Manitoba there is some

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46. John A. Griffith, "Legal Descriptions and Their Use in Developing a Cadastre", The Canadian Surveyor (May, 1975), p. 51-52.

47. Scher, p. 109-110.

confusion on how the word 'description' is to be used. It is used to refer to the part of the certificate of title which describes the land and also as a method by which you may split your property into two parcels by a worded description. This method, commonly referred to as Metes and Bounds in other parts of the world, may be found in Manitoba under the guise of 'description'<sup>48</sup>, 'legal description'<sup>49</sup>, and within the larger context of 'boundary and parcel descriptions'<sup>50</sup> and as a method 'to subdivide land by means of an instrument other than a plan of subdivision'<sup>51</sup>.

A description by the Township and River Lot System makes reference to the plans of survey which record the individual parcels of land surveyed into townships and river lots. In the land description by the township system the parcel is described by referring to legal subdivision, section, township, range and meridian of a piece of property, for example, L.S.D. 13, Twp. 3, Rge. 1, W.P.M.. The river lot system is described by reference to a river lot number within a Parish, for example, R.L.#9,

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48. Municipal Planning Branch, How to Subdivide in Manitoba (Manitoba Department of Municipal Affairs, 1976), p. 3.

49. Boutilier, p. 65.

50. Boutilier, p. 63.

51. Manitoba Regulation 254/75 Being a Regulation Under the Planning Act Respecting the Subdivision of Land (Reg. P80 - M.R. 254/75) p. 2.

Parish of St. Andrews.

The authorities for establishing these systems were the Governor of the Red River Settlement, Miles Macdonell, and the Minister of Public Works to Sir John A. MacDonald's government, William McDougall. Both men adapted systems from other areas which had been established for expediency or speculative purposes - hardly principles of good planning.

A description by plan makes reference to registered plans which have occurred to facilitate the dividing of land into units smaller than legal subdivisions or river lots. These plans are of various types<sup>52</sup> and occur for different reasons but in all cases, once registered the land within them can be referred to in a description by reference to a plan number. The explanatory plan and subdivision plan are the two types of descriptions by plan which create new lots and parcels to be used for development and so will be considered further. Explanatory plans are described according to a plan and individual parcel numbers, for example , parcel D, plan 18960 and subdivision

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52. The subdivision plan, explanatory plan, special plot plan, expropriation plan, right of way plan, special surveys plan are examples. The majority of plans are for the creation of parcels for development or for rights-of-way. Right-of-way plans which occur to facilitate access, are not discussed in detail but their importance should not be overlooked since they play an important role in future land uses.

plans are described by reference to lot and block numbers within a plan, for example, lot 10, block 2, plan 6975.

A description by Metes and Bounds makes reference to existing plans but because the boundaries of its parcels are not exactly identical with those shown on a plan, additional information must be added to the written description. This usually involves describing the lengths and directions of the boundary lines which are not identical with those shown on the plan.

#### F. Methods By Which Land Divisions Are Presently Occurring

Having outlined the methods by which land divisions can occur it is now important to consider the methods by which they are occurring. Although the River Lot and Township systems were originally involved in all grants of land from the Crown, they cannot be considered as methods by which land divisions occur today since their patterns are only changed by other methods of land division. The Metes and Bounds, Explanatory Plan and Subdivision Plan are however, actively used and account for the majority of the land divisions which have occurred in the twentieth century. A brief description and illustration of each of the methods will follow with attention being drawn to the types of controls exercised prior to their registration. The section will end by historically analyzing one river lot, illustrating the manner in which the land divisions have occurred within it.

## 1. Subdivision Plan

Subdivision Plan is a detailed survey plan in which land is divided into a number of lots, and may include road or land rights-of-way and reserve of public areas. A Certificate of Title is issued for each lot and refers to the lot, block, and plan number. The method of dividing land by Subdivision Plan best safeguards the public interest. Such a Plan must be approved by the local Council in the light of the community's overall plan for the future. Only then can the Plan be considered by the Municipal Board of Manitoba, which has the final responsibility to approve Plans of Subdivision. Many provincial government departments and agencies are asked by the Municipal Board to comment on the proposed Plan of Subdivision. Applicants wishing approval of a Plan of Subdivision must provide a great deal of written and graphic information about the proposal so that review of the application may proceed. Once the Municipal Board has reviewed and approved the Plan in light of various considerations, the Plan may be registered in the Winnipeg Land Titles Office.

The Subdivision Plan is a 'controlled' method of land division. Initially it was not controlled and immense tracts of land were subdivided into grid patterns for future development. Speculation was rampant and these divisions occurred even though the demand for development was only anticipated. Lots surveyed in the 1870-1880 era are still

being developed today even though their design was for "horse and buggy" days. By the early part of the twentieth century the folly of uncontrolled land divisions began to be realized so that by 1916 legislation was introduced to partially control lands to be divided by this method.<sup>53</sup> This first Planning Act was later strengthened by others<sup>54</sup>, however, it was not until 1976 that regulations regarding the subdivision of land were formally laid down. Figure 16 illustrates a Subdivision Plan.

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53. "An Act Relating to Planning and Regulating the Use and Development of Land For Building Purposes", ("The Town Planning Act"), Statutes of Manitoba, 1916, (Chapter 114).

54. David C. Hicks, "An Evaluation of Provincial Planning Services to Local Governments in Manitoba" (unpublished Master's Thesis, University of Manitoba, 1974), p. 295-299.



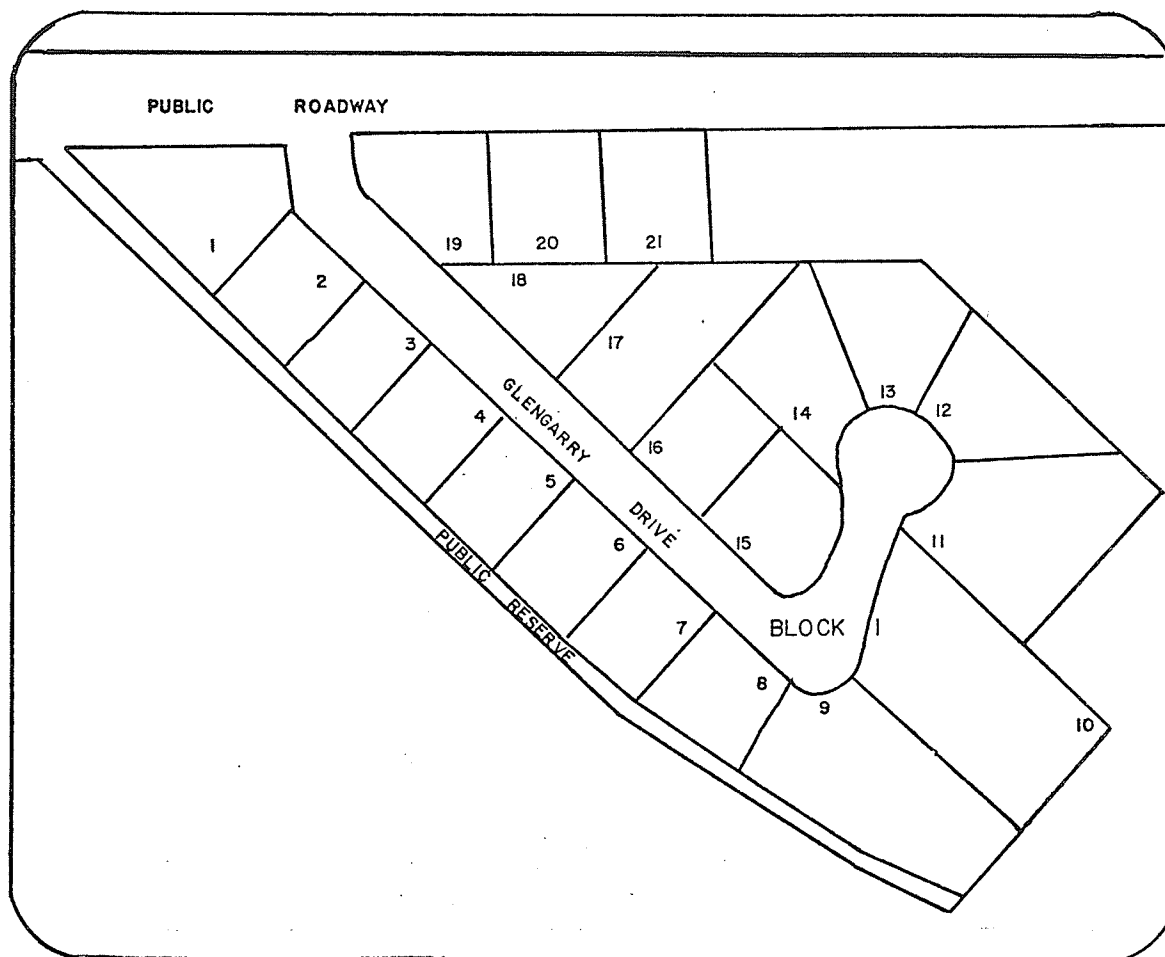


Figure 16. A Subdivision Plan

## 2. Explanatory Plan

Explanatory plans are required when an owner of land desires to divide up all or part of his land by Metes and Bounds but the District Registrar judges that its location is not sufficiently defined on any existing registered plan; or when the owner desired to deal with more than one portion of a parcel of land. If the land division is for building purposes, the plan may only contain one parcel for this purpose plus parcels necessary to allow access to the parcel being used for building

purposes.<sup>55</sup> Often some of the parcels shown in an explanatory plan were originally Metes and Bounds, and are incorporated into the Explanatory Plan to simplify their certificates of title and mark their boundaries by way of a survey.

In an Explanatory Plan, the land to be divided is surveyed and shown on a survey plan. The Explanatory Plan is called a "Plan of Survey" on the registered survey plan and its divisions are referred to as parcels. From the word "parcel", the term "Parcel Plan" has become a common way of describing Explanatory Plans. On the Certificate of Title, the Explanatory Plan is referred to by its Parcel and Plan number.

The Explanatory Plan is not supposed to create a subdivision, but in many instances it does, in fact, create such. Since 1970, the approval of local Municipal Council has been required before an Explanatory Plan can be registered with the Land Titles Office.

Under the Real Property Act, the wording under Schedule "O" provides that the plan be certified approved by "the responsible local authority with respect to Town Planning" including date of approval. The Reeve/Mayor and Secretary-Treasurer must sign. (There is one question that arises out of this particular section. How can the Local

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55. The Real Property Act, Statutes of Manitoba, 1972, Cap. R30. S. 121(1, 3 and 4).

Responsible Authority town-plan?) Some are of the opinion that the Local Responsible Authority can only plan under the following:

- a) ministerial order
- b) planning scheme
- c) by-law under provisions of the Municipal Act

Assuming that Council is not able to deal with planning in a discretionary manner, then we could say that planning legislation allows for development which meets zoning for the area (if it exists). Assuming that the situation for obtaining approval of an Explanatory Plan is analogous to obtaining a building permit approval because of the Act, then Council must approve the Explanatory Plan if it conforms with the zoning by-law. The Explanatory Plan should be in accordance with all provisions of the planning scheme.

That is, it should meet all requirements such as minimum site area, site width, etc., however planning schemes are often very nebulous and do not restrict or prevent divisions of land by Explanatory Plan. Although the plan does require the approval of local Municipal Council, it does not require a Municipal Board approval and the planning considerations which accompany it. The plan is considered to be partially controlled.

The following figure is an example of an actual division by Explanatory Plan. The Plan is in fact a composite of three separate plans, each registered independently but together forming a small subdivision. The owner was able to register one building lot at a time as permitted in The Real Property Act of Manitoba. However, by registering the three separate plans sequentially, he in effect created three building lots and by-passed the need to subdivide by Plan of Subdivision.

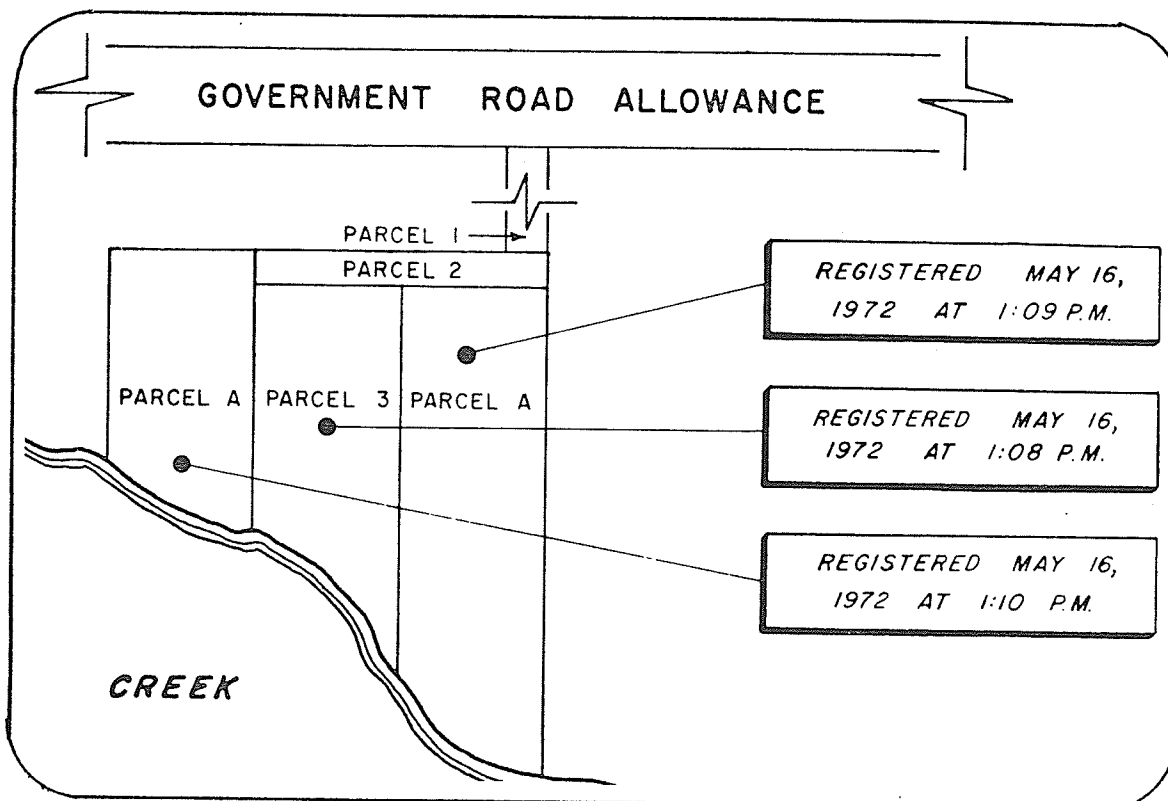


Figure 17. An Explanatory Plan

### 3. Metes and Bounds

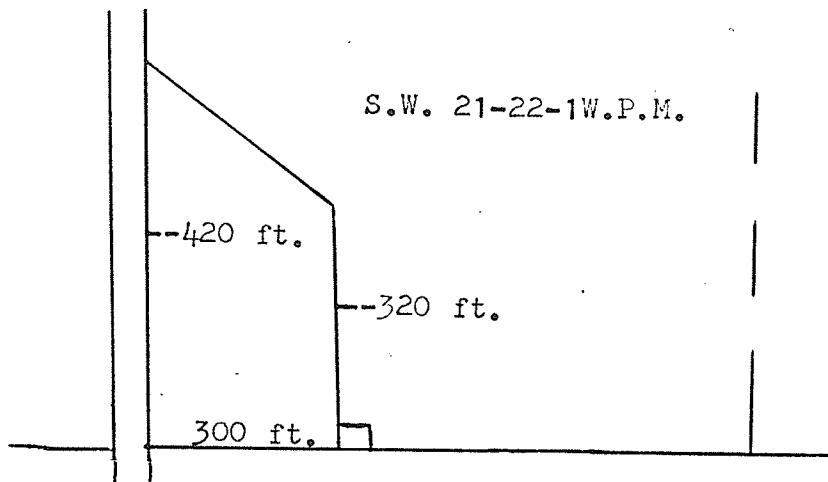
Metes and Bounds occur whenever a limit of a tract of land is not coterminous with a limit shown on a plan. That is, the description in the certificate of title makes reference to measurements and directions in describing the property boundaries, in addition to referring to a surveyed plan.<sup>56</sup> Weimer, Hoyt, and Bloom state that "The term 'metes' refers to measure, and 'bounds' to direction".<sup>57</sup> Metes and Bounds description describe the courses or boundaries of the property with reference to a fixed starting point (a monument or marker). After indicating the various distances and directions, it returns to the original starting point, thus enclosing the entire area. Words written on a Certificate of Title to describe the location of land and authorized by the Land Titles Office is an old and common way of dividing land.

The following figure shows a sketch of a land division and a Metes and Bounds description. The land is being divided out of a quarter section under the Township System.

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56. Raymond E. Davis and Francis S. Foote, Surveying, Theory and Practise (4th. ed.; Toronto: McGraw-Hill, 1953), p. 577.

57. H. Weimer, H. Hoyt and G. Bloom, Real Estate (New York: Ronald Press, 1972), p. 104.



All that portion of the South West Quarter of Section Twenty-one (21), Township Twenty-two (22), Range One (1), West of the Principal Meridian, in the Province of Manitoba, Canada, described as follows:

COMMENCING at the South West corner of the said Quarter Section; THENCE Easterly along the South boundary thereof Three Hundred (300) feet; THENCE Northerly and at right angles to the said South boundary Three Hundred and Twenty (320) feet; THENCE North Westerly in a straight line to a point on the West boundary of the said Quarter Section Four Hundred and Twenty (420) feet North of the said South West corner; THENCE Southerly along the said West boundary to the point of commencement, containing Two and Fifty-five Hundredths (2.55) acres more or less.

Figure 18. A Metes and Bounds Land Division

Initially Metes and Bounds were not referenced to survey plans since no plans existed. To describe a parcel reference would be made to natural and artificial boundaries and the distances and directions of boundary lines would be noted where possible. The passage of time has seen the disappearance of this type of Metes and Bounds however the

term carries with it an attractive ring and occasionally appears in the most unlikely places. John Greenleaf Whittier (1807-1833), a Quaker poet of New England, found the term a fitting one for his poem 'Snow Bound':

It is not ours to separate  
The tangled skein of will and fate,  
To show what Metes and Bounds should stand  
Upon the soul's debatable land. . .<sup>58</sup>

Another poem called 'The Surveyor' by Don W. Thomson portrays the following:

He scans the skies,  
reading some far-off star  
by which he plots  
meridians and makes his maps,  
stitching a new-found world  
into a patchwork quilt,  
a net of metes and bounds,  
so lands may know their own  
and live in peace.<sup>59</sup>

They have not however, allowed lands to know their own and live in peace.

Because of the immense number of transfers of land by Metes and Bounds and the great length of some of the descriptions, the Land Titles Offices have found it necessary to adopt the Special Plot Plan which reduces all of the lengthy description in an area into a plan. The Plan shows all land units contained in existing descriptions and the individual parcels are shown as lots within blocks.

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<sup>58.</sup> John Greenleaf Whittier's Snow-Bound, (ed. A.L. Bouton, Snow-Bound and Other Early Poems, 1908; rpt, New York: Mac Millan, 1912), p. 21.

<sup>59.</sup> Thomson, inside cover.

In this way each lengthy Metes and Bounds description is replaced by a lot, block and plan. The necessity for the special Plot Plan has arisen from the past practice of allowing Metes and Bounds to occur without requiring the necessary surveys. This practice was allowed due to land division costs and because of a lack of survey evidence.<sup>60</sup>

Metes and Bounds have been referred to as "'outlaw' subdivision".<sup>61</sup> The term is very applicable since they have required the least number of government consents or approvals from responsible authorities, prior to registration. For a land division of this type to be registered only a land titles consent, concerning its legality is necessary. Neither the approval of local Council nor the Municipal Board is required. Therefore, parcels may be created without the knowledge of the municipality or planning bodies. Often the divisions do not conform to local zoning by-laws. This method is considered to be 'uncontrolled' in planning terms since it requires no planning or community participation. In 1953, Carrothers, writing on planning in Manitoba, stated that Metes and Bounds result in land subdivisions which lack community input. He recommended that Metes and Bounds divisions should be at least 10 acres in size.<sup>62</sup> His

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60. Boutilier, p. 60.

61. Russell Van Nest Block, Building Lines and Reservations for Future Streets: Their Establishment and Protection (Cambridge: Harvard University Press, 1935), p. 15.

62. Gerald A.P. Carrothers, "Planning in Manitoba", (unpublished, University of Manitoba, 1953), p. 86.



recommendation was not followed.

#### 4. Example of the Mechanics of Land Division

To help understand how the different land divisions affect future land patterns and interrelate among themselves, an example is given. The example analyzes a River Lot in terms of its historical development and illustrates the process known as 'Strip Development'. It shows how the different land division methods are used to divide land.

River Lot #9 in the Parish of St. Andrews, Rural Municipality of St. Andrews was selected as a typical illustration of the mechanics of land division, within a historical context. River Lot #9 is located north of Winnipeg on the way to Selkirk, by highway No. 9. The river lot lies south of the west boundary of highway No. 27 and north of the start of River Road No. 238. Figure 19 records this.

The river lot originally was based on only one River Lot Plan - the Inner Two miles. In 1877, the Outer Two miles were added giving a total of 271 acres in the river lot.

Since 1877, the number of Right-of-Way Plans in River Lot 9 have increased from 2 to 8. A right-of-way, cutting across a tract of land, does not create a legal land division in itself. However, it increases the likelihood that a land division will occur - often a Metes and Bounds land division.

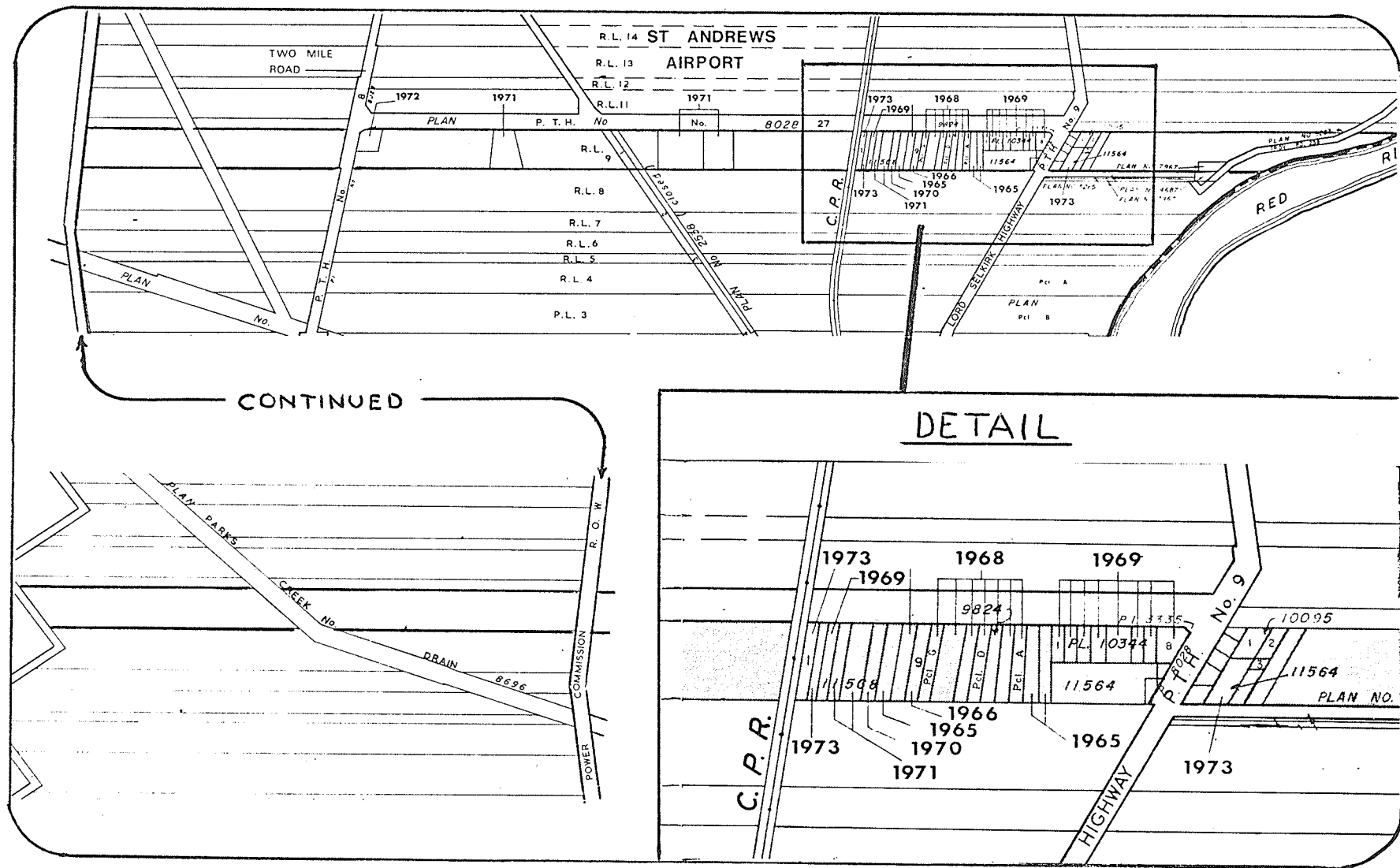


Figure 19. Land Divisions in River Lot #9, Parish of St. Andrews, 1877 - 1974

The land divisions in River Lot #9, that is the parcels of land for which separate Certificates of Title exist, have increased from 2 to 57, with 53 of these being within the Inner Two Miles. River Lot #9 has received 31 land divisions within the last ten years. This is more than throughout its previous 90 years, as shown in Table 1.

Table 1

Historical Analysis of Land Divisions  
in River Lot 9, Parish of St. Andrews

Year	Number of divisions not including rights-of-way		Average size of parcels in acres	
	Outer 2 miles	Inner 2 miles	Outer 2 miles	Inner 2 miles
1877	1	1	127	144
1964	4	22	31.9	6.6
1973*	4	53	31.9	2.7

\* December 31, 1973

The method by which these land divisions occurred from 1964-74 are shown in Table 2. Of the 31 divisions, not one was by Plan of Subdivision. The divisions contain lots or parcels for building purposes, and for this reason are of special interest to planners.

Table 2

Methods of Land Division in River Lot 9, 1964-74

Year	No. of new parcels registered by Metes and Bounds	No. of new parcels registered by Explanatory Plan	No. of new lots registered by Subdivision Plan
1964	0	0	0
1965	3	0	0
1966	2	0	0
1967	0	0	0
1968	0	7	0
1969	1	8	0
1970	1	0	0
1971	5	0	0
1972	1	0	0
1973	3	0	0
Total	16	15	0

G. Summary

Land divisions have always affected settlement patterns. The earliest claims to Western Canada in 1670 affected settlement and constrained the location of fur trading posts. As well, the land granted to Lord Selkirk in 1811 confined his settlement to a specific geographical area. Once settlement began to take place a system of land ownership was required which allowed for ease in establish-

ing individual parcels and simplicity in registering the deed or title to the land. The River Lot and Township Systems were established for this purpose; the River Lot System modelled after the long lots of Quebec was river and road orientated, with development occurring along the roadways - creating a street or strip type of farm settlement; the Township System which had a strong United States and Ontario influence contained squares of land unrelated to topographical features, with development being scattered - leading to isolated rural settlements. Although the River Lot System did not supply land units which were the most economical to farm, it did promote a community way of life by giving direction to dwelling locations. The Township System lacked this community aspect, it has, however, been easier to convert to urban development since its land units are large and square rather than long and narrow.

Other methods of land divisions occurred by ethnic groups but always within the River Lot or Township System. The Combined River Lot and Township System was characterized by the Icelandic settlements and capitalized on the advantages of both systems thus supplying large tracts of land and a community way of life. The Street Village System as characterized by Mennonite, Swedish, Jewish and Hutterite settlements, emphasized community life to a degree that individuals lived in a village and not on their individual or shared farm units. This system resulted in urban development along a village street and is one of four urban

designs found in Manitoba. The other three are the Gridiron, the Crossroads, and the Curvilinear Design. Of these, the Gridiron is most common.

Since the establishment of these early settlements, land divisions have continued to occur and be registered in the Land Titles Office, establishing the patterns and framework within which we work today. There are three methods by which land divisions occur (according to how they are described in the certificate of title): by Township and River Lot, by Metes and Bounds, and by plan (Explanatory Plan and Subdivision Plan). The first method established the basic framework of land ownership and since then Metes and Bounds, Explanatory Plans and Subdivision Plans have been in active use working within the River Lot and Township System.

Initially land divisions occurred without any considerations for community influence or requirements from planning bodies but as undesirable developments became common it was evident that some controls concerning size, accessibility and use were required. In 1916, the first Planning Act of Manitoba laid the ground work for land division control, requiring some planning approval and control for Subdivision Plans. Metes and Bounds and Explanatory Plans differed from the Subdivision Plan in that they only created one parcel at a time, rather than many, and for the reason their effect was thought to be minimal and they were not required to receive community

or planning approvals. However, the volume of data required and the length of time required to approve a Subdivision Plan discouraged developers from using this method and so the other methods which remained uncontrolled became the popular means of land division. By 1970 however, concern had arisen and the Explanatory Plan was required to receive a consent from the local Municipal Council within which it occurred. Metes and Bounds continued to operate as an 'outlaw subdivision' until 1976 when the new Planning Act legislated on land division control and required all land divisions to receive local and provincial planning approvals.

The next chapter, Chapter III, will present a Case Study on how land divisions have been occurring up to 1976. Their study is to be viewed in the light of pre-1976 approval requirements. The following Table illustrates the approval requirements prior to 1976, for the different methods of land division.

Chapter IV will look into the implications of the findings from the Case Study and controls established in 1976 by the new Planning Act. First, to the Case Study.

Table 3

Approval Requirements Prior to 1976, for  
the Different Methods of Land Division

Method of land division	Consents and Approvals from	Type of control	
		Class	Date
Metes and Bounds	Land Titles	uncontrolled	N/A
Explanatory Plan	Land Titles Local Council	partially controlled	1970
Subdivision Plan	Land Titles Local Council Municipal Board	controlled	1916



## THE CASE STUDY OF LAND DIVISIONS

- Selection of the General Study Area
- Land Divisions in the General Study Area
- Selection of the Detailed Study Area
- Manner and Patterns of Development in the  
Detailed Study Area
- Summary

CHAPTER III

## CHAPTER III

### THE CASE STUDY OF LAND DIVISIONS

The format used by the author in this thesis to study present day land divisions is one of selecting a general study area and presenting data to establish the percentages of land divisions created by controlled, partially controlled and uncontrolled land divisions followed by the selection and study of a detailed area (to better establish the character of development which results from land divisions). From this analysis the problems inherent to uncontrolled land divisions should become evident.

The case study covers a five year period, January 1, 1969 to December 31, 1973 and is based on the examination of a general study area containing six municipalities (the Rural Municipalities of St. Andrews, Ritchot, and Rockwood, the Towns of Selkirk and Stonewall, and the Local Government District of Alexander) which lie within the rural urban fringe of Winnipeg. The six areas were selected so that there would be a mixture of land uses and land patterns in both active and passive development areas. The purpose of this examination was to collect actual data on land divisions, by their type. The ultimate purpose was to test the hypothesis of the thesis: the incidence of uncontrolled land divisions in Manitoba.

To further illustrate the hypothesis and show that land divisions play a dominant role in the orderly and economical development of the land and if uncontrolled, result in exploitative rather than expedient development, a detailed study area was analysed in terms of land division methods, location, acreage and development and a scenario of the interrelationships was developed. The detailed area studied was the Rural Municipality of St. Andrews which is an area representative of the general ratios of land divisions (according to method), and the historical land patterns and present land uses found within Manitoba. Tables and Figures are used to illustrate the data collected and the findings of the study.

#### A. Selection of the General Study Area

In 1973 the Deputy Examiner of Surveys for Manitoba indicated that by far the majority of land divisions in Manitoba occurred by Metes and Bounds rather than by plan.<sup>1</sup> Following this theme the District Registrars<sup>2</sup> were asked for a breakdown of how land divisions occurred in their regions. Answers in 1974 indicated that Metes and Bounds occurred between 30 and 95 percent of the time. Enough to

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1. L.E. Boutilier, "Land Title Examination of Surveys in Manitoba" (Duluth, September 15, 1973), p. 65.

2. District Registrars are located at the seven Land Titles Offices in Manitoba.

justify more precise research. Because these were merely estimates this thesis wishes to provide hard data.

The ratios of land division types were derived on the basis of an analysis of six municipal areas within the Winnipeg Land Titles Office but the City of Winnipeg and lands within the Additional Zone are not contained within the study since all land divisions within this area have had planning controls for some time.

The six areas selected are shown in Figure 20.

They are the:

1. Rural Municipality of St Andrews
2. Rural Municipality of Ritchot
3. Rural Municipality of Rockwood
4. Town of Selkirk
5. Town of Stonewall
6. Local Government District of Alexander

St. Andrews and Ritchot contain both the River Lot and Townships System of surveys; Rockwood, Stonewall and Alexander the Township System only and Selkirk the River Lot System. Not only are the areas different in their early agricultural land patterns but a variety of land uses are also present. Land Uses as recorded by the Municipal Planning Branch<sup>3</sup> showed the following types to

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3. The Municipal Planning Branch records all the land uses applied for by Subdivision Plan. These land uses were considered to be representative of the current demand.

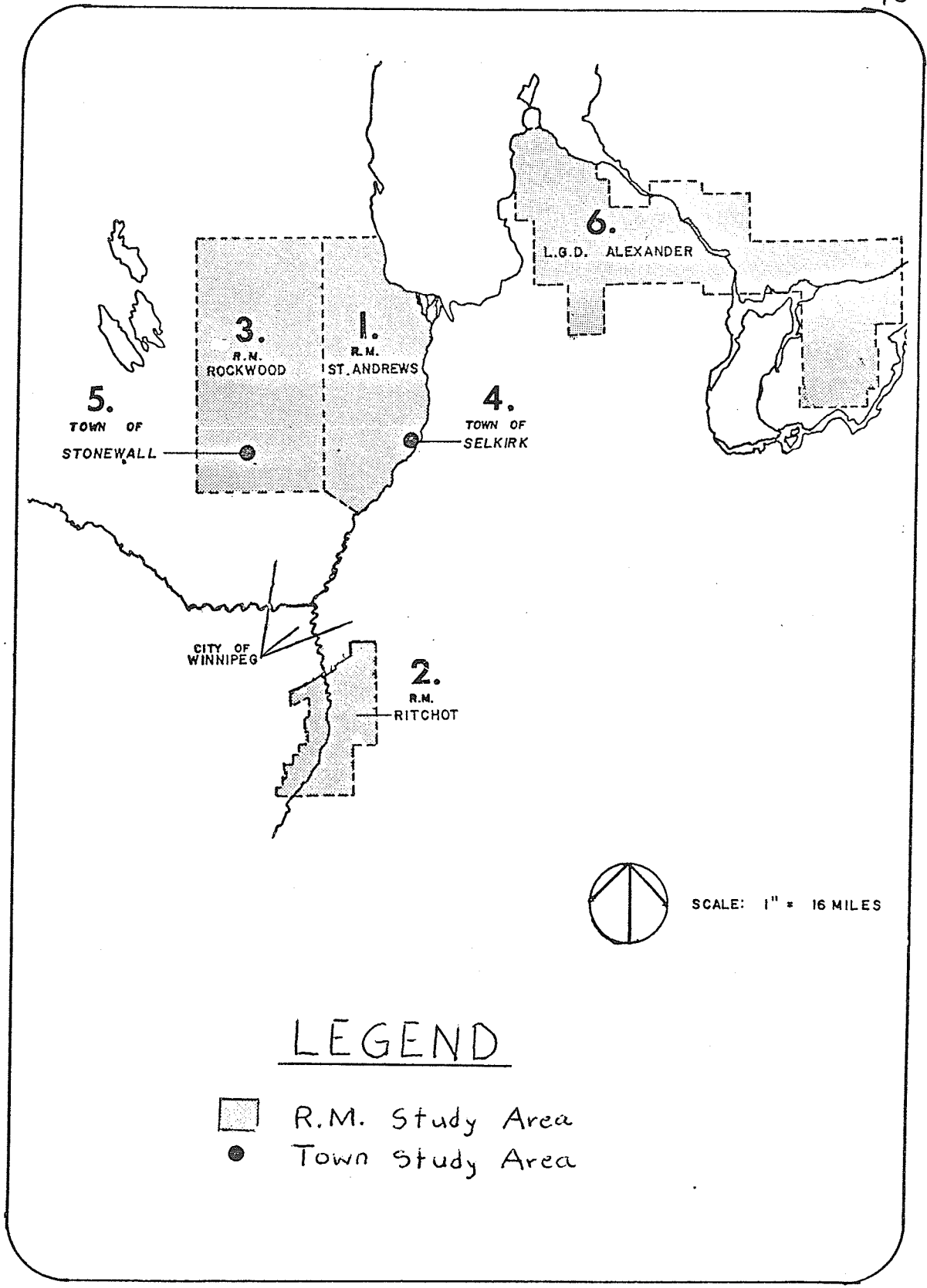


Figure 20. The General Study Area of Present Day Land Divisions

be in greatest demand in the past decade: Selkirk and Stonewall - residential, Alexander - seasonal resort, Ritchot and Rockwood - rural, rural residential and seasonal resort and St. Andrews all of the above land uses.

#### B. Land Divisions in the General Study Area




The areas were analysed according to the number of land divisions yearly registered in land titles from January 1, 1969 to December 31, 1973 - a five year period. The information on Subdivision Plans and Explanatory Plans was easy to obtain from the Survey Records within Land Titles, however within Land Titles, there was no simple way of extracting information on Metes and Bounds, other than by checking out each separate transfer. There are approximately 23,000 transfers of title each year, in which is included the registration of parcels by Metes and Bounds. Discussions revealed that the sales records of the Assessment Branch of the Department of Municipal Affairs contain records of all land divisions and Metes and Bounds could be identified and tabulated according to the year in which their transaction occurred. The records are printed and updated yearly and new land divisions are added into the books in red pencil. By locating red additions and then identifying the method of land division involved, Metes and Bounds were slowly extracted and recorded for the five year period. These records have only been established in this manner since

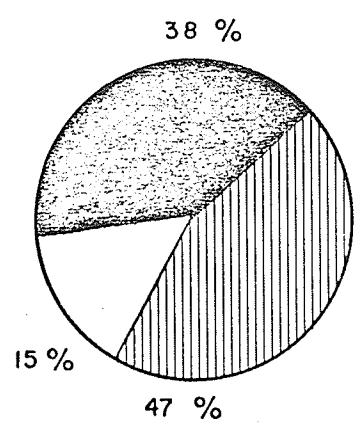
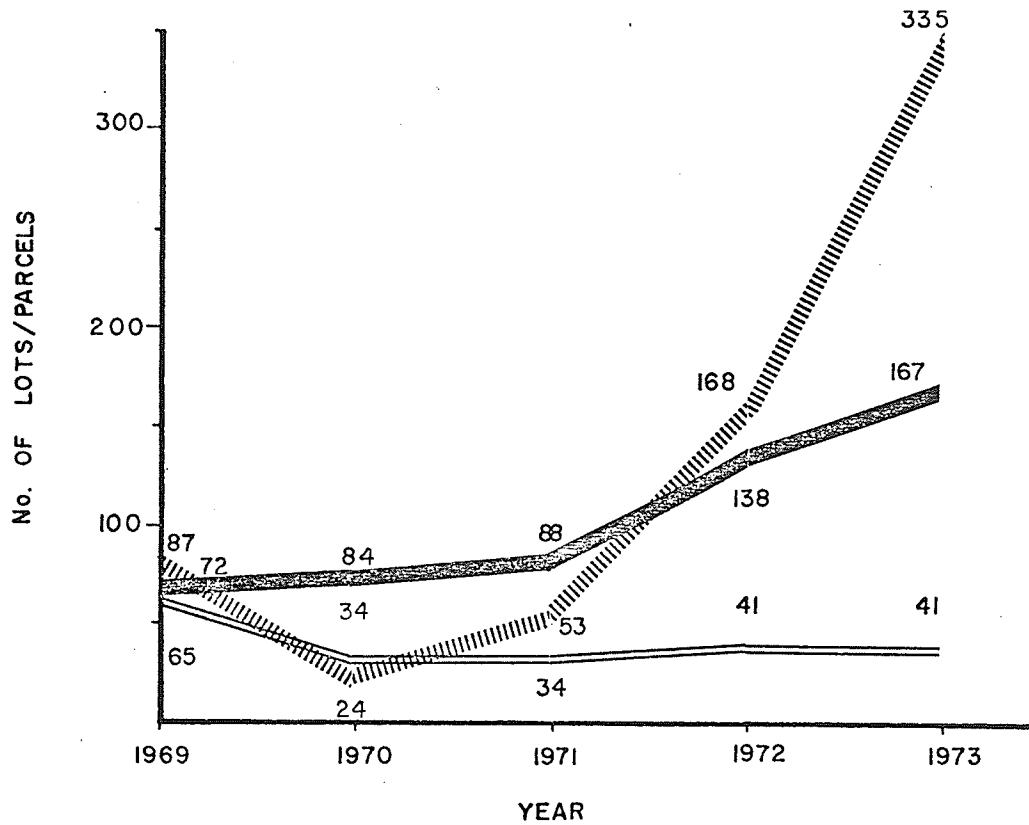
1969; this factor limited the studies time period.

Figure 21 is a summary of the total number of lots and parcels registered within the five year period, by Metes and Bounds, Subdivision Plan and Explanatory Plan. Metes and Bounds which represent 38% of the divisions have steadily increased over the five year period so that in 1973 there were twice as many registered as in the year 1969. A tabulation of parcel size indicated that the majority were under 10 acres. None of there were controlled land divisions. Explanatory Plans which accounted for 15% of the divisions, declined by 50% in 1970 when they became partially controlled by the requirment of a local Council approval. Since that time the trend has been steady. Plans of Subdivision represent 47% of the land division and have been steadily increasing since 1970.

Before a land division can be registered in the land titles office, certain 'consents' or 'approvals' are required from responsible authorities. Metes and Bounds must receive a land titles consent; an Explanatory Plan, a land titles and local Municipal Council consent; and a Subdivision Plan, a consent from the land titles and the local municipal council plus an approval from the Municipal Board, prior to its registration.

Figure 22 shows the number of consents or approvals required in the study areas. Since each Subdivision Plan contains about 20 lots, only 36 approvals were required to

-  - PARCELS CREATED BY METES AND BOUNDS.
-  - LOTS CREATED BY PLAN OF SUBDIVISION.
-  - PARCELS CREATED BY EXPLANATORY PLAN.



CUMULATIVE TOTAL OF LOTS/PARCELS CREATED 1969 - 1974, SHOWN BY PERCENTAGE.

Figure 21. Number of Lots and Parcels in the General Study Area, 1969-74



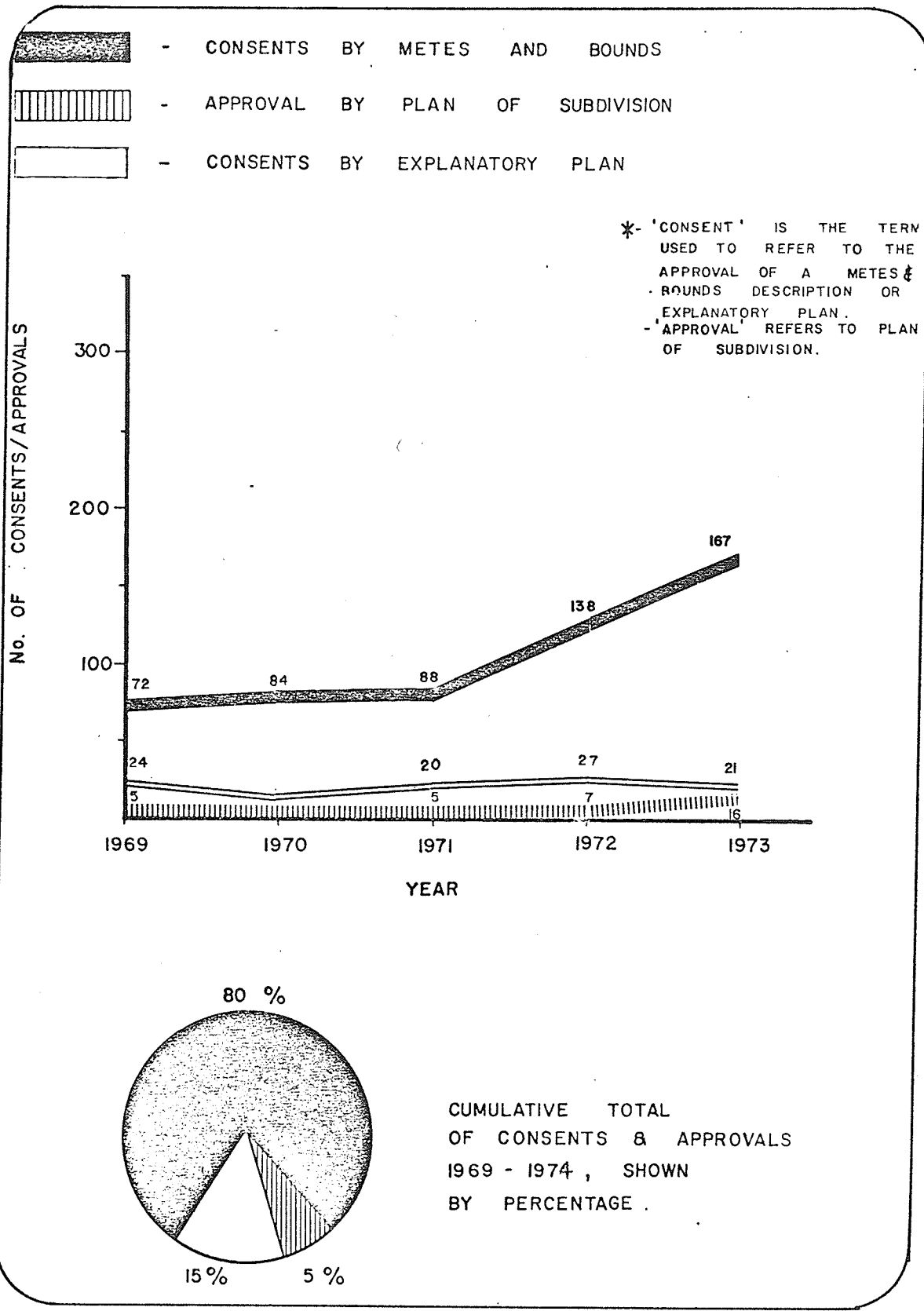


Figure 22. Number of Consents and Approvals in the General Study Area, 1969-74

control the 667 lots, while the Explanatory Plan which contains about 2 parcels per plan, required 102 consents for the 215 parcels created. Metes and Bounds, which are uncontrolled, required 549 consents from Land Titles for the 549 parcels registered.

The following Table 4 summarizes the findings of the study and shows the percentages of land divisions and consents or approvals. The type of control exercised is also included.

Table 4

Percentage of Lots and Parcels and Consents and Approvals in the General Study Area, 1969-74

Method of land division	Percentage of Lots and Parcels	Percentage of Consents and Approvals	Type of control
Metes and Bounds	38%	.80%	uncontrolled
Explanatory Plan	15%	15%	partially controlled
Subdivision Plan	47%	5%	controlled
Total	100%	100%	

In Appendix B on pages 148-149, the number of land divisions created by each method are shown on a yearly basis plus individual area and yearly totals. Table 9

shows Land Divisions by Metes and Bounds; Table 10 by Explanatory Plan, and Table 11 by Subdivision Plan.

Because Metes and Bounds result in nearly 40% of the land division and appear as single lots scattered throughout the country side in an uncontrolled manner rather than as controlled lots in groups of twenty, it can be said that Metes and Bounds are predominant, that is, they have more influence on shaping the future land division patterns than any other method.

### C. Selection of the Detailed Study Area

The fact that uncontrolled land divisions are so predominant is not significant by itself without a concurrent evaluation of the manner or pattern in which these land divisions are occurring. In order to do this evaluation it was necessary to collect additional information, preferably from one of the six study areas, if one could be representative of the total.



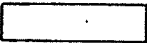
A comparison was made between the number of consent/approvals and lot/parcels created by Metes and Bounds, Explanatory Plans, and Subdivision Plan in each of the areas and the same information tabulated for the six areas. It was clearly found that in regards to the ratio and trends of consent/approvals and lot/parcels, St. Andrews was most representative of the six. The graph in Figure 23 shows the number of lots or parcels in St. Andrews, the detailed study area. Figure 21 shows the number of lots or parcels

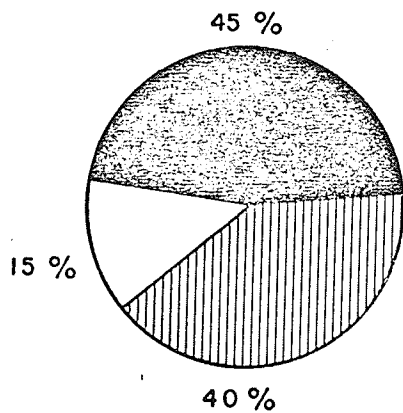
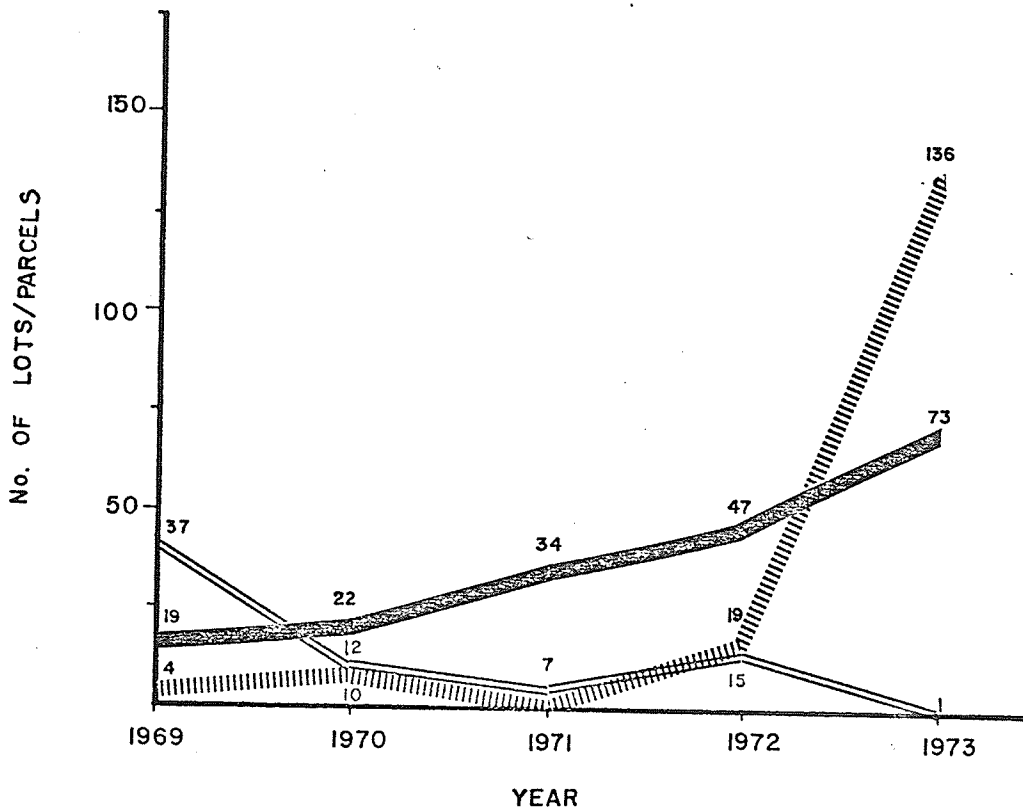
in the general study area. A comparison between Figure 23 and Figure 21 shows that the number of individual lots and parcels differs but that the trend and ratio between methods is shown to be similar. Similarly the graph in Figure 24 shows the number of consents or approvals in St. Andrews, the detailed study area. Figure 22 shows the number of consents or approvals in the general study area. A comparison between Figure 24 and Figure 22 shows that the number of individual consents and approvals differs, but that the trend and ratio between methods is similar.

Not only does St. Andrews represent the lot/parcel and consent/approval trends of the six areas, it also contains the River Lot and Township Systems and depicts rural, residential, rural residential, and seasonal resort land uses (which are found within the six areas and within Manitoba). In addition, St. Andrews contains good base maps, a factor which later proved invaluable in identifying the location of the land divisions.

#### D. Manner and Pattern of Development in the Detailed Study Area

Having established that Metes and Bounds are predominant and that St. Andrews is representative of these trends, a further evaluation of the manner and patterns in which land divisions are occurring was considered necessary. For each of the five years, information was tabulated from the 1974 Assessment Roll Listings (dated October 29, 1974) of the Assessment Branch

-  - PARCELS CREATED BY METES AND BOUNDS .
-  - LOTS CREATED BY PLAN OF SUBDIVISION .
-  - PARCELS CREATED BY EXPLANATORY PLAN .



CUMULATIVE TOTAL OF LOTS/PARCELS CREATED 1969 - 1974, SHOWN BY PERCENTAGE .

Figure 23. Number of Lots and Parcels in the Detailed Study Area, 1969-74

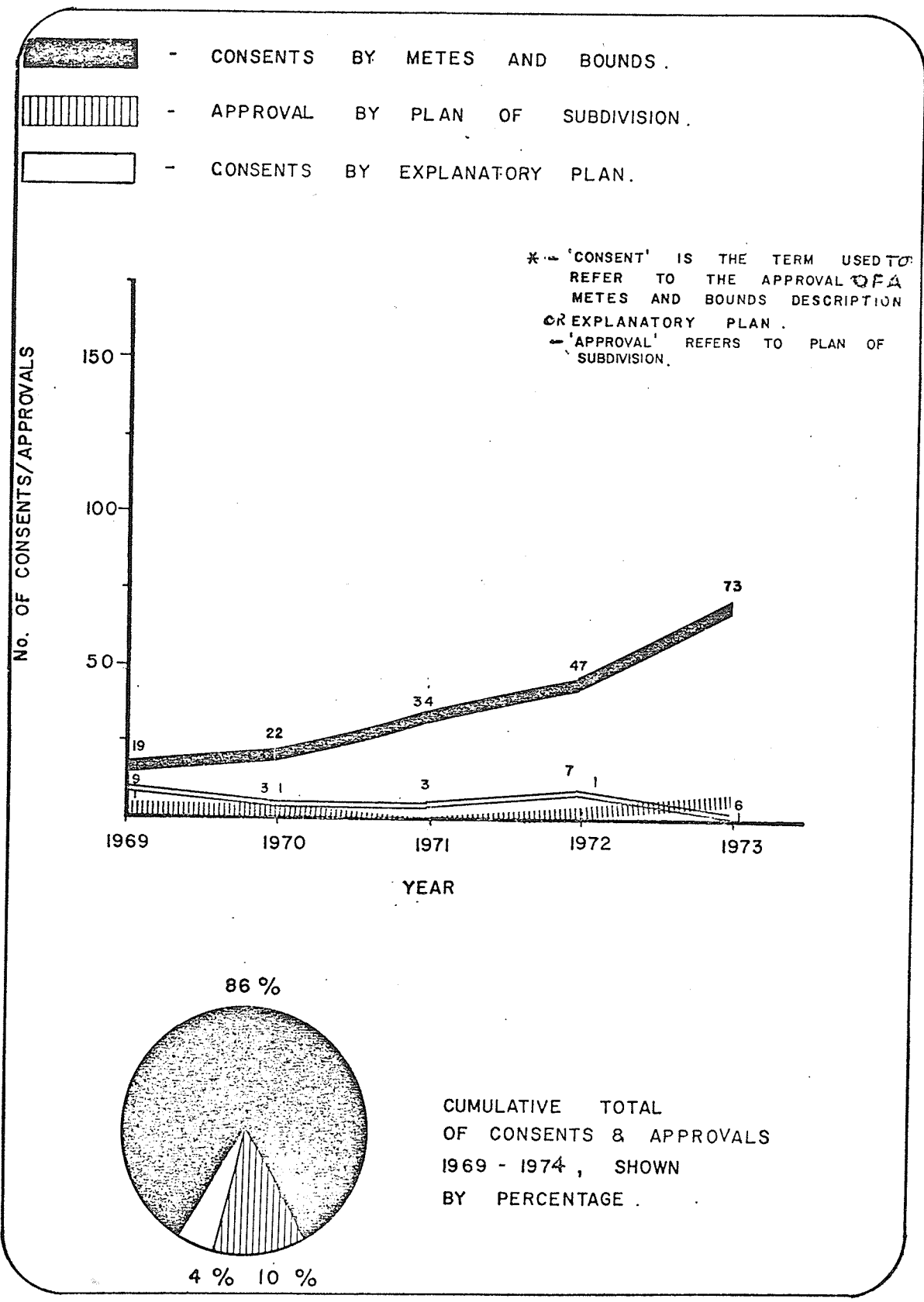


Figure 24. Number of Consents and Approvals in the Detailed Study Area, 1969-74

of the Department of Municipal Affairs concerning the acreage, development and individual locations of lots and parcels.

#### 1. Location

In attempting to define the manner and patterns of the different land divisions it was felt that the plotting of individual locations was essential since it is only in knowing the location that a visual picture or scenario can be formed. Locations were initially plotted onto working maps at a scale of 1 inch equals 800 feet and later transferred to regular 1 inch equals 4 mile maps. Detailed areas, however, were shown at the original scale.

Appendix C portrays the locations of land divisions from 1969 to 1974. Figures 31-35 on pages 152-156, plot the individual locations by Metes and Bounds, Explanatory Plan and Subdivision Plan and the source from which the data was collected. For the Explanatory Plans and Subdivision Plans the Land Titles plan number is plotted while the assessment roll number is plotted for Metes and Bounds. This enables the lots and parcels to be recorded on the base maps within the Municipal Planning Branch. These base maps, record plans by lot, parcel and plan number and Metes and Bounds by assessment roll number. From the assessment records additional information concerning land values, ownership, etc. can be obtained.

An analysis of the individual Figures 31-35 shows

that land divisions are scattered, next to existing roadways, mainly in the area south of Selkirk and predominantly by Metes and Bounds. From 1969 to 1974 a definite increase in volume was witnessed. The locations are summarized in Figure 25 on the next page and show the general pattern resulting from the land divisions which occurred from 1969 to 1974. The details A and B in Figure 25, are illustrated in the next section and show size and acreages of these land divisions.

## 2. Acreage

The data on acreage was considered essential in view of the 1953 recommendations to the Provincial Government by an Advisory Committee asking that there be established ". . . a minimum size of parcel of land which may be sold by metes and bounds description".<sup>4</sup> Because Metes and Bounds are predominant and little is known concerning their actual size, the detailed study set out to establish the average size of each lot and parcel created within the period studied.

Some difficulty was encountered in obtaining small lot acreages since small lots are presented in the Assessment Rolls according to 'foot frontage'. Because information concerning the size of land divisions was considered to be important, these small lot acreages were

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4. Gerald A.P. Carrothers, "Planning in Manitoba" (Unpublished, University of Manitoba, 1953), p. 9.



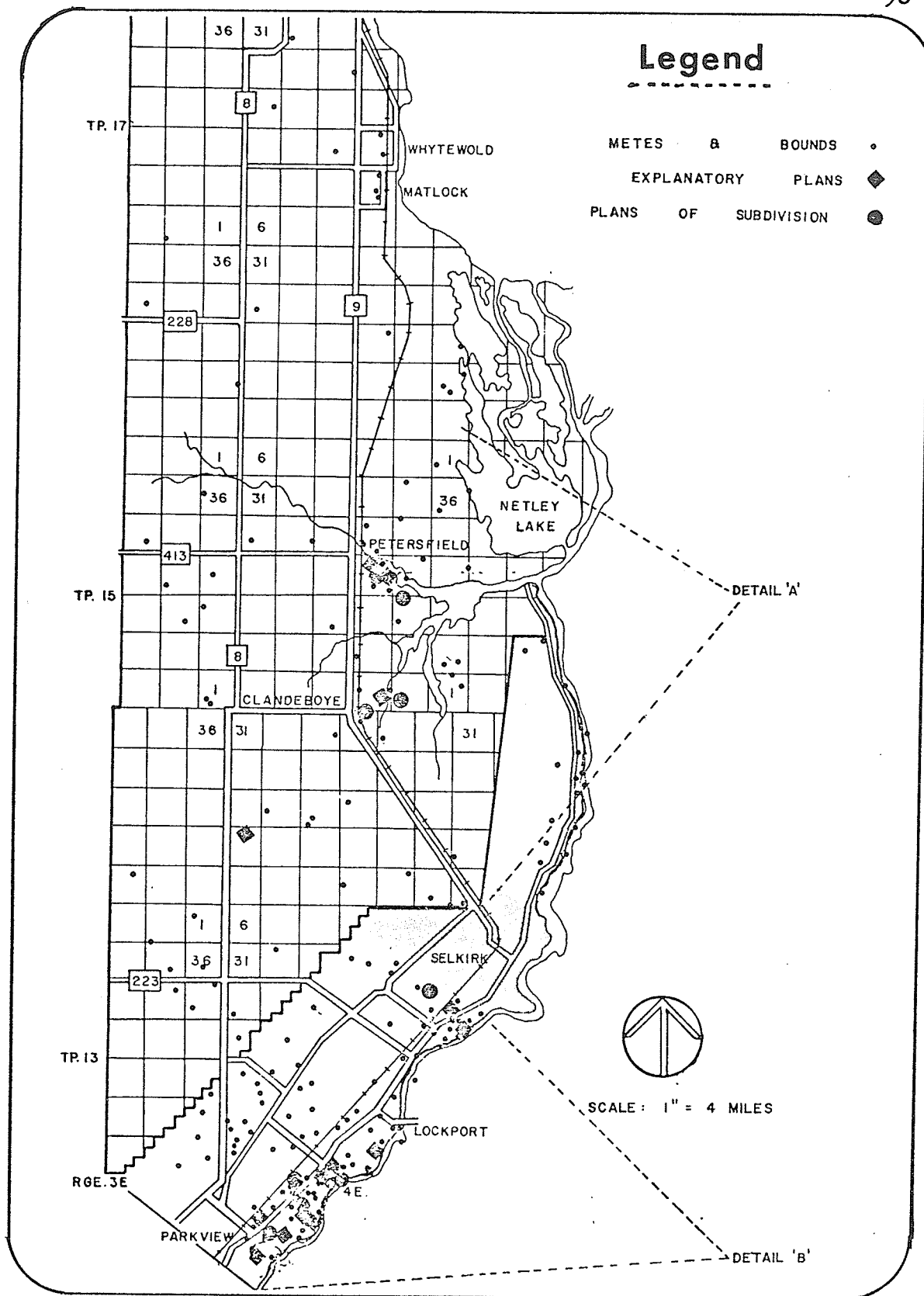


Figure 25. Locations of Land Divisions in the Detailed Study Area, 1969-74

obtained by calculations from registered plans.

Appendix D records the acreages within the different methods of land division and establishes the average acre size per lot or parcel. Metes and Bounds are shown as acreages over and under 10 acres in size. Refer to Tables 12-14, pages 158-159. The following observation can be made:

Metes and Bounds-

a) there has been a yearly increase in the total acreage of land divided

b) there has been a yearly increase in the number and size of parcels over 10 acres and under 10 acres

c) the average size of a parcel over 10 acres is 61.2 acres and the average size of a parcel under 10 acres is 3.8 acres

d) 20% of the parcels are over 10 acres and 80% are under 10 acres

Explanatory Plans-

a) there has been a fairly constant trend in the total area of land divided

b) the average parcel size has remained fairly constant at about 1.4 acres

Subdivision Plans-

a) there has been a drastic increase in the total acreage of land divided

b) there has been a gradual increase in the size of lots, the average being 1.5 acres.

Table 5, following, summarizes the foregoing material and compares the different methods of land division. It is seen that Metes and Bounds affects by far the greatest acreage, about 3000 acres in all (or about 600 acres for the parcels under 10 acres in size).

Table 5  
Acreages Within the Detailed Study Area, 1969-74

Method of land division	Total acreage	Over 10 acres		10 acres or under	
		No.	Average acreage	No.	Average acreage
Metes and Bounds	2981	39	61.2	156	3.8
Explanatory Plan	102			72	1.4
Subdivision Plan	262			169	1.5
Total	3345	39	61.2	397	2.5

The effect of their predominance can be seen in Figure 26 (Detail 'A' of Figure 25) and Figure 27 (Detail 'B' of Figure 25) on the following pages. Detail 'A' is mostly within the Township System and Detail 'B' the River Lot System. Detail 'A' is in the Netley Creek area and the black squares, which represent Metes and Bounds, dwarf the other types of land divisions. It is true that a number

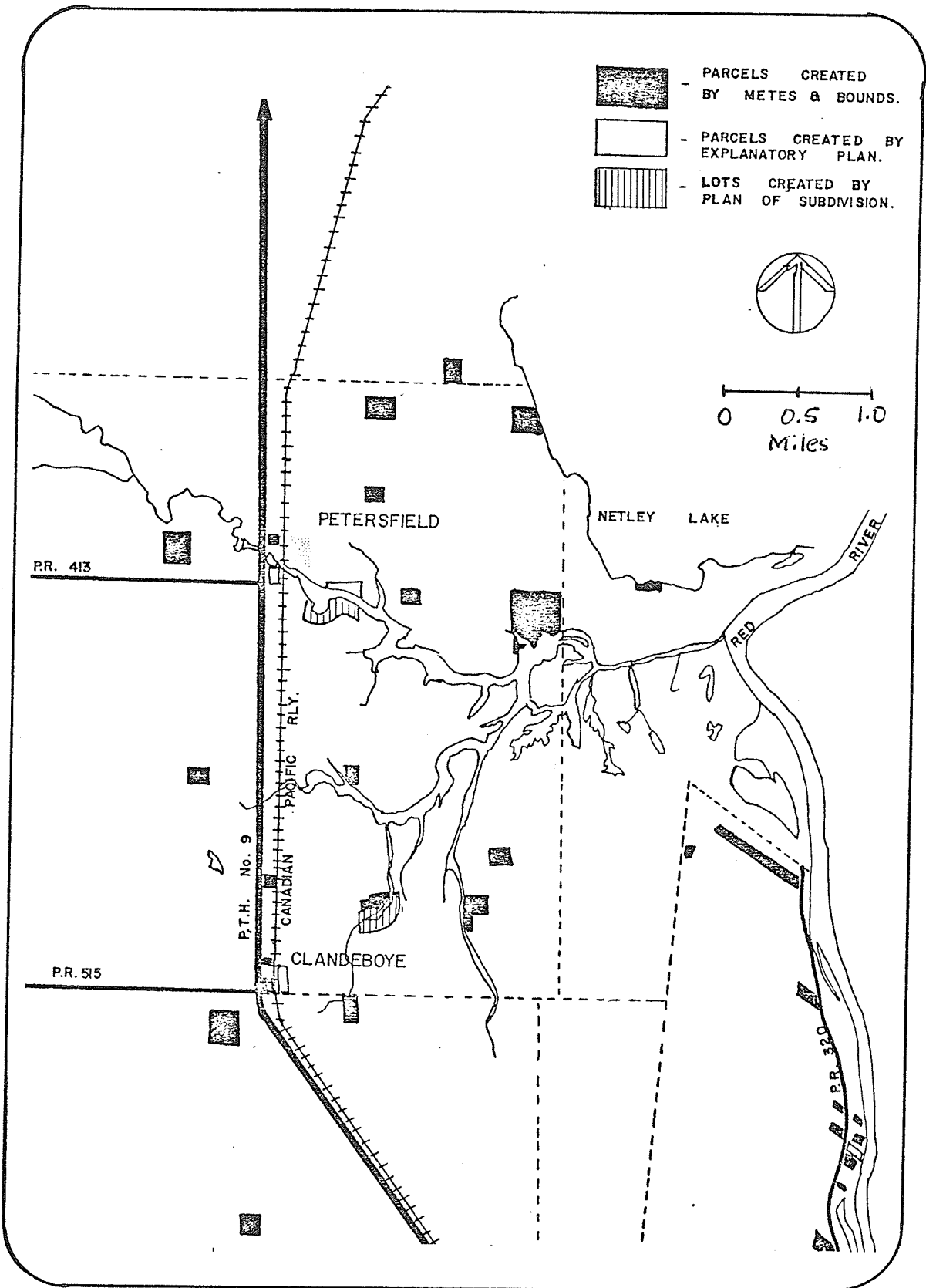


Figure 26. Detail A: Land Division Locations, Netley Creek Area

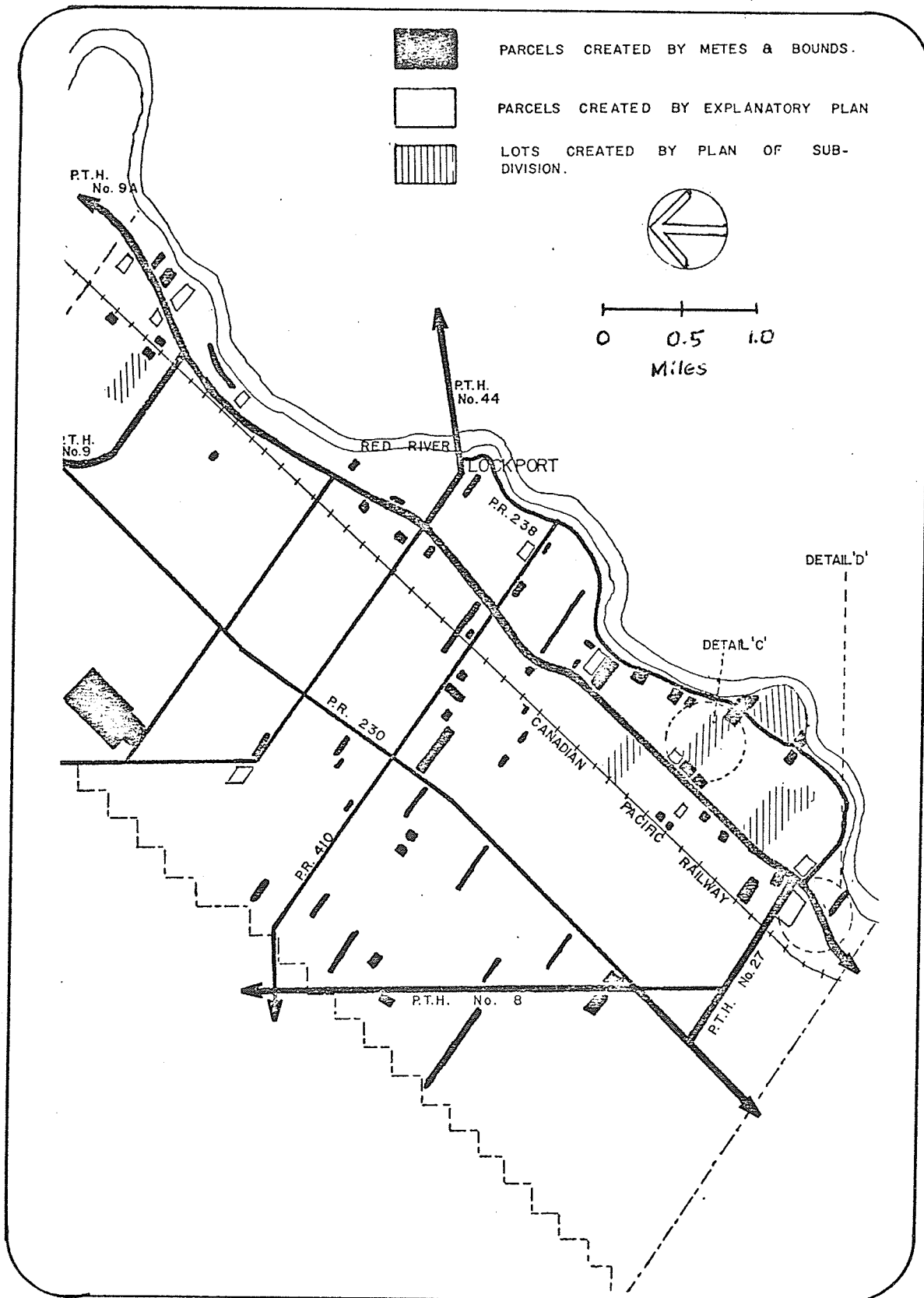


Figure 27. Detail B: Land Division Locations, South of Selkirk

of the land divisions here are quite large (averaging 60 acres in size), however, the small one, particularly in the lower right hand corner along highway 320 and the Red River can not be passed off as insignificant (they average 4 acres in size). Detail 'B' shows the area within the River Lot System, south of Selkirk - the intensity of land divisions is obvious. This area contains 65% of the land divisions within St. Andrews even though it only covers one seventh of the total area. A comparison was made between this area south of Selkirk and the total area of St. Andrews and it was found that the trends and patterns of land division were similar, the only difference being in the concentration.

### 3. Development

To gain a better understanding of the subject, individual parcels and lots were analyzed in terms of development. There development was considered significant since land divisions may occur in response to demand from building or speculation pressures and for this reason the Municipal Board, before approving a Subdivision Plan requires that the owner or applicant state that the land is required for building or other development purposes, within a reasonable time period.

The information on development was obtained from the assessment rolls for 1974, dated October 29, 1974. These rolls record the types of buildings upon each parcel.

The buildings were recorded and are tabulated in Appendix E, pages 161 - 162, according to the type of land division upon which they appear and the year the land division occurred. Appendix E, Tables 15, 16 and 17 show that Metes and Bounds and Explanatory Plan created last are more developed than those created earlier. The percentages developed as shown in Table 6 following, are 57% and 61% respectively, however the earlier lots within the Subdivision Plan have a higher percentage of development than those created later. This might be due to the large number of lots created in 1973. Forty-five percent of the lots in Subdivision Plans were developed in the detailed study area.

The rate of development within Subdivision Plans in the detail study area was compared to the rate of development within the general study area previously mentioned. The comparisons were very close showing that 45% of the detailed study area lots were developed while 43% of the lots were developed within the general study area.

The resulting pattern which develops from the high lot vacancy rate (a 47% average for all methods) is scattered and contains many social and economical problems which will be looked at in the next chapter. Detail C and D, which are located south of Selkirk as shown on Figure 28 (Detail C and D of Figure 27) illustrate two areas of development. The locations, acreages and development within the different land division types are shown and patterns are evident.

Table 6

Development Within the Detailed Study Area, 1969-74

Method of land division	Land Divisions		
	Total number	Number built upon	Percentage built upon
Metes and Bounds	195	112	57%
Explanatory Plan	72	44	61%
Subdivision Plan	169	76	45%
Total	436	232	100%

Development along existing roads is common. The land adjacent to roads and highways is often divided by Metes and Bounds and Explanatory Plans. Plans of Subdivision have generally been located on land removed from rights-of-way. Many of the parcels are smaller than the lots created by Subdivision Plans; these small parcels being next to the Lord Selkirk Highway, the River Road and the Provincial Trunk Highway No. 27 while the larger lots (created by Plan of Subdivision ) are well removed from the pollution of noise and dust. The Explanatory Plan is being used as a vehicle to allow increased land divisions by Metes and Bounds as shown in three examples in Detail C (refer to circled areas). This is an excellent example of the Mechanics of Land Divisions, as discussed in the proceeding



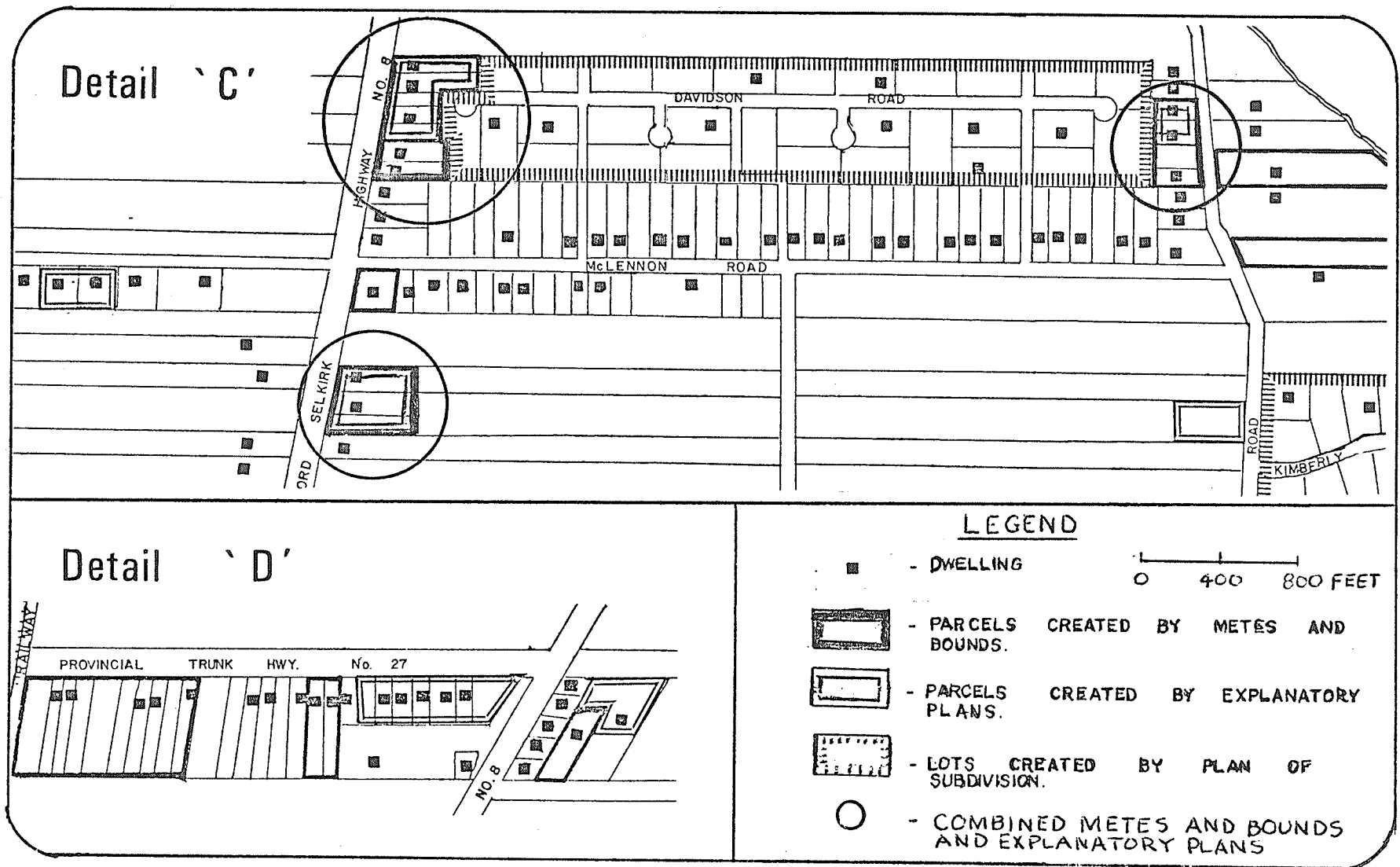


Figure 28. Detail C and D: Land Division Locations in the Detailed Study Area South of Selkirk

chapter. The resulting picture is one of sprawl development, scattered land uses, inefficient services, unplanned highway access and a total lack of regard for future development.

#### 4. The Interrelationship of Land Division Methods

A scenario of the land division process has been developing. A definite interrelationship exists between Subdivision Plans, Explanatory Plans and Metes and Bounds, the latter being used to further divide the lots and parcels which are registered. Not only do these three methods compliment each other in facilitating land divisions, they also operate within the River Lot and Township Systems. The earlier study of River Lot 9 in the Parish of St. Andrews (Figure 19, page 67) alluded to this relationship but it is only in the Case Study of the detailed study area that its true character appears. Detail C, Figure 28, page 98 depicts three examples of this combination. The examples are circled.

From these studies and further discussions with lawyers a scenario of the workings of the land division process was derived by the author. The following example shows two patterns which can develop, the 'checkerboard' and 'strip development'. The checkerboard pattern develops when the initial legal subdivisions of a quarter section are divided into smaller parcels and when these parcels are further divided a strip type of development necessarily

occurs along roadways.

The checkerboard and strip development process can create small lot divisions outside of planning controls. The following example is based on the findings of case studies and shows this process.

A quarter section of land (160 acres) is owned by an individual and it is zoned for a minimum of five acre parcels. See the upper left hand diagram of Figure 29 and in particular the S.E.  $\frac{1}{4}$ . Under the Township System of Surveys in Manitoba there is an inherent division of land by virtue of the legal subdivision. That is, the quarter section could be easily divided into 40 acre parcels without any serious difficulty (refer to Figure 5). There are however only three saleable parcels (1, 2, and 8 in the S.E.  $\frac{1}{4}$ ) - parcel 7 is land locked. If the owner wishes to sell the quarter section as four parcels, however, it is a relatively simple procedure to divide the total quarter section into four saleable parcels. Refer to the upper right hand diagram of Figure 29. The descriptions for the parcels would read as follows:

Parcel A - south half Legal Subdivision 1 and 2

Parcel B - north half Legal Subdivision 1 and 2

Parcel C - south half Legal Subdivision 7 and 8

Parcel D - north half Legal Subdivision 7 and 8

No approval by local responsible authority is required for this process.

If further land divisions are desired this process

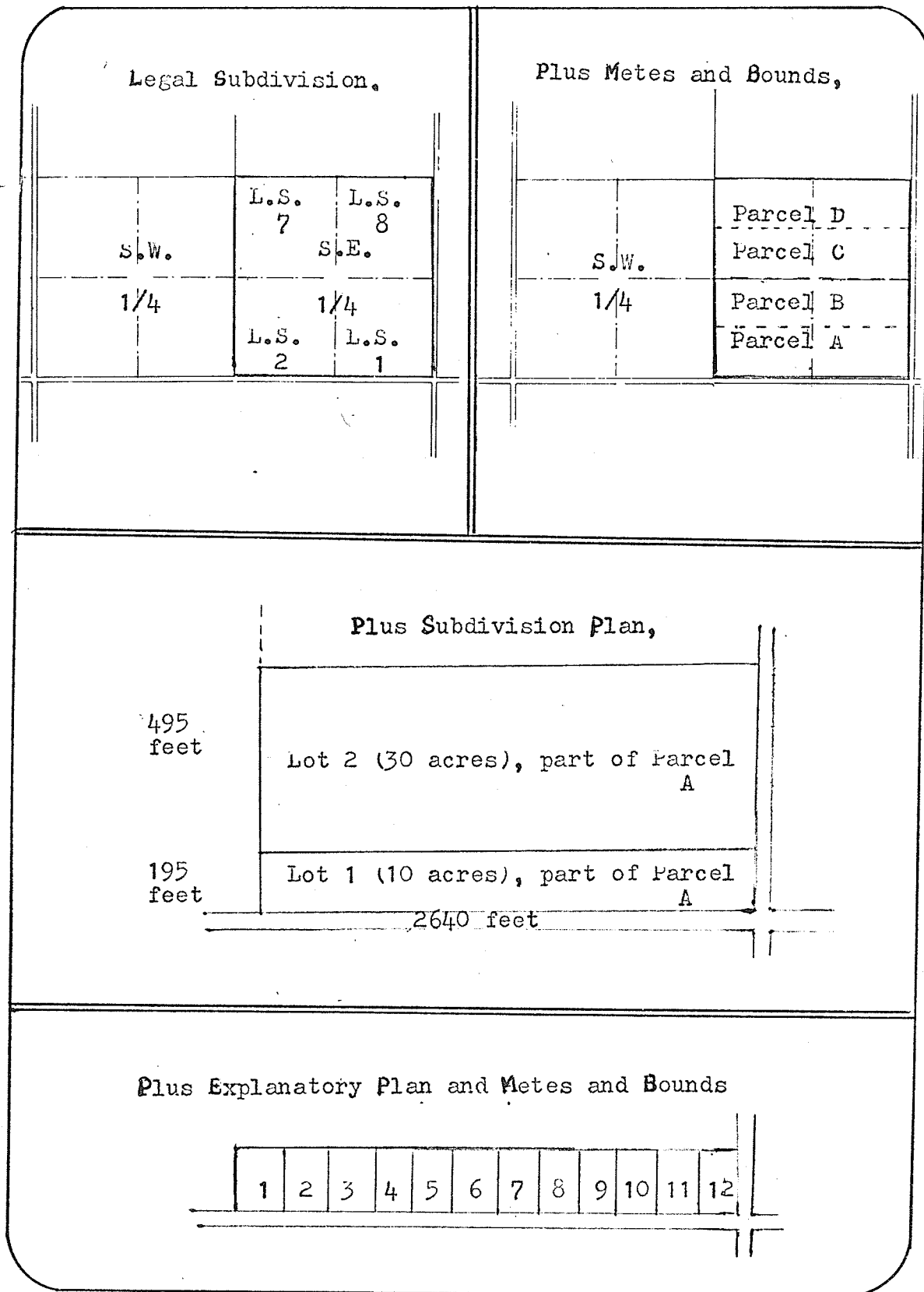


Figure 29. The Interrelationships of the Land Division Methods

of Metes and Bounds will be repeated again and again, until the District Registrar feels that the parcel locations are not sufficiently defined by Metes and Bounds. Notice will then be given on the Certificate of Title that a plan will be required before any more land divisions can occur. For discussion purposes, let us assume that a plan is required after Parcel A, B, C, and D are created.

The owner of Parcel A, desiring to divide his 40 acres into a number of small parts, easily obtains a Subdivision Plan and splits Parcel A into two parts, Lot 1 and Lot 2. Refer to the central diagram in Figure 29. Because of the size of the lots the approvals are easily obtained. He then takes Lot 1 which contains 10 acres and by a process of Explanatory Plans, Metes and Bounds and land transferrals is able to divide it into twelve parcels, each 0.8 acres in size. Refer to the bottom diagram, in Figure 29.

Land divisions occur in this or similar manners as a matter of course. A drive into the rural urban fringe of Winnipeg will reveal the patterns of land divisions which have occurred as can be witnessed in the development. The Development Plan for the Rural Municipality of Springfield further illustrates this phenomenon.<sup>5</sup>

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5. Municipal Planning Branch, Rural Municipality of Springfield Development Plan: Part 1, Background Studies (Manitoba Department of Municipal Affairs, 1973), Diagram 5.

E. Summary

Uncontrolled land divisions are predominant in Manitoba. This fact, alluded to in 1953 by a research planner, in 1973 by a Deputy Examiner of Surveys of Manitoba, and in 1974 by the District Registrars of the Land Title Offices, has been born out by research within a selected general study area. Further research into a detailed study area indicates that the patterns which are developing are a result of uncontrolled land divisions and the resulting development is causing problems.

A study of the number of lots and parcels registered from 1969 - 1974 within the general area indicated that 38% were by Metes and Bounds (uncontrolled land divisions), 15% by Explanatory Plan (partially controlled land divisions), and 47% by Subdivision Plan (controlled land divisions). A study of the required consents and approvals indicated that 80% were by Metes and Bounds, 15% by Explanatory Plan, and 5% by Subdivision Plan. An analysis of this data indicates that Metes and Bounds are predominant, accounting for 38% of the lots and parcels and 80% of the consents and approvals. Each Metes and Bounds contains only one land division and consequently its consent is for one land division also. The Explanatory Plan, however, contains an average of two land divisions per consent or per plan and so is less dispersed. The Subdivision Plan contains an average of twenty land divisions per approval or per plan and this accounts for its clustered, rather than scattered appearance.

A study of location, acreage and development within the detailed study area confirmed the above and showed that many of the land divisions are near major topographical features such as rivers or wooded areas. A pattern of development is evident. Metes and Bounds and Explanatory Plans are used to divide the land along the roadways (forming a strip development) and Subdivision Plans are used to divide the interior lands. Metes and Bounds naturally must occur next to existing roadways since they are like a parasite and feed off existing survey lines. This limits their application and makes it impossible for them to develop interior lands. Explanatory Plans, likewise are generally limited to existing right-of-ways and often are used as a tool for Metes and Bounds. In numerous cases large Explanatory Plans are registered and then divided into a number of smaller parcels by Metes and Bounds. The end result is essentially a small lot subdivision. The Explanatory Plan can only contain one new dwelling parcel, as stated in the Real Property Act, however, by using Metes and Bounds, this one parcel can be further divided, thereby resulting in many dwelling parcels, without any legal contravention of existing legislation. It is only the Subdivision Plan which has the ability to deal with all types of land formations and situations.

Past belief that Metes and Bounds are only used for large parcel land divisions is not true; 80% of the Metes and Bounds divisions averaged 3.8 acres per parcel

while the other 20% averaged 61.2 acres. Metes and Bounds showed the same degree of development as the other two types, 57% of the land divisions created from 1969 - 1974 being developed by October 29, 1974.

A summary of the above data for the general and detailed study areas, which are representative of the land survey and land use patterns of Manitoba, is presented in the following Table 7.

Over the last five years much land has changed from a rural land division pattern to an urban subdivision pattern. The Subdivision Plan has had only a limited effect on this changing pattern. The following chapter, Chapter IV, will consider the effects of scattered, uncontrolled land divisions and the newly enacted legislation to bring them under control.



Table 7

Percentages of Land Divisions, Consents and Approvals,  
 Acreages and Development Within the Case Study Area,  
 1969-74

Method of land division	Percentages by methods	Percentages by Consents and Approvals	Over 10 acres		Under 10 acres		Percentage built upon to 29/10/74
			Acres	Percent	Acres	Percent	
Metes and Bounds	38%	80%	61.2	20%	3.8	80%	57%
Explanatory Plan	15%	15%	0.0	0%	1.4	100%	61%
Subdivision Plan	47%	5%	0.0	0%	1.5	100%	45%

UNCONTROLLED LAND DIVISIONS:  
PROBLEMS AND SOLUTIONS

- Problems of Uncontrolled Development
- Provincial Legislation to Control  
Land Divisions
- Summary

## CHAPTER IV

### UNCONTROLLED LAND DIVISIONS: PROBLEMS AND SOLUTIONS

Uncontrolled land divisions are predominant and are causing problems in Manitoba's development. What are these problems and what is being done to rectify them? Can uncontrolled land divisions be controlled? Municipalities have been faced with these problems for some time and solutions have been slow in coming. The land affected by this development is that which lies within the 'rural urban fringe'. The rural urban fringe is defined as an area which lies between the country and city, exhibiting an appearance of sprawl or scattered development along existing roadways. The parameters of the rural urban fringe lie between one hundred percent rural and one hundred percent urban land uses. A fringe development does not start out to become a city, nor does a rural development intend to become a fringe, however, through a process of continued land division and development intensity, the stages are passed through, the end result being a rural land pattern imprinted upon an urban setting. Because this process results in disorderly and uneconomical development, it is natural that responsible authorities should be concerned and desire to control new developments to ensure that the best possible development results.

The format used in studying the problems and solutions to uncontrolled land divisions is one of highlighting the physical, social, and economic problems characteristic to fringe development and then presenting legislation recently adopted to correct uncontrolled land divisions. Because the legislation is new and still mainly in a theoretical stage (not having been tried and tested) there are many problems to be considered and worked out. In considering the new legislation, the areas within which problems are most likely to occur will be dealt with.

Regulations for the control of land divisions have been established, however implementation will be difficult due to their newness and the large volume of material required to be submitted on an application form. The complexity of each application plus the increase in the volume of applications will certainly result in public pressure. The existence of 'open ended' legislation, the difficulty for local Councils to exercise responsible authority, and the vagueness of the concept, 'development within a reasonable period of time', will not aid in the implementation of the Act. These and other problems will be dealt with in the following pages.

## A. Problems in Uncontrolled Development

In analyzing uncontrolled development, problems concerning the physical characteristics are often the easiest to distinguish and are the first noticeable clue that a more serious problem exists. The Case Study as presented analyzed some of the physical characteristics inherent in land division and from this analysis social and economic characteristics can also be derived. First, however, the physical characteristics must be reiterated and expanded upon.

### 1. Physical

The Case Study indicated that uncontrolled land divisions are scattered along roadways and the interior lands are not being developed; the parcels are small in size and half are vacant (resulting in even more scattered development). Often controlled land divisions are being divided up into smaller parcels than approved by local Council or Planning authorities. A closer look into land uses and suitability shows that developments are occurring next to farm feed lots, oil refineries, industrial sites, and highways. Often this development is on good farm land, unstable soil, or flood plains - all non-compatible uses. Health problems are evident such as septic tank malfunctioning and polluted water supplies - a result of soil texture and increased densities. Increased densities result in dry or salty water wells, accumulation

of visible garbage in the ditches and around dwellings and a general run down character of housing types. Lastly, the road system is often inadequate.

The most predominant physical characteristic is scattered development. Scattered building sites are further exemplified by the high parcel vacancy rate (45%) and yet the demand for more parcels continues. The problem of lot vacancies certainly is not a new one to Manitoba or to other areas or periods of time. Between 1870 and 1880 enough land was subdivided to last Winnipeg for almost 100 years. By the beginning of the twentieth century it was reported that in "some cities the number of vacant lots is estimated at an average of 84 percent of those subdivided. This in turn is having deplorable effects in reducing production in respect of the areas which could be put to economic use as agricultural land".<sup>1</sup>

The situation has been somewhat similar in the United States. In Chicago, some of the lots which were laid out in the 1869-72 land boom were still vacant in 1950, as also were most of the lots surveyed in the 1920's. In New York, a survey conducted in 22 of the 87 residential districts found 12,050 scattered vacant sites between  $\frac{1}{2}$  and 3 acres.<sup>2</sup>

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1. Thomas Adams, "Rural Planning and Development" (Ottawa: Canada Commission of Conservation, 1917), p. 111.

2. R.W.G. Bryant, Land, Private Property, Public Control (Montreal: Harvest House, 1972), p. 158.

In the United States an average land vacancy rate is 30%.<sup>3</sup>  
It is difficult to state what the land vacancy rate should be however, land divided too far in advance can not respond to technological and life style changes.

## 2. Social

The country residence by definition implies the concept of openness, fresh air and quietness along with the acceptable standards of twentieth century living. Does the country dwelling in fact fullfill these expectations on a human scale? From recent studies it has been found that many rural-urban dwellers are not pleased with their environment; the anticipated quietness is disrupted by the highway noise heard; the safe streets have been extended resulting in increased traffic flow; the parks do not exist or are beyond walking distance, schools are overcrowded and lacking in facilities, and representation on the rural municipal government is inadequate.

In 1973 a survey of rural non-farm residence in the Springfield Municipality near Winnipeg indicated that a large proportion of the people were young married couples with children, having average incomes between \$5,000 and \$10,000. Their reasons for living in the rural urban fringe were: ". . . lower taxes, better place to bring up

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3. H.B. Dorau and A.G. Hirman, Urban Land - Economics (New York: MacMillan, 1928), p. 138.

children, having preference for a smaller community, and lower costs".<sup>4</sup> Eighty percent of the adults had grown up outside of the city, containing a rural philosophy of life. This factor plus their income range caused them to choose country living. A comparable choice did not exist within the city.

The urban housing shortage in the last few years has forced a large number of young families to seek reasonable housing accommodations in the fringe areas. A survey in the Vancouver area indicated that of those living in the urban fringe, "almost a third preferred a core location, and in total 46% preferred a location 'closer in' than their present location. From this it is further evident that many have been forced by financial circumstances to an area that they do not really want to live in".<sup>5</sup>

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4. Municipal Planning Branch, Winnipeg Regional Study Interim Report (Winnipeg: Manitoba Department of Municipal Affairs, 1973), p. 14.

5. Lower Mainland Regional Planning Board, The Urban Frontier Part 2: Technical Report (New Westminster, British Columbia: Lower Mainland Regional Planning Board, 1963), p. 35.



### 3. Economic

The expenses involved in a growing fringe development have been grossly overlooked by municipalities and other forms of administration.<sup>6</sup> Because services and utilities (sewers, power, gas, roads, and watermains) increase in cost in proportion to their length, the cost of servicing scattered development is very expensive. These excess costs do not fall primarily on the fringe development, rather, they are shared by all the population. The results of a survey indicate:

- (i) Farming areas pay much more in municipal taxes than they receive in municipal services.
- (ii) Sprawl areas are "deficit areas", paying less in taxes than they receive in municipal services.
- (iii) Except in cases of poor quality development, due either to unsuitable ground conditions or to low value<sup>7</sup> houses, suburban residential areas pay their own way.

Not only is the form of development expensive but so also is the land, due to speculation.

The increase in land prices associated with the spread of development around an urban center has long been of interest to both public officials and the building industry. Their concern arises both because high prices allegedly promote urban sprawl and hence inefficiencies in provision of public services and

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6. Saskatchewan Department of Environment, "Urban Fringe Development Problems" (Proceedings of a two day seminar, Regina, Saskatchewan Department of Municipal Affairs, 1973), p. 101 - 102.

7. Lower Mainland Regional Planning Board, Urban Sprawl (New Westminster, British Columbia: Lower Mainland Regional Planning Board, 1956), p. 6.

because the increase has been associated with rising house prices and an increasing proportion of house cost attributable to land.<sup>8</sup>

As lot prices increase the number of people able to afford a house decrease and those who can afford to build often must choose an inferior quality of housing.

Land speculation and fringe development can often cause land to become dormant long before development reaches it. Many municipalities want the taxes accrued from industrial and residential land divisions, little thought being given to the value of the farm land. When the residential subdivision receives an increase in land taxes, neighboring land is also revalued land.<sup>9</sup> This increase in the tax base makes the land uneconomical to farm and so the farmer sells out, being unable to wait for the future demand of his land to increase. The speculator buys from the farmer and often allows the land to lie dormant until a sufficient demand has arisen to make his appreciation worth while. The increase in taxes which forces the farmer off the land often turns out to be somewhat of a cancer. It raises the taxes substantially from the rural viewpoint but not enough to meet the growing demands of the new

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8. Grace Milgram, The City Expands (Philadelphia: University of Pennsylvania, 1967), p. 1.

9. Riddell, Stead and Associates, Cost/Revenue Analysis and Study of Residential Development in Selected Rural Municipalities of Manitoba (Winnipeg: Riddell, Stead and Associates, 1973), p. 47.

developments. Soon the municipality has financial difficulties as it passes from a stable to a growing development.

This is not a new situation in Canada. In 1917, Thomas Adams, Commissioner of Conservation, reported that in every Canadian community, large tracts of land had been subdivided and were lying empty, disrupting cultivation and development. This occurred up to a ten mile radius past the cities growth.<sup>10</sup>

The relationship between new land divisions, immigration and economic conditions should be considered in light of the foregoing. When the economy is strong and growing, the amount of new subdivisions and housing starts also can be witnessed. In Canada, upper turning points in the economy were 1871, 1889, 1912 and 1929 while lower turning points were 1880, 1896, 1918 and 1934. These years of economic boom and recession run parallel to immigration and building permit trends.<sup>11</sup> An increase in immigration increases the demand for goods and services and "the general level of business activity affects real

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10. Adams, p. 110 - 111.

11. K. Buckley, "Urban Building and Real Estate Fluctuations in Canada", Canadian Housing: A Reader, ed. Kamal S. Sayegh (Waterloo: University of Waterloo, 1972), p. 102.

estate markets".<sup>12</sup> The late 1960's and early 1970's are witness to this.

It has been suggested that "as new buildings are erected, they absorb the vacant land; and a land boom results, with subdividing activity proceeding first at a slow rate and then gathering momentum if the pressure of building on land continues to increase".<sup>13</sup> If this is the case, and it might well be, then divisions naturally will continue to occur until they far outstrip building pressures. The land booms of the 1870's and 1920's flooded the market with lots and parcels, many of which are only being developed today. Is this what we want to allow to happen again? Can we in fact physically, socially, and economically afford to repeat this natural pattern of land divisions? Local municipal representatives, and responsible government authorities do not think so.

Having realized the undesirable effects caused by uncontrolled land divisions, responsible authorities have enacted Provincial legislation to ensure that all forms of development occur in an economical and orderly manner. These controls appear in the form of 'subdivision control' within the new Planning Act of Manitoba.

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12. H. Weimer, H. Hoyt, and G. Bloom, Real Estate (New York: Ronald Press, 1972), p. 242.

13. Weimer, p. 237.

## B. Provincial Legislation to Control Land Divisions

The purpose of this section is to outline the land division controls which exist in Manitoba since January 1, 1976 as a result of the new Planning Act.<sup>14</sup> Because the Act is new, there are many inherent problems - to help understand and work out solutions, other provincial experiences are considered.

### 1. The New Planning Act

On January 1, 1976 the Provincial Government of Manitoba proclaimed a Planning Act to replace antiquated planning legislation in Manitoba. Besides encouraging municipalities to establish planning districts and develop long range provincial and municipal land use plans, the Act provides the necessary legislation to control all new land divisions. Through land division control, municipalities are able to control and direct development from the very earliest stages.

Part VI of the Planning Act, 'Subdivision Control' is of particular interest to this thesis since the control

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14. The Planning Act, Statute of Manitoba 1975, c. 29 - Cap P. 80.

Section 93 of the Act states:

- This Act applies to the whole of the province except
- (a) The City of Winnipeg, as described in The City of Winnipeg Act;
  - (b) Northern Manitoba, as defined in S.M. 1974, chapter 56 (chapter N100 of the Continuing Consolidation of the Statutes of Manitoba); and
  - (c) lands designated as "provincial park lands" under The Provincial Park Lands Act: . . . .

system, as established allows no new dealings in land to occur unless an 'approval by the approving authority is given'<sup>15</sup> or the entire lot or parcel (as described on the certificate of Title) is dealt with at once. An exception to this rule occurs if you are splitting your property into parcels, all of which are greater than 80 acres, have access, and fall under the Township System of Survey.<sup>16</sup> If such is the case, then you will not need to have your subdivision approved, or if the land is being acquired or disposed of by Her Majesty in the right of Canada or Manitoba. The Act makes dramatic efforts to control land divisions. Metes and Bounds are required to receive approvals comparable to Subdivision Plans and the Explanatory Plan is no longer able to serve as a method of dividing land.<sup>17</sup>

According to section 63 of the Act,

An application for subdivision shall not be approved unless

- a) the proposed subdivision complies with this Act and the regulations . . .
- b) the council of the municipality in which the land proposed for subdivision is located, has by resolution given its approval, with or without conditions;

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15. The approving authority may be the Director of Planning or a person acting on behalf of the Director (a senior field office planner within the Municipal Planning Branch) or the board of a district (elected counsellors) within a planning district.

16. Planning Act, Reg. P80 - M.R. 245/75, p. 10.

17. Under section 60(3) of the new Act the Explanatory Plan is not considered as a manner in which new land divisions can occur. Its future use will be that of 'explaining' by plan, a number of Metes and Bounds if a plan is required for clarification.

c) the land, in the opinion of the approving authority, is suited to the purpose for which the subdivision is proposed and may be expected to be used for that purpose within a reasonable period of time after the registration of the plan of subdivision or other instrument, as the case may be . . . .

d/e) the proposed subdivision conforms to established or proposed planning policies, by-laws and plans;

f) and agreements concerning construction and costs be entered into where necessary or required.<sup>18</sup>

The problem of unregulated land division in Manitoba might appear to be under control, however the existence of legislation is a far cry from implementation and obtaining desirable effects through responsible authority. There are many important points to be noted in section 63, some of which have been brought up as problems in earlier chapters. Section 63(a), (b) and (c) will be dealt with in detail in the following pages. Sections 63(d), (e) and (f), though important, can not be gone into detail here. Problems concerning their application involves a study complete in itself.

## 2. Regulations Respecting Land Divisions

The regulations as mentioned in section 63(a) of the Planning Act for controlling the subdivision of land, are established as subdivision regulations (245/75)<sup>19</sup> and

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18. Planning Act, Statute of Manitoba 1975, p. 49-51.

19. "Manitoba Regulation 245/75 Being a Regulation Under the Planning Act Restricting the Subdivision of Land."

require an existing features map (what's there now) and a 'proposed features map' (what are you going to do) at a scale of 1 inch = 100 feet which includes adjacent property, plus a key map (where is the subdivision) at a scale of 1 inch = 1000 feet (showing a radius of at least two miles). Also, data concerning proposed land use, servicing, water supply, sewage and garbage disposal, site access, topography, existing drainage and flooding, existing buildings, integration into surrounding areas, and environmental effects must be supplied. Requirements concerning lot size, public roadways, density factor and land dedicated for public reserves must be met.

A large amount of data is required prior to the approval of new land divisions and this is good since, as this thesis has shown, a land division is a crucial step in land development and the public must be protected. The initial manner within which these regulations will be responded to is a matter of concern however. Manitoba has not had formal land division regulations prior to 1976. In the Edmonton Regional Planning Commission in Alberta it has been found that 90% of all applications do not comply with the subdivision regulations.<sup>20</sup> Will Manitoba's situation, where subdivision regulations are new and unfamiliar have a better record? Likely not. If the

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20. This percentage was given by Fred Pritchard, Senior Planner in the Subdivision Regulations, Municipal Planning Branch, January 26, 1976.



strict and yet reasonable measures are not enforced, inadequate data will once more be the norm for land division applications. The Municipal Planning Branch has attempted to meet this challenge by outlining a step-by-step guide, called "How to Subdivide in Manitoba - A Guide for Development".

### 3. Approvals Required From Local Council

The second part of section 63 of the Planning Act 63(b) states that a proposed subdivision is required to have not only the approval of the approving authority but also the approval of the municipal council. This assures that a decision at the local level is maintained.

In the County of Lambton, near Sarnia, Ontario, the approval process has been at the grass roots level for Consents. A study in 1973<sup>21</sup> indicated, however, that many problems exist with approvals which should be of concern to Manitobans.

In Ontario, it is the intent of the Planning Act that land is to be normally subdivided by means of a registered Subdivision Plan which must receive approval from the Ministry of Treasury, Economics and Intergovernmental Affairs. An individual however, may convey one or more parcels from a given land holding if he makes application to and receives 'consent' from a land division

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21. Jane Graham and County of Lambton Planning Department, Consents in Lambton County (Sarnia: Planning Department, 1973).

committee or the Minister. Within the County of Lambton the study reviewed the activities of the relatively new Land Division Committee and the Committee of Adjustment for the years 1971 and 1972 and revealed that 74% of the applications for consent for land severance were for the creation of residential parcels in predominantly rural areas; 84% of the parcels were less than 2 acres, and 53% contained no municipal water or sewer. In the County, as well as in most parts of Ontario, the number of parcels created by consents equals or surpasses those created by Subdivision Plans.<sup>22</sup> Further to this, local authorities were not using the powers of control granted to them, field inspections were not being made, adequate records were not being kept, and in general land divisions were occurring without reference to the regulatory process that was intended for the development of land.

This study is very relevant to the Manitoba situation where the machinery does not exist for record maintenance, trend analysis, and planning and development education. It is essential that not only local council but also private and public personnel be knowledgeable on the ills of uncontrolled land divisions and that they also exercise responsibility in their actions. In the past this has not always been the case. For example, in the month of December 1975 just prior to the implementation of the

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22. Graham, p. 4.

new Act, the Winnipeg Land Titles Office processed thousands of land transactions. In one day alone, over 1,000 land divisions occurred as compared to the usual average of 2,000 per month.

With these points in mind, the exercising of responsible authority takes on a new light. Approvals must occur within the framework of adequate background knowledge, up to date factual material showing trends and specific areas of land development, within the framework of planning regulations and land use plans. At the present time, little of this framework exists. A data bank<sup>23</sup> to catalogue information is needed by the Land Titles, Assessment Branch, Planning Department and other related agencies, public and private. Not only would this stream-line day to day activities, but it would allow research to be an ongoing process. Without documentation of trends and patterns, our land division patterns of the future will be as sporadic and uncoordinated as those of the past.

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23. For a data bank to properly function an evolution will have to occur within the Land Titles System. Just as words have replaced common knowledge and the plans of survey have replaced words, so also will a rectangular co-ordinate grid system on a world system replace the plan of survey. People will then be able to refer to their parcel of land by grid co-ordinates on one plan of the whole world.

A. Spencer, "Description of Land" (unpublished, Alberta, 1969), p. 47.

#### 4. Development Within A Reasonable Period of Time

The third part of section 63 of the Planning Act 63(c) states that the land to be divided must be expected to be used for the purpose stated and within a reasonable time period. This also was a requirement for Subdivision Plans prior to 1976. However, Appendix E has shown that a high vacancy rate existed in the lots, years after registration. The new Act's open ended wording of 'reasonable time period' and lack of enforcement will result in little new control powers over land divisions as far as vacancy rate is concerned.

This is unfortunate in view of the first part of this chapter which showed that vacant lots do not generate maximum income, unnecessarily divide up land into small parcels, divide up land according to present needs which do not always comply with the future, result in uneven development, extension of services, cater to excessive costs in land management and consequently result in higher than necessary prices. By not realizing the seriousness of this problem the Act does not assure that development will follow land divisions. The Act does ensure that a higher quality lot or parcel will be available but will these lots and parcels be outmoded by the time they are developed?

The Case Study has shown that land divided between 1969 and 1974 was built upon in only 53% of the cases. This gives no indication of the vacant lots and parcels which still exist since the earliest surveys in 1812, the

land booms of the 1870's and 1920's nor the thousands of uncontrolled land divisions which were registered in land titles in the last half of 1975, (after the Planning Act was passed but before it was proclaimed). A reasonable estimate would be that at least 10,000 vacant lots exist within a 30 mile radius of Winnipeg.

If approving authorities are concerned that development occur within a reasonable time period, then it is essential that a study be conducted to determine the number, location, size and year of registration of vacant lots within the Winnipeg Region. If a study was conducted, the lot vacancy rate would serve as a guide for future lot approvals and it also would enable councils of municipalities to know what Subdivision Plans should be declared obsolete and have their titles cancelled.<sup>24</sup>

#### 5. Increased Approvals, Public Pressure and Open Ended Legislation

There are three additional problems which need to be considered since they will make implementation of the new Planning Act difficult. The first situation involves the increase in land division approvals; the second, the increase in public pressure; and the third, the existence

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24. Under section 60(4) "Obsolete Plans of Sub-division" the new Planning Act states that:

The council of a municipality may by by-law declare any plan of subdivision, or part thereof, of land within the municipality, that has been registered for 8 years or more, not to be a registered plan of subdivision for the purposes of this Part.

of open ended legislation.

a. Land Division Approvals

The first problem to be considered concerning the new regulations is the increased volume of applications requiring approval. Using a ratio of one Subdivision Plan for every twenty Explanatory Plans and Metes and Bounds, the number of approvals expected each year will average over 2,000.<sup>25</sup> The province will be faced with about twenty times more applications to divide land than in the past. The recent experience of the City of Winnipeg Planning Department is an example of what may be expected when presently uncontrolled land divisions require approval. The City was under severe criticism for an extended period of time because it was not able to quickly process applications due to a staff shortage.

b. Public Pressure

Planning authorities, due to the increased demand for information on application forms and the increased demand on planning staff, are sure to be under public pressure and criticism for some time. The following is likely to occur if adequate planning staff is not supplied and responsible authority is not exercised.

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25. The figures and ratios were arrived at from the ratios established by the city of Winnipeg, information from the Municipal Board and results obtained from the research within this thesis.

The initial application to divide land will not contain the information that is difficult or costly to obtain (contours at intervals of 5 feet, high water marks, water levels and available percolation tests, top of bank, etc.). A tentative approval to an application will be given by the approving authority subject to the condition of additional information but an unwillingness to supply this data will lead to attempted short cuts, a backlog of applications, public pressure and complaints to the acting government. As an immediate short term solution Section 66 of the Act, 'Relief from Compliance' will be used liberally and supposedly 'controlled' land divisions will result.

c. Open Ended Legislation

Within the new Act an initial danger lies in Section 66. It states that

where an approving authority is of the opinion that compliance with a requirement of any subdivision regulation is impractical or undesirable because of circumstances peculiar to a proposed subdivision, the approving authority may relieve the applicant in whole or in part from compliance with that requirement. . . .<sup>26</sup>

This section in itself is good and allows responsible authorities to exercise discretion. However, under pressure or in the hands of unscrupulous persons, the section is an open door for abuse. There is no reason to think that past abuses will not continue unless they are stopped by legislation.

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26. Planning Act, Statute of Manitoba 1975, p. 52.

### C. Summary

Uncontrolled land divisions are causing physical, social and economic problems in Manitoba. On January 1, 1976 the Provincial Government of Manitoba passed legislation in the form of The Planning Act, Statute of Manitoba, 1975, c.29 - Cap. P80, to control land divisions and bring about economical and orderly development within the Province.

The type of development which results from uncontrolled land divisions can be described as sprawl. Sprawl,

. . . the indiscriminate siting of small lots is highly undesirable because of the effects they have on agricultural land use; the social and aesthetic problems; and the virtual complete loss of control over subsequent planned development, where such lots are scattered over the planning area.<sup>27</sup>

In an attempt to ensure that this type of development does not continue to occur, the Act which covers all of Manitoba except the City of Winnipeg, Northern Manitoba and the Provincial Park Lands, legislated that all land divisions except those over 80 acres in size or owned by Her Majesty, must receive an approval from the approving authority prior to registration in Land Titles.

Regulations have been established to control these divisions, however, because of the great increase in the volume of approvals (twenty fold), public pressure and open ended legislation will make its implementation difficult.

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27. Riddell, Stead and Associates, Cost/Revenue Analysis and Study of Residential Development in Selected Rural Municipalities of Manitoba (Winnipeg: Riddell, Stead and Associates, 1973), p. 46.



In the past Manitoba has had no legislated land division regulations, as now found in 'Manitoba Regulation 254/75 Being a Regulation Under the Planning Act Respecting the Subdivision of Land'. A lack of experience in supplying relevant information concerning a proposed land division and a twenty fold increase in applications for approval is going to place great pressure on the developer and the planner alike in the near future. Public pressure for exemption from the regulations will be great and without due care, Section 66 of the Act will be abused. Section 66 states that the approving authority may exempt the applicant from compliance with the regulations.

A local Municipal approval is required for all the land divisions but as a study in Ontario has indicated, an educational program and a method of documenting land division occurrences and trends is necessary. In approving single land divisions on a day to day basis the overall effect of the divisions are lost track of.

The Act does not deal adequately with the problem of lot vacancy and speculative land divisions so that the past trend of a 47% vacancy rate will likely continue, or increase. The last half of 1975 saw a dramatic increase in Metes and Bounds, as developers attempted to take full advantage of uncontrolled land divisions prior to the proclamation of the new Planning Act on January 1, 1976. These vacant parcels will be a curse to Manitoba for years to come, as the early vacant lots of the 1870 and 1920 land

division booms also were.

The Explanatory Plan has been removed as a method by which new land divisions may occur in Manitoba. It has been returned to its original role of 'explaining', explaining Metes and Bounds when doubt or complexity requires that a plan be prepared.

In summary, many of the physical, social and economic problems caused by uncontrolled land divisions will be corrected by the future control of the new land divisions according to legislation found within the Planning Act and its associated Regulations. Implementation problems however are numerous and unless these are overcome, uncontrolled land divisions will continue to occur as in the past. The future of Manitoba's land divisions is now in the hands of those who have the power to exercise responsible authority. Will they in fact meet the challenge?

CONCLUSION

## CONCLUSION

An analysis of the problem of controlled and uncontrolled land divisions in Manitoba, reveals that uncontrolled land divisions:

- 1) are predominant,
- 2) are causing development problems, and
- 3) can be controlled by planning.

The hypothesis of the thesis, that land divisions play a dominant role in the orderly and economical development of the land, that the method of land division relates to the control or lack of control of development, and that uncontrolled land divisions predominate in Manitoba, has been proven by examining the historical development of land divisions and analyzing a general and a detailed study area.

In this thesis, land divisions were examined in a historical perspective and it was established that land divisions affect settlement patterns. The wisdom of an initial land division has a direct effect upon future development and may result in developments having neighborly associations or severe isolation problems. Economic factors are involved as well as sociological ones and many people have experienced fortune or famine, depending upon the pattern of the land division upon which they found themselves or which they created.

From the study of the historical developments, an understanding of the methods of present day land divisions is derived and a model of the mechanics of land divisions evolved. Within this framework research into present day land divisions occurred. Research into a general and a detailed study area, which were representative of existing land uses and historical land patterns, from 1969-74 indicated that uncontrolled land divisions played a dominant role in land pattern development and were resulting in exploitive rather than socially and economically sound development.

The following table, which summarizes the information presented within Chapter II, III, and IV of this thesis, shows how Metes and Bounds:

- 1) is one of five methods by which land divisions may occur,
- 2) can occur within and affect both rural and urban lands,
- 3) contain small parcels of land, 80% of which average 4 acres in size,
- 4) have an interrelationship with all land divisions and consequently can divide large or small parcels,
- 5) accounts for 38% of all land divisions which are presently occurring,
- 6) occur as single isolated units rather than in groups or clusters,
- 7) accounts for 80% of the required consents/approvals due to its singular nature,
- 8) is only located along existing roadways and consequently

Table 8

Summary of the Information on Historical Land Divisions,  
the General and Detailed Study Areas, and the New Planning Act



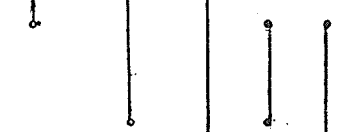
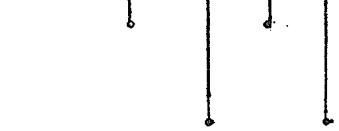
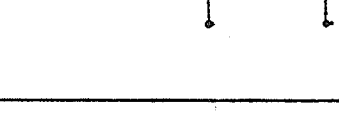
Method of land division	Major land use	Average acreage	Interrelationships	Percentages by methods	Percentages by Consents & Approvals	Consents & Approvals/ division
River Lot System	rural	80		n/a	n/a	n/a
Township System	rural	160		n/a	n/a	n/a
Metes and Bounds	rural urban	4 (80%) 60 (20%)		38%	80%	1
Explanatory Plan	rural urban	1.4		15%	15%	2
Subdivision Plan	urban	1.5		47%	5%	20

Table 8 (cont'd)

Summary of the Information on Historical Land Divisions,  
the General and Detailed Study Areas, and the New Planning Act

Method of land division	Location of development	Percentage built upon to 29/10/74	Planning Approvals Required		
			Prior to 1916	From 1916-1976	After 1976
River Lot System	along the River Road	not available	none	none	none
Township System	by section roads	not available	none	none	none
Metes and Bounds	along roadways	57%	none	none	local Council and Planning
Explanatory Plan	along roadways	61%	none	local Council after 1970	not applicable
Subdivision Plan	by roads & interior land	45%	none	local Council & Municipal Board	local Council and Planning

- leads to strip development ,
- 9) contained dwellings on 57% of its parcels created from 1969-74 as of October 29, 1974,
  - 10) required no planning approvals prior to 1976 from the local Council or the Municipal Board,
  - 11) and since January 1, 1976 has required a local Council and Planning approval prior to registration in the Land Titles Office.

In lieu of the above it is realized that uncontrolled land divisions lead to sprawl developments, developments which the new Planning Act of Manitoba, proclaimed on January 1, 1976, legislated to prevent. The new Act can be considered as a progressive piece of planning legislation, long overdue. The existence of legislation however is a far cry from implementation and obtaining desirable effects through responsible authority. The glut of new land divisions on the market within the last five years likely has been comparable to the land boom of the 1870's or 1920's and so in actual fact the new land division controls have "shut the barn door long after the horses have escaped". It will be many decades before the major problems caused by our past laxness can be corrected.

In the future, Planners must be more aware of the type of development which they are encouraging by the initial land divisions which they approve. This requires that they have a basic understanding of the relationship between land divisions and settlement patterns; that they



realize the tools at their disposal (not only the controls available but also the manner in which the different methods of land division operate and interrelate with each other); and that the necessary legislation be available and implemented. These points have been discussed in this thesis - the relationships have been established, the tools developed and the existing legislation analyzed. The challenge for the future is there. Will we meet that challenge?

APPENDICES

## Appendix A

## DEFINITION OF TERMS

The subject of land divisions contains many colloquialisms and misunderstandings and so it is necessary that the major terminology be defined in this section.

## 1. Surveying

Land surveying is the science of measuring physical features and boundaries on the earth's surface and representing them accurately on a map or plan. A 'surveyor' is a person who is authorized to practise surveying under the provisions of Provincial or Federal statutes.

'Survey', in its general sense, means the determination of astronomic bearings and distances between points permanently or temporarily marked on the ground and includes the keeping of records of all measurements used in the determination, in the form of field records as prescribed in this manual. 'Survey', in its legal sense, means the determination of all the monuments or landmarks that mark a boundary and the survey of all the lines constituting the boundary. It includes the preparation of field notes and plans and any examination, approval or confirmation that may be required. . . .<sup>1</sup>

## 2. Lot and Parcel

"The word 'parcel' is synonymous with the word 'lot'<sup>2</sup>

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1. Surveys and Mapping Branch, Manual of Instruction for the Survey of Canada Lands (Ottawa: Department of Mines and Technical Surveys, 1961), p. B4.

2. Allan J. Spencer, "Description of Land", (unpublished, 1969), p. 17.

and consequently there is confusion in their use.

The Subdivision Plan is considered to contain lots and blocks. The River Lot System contains lots within Parishes and the early subdivision of wooded areas and hay meadows were often referred to as wood lots and park lots. The word lot refers to "an allotment or portions of land set aside for a special purpose".<sup>3</sup> If no purpose is evident, then the land is referred to as a parcel.

A parcel is "a continuous tract or plot of land in one possession no part of which is separated from the rest by intervening land in other possession",<sup>4</sup> or

an area of land the boundaries of which  
 a) are shown on a plan registered in a land titles office, or  
 b) are described and included in the certificate of title to the land,  
 and that has not been divided into smaller areas by any plan or instrument filed or registered in a land titles office.<sup>5</sup>

The Explanatory Plan contains parcels and is often called a 'parcel plan'. The land within Metes and Bounds is also referred to as a parcel since it is a continuous tract of land set aside for no specially designated use.

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3. G.B. Gove and Merriam-Webster, ed., Webster's Third New International Dictionary (Springfield, Massachusetts, G.&C. Merriam, 1965), p. 1338.

4. G.B. Gove, p. 1640.

5. The Subdivision and Transfer Regulations, Alberta Regulation 215/67, Pursuant to the Planning Act, (Edmonton: Queen's Printer, 1967), section 2(20).

### 3: Land Divisions

The term 'land division' is used for two reasons:

- a) to reiterate that every division of a lot or parcel results in a further division of land into smaller and smaller parts, and
- b) to prevent confusion between the words subdivision, Subdivision Plan, and parcelling.

The word 'land division' is meant to refer to ". . . the division of land into two or more separately negotiable parcels"<sup>6</sup> by one of the following methods of land description: by Township or River Lot System, by Metes and Bounds, or by plan (Explanatory Plan or Subdivision Plan). As used, 'land divisions' is narrower than the legal definition of 'subdivision' - ". . . a division of a parcel by means of a plan of subdivision, plan of survey [Explanatory Plan], agreement or any instrument [an all inclusive term], including a caveat, transferring or creating an estate or interest in part of a parcel. . . ." <sup>7</sup> The word 'land division' is however broader in meaning than the local usage of 'subdivision' which makes reference only to the Subdivision Plan.

The word 'subdivision' is confusing and attempts have been made to avoid this confusion. In Ontario, divisions are referred to as 'land severances' and they

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6. Surveys and Mapping Branch, p. B4.

7. Subdivision and Transfer Regulations, 215/57, Alberta, 2(30) .

are reviewed by a 'Land Division Committee'.

#### 4. Controlled and Uncontrolled Land Divisions

Land divisions can be classified according to the degree in which they are controlled, that is, according to whether or not they are required to receive consents and approvals from community and planning representatives. Prior to 1976, controlled land divisions were considered to occur by Subdivision Plan; partially controlled land divisions by Explanatory Plan; and uncontrolled land divisions by Metes and Bounds.

The Subdivision Plan required an approval from the local Council in light of the community's overall plan for the future and an approval from The Municipal Board of Manitoba in light of considerations in the public interest. If these approvals were received, the plan could then be registered in the Land Titles Office.

The Explanatory Plan, since 1970, has required a consent from the local Council 'with respect to town planning', prior to being registered in the Land Titles Office. Prior to 1970, no consent was required.

Metes and Bounds have required neither a consent from the local Council nor an approval from The Municipal Board prior to their registration and in terms of community and planning input have been entirely uncontrolled. It is true that many areas have had zoning powers and building permits but once a land division occurs it is very difficult

to prevent development without strong police power.

Since the adoption of the new Planning Act in 1976, all land divisions require approvals from local Councils and Planning authorities.

The intent of the legislation is to control all land divisions. The intent and implementation however are two different matters and it would be rash to judge that land divisions are now controlled within Manitoba. This matter is discussed in Chapter IV.

#### 5. Rural Urban Fringe

The rural urban fringe is that area of land which lies between the country and the city. This area, being both difficult to determine and define, contains no formal definition. Often referred to as 'fringe development', 'urban sprawl', 'sprawl', 'country residence', 'third rate community', 'exurbanite area', 'frontier residence', 'urban frontier', or the 'urban shadow', this area can be recognized by a number of physical attributes.

1. It lies within the path of city development, yet for a period of time is beyond it.
2. Scattered settlement typifies the new settlement process which may consist of ribbon or spotted development.
3. Some land is shifted from rural to intensive urban use while neighboring and intermingled land is left unimproved or fully idle.

4. Its occupants often commute to the city.

Many of the areas in which land divisions occur are normally referred to as within the rural urban fringe; however, as land division continues to occur, more and more areas take on the characteristics of fringe development. The following figure clearly illustrates the concept of the rural urban fringe and its relationship to the city and the country.





## 6. Description of Land

Land divisions are classified according to the way in which they are described on the certificate of title (the document in land titles which indicates undeniable proof of ownership). The certificate of title may be regarded as consisting of two parts: the ownership and the description. The description defines by words or by numbers the boundaries of the land within the certificate of title and distinguishes one parcel from another. If the description refers by numbers to a township and range or a river lot within a Parish then the description is by Township or River Lot; if it refers by numbers to a plan then it is by Subdivision Plan; if the reference is made to a lot and block and if the reference is to a parcel then the description is said to be by Explanatory Plan. However, if the boundaries of a parcel of land are not identical or coterminous with a plan then words are needed to describe the lengths and direction of the boundary lines which differ from the plan and this method of description is called 'Metes and Bounds', the term 'metes' referring to measures and 'bounds' to direction. The three basic methods of describing land, by Township or River Lot, by Plan, and by Metes and Bounds are commonly used within the deed (Registry Act) and title (Real Property Act) systems of land registration.

## Appendix B

NUMBER OF LAND DIVISIONS  
WITHIN THE GENERAL STUDY AREA

The following three tables show the yearly number of land divisions registered within Land Titles Office for each of the six areas, within the General Study Area (the Rural Municipalities of St. Andrews, Ritchot and Hockwood, the Towns of Selkirk and Stonewall, and the Local Government District of Alexander) between January 1, 1969 and December 31, 1973. According to the different methods of land division (Metes and Bounds, Explanatory Plan and Subdivision Plan) the number of divisions created each year are shown plus the total for each study area and the yearly totals for the six areas.

A summary of this data is presented in Figure 21, page 81 and an analysis occurs within the same section.

Table 9

Land Divisions by Metes and Bounds  
Within the General Study Area

Study Area	1969	1970	1971	1972	1973	Total per area
1. St. Andrews	19	22	34	47	73	195
2. Ritchot	10	15	14	16	40	95
3. Rockwood	35	32	31	48	28	174
4. Selkirk	unavailable			7	13	20
5. Stonewall	3	3	2	6	7	21
6. Alexander	5	12	7	14	6	44
Total per year	72	84	88	138	167	549

Table 10

Land Divisions by Explanatory Plan  
Within the General Study Area

Study Area	1969	1970	1971	1972	1973	Total per area
1. St. Andrews	37	12	7	15	1	72
2. Ritchot	9	8	8	4	18	47
3. Rockwood	13	2	11	9	2	37
4. Selkirk	6	0	0	1	0	7
5. Stonewall	0	0	0	0	1	1
6. Alexander	0	12	8	12	19	51
Total per Year	65	34	34	41	41	215

Table 11

Land Divisions by Subdivision Plan  
Within the General Study Area

Study Area	1969	1970	1971	1972	1973	Total per area
1. St. Andrews	4	10	0	19	136	169
2. Ritchot	22	2	9	0	0	33
3. Rockwood	21	0	0	24	5	50
4. Selkirk	0	0	0	43	55	98
5. Stonewall	0	0	0	0	29	29
6. Alexander	40	12	44	82	110	288
Total per Year	87	24	53	168	335	667

## Appendix C

LOCATION OF LAND DIVISIONS  
WITHIN THE DETAILED STUDY AREA

The following five figures show the location of Metes and Bounds (°), Explanatory Plans (◆) and Subdivision Plans (●) in the Rural Municipality of St. Andrews registered in the Land Titles Office between January 1, 1969 and December 31, 1973. The numbers at the sides of the map indicate for Metes and Bounds, the Assessment Roll number and for Explanatory Plans, the registered plan number. These numbers are the references to the initial sources of research data and can be located within the Assessment Branch and the Land Titles Office respectively. The following figures refer to the individual years 1969, 1970, 1971, 1972 and 1973. This data is summarized in Figure 25, page 90 and analyzed within the same section.

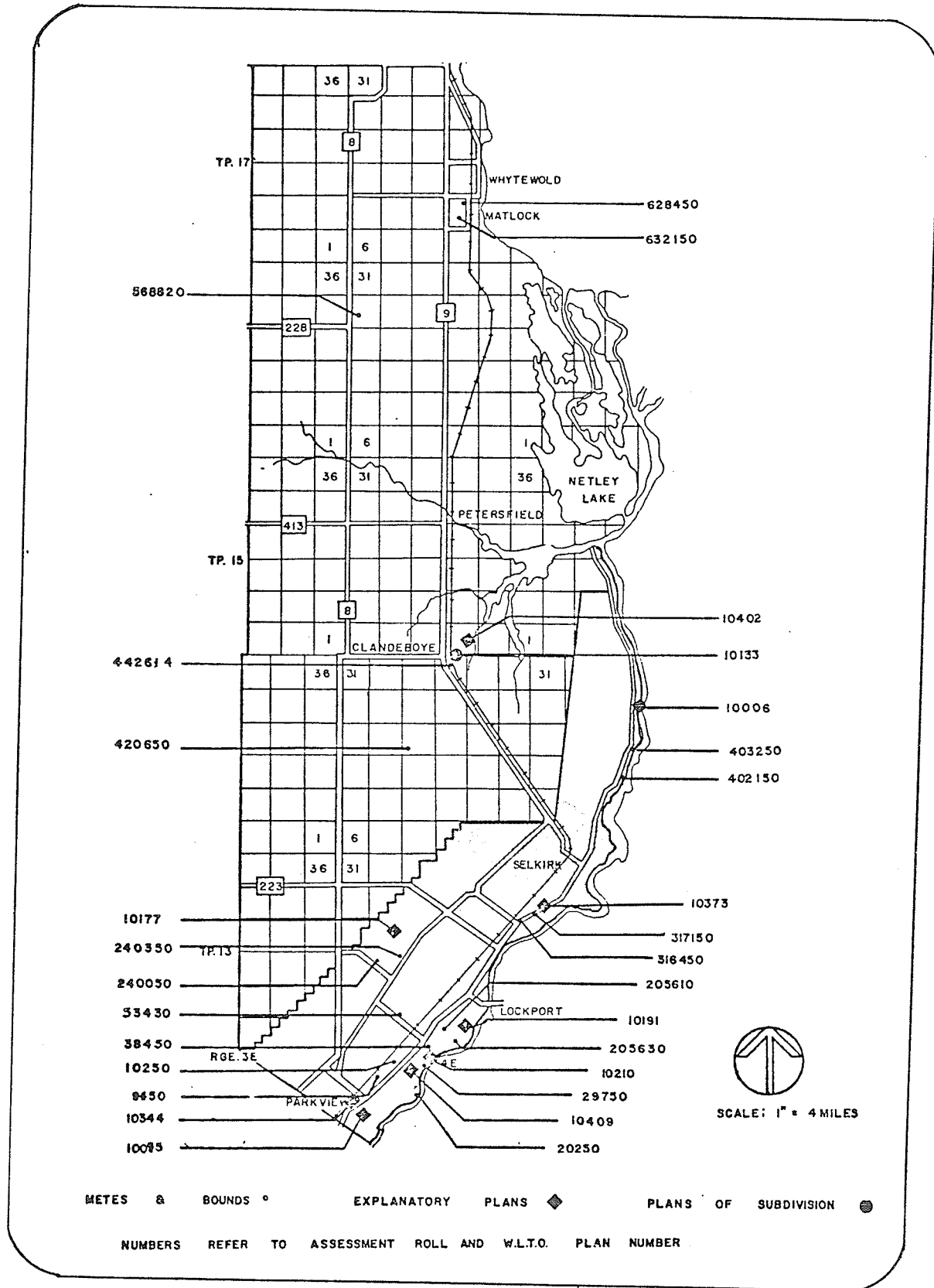


Figure 31. Location of Land Divisions in the Detailed Study Area, 1969

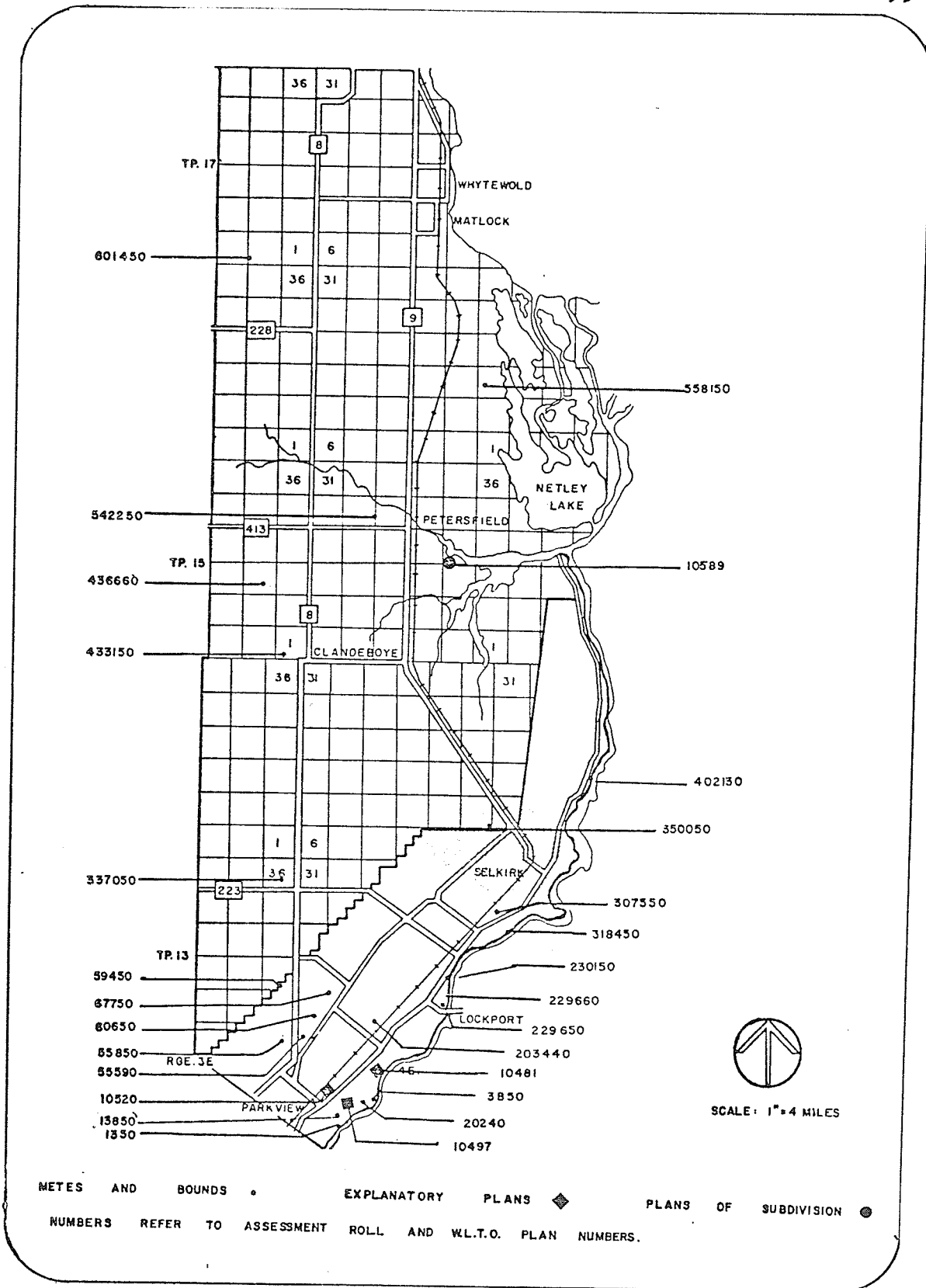
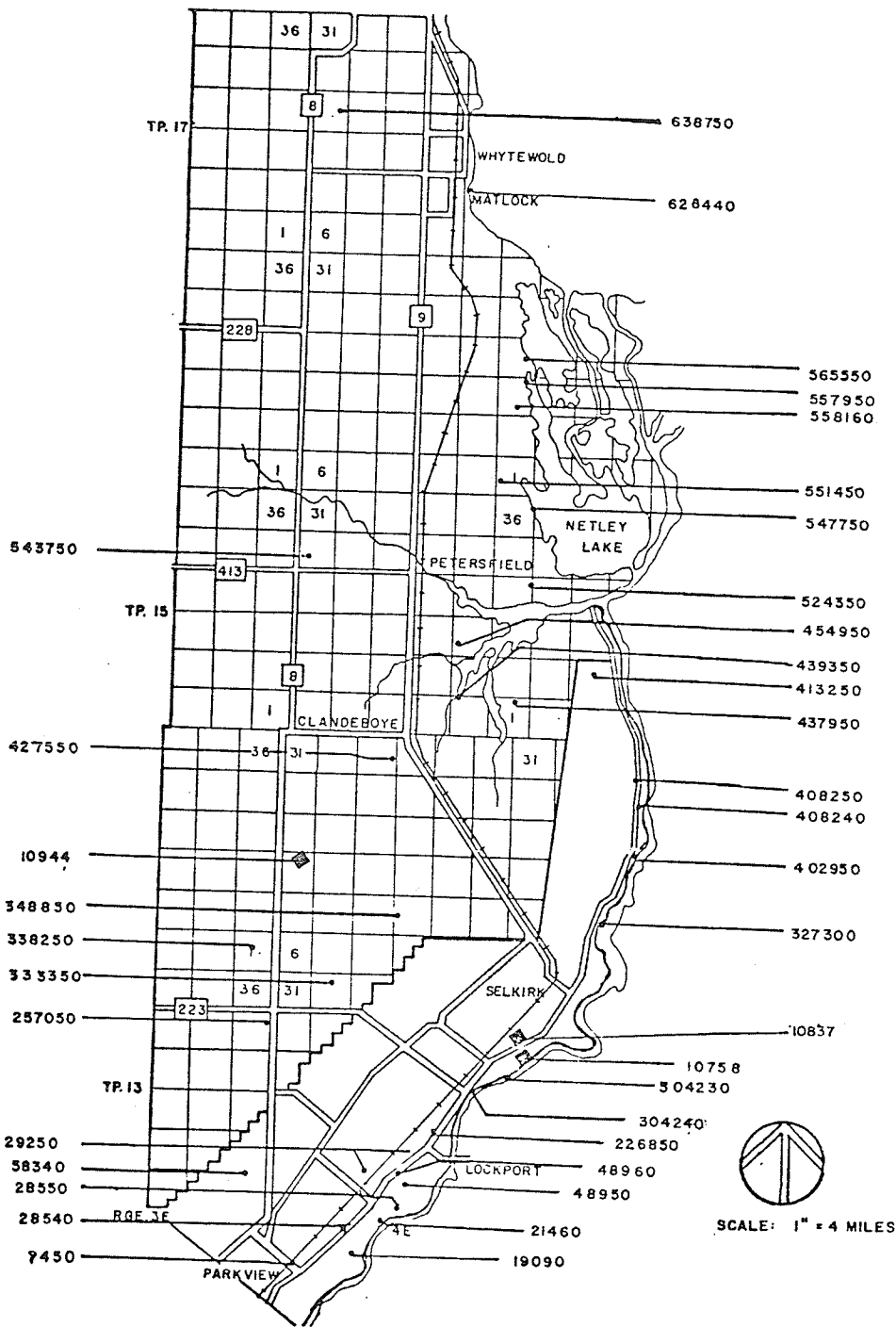


Figure 32. Location of Land Divisions in the Detailed Study Area, 1970





METES & BOUNDS • EXPLANATORY PLANS ♦ PLANS OF SUBDIVISION ●  
 NUMBERS REFER TO ASSESSMENT ROLL AND W.L.T.O. PLAN NUMBERS

Figure 33. Location of Land Divisions in the Detailed Study Area, 1971

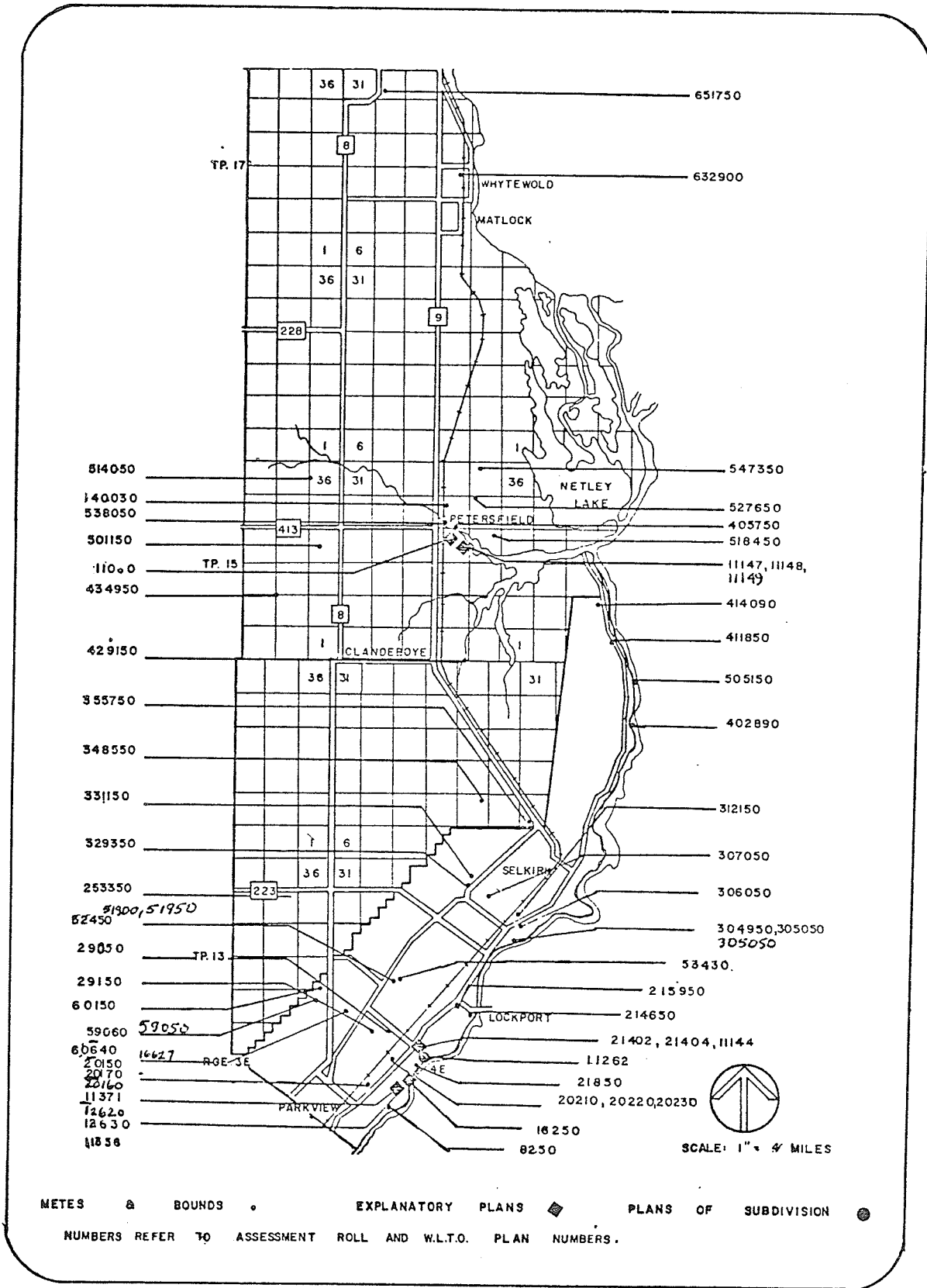


Figure 34. Location of Land Divisions in the Detailed Study Area, 1972



## Appendix D

LAND DIVISION ACREAGES  
WITHIN THE DETAILED STUDY AREA

The following three tables summarize the data collected on acreages within St. Andrews from January 1, 1969 to December 31, 1973. According to the different methods of land division (Metes and Bounds, Explanatory Plan and Subdivision Plan) the number of lots or parcels registered per year and the total acreage and average acreage per lot or parcel are recorded. Metes and Bounds acreages are shown as those over 19 acres and under 10 acres. Totals for the five years are also included. This data is summarized in Table 5, page 92 and analyzed within the same section.

Table 12

Land Division Acreages by Metes and  
Bounds Within the Detailed Study Area

Year	Total acreage	Over 10 acres		10 acres or under	
		No.	Average Acreage	No.	Average acreage
1969	157.5	2	62.5	17	1.9
1970	283.7	5	46.4	17	3.0
1971	1036.1	11	87.0	23	3.5
1972	434.4	8	36.8	39	3.6
1973	1069.3	13	60.0	60	4.8
Total	2981.0	39	61.2	156	3.8

Table 13

Land Division Acreages by Explanatory  
Plan Within the Detailed Study Area

Year	Number of parcels	Total acreage	Average parcel size (acres)
1969	37	26.7	0.7
1970	12	23.6	2.0
1971	7	18.8	2.7
1972	15	32.3	2.2
1973	1	0.5	0.5
Total	72	101.9	1.4

Table 14  
Land Division Acreages by Subdivision  
Plan Within the Detailed Study Area

Year	Number of lots	Total acreage	Average lot size (acres)
1969	4	2.5	0.6
1970	10	4.4	0.4
1971	0	0.0	0.0
1972	19	27.0	1.4
1973	136	227.8	1.7
Total	169	261.7	1.5

## Appendix E

DEVELOPMENT OF LAND DIVISIONS  
WITHIN THE DETAILED STUDY AREA

The following three tables summarize the data collected on the development of land divisions within St. Andrews from January 1, 1969 to December 31, 1973. According to the different methods of land division (Metes and Bounds, Explanatory Plan and Subdivision Plan) the number and percentages of lots developed, are recorded. The data concerning development is from the Assessment Records and is dated October 29, 1974. Lots and parcels registered in 1973 have not had as long a period to develop as those created in 1969 and this must be taken into account. This data is summarized in Table 6, page 97 , and analyzed within the same section.

Land Division Development by Metes and  
Bounds Within the Detailed Study Area

Year	Number of parcels	Number built upon	Percentage built upon
1969	19	8	42%
1970	22	11	50%
1971	34	22	65%
1972	47	29	62%
1973	73	42	58%
Total	195	112	57%

Table 16

Land Division Development by Explanatory  
Plan Within the Detailed Study Area

Year	Number of parcels	Number built upon	Percentage built upon
1969	37	19	51%
1970	12	7	58%
1971	7	7	100%
1972	15	11	73%
1973	1	0	0%
Total	72	44	61%



Table 17

Land Division Development by Subdivision  
Plan Within the Detailed Study Area

Year	Number of parcels	Number built upon	Percentage built upon
1969	4	3	75%
1970	10	10	100%
1971	0	0	0%
1972	19	5	26%
1973	136	58	43%
Total	169	76	45%

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