NEIGHBOURHOOD EVOLUTION IN WINNIPEG: AN
ANALYSIS OF RIVERVIEW AND LORD ROBERTS

BY

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A Thesis submitted to the Faculty of Graduate Studies in
Partial Fulfilment of the Requirements for the Degree of

MASTER OF ARTS

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Jino Distasio   1997 (c)

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ABSTRACT

This thesis is concerned with the processes associated with neighbourhood evolution and change, and focuses on the city of Winnipeg. Research invloved an analysis of two Winnipeg neighbourhoods, Riverview and Lord Roberts, which together comprise the study area used to examine the forces that have shaped each neighbourhood over the last century.

Three research questions provided the framework for the thesis. They focused on condition of housing, the perception of the residents about their neighbourhoods, and the applicability of the contemporary and historic models and theories used for determining neighbourhood type. Sources include historical maps, census data (1951-1991), the results from the physical inspection of 3200 homes in the area, and results of survey material from both neighbourhoods.

The results indicate that the neighbourhoods show differences in the tangible characteristics of housing, income, education and also in the general condition of the neighbourhood. However, they show a high degree of similarity in intangible factors, such as soul, feeling and sense of community. In the end, it is clear that there needs to be more weight given to the intangibles. The research also demonstrates the vital role an individual can play in the formation and subsequent shaping of an area. This is apparent in the importance of both the electric street car and the River Park Amusement area in the development of each neighbourhood.

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The Purpose and Rationale for the Research

1.0 Introduction

Urban geography has historically been concerned with the spatial analysis of land use activities and patterns that exist within cities. The importance of understanding these spatial distributions has contributed much to the general knowledge of the modern urban structure. In examining this complex system of land use arrangements, the study of the neighbourhood merits close investigation by urban geographers. With regard to this notion, the city can be thought as a patchwork of neighbourhoods that are weaved together by a loose thread, and although the colours and sizes of the patches don't necessarily match they somehow manage to hold together in a semi-cohesive manner. Therefore, geographers must examine the neighbourhood through a precise evaluation of the critical spatial phenomena that exist within these "patches" and attempt to follow the path of the thread that binds neighbourhoods together. The goal of this thesis, therefore, is to further our understanding of the spatial aspects of neighbourhoods and neighbourhood development.

The initial objective is to review the neighbourhood concept, the definitions, the components of neighbourhoods and finally the general theories and models used to describe and explain the processes associated with neighbourhood evolution. This review will set the stage for the second objective, which is to unearth the many determinants of neighbourhood evolution through an analysis of two Winnipeg

neighbourhoods. These neighbourhoods are Riverview and Lord Roberts, which are both located in south Winnipeg, in what can be termed a transition zone between inner city and suburban neighbourhoods (Figure One). There are several reasons for choosing these two neighbourhoods: they are historically and geographically linked; they are somewhat isolated from other Winnipeg neighbourhoods by a combination of river boundaries and barriers created by rail lines and industry; and they appear to be different from each other in terms of neighbourhood type.

1.1 Research Questions

The basic aims of this research are twofold. The first objective is to obtain an understanding of the process of neighbourhood evolution through an exploratory probe of the salient literature. The second, more focused objective is to critically analyse Riverview and Lord Roberts in hopes of unearthing the key determinants that have shaped and continue to shape each area.

The questions that need to be answered are related to the evolution of each neighbourhood. The first question considers the physical area of the neighbourhood and seeks to perceive the changes that have occurred over the last eighteen years by comparing a survey done of the housing conditions in 1978 with the present conditions of the homes.

Research Question 1
What changes have taken place over the last eighteen years in terms of housing conditions and has there been a detectable improvement or decline in either of the neighbourhoods?

The second research question seeks to explore the residents' evaluation of

RIVERVIEW - LORD ROBERTS AREA
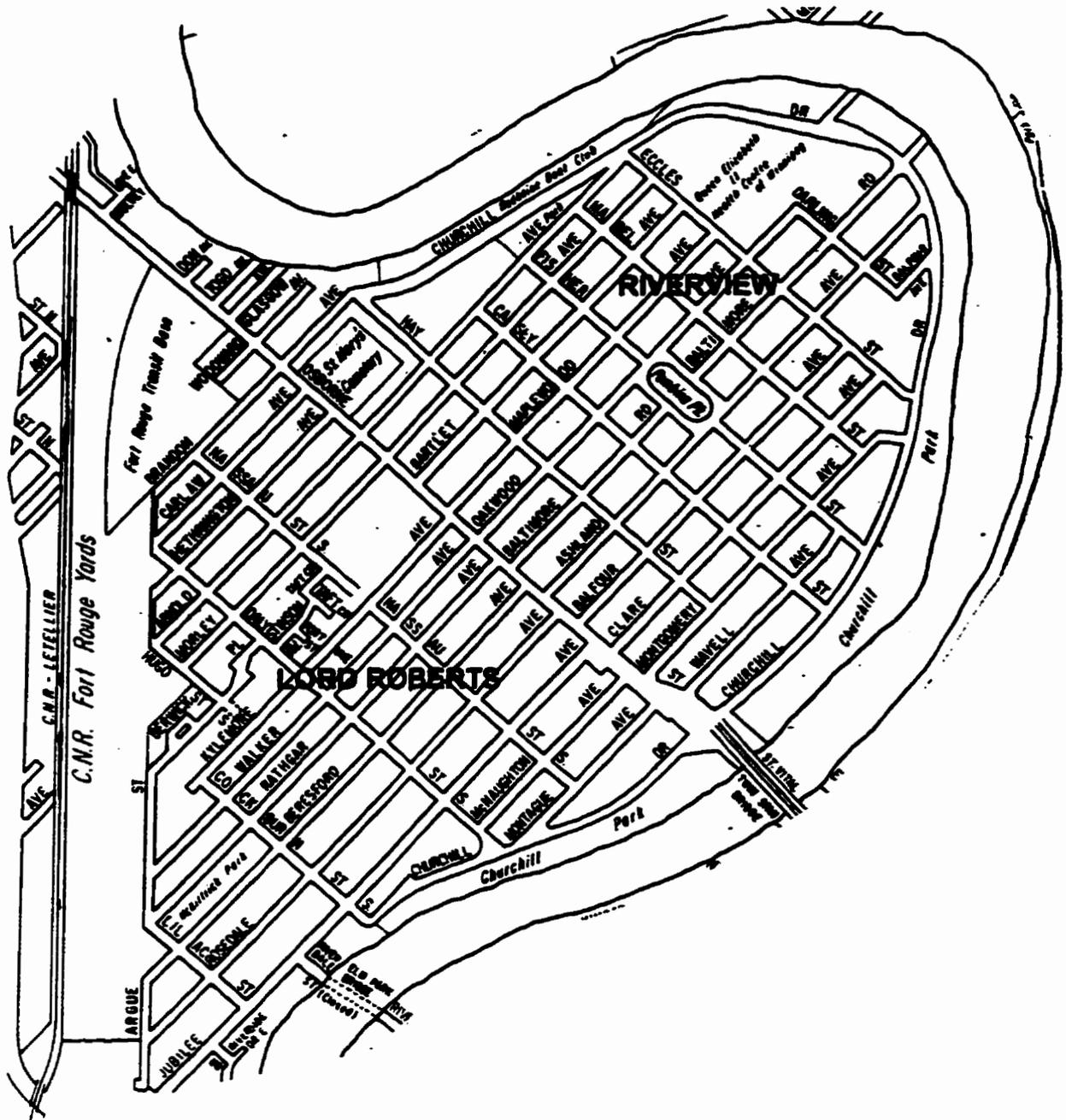
Figure One: Source: City of Winnipeg and Jino Distasio

the neighbourhoods through a survey conducted in each area.

> ### Research Question 2
> In terms of both qualitative and quantitative data recovered from the survey, do the two neighbourhoods view themselves as being different?

The final question attempts to understand whether or not the neighbourhoods

show any differences in their evolutionary patterns?

> ### Research Question 3
> Have Riverview and Lord Roberts evolved differently and can the differences, if any, be measured with respect to the models and theories discussed in the literature review?

1.2 General Organization

The thesis begins with an examination of the salient literature. It includes a

basic description of neighbourhood types and an indication of the key historical and

present theories and models that have been used to characterize the process of

neighbourhood change. The focus shifts to an examination of the historical evolution

of both neighbourhoods and includes a critical evaluation of the geography of the

two neighbourhoods as well as an explanation of the pattern of change over the last

90 years. This is accomplished by use of historical documentation found in archival

form, the use of the Winnipeg Henderson's Directory and most importantly, material

from Census Canada. In terms of the census material, each neighbourhood

occupies a single census tract, which makes the data collection and analysis

possible over time.

Where warranted, a detailed description of methodology is included to ensure

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that the reader fully understands the procedures and methods used in the collection and analysis of data and related material.

Chapter Two begins with an attempt to provide the reader with an understanding of the neighbourhood concept, and it examines definitions of neighbourhood, their fundamental components, and the critical elements within neighbourhoods as presenting in the literature. This chapter details the difficulties in attempting to convey a simple definition. There are many definitions that are important but each addresses the particulars of a certain discipline. From this, the literature review details some important differences in the structure of neighbourhoods by citing key components in both stable and declining areas. The chapter then shifts to a survey of the crucial land use elements within neighbourhoods, such as streets and sidewalks, housing, amenities, commercial zones and recreation areas. The final segment of the chapter seeks to detail the importance of transportation to the evolution of the city and the neighbourhood.

Chapter Three examines general theories and models that have been used to describe the process of change in neighbourhoods. The chapter deals with the literature in three themes: classical, economic and alternative. This format provides a strong portrait of the various approaches that have been used to analyse neighbourhoods both contemporarily and historically.

Chapter Four is the springboard for moving from the general to the specific examination of the two Winnipeg neighbourhoods. First, the historical aspects of the area are discussed to give an overview of the development patterns of both neighbourhoods. Following this there is a present day description of the geography

of each neighbourhood in which the key components and basic characteristics are discussed. Included in this section is an exploration of the topography, physical features, zoning, general outlay of the housing, shops and recreational areas. Details are re-enforced with the use of maps and aerial photographs where possible. The chapter concludes with the examination of census material covering the years 1951-1991. This forty year window provides a solid glimpse into the evolution of the neighbourhoods as well as a comparison to the entire city of Winnipeg where possible.

Chapter Five begins the process of understanding the changes that have occurred over the last eighteen years with respect to the physical condition of the dwelling units in both neighbourhoods. This builds upon the introduction of the condition of dwelling units that was covered in chapter four. The ultimate goal is to answer the first research question based upon the findings. From this analysis, the focus shifts to the neighbourhood survey and the second research question. These two components lead to the final research question and thus into the final analysis in Chapter Six which attempts to syntheses all the material covered in this thesis. From this discussion the thesis ends with a conclusion and some summary thoughts in Chapter Seven.

Chapter Two

Neighbourhood Components and Definitions

2.0 Introduction

The objective of this chapter is to explore the literature relating to the definition of neighbourhood, as well as its functions and the main components. Also included in this chapter is a brief discussion of the importance of transportation in the evolution of the spatial land uses within cities. This section has been included to draw attention to the fact that the two neighbourhoods have been extensively influenced by transportation in many important ways. The material discussed in this chapter will create the necessary backdrop from which the subsequent chapters will fall into place.

2.1 Defining the Neighbourhood

The term neighbourhood, is in itself, a difficult concept to define accurately. This is the result of the many definitions that surface in the literature, each being of importance, but each also being indicative of what a particular researcher is investigating. Driedger delivers a useful starting; he writes, "the neighborhood is the most basic unit in the urban environment: here children grow up, people retreat after work, and the elderly spend their last days" (Driedger, 1991: 278). Knox follows this statement and states, "each neighbourhood is what its inhabitants think it is" (Knox, 1996: 214). Knox's seemingly simplistic notion of a neighbourhood is surprisingly important as it puts the people of the area at the heart of the definition and has their mental constructs defining the boundaries. This definition coincides with Porteous,

who suggested that, "a neighbourhood is the geographic space in which one feels at home" (Porteous, 1977: 68). Again the emphasis is on individuals to define their own set of boundaries and not be constrained by arbitrary lines drawn by politicians, planners and others.

Melvin moves these definitions further in an examination of the organic city and suggests that a strong city depends upon a well balanced urban structure that has neighbourhoods as building blocks of a city and a nation and the foundation of a healthy environment. For example, he asserts, "the neighbourhood was the place where an all round, timely and locally-wise, cooperatives could be made to blossom and set the stage for a strong and vital society....from the neighbourhood, to the city, and then to the nation" (Melvin, 1987: 18). More so, "while each neighbourhood exhibited differences, proponents of the organic view stressed the existence of a symbolic relationship between the local units and the city as a whole...insisting that the well-being of the whole depended on the health of the parts" (Melvin, 1987: 3). In another work, Clay and Hollister concede that "we cannot define a neighbourhood precisely....we can state that uniformly it is considered a social/spatial unit of social organization that is larger than a household but smaller than a city" (Clay and Hollister, 1983: 5).

In an in-depth analysis of neighbourhoods, Keller states that "the common elements of most definitions of neighbourhood are territory and inhabitants" (Keller, 1982: 8). She makes note of another important factor in the definition of the neighbourhood by addressing the fact that there is a need to discuss both the social

and physical components independently, and goes on to assert that "a neighbourhood is marked off from other neighbourhoods in some distinctive and recognizable manner and thus has an ecological relation to the rest of the community. The location of the neighbourhood and the qualities associated with it give it a certain value in the eyes of its residents" (Keller, 1982: 9).

In a final analysis, Hartshorn asserts that; "an urban neighborhood is a grouping of homes and their environments - political, social, economic and physical. Neither its centre nor its boundaries can be easily determined. A neighborhood is a functional area, one which local residents identify with in terms of attitudes, lifestyles and local institutions (churches, local service centres etc)" (Hartshorn, 1980: 288).

It is clear that there are many differences in the "definition" of neighbourhood. These differences are important and provide a critical, varied field of analysis from which a researcher can draw a wealth of information from. In the broad sense the term neighbourhood has specific meaning, yet to measure the exact meaning clearly is difficult because assessing an almost abstract term poses constraints. The critical summation of the meaning of neighbourhood is that boundaries can be drawn on a map but ultimately it is the residents that determine what the neighbourhood is.

Moving beyond the definition of neighbourhood, it is important to unearth the fundamental components within neighbourhoods to better understand their spatial makeup and the forces that drive their existence.

2.2 The General Structure of Neighbourhood Types

"A successful city neighbourhood is a place that keeps sufficiently abreast of

its problems so it is not destroyed by them. An unsuccessful neighbourhood is a place that is overwhelmed by its defects and problems and is progressively more helpless before them" (Jacobs, 1961: 112). Jacobs' comment provides a good starting point for understanding neighbourhood components through two contrasting vantage points; a successful, stable neighbourhood and an unsuccessful, declining neighbourhood. In order to understand this more precisely, it is important to examine each of these two types of neighbourhoods to provide a breakdown of the critical ingredients of both types.

In examining types of neighbourhoods, many limitations can arise. Kaplan reveals one such problem when addressing neighbourhood regeneration programmes and the involvement of government agencies who find difficulties in the basic understanding and definition of neighbourhood;

> the diverse federal initiatives implicitly, if not always explicitly, reflected varying views of what characterizes a neighbourhood. Lack of consistency and certainty concerning criteria to define neighbourhoods helped foster uncertainty and inconsistencies concerning revitalization approaches. As one former assistant secretary responsible for a number of neighbourhood programmes said: if we do not have a clear idea of what a neighborhood is....if we do not know whether to define a neighborhood in economic, social, or physical terms or any combination of....if we are not certain that neighbourhoods make sense as a viable way to describe urban place, with distinguished characteristics.... then how can we develop effective policy approaches? (Kaplan, 1991: 33-34).

This statement underlines the fact that addressing the very nature of the neighbourhood is further hindered by the fact that policy makers recognize the faults associated with the definitions of the neighbourhood. This limitation is furthered by the fact that subsequent policy can be compromised simply because a basic understanding of what truly constitutes a neighbourhood is lacking. To better grasp this notion it is essential to determine some of the basic components of

neighbourhoods. The components vary with the type of neighbourhood e.g., the striking differences in the physical and social structures of affluent and declining neighbourhoods. These differences can be easily measured socially (income, family structure etc) and physically (type, size and value of dwelling, local amenities etc).

Logan et al examined the critical components of the city through a Marxian analysis of the North American urban structure. The authors cited the importance of use values in both the city and the neighbourhood as being pivotal factors for analysis. They also contend that the neighbourhood is fuelled primarily from the capitalist accumulation process that in turn shapes the structure of urban areas and creates the inherent inequities associated within cities. "Within the Marxian framework, the neighbourhood is essentially a residual phenomenon. Since it is merely a site for the reproduction of labour - that is for the daily sustenance of the working class - the neighborhood receives its shape and qualities from the dynamics of the accumulation process" (Logan et al, 1987: 100). The authors conclude that the "neighborhood becomes only one of a number of bases for managing daily life-along side the job, school and the extended kin groups located elsewhere. The result is a "decrease in personal investment in, and in vulnerability to locality--a limiting of liability that parallels the interpersonal commitment characteristics of the impersonal, gesellschaft[1] social order generally" (Logan et al, 1987: 101).

This view of neighbourhood is important as it assumes that they are shaped

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[1] Ferdinand Toennies theory concerning the notion that Gessellschaft conditions people to be concerned with their own self interest. See *The Sociology of Cities p102-3*. Edited by Spates and Macionis.

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and fuelled by the process of accumulation and the self interest of the residents. The resulting factor is that as the level of accumulation drops, so should the socio-economic status of neighbourhood, meaning that a critical Marxian determinant of neighbourhood is in effect income and the accumulation of wealth and capital.

Hartshorn refers to other characteristics that shape the structure of neighbourhoods: these are satisfaction, comfort, and control over local political affairs. He goes on to state that "good or bad neighbourhood designations are subjective labels, usually based on social and physical conditions in the area. High socio-economic status is not a requirement for a "good" neighbourhood, but stability and cohesiveness are important" (Hartshorn, 1980: 234). He goes on to list nine critical characteristics required for a neighbourhood.

1) Compatibility - Land use consistency

2) Variety - Degrees of land use mixing

3) Integration - Linkages between land uses

4) Stability - Rate of neighbourhood change (population, home ownership etc)

5) Land use demand - Pressure to change present rates

6) Relative location - Accessibility within and between neighbourhoods

7) Pride - Satisfaction, relative utility residents have in neighbourhoods

8) Revenue balance - Ratio of costs of providing services to revenue generated

9) Distribution of discretion - Relative authority of residents in controlling density

This set of `ingredients` in the structure neighbourhoods is essential in the evolution of healthy stable areas. Hughes et al discussed neighbourhood stability and decline of neighbourhoods in terms of stages of decline. In terms of stable

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neighbourhoods the authors claimed that, "good neighbourhoods do not have to be of high socio-economic status nor do they have to be new, although, in many cases, they meet one or both of these conditions" (Hughes et al, 1975: 46). The authors stress that there are external considerations that merit considerable attention and they conclude that "a good neighbourhood does imply that residents are not burdened by severe economic problems, that they have a psychological sense of satisfaction, comfort and control. Good neighbourhoods tend to be free from invasions of nonresidential land uses, higher density housing types, and new residents of radically different socio-economic levels" (Hughes et al, 1975: 47).

Downs provides an insightful, yet uncomplicated notion of neighbourhood stability: "in the simplistic sense, any neighborhood is *stable* as long as the key characteristics do not change much" (Downs, 1981: 24). He makes the critical assumption that any area, including a slum, can be a stable area. This is a departure from the norm as many urban researchers would argue that a stable neighbourhood must be a desirable place to live. Downs also examines the role of mobility amongst the area residents and concludes that "if a nieghborhood is to remain stable, the movers must be replaced by newcomers with similar characteristics" (Downs, 1981:24). This helps to continue the areas' stability through a consistency of residential characteristics.

For Downs the conclusion is simple: population stability must be achieved through a balance between those moving in and those who move out. As for the physical component of neighbourhoods, Downs sees the need to balance inflows and outflows. "The outflows are declines in physical structure caused by demolition,

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accidental damage, and deterioration from age, arson, vandalism, and economic obsolescence. Unless the outflows are offset by physical inflows consisting of repairs, maintenance, renovation, and new construction, the neighborhood gradually declines" (Downs, 1981: 25-26).

The recurrent theme thus far is that the level of a neighbourhood's stability is dependent on the social conditions that prevail within it to create a consistency of land use, population characteristics and socio-economic status. Keller suggests that geographic boundaries, ethnic or cultural characteristics of the inhabitants, psychological unity among people who feel that they belong together, and concentrated use of an area's facilities for shopping, leisure and learning are all important elements but she maintains, "independent contributions are difficult to assess...and neighbourhoods combining all four elements are very rare in modern cities" (Keller, 1982: 11). Thus the influence of these basic elements is difficult to assess and the fact remains that each neighbourhood is as Knox put it, "simply what its inhabitants think it is."

The situation in declining neighbourhoods is a scenario that unfolds with poverty, depreciation and disinvestment in areas that are deteriorating. Mayer examined decline through land use and offered six critical characteristics of decline.

1) Detrimental mixtures of incompatible land uses such as a bar next to a church next to a store next to a house;

2) Instability of population or function: A high ratio of families moving in and out and a large number of stores and offices changing function or proprietors;

3) Little demand for housing: houses that do not sell as well as in other neighbourhood or cannot even be rented immediately;

4) Poor internal or external accessibility: barriers to or circuitous access routes into and out of the neighbourhood and difficult travel conditions within the neighbourhood;

5) Inadequate revenues to support the required public services;

6) Lack of neighbourhood pride, and hence insufficient political clout, combined with inability to attract sufficient private capital (Mayer, 1983: 61).

These factors are central parts of the analysis of declining areas that exhibit one or more of these traits. Predetermining neighbourhood decline is difficult to ascertain given the diverse structure of urban areas. Mayer proposed several points for determining the early stages of decline, including a high ratio of renters to owners; commercial establishments that do not adapt to the neighbourhood; absence of extensive renovation of deteriorating housing stock; and location of noxious functions within the neighbourhood (Mayer, 1983: 61).

The factors outlined by Mayer coincide with those of Knox, who considered the aging of the physical environment; aging of the residents; movements of households into and out of the neighbourhood; and changing pattern of tenure to be key signs of decline (Knox 1996: 235). These factors, along with Mayer's, provide some important thoughts to consider in the determination of neighbourhood type. However, it is not always possible to stop the early stages of decline, nor is it possible to create stability in all neighbourhoods of the city. In order to begin to understand the complexities of neighbourhood change, it is important to delve deeper into the structure of the neighbourhood and examine the parts of the neighbourhood that make it function and thrive or breakdown and decay.

2.3 Elements of Neighbourhoods

A neighbourhood is made up of crucial parts that help it function and promote the necessary environment in order to create stable, livable places for its residents. Housing, streets and sidewalks, amenities and commercial areas are all elements that need to be discussed separately to obtain a clear picture of the functionality of a neighbourhood.

2.3.1 streets and sidewalks

On the micro level of neighbourhood analysis, the most basic unit of investigation begins with the street and the sidewalk. Jacobs pays considerable attention to the value of both the street and sidewalks in cities and she contends that "streets and their sidewalks, the main public places of a city, are its most vital organs" (Jacobs, 1961:29) In terms of the neighbourhood scale Jacobs points out that there must be a clear distinction between public and private space; there must be eyes on the streets, eyes belonging to those we might call the natural proprietors of the street; and lastly the sidewalks must have users on them fairly consistently, both to add the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers (Jacobs, 1961: 30). She believes that these factors play a considerable role in creating a vital street life that in turn creates a neighbourhood that exhibits a sense of safety and pride in the area.

Fernandez examined the importance of streets in Boulder, Colorado, where planners where attempting to recreate a sense of neighbourhood through the

redesigning of local streets to make them more conducive to neighbourhood interaction. The local authorities claimed that the present form of the streets emphasised cars over people, were too wide, and encouraged speeding. These observations created the necessary conditions for change and Fernandez concluded that "residential streets are key determinants of neighbourhood quality. They offer a place to walk, to play and of course, to park. The wide lanes required by today's traffic codes lead to higher speeds, more accidents and greater urban fragmentation (Fernandez, 1995: 21). The last point is of particular importance as streets that divide instead of intergrading the neighbourhood contribute ultimately to the demise of the area.

The breakdown of a neighbourhood cannot be completely attributed to modern street planning although it does play a significant role. Southworth et al examined the evolution of city street patterns and they, as did Fernandez, contented that the fragmentation of a city and its neighbourhoods is a direct result of the structure of the urban street pattern. They found that several aspects of street patterns contribute to the character of a neighbourhood and they point to the number of intersections, cull-de-sacs, and loops in each unit of land. This is followed with the development of street patterns that are disconnected and contain many cul-de-sacs and few through streets. The ultimate creation of this type of spatial organization is the development of small almost self-contained units of housing as opposed to neighbourhoods. (Southworth, 1993: 271-3).

In the final analysis of streets, Mayer adds that "in some older portions of cities they serve as social centres, and, in effect, living rooms for socializing where

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the housing units lack such facilities" (Mayer, 1983: 149). In this context streets play a vital role in the neighbourhood. They are a place that combined automobile with the person and in some respects integrates the two.

2.3.2 neighbourhood amenities

In order for a place to become home there must be some level of attachment to that place beyond just the simple roof over one's head. There must exist a sense that the area has features to it that help both attract people and maintain them. Parks, lakes, good views offers residents 'intangibles' that improve a neighbourhood. Baer writes; "amenities are those qualities of the environment that make life more pleasant and enjoyable, such as having a park nearby, having easy access to the beach, being close to a museum or other cultural facilities, having a breathtaking view from one's living room window, or having quiet and privacy" (Baer, 1984: 56).

In his study, Baer, compared the level of residents' perceptions of amenities between different income level neighbourhoods. The findings indicate that the rich were the only group to "boast" of a high level of amenities in their environment. The middle income groups had fewer environmental amenities, but they considered themselves at least conveniently located with respect to most public and private facilities. The low income groups did not list any amenities.

Included in the list of amenities are the neighbourhood community centres which provide area residents access to needed recreational and social facilities. These institutions are very important in the fabric of the community and help give the neighbourhood a sense of pride and belonging. Recreational facilities also provide

a link to social networks within the community and create strong bonds with neighbours and the like. Community centres provide key functions for children including sports teams, drop in centres and a simple, quiet space to enjoy the outdoors. In the Canadian context and most certainly the Winnipeg context, community centres have provided neighbourhoods with a strong amenity that cannot be easily measured.

The examination of the level of amenity satisfaction in a neighbourhood and the importance that it plays in the neighbourhood are very difficult to measure and the lack of literature relating to this field of inquiry supports this assertion. However, the importance of amenities in neighbourhood change does play a role in whether or not an area declines or remains stable. To what extent this can be accurately measured remains unclear.

2.3.3 housing

One of the most important aspects of the neighbourhood is housing. Housing makes up the majority of space and provides residents with shelter and a sense of place within the community. Housing is also a major indicator of type of neighbourhood and the condition of the neighbourhood. A neighbourhood with many homes in disrepair will not be regarded as a high ranking socio-economic area. Similarly, a neighbourhood with well kept, grand homes, on large lots would not be considered to be run down or in need of repair. These two basic illustrations are at best elementary in nature and do not represent reality but they serve as a simplistic starting point in understanding housing dynamics.

Lehrman and Sengupta undertook an analysis of housing criteria needed for maintaining a high quality residential area. They put forth seven essential components: privacy, identity, comfort, choice, adaptability, accessibility, and interaction, each of which is briefly reviewed below.

Privacy. Privacy implies protection from unwanted intrusion. The level of privacy required is variable. It depends upon time, space and social scale and also for a dwelling, an area, a cluster of dwellings and a single home. "Plans need to safeguard audio, visual, and physical privacy without sacrificing access to facilities, yet at the same time allowing for interaction with people" (Lehrman and Sengupta, 1969: 29).

Identity. "Ideally an occupant should be able to add identifiable features to his dwelling, without this being denied either by controls or by mass protection." The focus on identity is to create a sense of place and belonging to a neighbourhood through individualized dwelling units and features in the area.

Comfort. Comfort provides the condition for an ideal living environment. They also included provisions for additional recreational facilities, access to fresh air, natural light as well as adequate space for necessary activities.

Choice. To provide choice, it is essential that there be a "provision of a range of residential densities" and space to provide a variety of dwelling units to a "full range of families, ages and income groups."

Adaptability. "If the housing environment cannot be adapted to new conditions, then constantly changing occupancy on the one hand and constantly changing desires and increasing possessions on the other, will inevitably lead to its decay."

Accessibility. Access is linked to the five outlined criteria. It affects the movement within an area and parking.

Interaction. Interaction is required for the creation and maintenance of a healthily community. Interaction can take place in private gardens, open space surrounding a group of homes, park areas and streets and sidewalks in the community. (Lehrman and Sengupta, 1969: 1-25).

The seven criteria outlined provide a basic list of key ingredients in building a successful neighbourhood. "If combined in residential areas, the seven criteria

should go a long way towards developing satisfactory neighbourhoods and communities in the city" (Driedger, 1991: 282). Housing plays a vital role in the determination of the type of neighbourhood, the economic status of the neighbourhood and possibly a glimpse into the future of the area.

2.3.4 commercial zones

Neighbourhoods are made up of many important facilities that all work to form a cohesive community. Included in this mix is a commercial component which usually makes up a neighbourhood's "main street", where most of the retailing functions take place. Operations such as food stores, coffee shops, gas stations, book stores and many other related facilities are located on this main thoroughfare running through the heart of the neighbourhood. This area provides low order threshold operations that supply residents with required services while at the same time encouraging social interchange amongst neighbours. Coffee at the local diner can be as important a function as paying a bill at the corner drugstore.

The degree to which development takes place in this district depends upon many factors including age, structure and location of the neighbourhood, and a sufficient population base to support services.

2.4 Transportation and Urban Evolution

The North American city, over the last century, has been changed significantly by the technological explosion in transportation. This explosion has given the populous the means and the mode from which urban expansion has been possible. In order to understand the impact that transportation has had on the city it is

important to understand the different stages that have evolved over time and their influence on the city. This discussion will subsequently be used to understand the forces that have shaped not only the North American city but also the two neighbourhoods in the study area.

Transportation is an important ingredient in geography and White and Senior recognized this by asserting the need for geographers to understand the spatial implication that transportation has placed on the landscape. In an earlier work, Clark noted that historically, transportation was the key factor in a civilizations ability to not only sustain itself but also to expand and grow. "Early civilizations that lacked water transport and in some cases pack animals were in difficult circumstances" (Clark, 1958: 239).

Muller moved this argument forward by illustrating the spatial development of the city through four stages that have each added a new dimension to the form of urban space;

[1] walking-horse car ear (1800-1890)
[2] electric streetcar era (1890-1920)
[3] recreational automobile (1929-1945)
[4] freeway era (1945-)

Although Muller is describing these stages as related to the American city, the similarities for Winnipeg and the study area will become quite evident.

Within each of these time periods, Muller, saw new urban forms being added to the city scape. The first period viewed cities as compact spaces that exhibited limited transportational means. This resulted in a form of urban space that required no more than a thirty minute walking radius from the centre of the city to the

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periphery. However, as the industrial base of urban areas increased, the travel time increased up to forty-five minutes. Also, within this period, the use of horse-drawn cars allowed for some ease in walking distances but not to any great extent given the speed and distance constraints of the horses. The second period consisted of an alleviation of the crowding and congestion of the dense core of the city. This was accomplished by a change in the primary mode of transportation from walking to the use of the electric street car which enabled the masses to expand outwards from the core. "The morphological pattern was produced by radial trolley corridors extending several miles beyond the compact city limits" (Muller, 1986: 32). This phenomenon established new suburban areas that permeated along trolley lines. The increases in the suburban population also allowed the location of industry and services to blossom. Much of this development was clustered along the trolley lines with stops being the centre where development concentrated. This mode of transportation was a critical factor in the Lord Roberts - Riverview area which still exhibits the influences of trolley stop development along Osborne.

The final stages are somewhat interrelated as they were both highlighted by a massive expansion of the urban form. The means for this expansion was the automobile that allowed people to live at unheard of distances from the core of the city. The subsequent freeway development moved immense numbers of automobiles with greater efficiency. The impact on the city was immense as both the suburbanisation of people and the decentralization of business and industry radically changed the spatial form of many cities. The key factor that permeated from this

expansion was the reversal of the centripetal force of the CBD and the surrounding area. The new form of city exhibited a centrifugal force which, in effect, starting pulling people, services and industry outwards to the newly forming peripheral settlements. The implication of these forces will be discussed further in Chapter Four, which will examine the historical geography of Riverview and Lord Roberts through the role that transportation played on the early development of the area.

2.5 Summary

From the basic outline of this introductory chapter, many issues have been briefly addressed. Most notable is the fact that at the centre of the neighbourhood study, problems obtaining a simple definition become a contentious issue not only for researchers but also for policy makers who attempt to introduce programmes into areas that they cannot clearly define. Beyond this shortcoming, the analysis of critical components and the structure of the neighbourhood poses some considerations as neighbourhoods are all individual units whose definitions and boundaries are difficult to determine. The final section introduced the role of transportation as being an important force in the shaping of the city and also the neighbourhood.

However, in the end one can identify the key components of neighbourhoods in terms of housing, amenities, shops and commerce but in actuality, neighbourhoods seem to be a social construct in space that are most easily understood through Knox's simple proposition that "each neighbourhood is what its inhabitants think it is".

Chapter Three

Measurement of Neighbourhood Change: A Literature Review

3.0 Introduction

Academic researchers have attempted to measure and understand the process of urban and neighbourhood change for decades. Burgess (1925), Perry (1929), Hoyt (1939), Harris and Ullman (1945), Shevkey and Bell (1955), Vernon and Hoover (1959) are but some of the early researchers, from geographers to sociologists, who have studied the city and the neighbourhood in the form of model or theory.

Inherent in this thesis is building a broad but sound understanding of both neighbourhood evolution and the measurements used to classify and assess change. To achieve this, an explanation of the general models theories of urban land use will be examined. These theories include the Concentric Zone hypothesised by Burgess, the Sector model by Hoyt and lastly the Multiple Nuclei model developed by Harris and Ullman. These three models represent the most widely referred to general theories of land use. Their historical importance alone makes them indispensable in any meaningful literature review on the subject of urban change.

Following the examination of these three models, the focus will shift to two important theories of urban ecology: Social Area Analysis and Factor Analysis. These two theories of urban analysis have been used extensively to assess the quality and social characteristics of urban neighbourhoods. This exploration will set the stage for a more focused overview of the theories that pertain directly to the

neighbourhood. Included in this are the works of Perry (1929), Hoover and Vernon (1959), Birch (1971), Muth (1973), Little (1976), Hughes et al (1975); Levens et al (1976), and Akkerman (1984). The final section will explore the neighbourhood through two distinct themes in the literature: classical models and theories and alternative measures of neighbourhoods.

There is a strong tendency for urban geographers to look towards theories and models of urban growth to explain the changing nature of the urban landscape. The use of many of these theories and models in neighbourhood and city growth is well documented in the literature. They work well in providing a strong background for applying some generalizations behind growth patterns, but not all theories or models can be applied to any area in particular. Many of the empirical based models were developed as a local response to a problem associated with that area. Therefore, one is forced to accept this fact and apply a particular model elsewhere with both discretion and careful consideration of the model's initial intent at identifying or illustrating certain phenomena.

In contrast to the classical approach, alternative methods of examining neighbourhoods have been used both extensively and to great benefit in the understanding of neighbourhood change and perception. Through the process of cognitive mapping and environmental perception, a picture of the "true" neighbourhood emerges with the clarity fine tuned by the residents. Through the use of these methods, along with other qualitative measures, the neighbourhood can be understood and examined to provide an alternative, contrasting scale of comprehension. It is not the intent of this thesis to describe, in detail, all the

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intricacies of each theory considered. Instead, a brief overview of each of the theories will provide a sound stepping stone for the analysis of the Winnipeg neighbourhoods and the climate in which they have been shaped, evaluated and grown over time.

3.1 General Theories of Land Use Change

Influenced by plant biologist Robert Park and the Chicago school of Urban Sociology, Burgess postulated a dynamic model of urban change (Fig. 2). The model was based upon land use succession in Chicago and consisted of a series of concentric zonal areas that broke the city into five zones or rings: 1) the central business district; 2) the transition zone; 3) the zone of workingmen's residences; 4) the zone of better residences; 5) the commuters' zone. The premise behind Burgess's work was that the urban system worked by invasion and succession sequences in a manner related to plant biology and as urban geographer Peter Clark wrote; "under a situation of repeated invasion and succession, a set of well defined communities develops in the city. In the language of plant ecology, these were termed 'natural areas' by the Chicago sociologists" (Clark, 1982: 144). Burgess' assumptions were based upon the study of Chicago in the early part of the Twentieth Century and his findings thus applied to that city. The most relevant criticism of the model came from Harris and Ullman who wrote: "the concentric zone, as a general pattern, as applied primarily to residential patterns, assume (although not explicitly) that there is but a single urban core around which land use is arranged symmetrically in concentric patterns" (Harris and Ullman, 1945: 17).

A. Urban Areas in Chicago

SINGLE FAMILY DWELLINGS
RESIDENTIAL HOTELS
BRIGHT LIGHT AREA
SECOND IMMIGRANT SETTLEMENT
APARTMENT HOUSES
LOOP
I
II ZONE IN TRANSITION
III ZONE OF WORKINGMEN'S HOMES
IV RESIDENTIAL ZONE
V COMMUTERS ZONE
Two Flat Area
Black Belt
BRIGHT LIGHT AREA
RESTRICTED RESIDENTIAL DISTRICT
BUNGALOW
SECTION

B. Concentric Zones in the Growth of a City

FACTORY ZONE
I LOOP
II ZONE IN TRANSITION
III ZONE OF WORKINGMEN'S HOMES
IV RESIDENTIAL ZONE
V COMMUTERS ZONE

C.

D.

1 — Central Business District
2 — Light Industry, Wholesale
3 — Low Status Residential
4 — Middle Status Residential
5 — High Status Residential

6 — Heavy Industry
7 — Outlying Commercial District
8 — Residential Suburb
9 — Industrial Suburb

Figure Two. General Models. Source: Harris and Ulman p.26

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The second general model of urban change is that of Hoyt. In this model, Hoyt attempted to modify the zonal approach to urban analysis by using sectors to determine patterns of land use. The model worked on the assumption that the central business district was the axis from which different types of land uses emanated in pie shaped sectors. Hoyt's model of axial development took root along the main transportation lines which would exhibit similar characteristics, meaning that high value residential areas would follow along the same wedge or sector. The model was quite a departure from the concentric zonal approach and Hoyt studied his theory in 142 American cities to prove his hypothesis. "With urban growth, the high-status area expands axially along natural route ways, in response to the desire among the well-off to combine accessibility with suburban living" (Knox, 1996: 305). This notion was the central theme of the theory as Hoyt stated that "once the high-grade character of a residential area is established it tends to continue in the same direction: since land is available in an outward direction, the growth tends to be outward and radial" (Hoyt, 1939: 32).

The final general model is that of two geographers, Harris and Ullman, who proposed that the analysis of the city could be best served by the multiple nuclei model. "In many cities the land-use pattern is built not around a single centre but around several discrete nuclei. In some cities these nuclei have existed from the very origin of the city; in others they have developed as the growth of the city stimulated migration" (Harris and Ullman, 1945: 14). The authors' believed that theories that take into account only one central location or nuclei from which a city spreads out have not fully understood the process of land change. They cite the rise

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of separate nuclei being a result of four critical factors;

1) Certain activities require specialized facilities. e.g. Port activities require access to water, retail districts are attached to the point of greatest intracity accessibility.

2) Certain activities group together because the profit from cohesion. Retail activities profit from grouping which increases the concentration of potential customers.

3) Certain unlike activities are detrimental to each other.

4) Certain activities are unable to afford the high rents of the most desirable sites.

Working in conjunction with these forces, the city develops into a series of divided districts: central business, wholesale and manufacturing, heavy industrial, residential and the suburban and satellite district. Ley has observed that "the multiple nuclei model of Harris and Ullman reorganized the dispersion of the city into specialized districts and the beginnings of the decentralization of core activities, which challenged irrevocably any simple scheme" (Ley, 1982: 72-73). Further to this point, Ley recognized that another important aspect of the model was the inclusion of "the special purpose districts that developed, such as airports, waterfront areas, and medical districts. These achieved satellite status and their own localized land use gradient, thus challenging the dominance of the central business district as the city's only focus" (Ley, 1982: 75).

The three models thus far reviewed see the city as being made up of identifiable rings, wedges or districts. Each model moved forward the analysis of the urban landscape, but at the same time, each model failed to encompass all aspects of urban land use and the process of urban change. The end result is that the models remain an important guiding tool in understanding the basic process of change and the elementary spatial structures of cities.

Social Area Analysis and Factor Analysis attempted to move urban ecological theory forward through a more developed approach at understanding the characteristics of change and the structure of the city. In Social Area Analysis, Shevkey and Bell attempted to describe the spatial makeup of cities through an examination of census tracts. This was done by analysing the social characteristics within each tract and attempting to illustrate if the population shared any characteristics. This included "social rank (roughly, amount of prestige), family status (number of children, type of household, employment status) and ethnicity. If a fairly large population did share these characteristics, they called that district a social area" (Spates, 1987: 176).

Social Area Analysis has been a much criticized theory. Spates asserted that it is not theoretical, it merely provides a description and "consequently, it can not be used to either predict where groups will settle or to explain why groups have settled where they have" (Spates, 1987: 177).

Factorial Ecology attempted to move urban analysis further by using the computer to process more census tract data. The power of the computer has enabled researchers to generate more descriptive spatial categories than Social Area Analysis. "Factor Ecology provides a mathematically rigorous method for constructing urban social areas. It constructs a number of more general factors or components that provide an efficient description of a far longer list if diagnostic variables drawn from the census" (Ley, 1982 : 78). Geographer Paul Knox observed that factor analysis is used "primarily as an inductive device with which to analyse the relationship between a wide range of social, economic, demographic and

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housing characteristics, with the objective of establishing what common patterns, if any, exist in the data" (Knox, 1996: 45).

The methodological processes by which Factor Ecology work on are beyond the scope of this thesis. However, in the broad sense, it is a multivariate analysis that attempts to draw out patterns which exist. "Unlike social area analysis, there is no theoretical framework, and so no direct inferences can be drawn out as to the nature of the processes which give rise to the social and spatial patterns which are revealed" (Clark, 1982: 155). When the analysis is completed for an area, any linked characteristics are called factors which can be displayed in map form to produce a city-wide description of all linked factors.

The brief discussion of these last two theories has strived to move forward the understanding of the underlying forces that shape cities and neighbourhoods. Social area analysis and factor analysis have both worked to map a social structure of the urban landscape. Both theories have not been without their limitations and criticisms. This however, has not been a detraction from the use of the data obtained in employing both theories. With the advent of the computer, factor ecology has produced many important and in-depth analyses of urban neighbourhoods and this in turn has helped researchers gain an understanding of some of the linked spatial data that exist within the urban environment.

3.2 Measurements of Neighbourhood Change

The aforementioned theories briefly touched upon the neighbourhood but the general thrust was the understanding of the process of urban change on a city-wide

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basis. In order for the stage to be set for the examination of the Winnipeg data, a closer look at the models that were specifically constructed to understand neighbourhood change is essential. In beginning this section, an examination of Clearance Perry's seminal work *The Neighbourhood Unit* is a must at constructing an appreciation of the forces that played a major role in the development of urban neighbourhoods.

Perry's work has played an important role in the present form and function of many urban neighbourhoods in North America. It was built upon a study of New York in which Perry speculated that it was possible to create a neighbourhood through the consideration of the following five criteria (fig 3).

Size and boundaries. The size of the area would depend on density but its population would be large enough to support an elementary school. The neighbourhood unit would be surround by arterial streets to allow through traffic to be by-passed

Open spaces. A park system would be included in the unit to meet the needs of the residents.

Institutional sites. Schools and other institutions would be grouped around a central location that would "coincide with the limits of the unit."

Local shops. Shopping districts would be laid out around the edges of the unit and if possible "adjacent to similar districts of adjoining neighbourhoods."

Internal street system. The street system should move traffic efficiently within the unit but also discourage through traffic (Perry, 1929: 34-36).

The neighbourhood unit has been heavily criticised and according to Hodge;

variously attacked on sociological grounds that such spatial units would not actually encompass, much less promote, a cohesive social environment, this plan has nevertheless been widely used. Community plans in Canada, the United States and Europe have repeatedly used the neighbourhood unit notion in a variety of formats to structure the residential portion of the city. The neighbourhood unit became probably one of the strongest physical organizing principles in modern community plans (Hodge, 1986: 65).

Given the opposition to the plan, the fact remains that the neighbourhood unit has shaped many cities including Winnipeg as well as the two neighbourhoods of interest to this thesis.
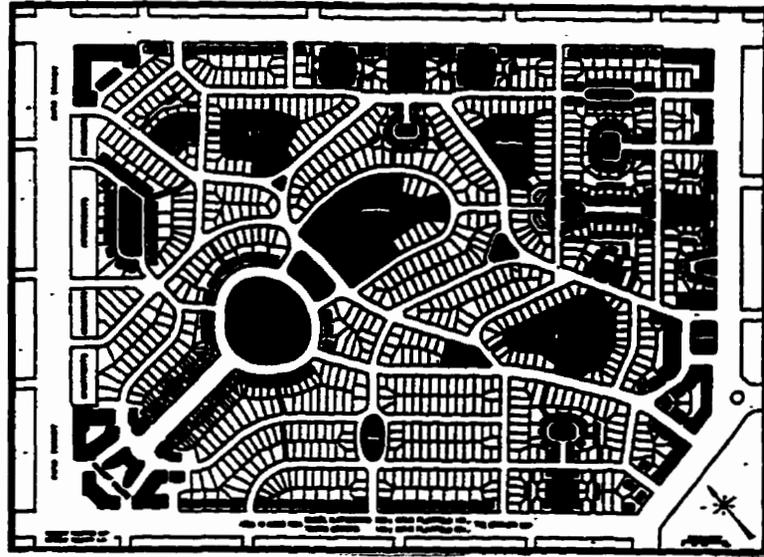
Figure Three. Neighbourhood Unit. Source: Perry p. 24

3.2.1 neighbourhood life-cycle theory

In 1959, Vernon and Hoover, put forth set a of principles used to measure the neighbourhood lifecycle. The authors contended that neighbourhoods evolved through a set of specific sequences that could be described in a five stage theory that characterized the growth patterns of neighbourhoods. The premise behind the theory was that the city is made up of distinct districts as postulated by the Multiple Nuclei model. Vernon and Hoover felt that there was more than one high density commercial centre from which the concentric zonal effect emanated. "The widening ripples come, then, not from a single pebble dropped into a puddle, but from a

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scattered handful of large, middling, and small pebbles, each a focus of attention"

(Vernon and Hoover, 1959:192).

Stage one. Residential development of single-family houses.

Stage two. Transition stage in which there is substantial new construction and population growth.

Stage three. Down-grading stage in which housing is being adapted to higher density use than was originally designed for.

Stage four. The thinning out stage in which density and dwelling occupancy are gradually reduced.

Stage five. The renewal stage in which obsolete dwellings are being replaced by new multifamily units. (Vernon and Hoover, 1959: 192-202).

The five stages of the neighbourhood life-cycle proved to be an important tool for investigating neighbourhood evolution and change. The model played a prominent role in the 1950's and 1960's. The use of the stage theories of Vernon and Hoover has been replicated and built upon by many other researchers, including Birch; Hughes et al and Ahlbrant and Brophy.

In 1971, Birch put forth a "Stage Theory of Urban Growth". Inherent in the principles of the theory was that it consisted of a set of parameters that established validity in the measurement of change. This included the establishment of a six stage theory that "hypothesized that each neighbourhood changes character over time, following a well defined sequence" (Birch, 1971: 78). The theory was built upon Vernon and Hoover's explanation of changing stages marked by differentiation in population densities and residential characteristics. The main components of the theory are:

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Stage one: Rural - low population density and a predominance of single family units.

Stage two: First Wave of Development -subdivision begins with high rates of new construction, predominantly single family units.

Stage three: Fully Developed, High Quality Residential -initial development complete. In some cases single family units prevail but density higher than stage two. In other cases, an increasing number of multi-unit structures have been built. In either case property values and rents are at their maximum for the neighbourhood.

Stage four: Packing -age of structures increases and rents and property values fall, lower income groups begin to move in . To bridge the gap between old and new rent, more people pack into the units than they were designed to hold. This can create "new slums:

Stage five: Thinning -buildings from stage four have begun to deteriorate and children of low income parents are leaving, probably for a stage four or two neighbourhood elsewhere in the city. Population begins to decline and older couples are left behind. This can create the "old slums".

Stage six: Recapture -at some point the land occupied by an old slum becomes too valuable to justify its use in an old slum, and the inhabitants become too weak politically to hold off deterioration. Property is either rebuilt or rehabilitated into more efficient uses such as high income apartments, office buildings or public offices. When recapture is complete, the area may appear as a stage three but with higher densities (Birch, 1971: 79-81).

Birch makes note of a possible stage seven in which recaptured areas would begin to decline once more. At the time of the article, Birch found no evidence to support this claim. Birch's theory is still quite relevant as Schwab (1987) and the Strategic Planning Branch of Edmonton (1990) made use of many of the principles of the theory in more recent reports. The Strategic Planning Branch material will be discussed more closely in Chapter Six.

Public Affairs Counselling, through The Department of Housing and Urban Development (HUD) established a similar approach to both Birch and Vernon and

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Hoover by putting forth a five stage theory. The five stages of neighbourhood change are: *stage one*: healthy viable neighborhoods; *stage two*: incipient decline; *stage three*: clearly declining; *stage four*: accelerated decline; *stage five*: abandonment. (Ahlbrant and Brophy, 1975: 7-9). In stage one; the neighbourhood is quite stable and has a high level of home ownership with income levels above that of the city wide average. It also contains stable household composition and an adequate quality of life. In the second stage (similar to Birch's stage 4), the neighbourhood begins the process of unravelling. In this stage, obsolescence becomes a factor and maintenance of dwellings begins to decrease as costs of repairs begin to rise. At this juncture, the neighbourhood is at the breaking point; if upgrading and regular maintenance are not performed, the area will begin to lose its population and thus begin the slow process of decline.

In stage three, the decline is evident; home ownership levels continue to decrease as do property values and population. The critical aspect is that reinvestment in the neighbourhood in the form of regular maintenance and modernization of the structures is the pivotal force that either spirals the neighbourhood down or aides in salvaging the area. Stage four is marked by massive disinvestment and deterioration of the housing stock. The public sector also losses faith and the neighbourhood slips down in rank to slum. Income levels also continue to slide as the area attracts only those looking for cheap shelter options. The real estate market is non-existent in the area as desirability to live in the area is at the lowest point. The final stage (five) is abandonment of the neighbourhood.

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The area is an economic wasteland and the only residents left are those with no other choice. The current land uses in the neighbourhood are not economically viable and renewal is the only option. However, the exorbitant costs of renewal projects makes this option a tough one for politicians (Albrandt and Brophy, 1975: 7-10).

The three theories of neighbourhood life-cycle change are all related. They start with a "new" neighbourhood that slowly starts its decent into a decaying neighbourhood marked by obsolete buildings and a high level of out migration. "Residential neighborhoods begin with new construction and end as their economic usefulness ceases through natural causes, condemnation, or replacement by more economic use" (Albrandt and Brophy, 1975: 9).

3.2.2 neighbourhood filtering and succession

Filtering and succession theories are both related to the early works of Burgess and Hoyt who examined these processes in their models of urban change noted at the outset of this chapter. In terms of the neighbourhood specifically, "filtering is a term used to describe the process through which existing housing gradually declines in value, thereby making it available to groups of lower socio-economic status" (Albrandt and Brophy, 1975: 10). Filtering is a dynamic process that shapes neighbourhoods by allowing the existing housing stock to work its way down in relative value. The result noted by Albrandt and Brophy is that lower income groups eventually can afford housing as it ages and is passed down. The theory of filtering is not without criticism and Ratcliff noted the problems early on:

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Filtering... is not a controllable device. The end product of filtering, at the bottom of the chain reaction, is substandard housing; thus filtering produces the very blight which we seek to remedy. Filtering cannot increase in effectiveness without the removal of housing as it sinks below minimal standard. And if by some drastic change in conditions the rate of filtering were accelerated to the point of adequacy, the cost to property owners through the concomitant deprecation in the value of their properties would be tremendous (Kristof,1972: 317).

Filtering theories assume that housing units decline in value to a point that the original owner sells the unit for a price that can be afforded by a lower income group than the previous one. A fundamental component of filtering theory is that of vacancy chains, which in the broad sense can be described as the process in which one household moving creates a vacancy that is in turn filled by another household that moves in who creates a vacancy.... this pattern repeats itself until the chain is closed.

The vacancy chain grows outward from the original vacancy, link by link until the chain ends. A vacancy chain ends when a housing unit is demolished, consolidated into another unit, stands permanently vacant, or leaves the local housing market area. The length of a vacancy chain, measured in the number of links, determines the amount of local impact created by a new housing unit. If a chain has seven links, seven households were able to acquire housing more suitable to their circumstances at a given time than what they previously occupied (Hartshorn, 1980: 245).

Filtering theory is noted in the works of Ratcliff (1949), Muth (1973), Little (1975) and Grigsby (1984) to mention a few. Succession theory is connected to filtering but it is not exactly alike. Gringsby writes: "it is important to note that despite their similarities, succession and any of the definitions of filtering should not be interpreted as synonymous. Succession can take place without the shifts in prices, rents, and housing quality that are central to one or more of the filtering definitions" (Gringsby, 1984: 25).

Gringsby lists six main causes of succession: changes in real income; growth

in the number of households; decrease in the number of households; obsolescence; changes in housing demand and supply resulting in governmental intervention; and neighbourhood deterioration. These six factors play a critical role in the determination of neighbourhood succession.

3.2.3 economic theory

Many of the aforementioned theories of urban change include economic components that are essential parts of the theory. However, it is important to note the specific theories of neighbourhood change that pertain directly to economic analysis of areas. Included in this list are the works of Alonzo (1960), Anas (1978), Little (1975), and Leven (1976).

"Since neighbourhoods are housing markets, indicators of economic conditions are the most important measures of neighbourhoods health" (Albrandt and Brophy, 1975: 53). To begin to uncover some of the key properties of economic theory it is important to understand the early works in the field of urban economic analysis. The early work of von Thunen from the early 1800's serves as the starting point for research into the area of economic theory. "The basic premise of the von Thunen conceptualization was that agricultural land uses conformed to general and predictable patterns around cities, which were the markets for farm goods" (Hartshorn, 1980: 211). The theory concluded that items in greatest demand were grown closest to the market and items of lower value furthest from the market. According to von Thunen, land was arranged around three important factors; distance to the market; selling prices of the products to the market; and land rent.

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Alonzo put forth a theory of urban land markets with assumptions that coincide with von Thunen as both see the costs associated with goods increasing with distance. Alonzo termed this phenomenon bid rent.

The bid rent curve of the individual will be such that, for any given curve, the individual will be satisfied at every location at the price set by the curve. Along any bid rent curve, the price the individual will bid for land will decrease from the centre at a rate just sufficient to produce an income effect which will balance to satisfaction the increased costs of commuting and the bother of a long trip (Alonzo, 1960: 154).

The bid rent curve theory is a basic example of economic urban analysis as it assumes that the city is made of a concentric zones that move out from a single location and increase along a rent gradient.

Another economic theory that is important to consider is that of *Orthodox Economic Theory*. According to Solomon and Vandel the determinant forces of the theory include: pure economic calculus, concepts of the market, competition, static equilibrium and allocation of resources. The theory presumes that all the actors (landlords, tenants, owners, builders, and bankers) are "economically rational; producers attempt to maximize profit and consumers attempt to maximize utility subject to their budget constraint" (Solomon and Vandel, 1982: 82).

The assumption of the theory is that the housing market is competitive and market rents are established at the intersection of supply and demand. "Capital is assumed to be perfectly mobile and flows toward those investments with the highest return commensurate with their risk." The rehabilitation of structures will only be done if the marginal revenue is greater than the marginal cost of doing the work. This is to maximize profit of the structure. The final tenets of the theory are that

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financial markets are assumed to be competitive and "used by landlords to the extent that the cost of credit is lower than the free and clear return on the structure". The costs are also affected by external forces that include risk consideration associated with the neighbourhood, property and the borrower of the money. (Solomon and Vandell, 1982: 82-83).

3.2.4 alternative measures

The models and theories thus far examined have illustrated obvious differences in the meaning and measurement of neighbourhood quality and type. The results have produced a myriad of conclusions based upon lifecycles, filtering down processes and economic forces. All these approaches adequately address the problem of understanding change, yet many of the theories do not account for the perception of place by the inhabitants. The very notion of "place perception" is an important guiding tool for planners and the like to employ in order to capture a true sense of place in the neighbourhood.

One of the most influential attempts to decern a sense of place was that by Lynch who studied the "image of the city" in his seminal work of the same name. In this work, Lynch attempted to better understand the image of the city through an analysis of the meaning and legibility of space. He strived to comprehend the look and feel of cities and to determine if these qualities were of importance. "The urban landscape, among its many roles, is also something to be seen, to be remembered and to delight in . Giving visual form to the city is a special kind of design problem, and a rather new one at that" (Lynch, 1960: 1). In striving to perceive the legibility

of the cityscape, Lynch breaks down the analysis into five key elements: paths, edges, districts, nodes and landmarks. He uses these five elements as tools for understanding the mental representations of the residents of the city.

Although Lynch's ideas stray far from explaining neighbourhood change in the same manner as many of the aforementioned models, it is still important to grasp the true essence of the work. In reality, Lynch went to the people to get their mental representations of the cities and neighbourhoods in which they lived (Fig.4).
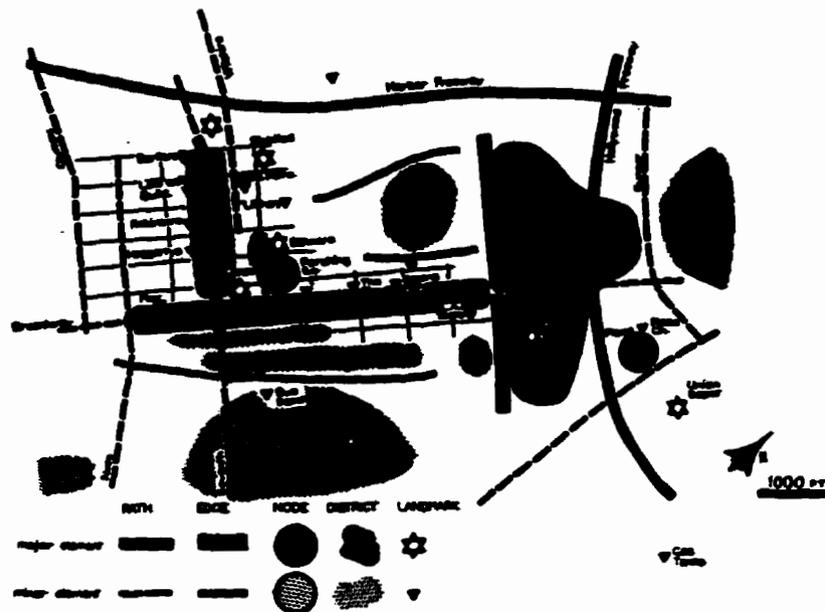
Figure Four. Mental Map. Source: Lynch. p 17

From this simple procedure Lynch assembled an image of the area that encompassed all the varied cognitions of the residents into usable form. This 'usable form' contained a wealth of information on the particular area about perception of

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place, patterns of movement, interaction and much more. This information was then

synthesised into a picture of place that incorporated Lynch's notion of the 'whole';

In discussing the element types, there is a tenancy to skim over the inter-relations of the
parts into a whole. In such a whole, paths would expose and prepare for districts, and link
together the various nodes. The nodes would join and mark off the paths while the edges
would bound off districts and the landmarks would indicate cores (Lynch, 1960: 108).

Lynch's work has become the starting point for understanding the image of a city or

for that matter a neighbourhood. Since the 1960's countless others including Downs

and Stea (1973), Spencer (1973), Gould (1974), Tuan (1974), Clark (1977), Pocock

and Hudson (1978), Hayes (1980), Stein and Sutherland (1989) and Weeing et al

(1990) have all used and built upon Lynch's principles to understand the city

through cognitive mapping and questionnaires. These researchers have all

attempted to solicit an understanding of an area by means not fully accepted in

planning and policy construction. However, the importance of the findings can often

reveal much detail and richness in the neighbourhoods and districts examined.

Weeing et al, attempted to produce a workable typology of neighbourhoods

that would uncover and measure 'sense of place' by producing a four-type

classification system based upon neighbouring and social networks. The authors

used indicators measuring the level of interaction in conversation, visiting, and in the

provision of social support to friends and neighbours as the key criteria. The purpose

for the analysis was to further the work of Warren and Warren (1977) who studied

sense of place. Weeing also cited that neighbouring and sense of place were critical

factors in neighbourhood quality based upon the findings of Gifi (1981).

		SENSE OF COMMUNITY	
		Strong	Weak
NEIGHBOURING	+	A - type	B - type
	-	C - type	D - type

Type A: Strong sense of community and many neighbouring activities. In this type of neighbourhood, information diffusion will probably be relatively fast, and social influence will presumably be rather strong.

Type B: Weak sense of community although many neighbouring activities. In this type of neighbourhood, information may be disseminated rather rapidly, although probably without much behavioural influence.

Type C: Strong sense of community and sparse neighbouring activities. Although information may not rapidly diffuse in this type of neighbourhood, social influence on behaviour and decisions will probable be high (mostly through commonly shared norms and the existence of a limited number of strong ties).

Type D: Weak sense of community and few neighbouring activities. In this individualistic-oriented type if neighbourhood, information diffusion will presumably be rather slow and almost without any influence on behaviour or opinions.

source: Davies and Herbert (1993). Communities Within Cities. An Urban Social Geography. p 59.

3.3 Summary

The purpose of this chapter has been to provide a broad but sound overview of the general climate in which neighbourhoods have been examined and evaluated over the last century. At the outset, the early works of Burgess, Hoyt, and Harris and Ulman expressed a simplistic representation of the urban environment in the form of empirical models. This basic design was furthered by others who followed in their footsteps throughout the years with each author building upon and furthering the theories of the previous. This has led to the more detailed works that have

focused exclusively on the neighbourhood and again attempted to decern from reality, a workable model that could provide researches with a reliable measurement device capable of explaining and predicting change and growth of an urban neighbourhood.

In the final section, the shift moved to a more basic approach to the understanding of the complexities that are prevalent in the urban fabric by turning attention to the residents of neighbourhoods as the tools for comprehending the area. These tools were used to create a mental picture of the area to produce an image as envisioned by Lynch, and also a typology of neighbourhoods based upon sense of community but forth by Weeing and his colleagues.

The end result of this chapter should have provided an adequate appreciation of the fact that there is an extensive body of literature that is equally important in understanding the forces that shape neighbourhoods. In addition the information thus far examined sets the stage for the final analysis of Riverview and Lord Roberts which will be examined through some of the principles thus far discussed.

Chapter Four

History and Geography of Riverview and Lord Roberts

4.0 Introduction

This chapter is intended to provide an in-depth look at the historical and present urban geography of Riverview and Lord Roberts. The intent is to first provide a basic historical description of both neighbourhoods as well as the commercial strip shared by both areas. From this the focus will shift to more specific data related to the social and physical environments of the neighbourhoods. The final component of this chapter consists of a comparative review of material from various census years that attempts to examine the changes in both neighbourhoods over time and, where possible, compared with the Winnipeg average. Information used as the basis for this chapter includes historical maps and illustrations, the Hendersons Directory of Winnipeg (1905-1995) and Census Canada data (1951-1991).

4.1 Historical Geography of Riverview and Lord Roberts

An early 1890's Latimer & Coys map of the city of Winnipeg shows surprisingly little development in both Riverview and Lord Roberts (Fig. 5). The only apparent features of the area included an electric trolley line, mention of River Park (to be discussed later) and two streets which have be marked for subdivision. Street and railway development in the study area between 1882 and 1914 also shows only slight development (Fig.6). In fact, the street rail line to River Park, between the two neighbourhoods, was the only major link with the rest of the city in.
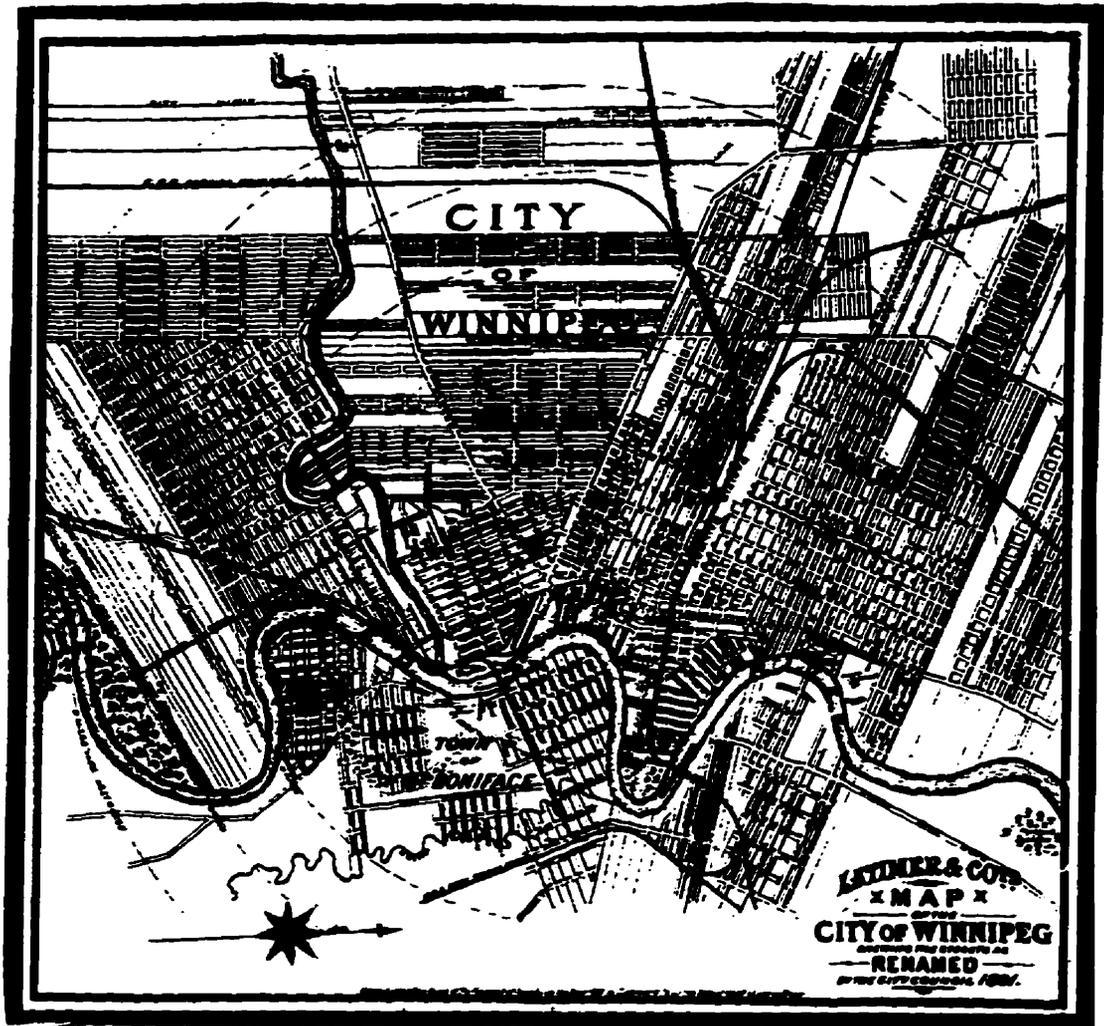
Figure Five

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MAP 5

GROWTH OF STREET RAILWAY TRACKAGE IN WINNIPEG AND SUBURBS · 1882 – 1914 ·
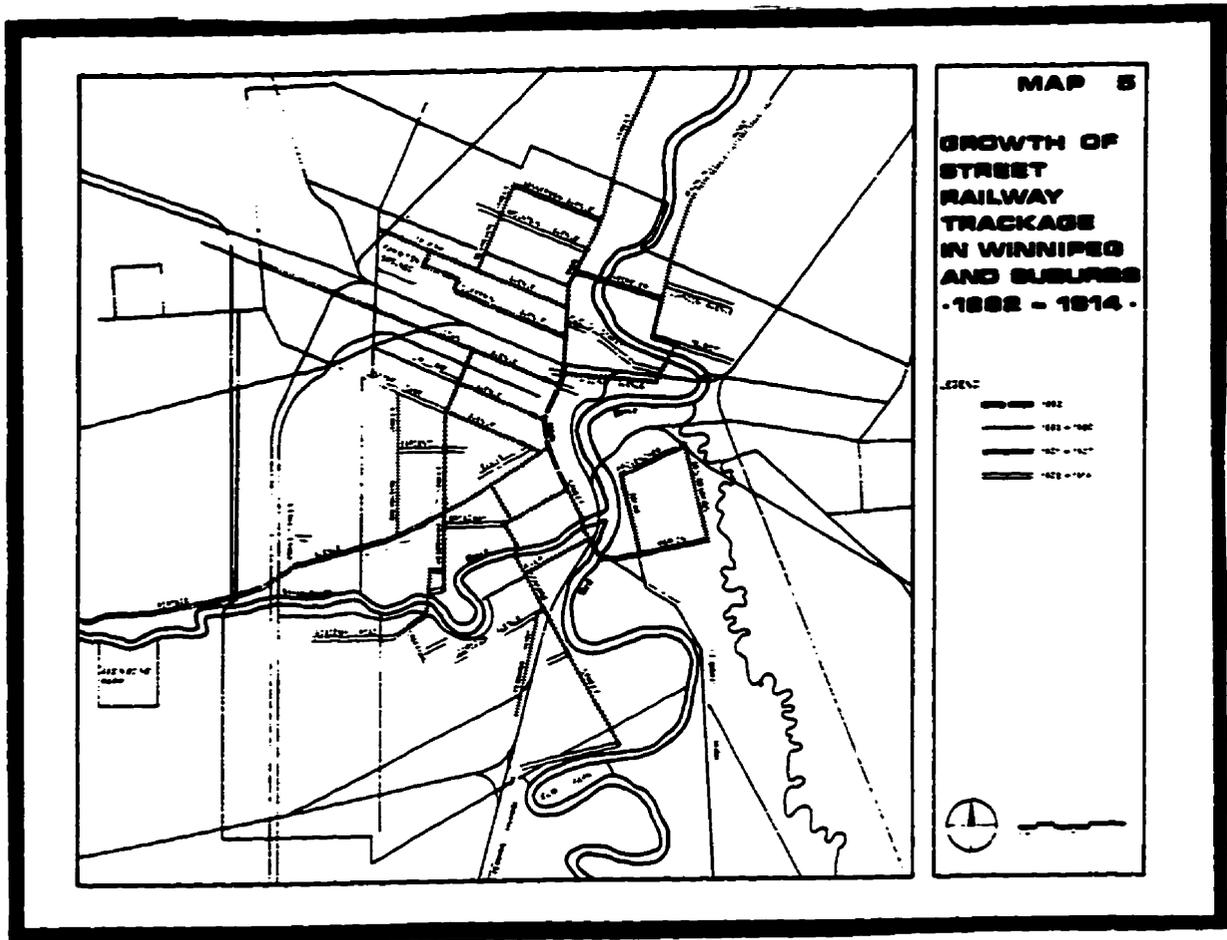
Figure Six

The importance of the street rail line at this early stage of development was that at the turn of the century the automobile was not a factor in transportation and thus the use of the street rail line greatly improved peoples ability to travel and live at greater distances from the core of the city.

The Osborne line (called Pembina) was the first working electric line and it began by carrying passengers in a single car. The line commenced operation in the late 1890's by A.W. Austin, who became a critical player in the development of Winnipeg's entire street railway system. "In order to have a destination to which to carry his passengers, Austin purchased large plots of land on both sides of the Red River at the end of Pembina (Osborne). The site on the north side of the river was named River Park, while the south side was Elm Park" (Baker, 1982: 14). The track layout for River Park highlights the fact that the area was quite sparsely developed with respect to residential streets (Fig.7).

In a sense the street car line was the initial spark for development to begin in both neighbourhoods because it opened the area by bringing people into River Park. The work of Muller (1986), which was introduced at the end of Chapter Two, supports this notion as the Lord Roberts - Riverview area has been highly influenced by the impact of transportation. This is evident by the fact that, without the rail line, the area would not have been able to develop as soon into a district of Winnipeg as the distance from the central city was such that walking would not have been practical. Therefore, the electric trolley line created the initial ember that in turn lit the fire of development in both Riverview and Lord Roberts.

Winnipeg Street Railway Company
Track Diagram
1882 - 1894
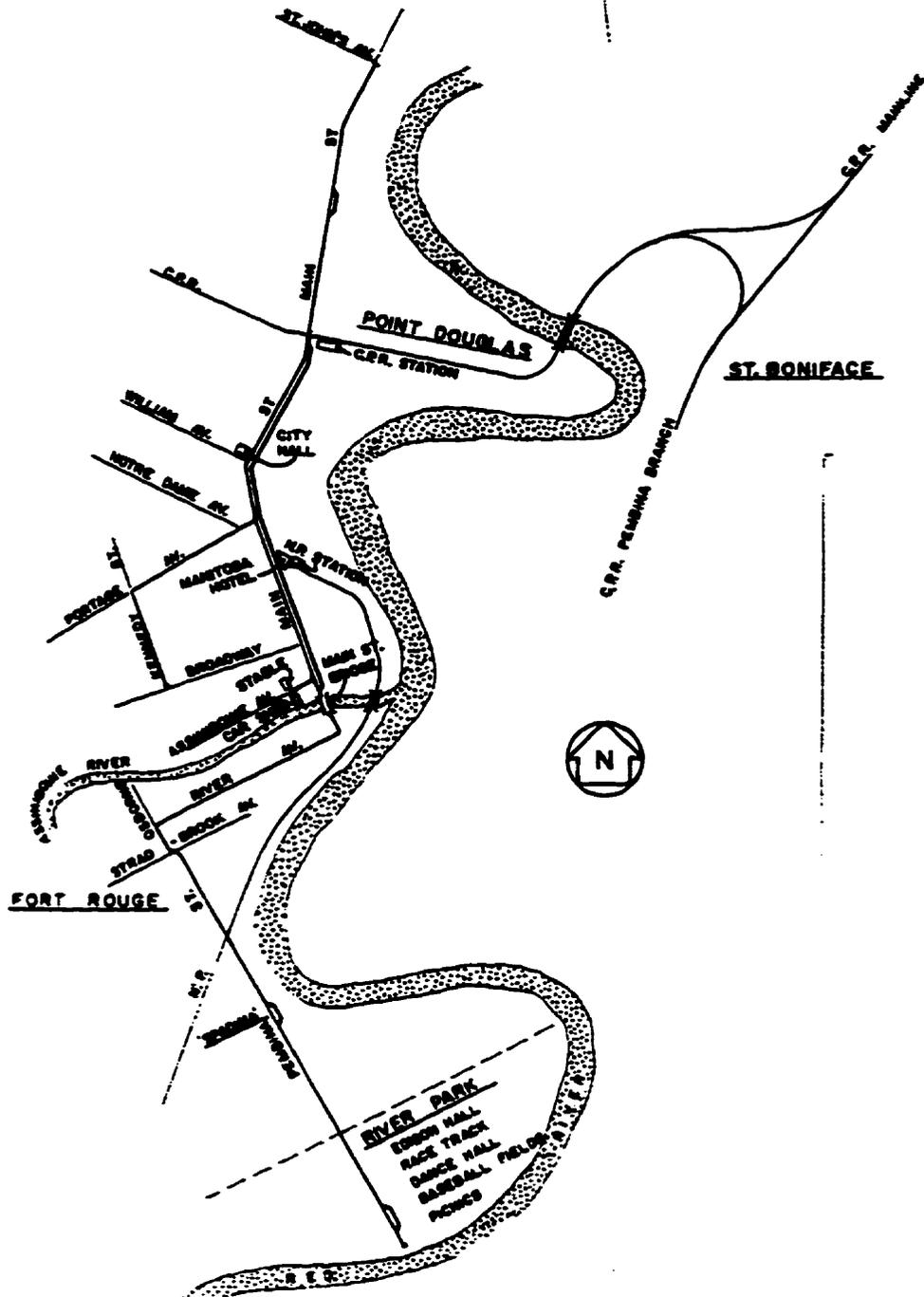
Figure Seven

SOURCE: *WINNIPEG'S ELECTRIC TRANSIT. 1982.* P. 13

In spite of the electric rail line's presence, development still moved at a somewhat slow pase, especially in Riverview, which did not enjoy the industrial presence that Lord Roberts had.

In the early 1900's, the area began to develop into a small working class neighbourhood. By 1911, much had taken place in terms of urban growth (Fig. 8). Both of the neighbourhoods at this time were almost completely subdivided and ready for housing construction. The main features of this era were two large industrial sites in Lord Roberts (called Rosedale at the time). These were part of the Winnipeg Electric Street Rail Company operations and included a storage and repair barn for the trolleys. During this period, residential subdivision was taking place more rapidly in the Lord Roberts area than in Riverview. This might have resulted from the service barns being located in the neighbourhood and the desire of the workers to live nearby their place of employment. Also, the Canadian National Railway (CNR) had established a large industrial site in the western boundary of Lord Roberts. This included train repair and painting barns at which nearly six hundred persons were employed at its peak.

In 1913, the two neighbourhoods, although subdivided, were not fully developed (Figs. 9, 10). However, what is important to note is the fact that Lord Roberts was almost completely subdivided and in use, while Riverview remained mostly vacant. Again the major factor seems to be that most of the industry in the area was located in Lord Roberts. For Riverview, there was some institutional activity in the form of the Municipal Hospitals located along the banks of the Red River.

Within the map image: HATHAWAY'S GUIDE AND BIRDS-EYE MAP OF WINNIPEG; ST. BONIFACE
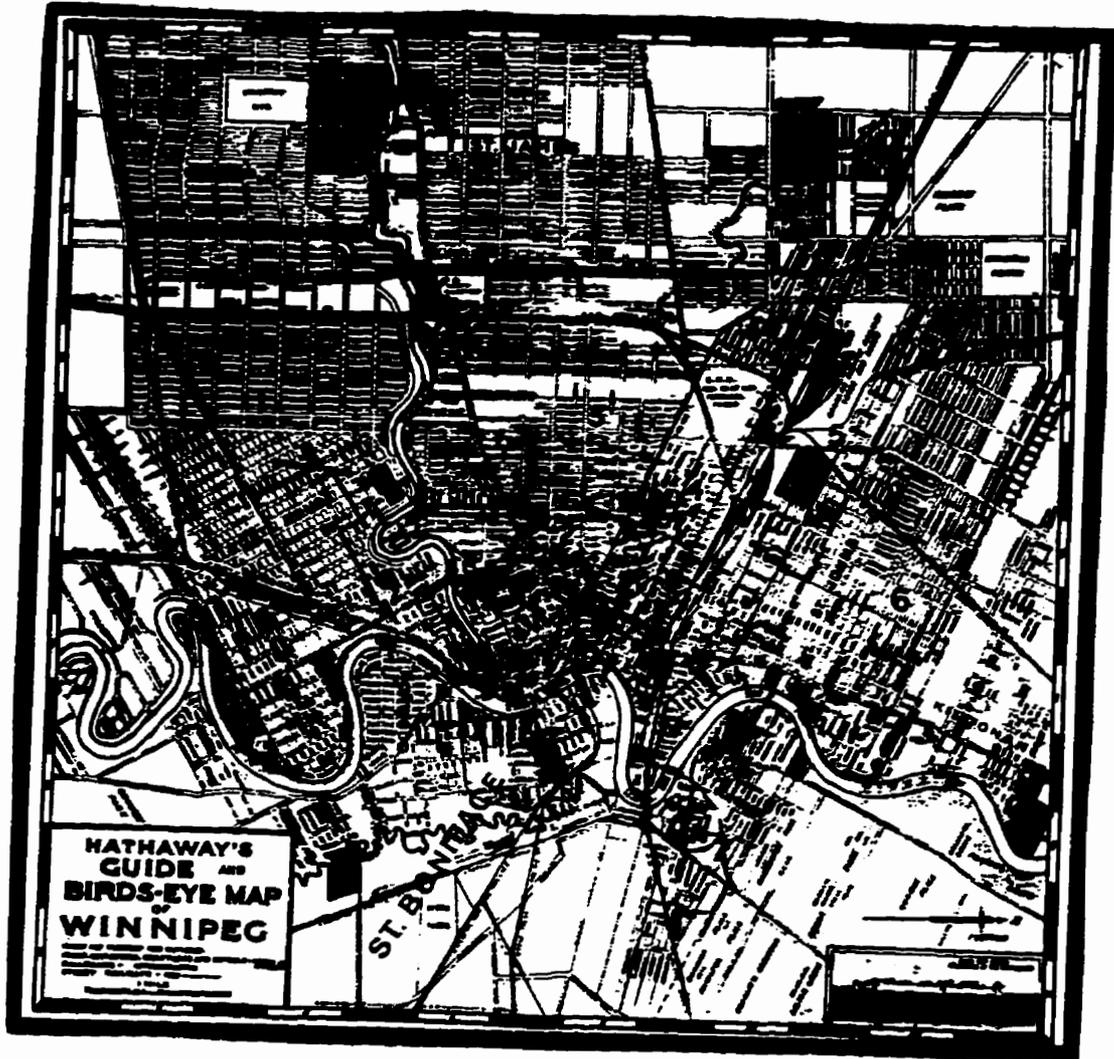
Figure Eight

LEGEND

BUILT-UP AREA
IN 1872 ▪
   1875 ▪
   1881 ▪
   1884 ▪
   1901 ▨
   1913 ▨

RED RIVER
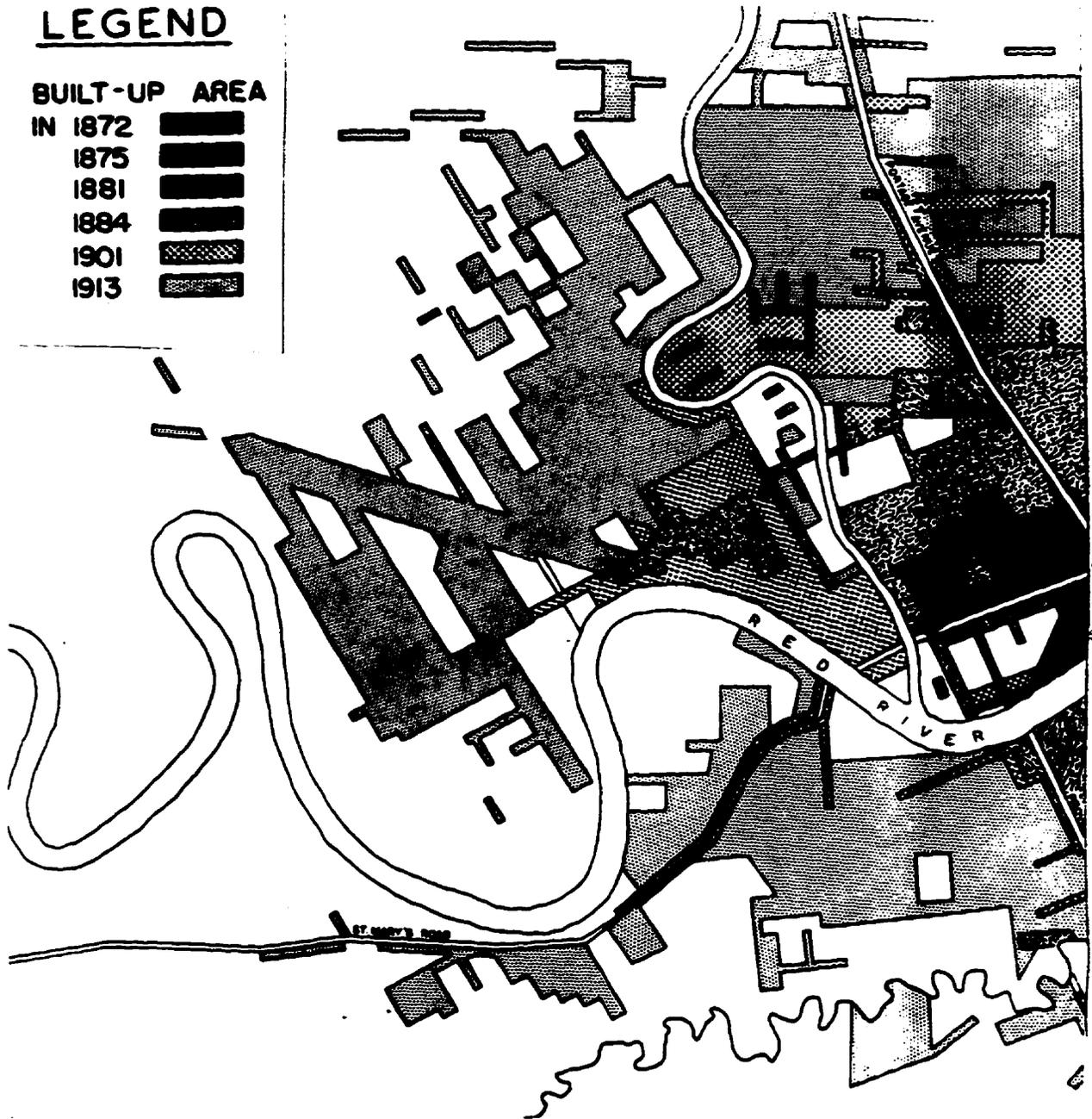
Figure Nine   SOURCE: *HANS AUGUST HORSE, MA THESIS, 1956, P.152*

LEGEND

┬┼┼┼┼┬	BUILT-UP AREA
▭	COMMERCIAL USE
▬	INDUSTRIAL USE
--------	CITY LIMITS IN 1913

SCALE IN FEET

N →

RED RIVER

ST. MARY'S ROAD
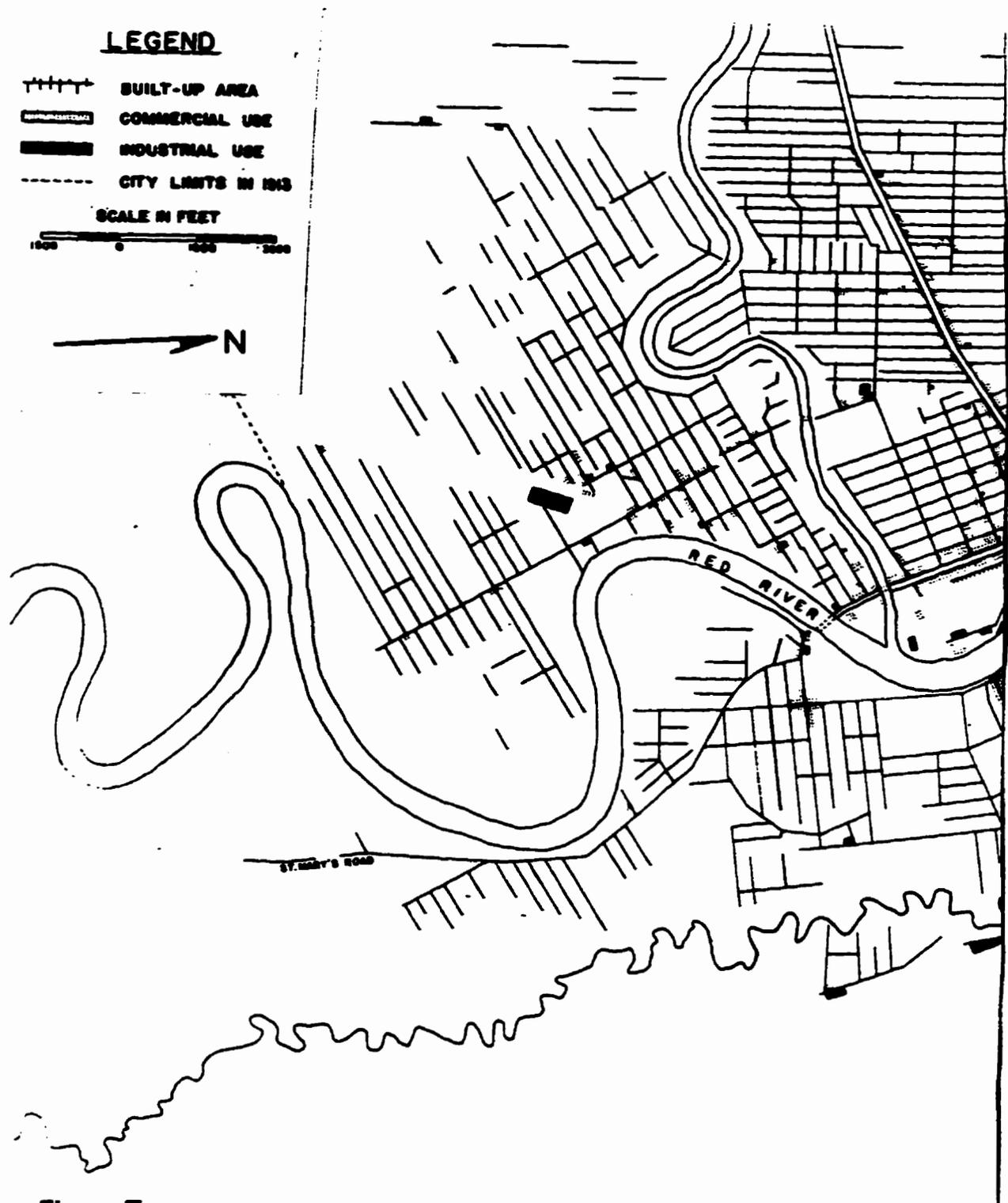
Figure Ten   SOURCE: *HANS AUGUST HORSE, MA THESIS. 1956. P.165*

The hospitals, located in Riverview, were erected to combat the growing epidemics of infectious diseases such as influenza, tuberculosis and polio. The location of the hospitals, may in fact, have hindered the development of Riverview because, at the time, treatment of such infectious diseases was rudimentary and the fear of these diseases spreading was high. Another factor to consider in Riverview's slow growth is that the River Park area occupied a large portion of the neighbourhood which may have discouraged builders from placing homes near the exhibition site. Most of the development in Riverview first occurred in the location of the oldest streets in the area: Morley, Arnold and Brandon. Again, the impetus was the location of the trolley barns at the centre of Morley and the Municipal Hospitals at one end and the CNR tracks at the other. Morley was also the site of a concentration of commercial development and a stop for the trolley lines that ran along Osborne street.

The only other major development in Riverview was the River Park amusement centre that over the years contained various rides and concession stands. The most notable feature and main attraction of this park was a giant roller coaster ride which is still standing at Belmont park near New York city. The site also included a zoo, a baseball park, a toboggan slide, a race track for horses and a boardwalk style layout with games of chance and amusement. The River Park area was quite an attraction for the citizens of Winnipeg from the late 1890's until the 1940's when the land was eventually subdivided. The terms of transferring ownership of the park to the city was quite a contentious issue at City Hall because the site of River Park was to be redeveloped as a 'proposed urban area' that included a large residential subdivision (Fig.11).

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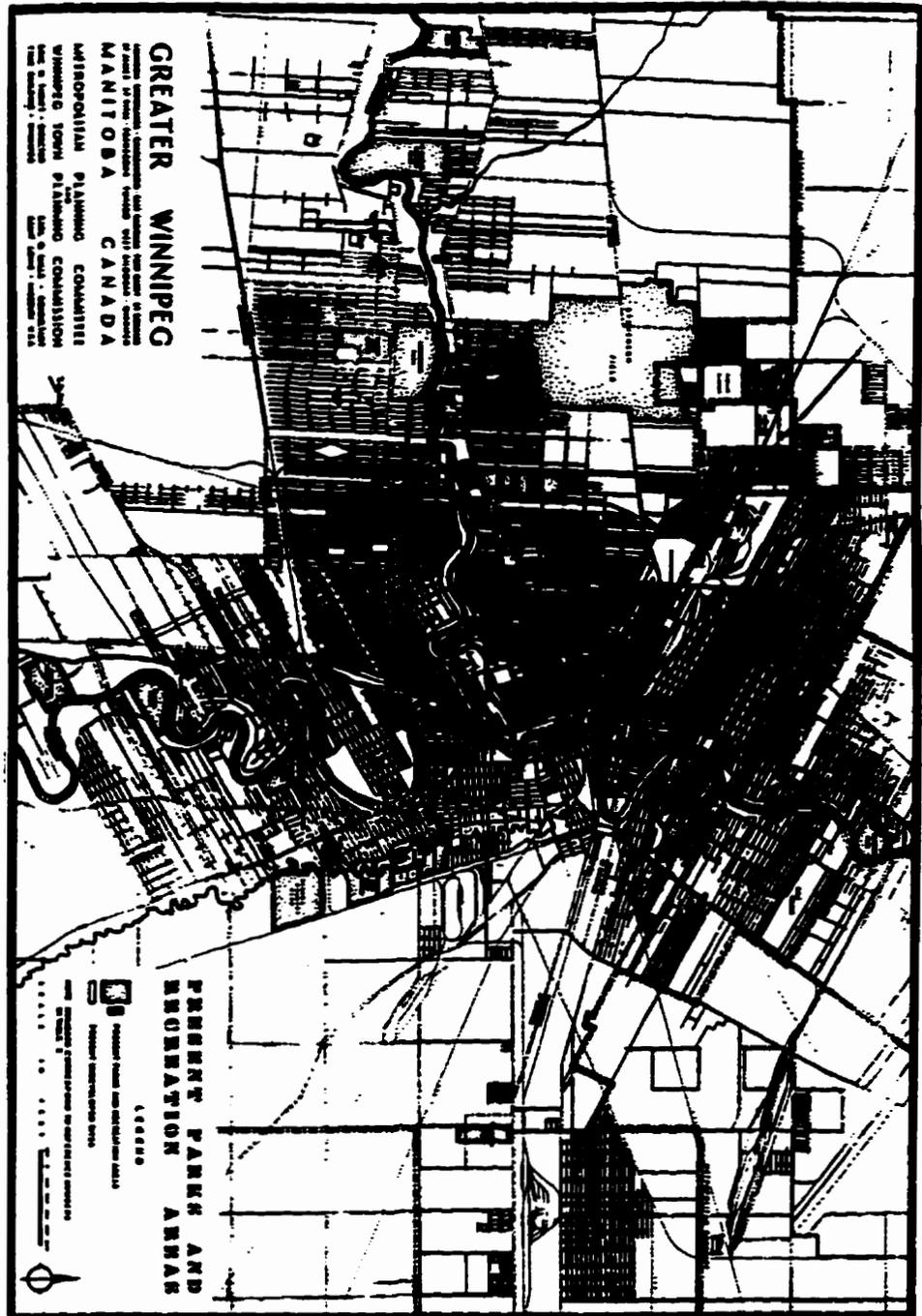
Figure Eleven   SOURCE: *NEIGHBOURHOODS: GREATER WINNIPEG. P 26*

The Lord Roberts neighbourhood grew fairly rapidly into a typical working class neighbourhood whose fate would ultimately lie in the success or failure of the two major industries located in the area. As for Riverview, growth in the early stages was slow with development taking place in only a few areas. It would continue to move slowly until the demise of River Park which then opened a fairly large subdivision on the banks of the Red River. From this period on, Riverview's growth rate outpaced that of Lord Roberts.

4.1.1 Lord Roberts: An Urban Geography

Lord Roberts occupies a fairly central position in the city of Winnipeg. It is located only a few kilometres from the core and is situated in the transitional zone between the inner city neighbourhoods of downtown and the newer suburban areas in the south. The layout of the neighbourhood is almost triangular in shape with the boundaries being easily recognizable (Fig.12). The most apparent of these boundaries is the CNR rail line in the west of the neighbourhood. The other striking boundaries are Osborne street, which separates the area from Riverview, and the Red River, which bounds the southern end of the neighbourhood. These features have played a prominent role not only in shaping the neighbourhood but also in creating an almost "wall like" border around the area. Of all these features, the rail line is the most imposing as it creates a physical barrier to Pembina highway. This is furthered by the position of the Winnipeg Transit garage that marks the northern edge of the neighbourhood. These markers not only create physical barriers but also mental barriers that work to produce a negative image of the area.

NEIGHBOURHOOD FEATURES OF LORD ROBERTS

A- PARK AREAS
B- RECREATION SITES
C- RAILROAD YARDS
D- TRANSIT GARAGES
E- EDUCATION
F- B.D.I. & BRIDGE TO ELM PARK

Figure Twelve   Source: *City of Winnipeg and Jino Distasio*

Movement into and out of the neighbourhood is regulated by the physical boundaries within the area. Osborne Street and Jubilee Avenue are the only entrance and exit points for the neighbourhood. In terms of internal movement, the street pattern permits basic car flows, with Morley being the central axis in the area. This is also the route for the Morley bus, which provides service to both neighbourhoods and connects the residents with both Osborne and Pembina highway. The street system in the neighbourhood varies in shape, with many streets requiring major upgrading. The street system also poses limitations on movement from Lord Roberts to Riverview as almost all the streets end at Osborne with the exception of the oldest streets in the area: Morley, Arnold and Brandon.

The zoning map of Lord Roberts (Fig.13A) shows that the neighbourhood is zoned mostly two family residents (R2). What is important to note from the map is that the edge of the neighbourhood is marked by light and heavy industrial zoning with the transit garage zoned as commercial. Osborne street is a mix of commercial and multiple family dwelling units. The multiple family units are made up of mostly three storey walk up apartments that vary substantially in both age and quality. The land use map of Lord Roberts (Fig. 13B) reinforces the mixed nature of the area with the neighbourhood displaying a fairly diverse land use pattern.

Most of the housing construction in Lord Roberts is high density single family. Blocks are quite long and contain between 16 and 27 dwelling units. Homes are of very similar style and sizes with units being built close to both the street and to each other. Building styles consist mostly of frame construction with the majority being

LORD ROBERTS

ZONING

C1 - LIMITED COMMERCIAL

C2 - COMMERCIAL

M1 - LIGHT INDUSTRIAL

M2 - LIGHT INDUSTRIAL

M3 - HEAVY INDUSTRIAL

R2 - TWO FAMILY

R3 - MULTIPLE FAMILY

R3B-ONE
R3B-FOUR
MULTIPLE FAMILY - PLANNED BUILDING GROUP
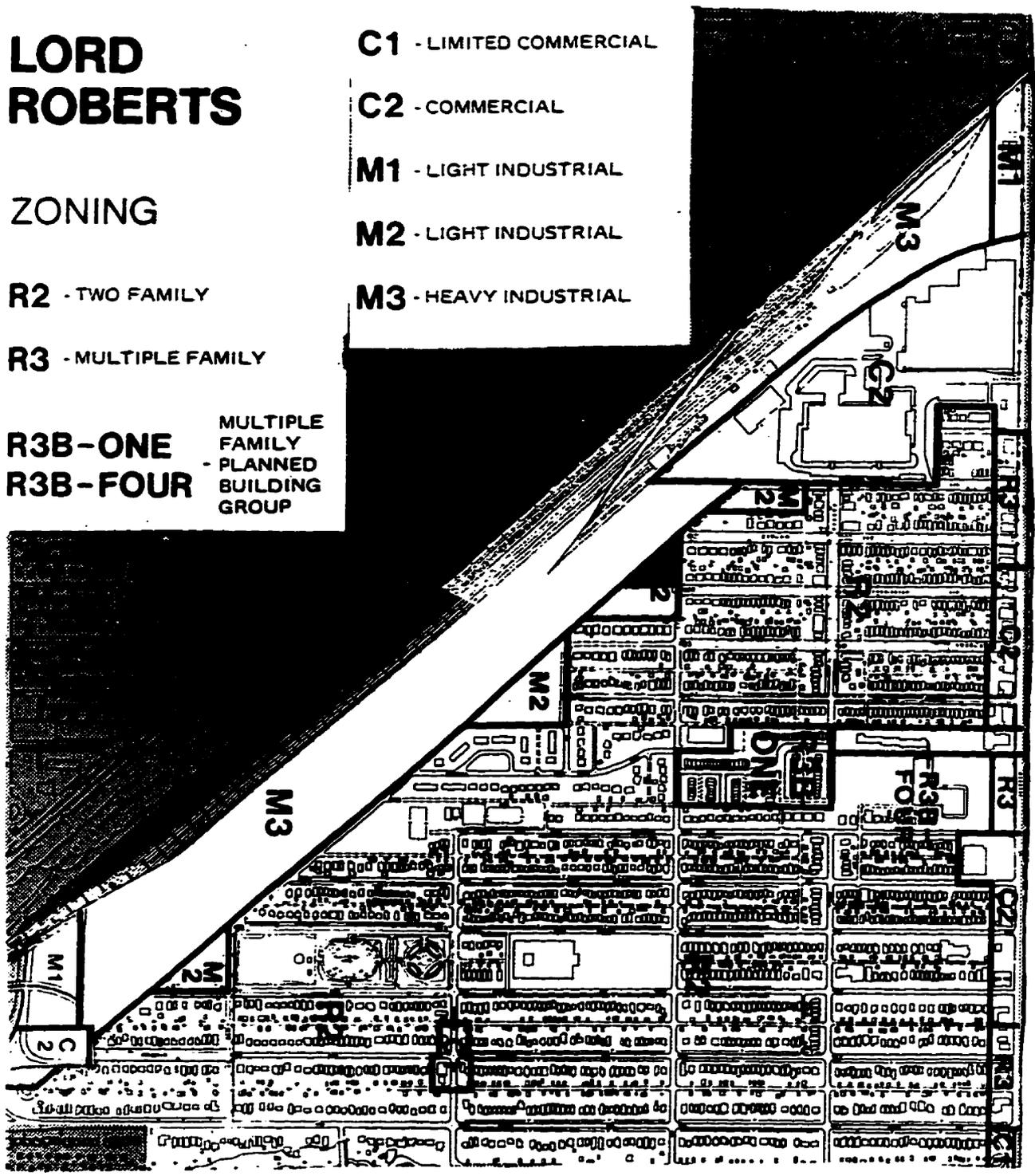
Figure Thirteen A   *Winnipeg Characterization Study*

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LORD ROBERTS

LAND USE

- ☐ LOW DENSITY DWELLINGS
- ■ MULTIPLE DWELLINGS
- ■ COMMERCIAL
- ■ PARKS & RECREATION
- ■ SCHOOLS
- ■ PUBLIC BUILDINGS
- ▨ INDUSTRIAL
- ■ PUBLIC UTILITIES
- ☐ VACANT LAND
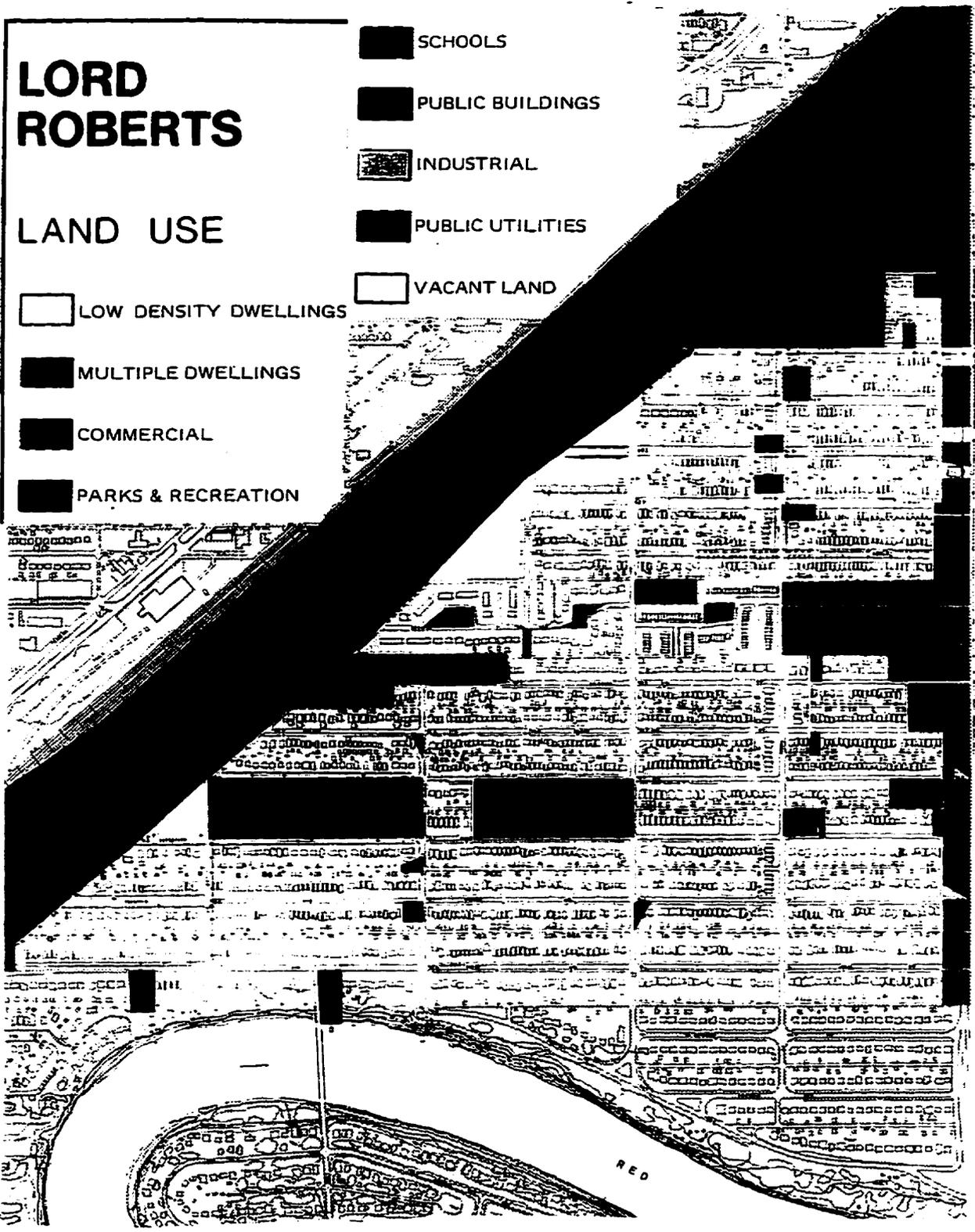
Figure Thirteen B   *Winnipeg Characterization Study.*

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relatively small two storey units. Tract building methods seemed to be the major factor in laying out much of Lord Roberts. Again the theory might be that the workers employed by the rail lines purchased homes in close proximity to work. The reason behind the high density make up of the area could be attributed to the fact that much of the employment was labour intensive and thus the average worker could afford only a modest home.

According to the 1991 Census of Canada, Lord Roberts had 2370 occupied private dwellings. Of this total 66% (1565) were owner occupied while 34% (810) were rental units. Further to this, 68% (1620) of the homes were single family detached units. In Lord Roberts, 48.9% (1160) of the homes were constructed before 1946, while another 27% (630) were built during the period of 1946-1960. Between the years of 1961-1991, 24.3% (580) of the neighbourhood homes were built. The conditions of the homes according to the census vary with 16.5% (390) requiring major repairs and 30% (710) needed only minor repairs. The rest of the units 54% (1275) were listed as regular maintenance only (Census Canada, 1995).

In 1978, the City of Winnipeg Planning Department undertook a massive exploration of Winnipeg neighbourhoods. The results were compiled into area characterizations that looked at the conditions of all the housing units. The results for Lord Roberts are shown in Figure Fourteen. It is clear that much of the housing is in the fair to poor classification with 55% being fair and 19% being poor. These two indicators meant that approximately 75% of the housing stock needed repairs. The conclusion of the Planning Department was:

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LORD
ROBERTS

CONDITION OF RESIDENTIAL BUILDINGS

GOOD · 25%

FAIR · 55%

POOR · 19%

VERY POOR · 1%
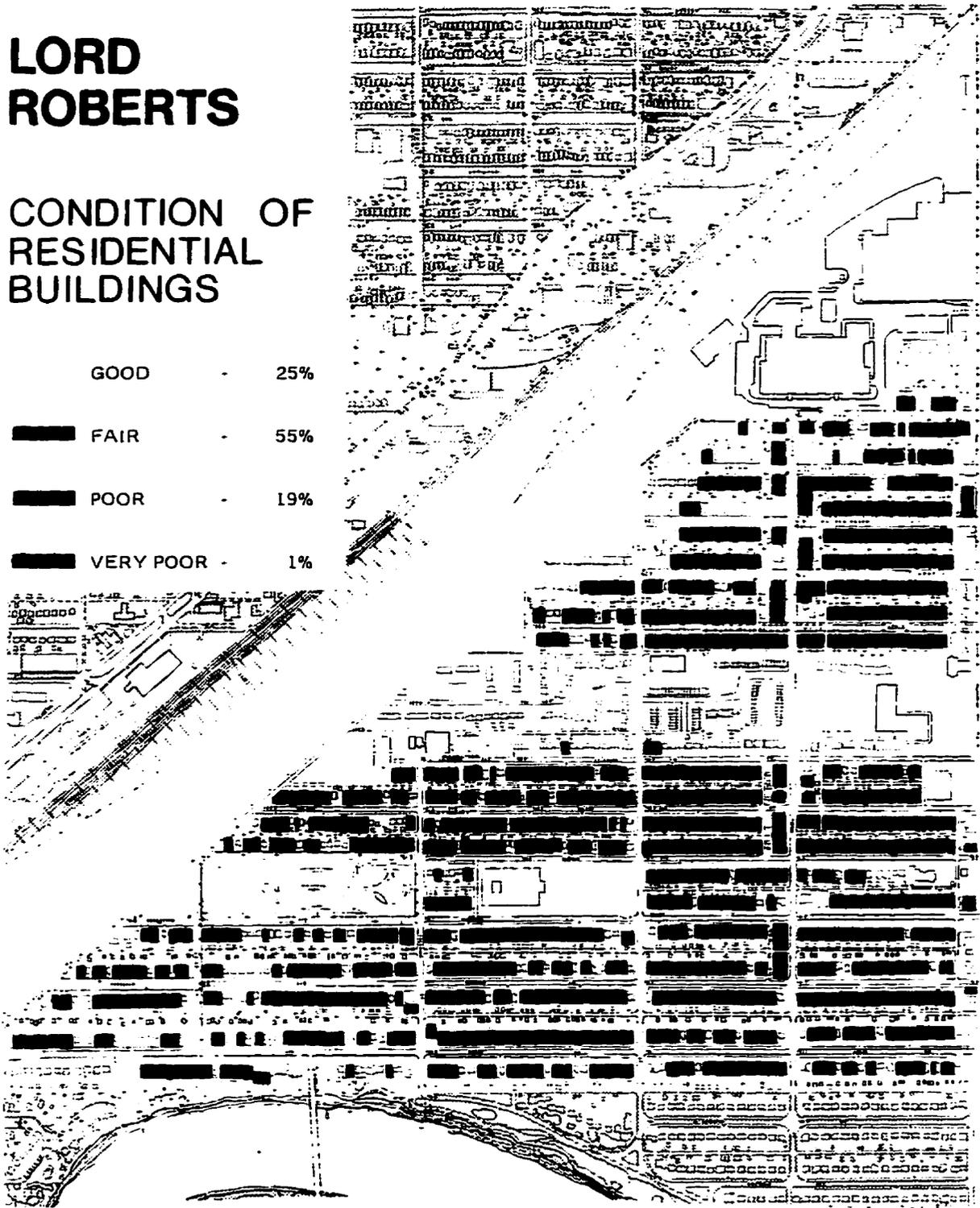
Figure Fourteen

Source: Winnipeg Area Characterization Study

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more than half the housing stock is classified as being in fair condition, requiring repairs beyond those provided during the course of regular maintenance. One-fifth of the housing in the Lord Roberts area is classified as being in poor condition and unless renovation is accomplished in the near future, these structures will deteriorate past the point of reasonable cost of rehabilitation (City of Winnipeg: 1978)

The results of the Winnipeg Area Characterization Study will be discussed in more detail in Chapter Five, which will chart the changes that have occurred over the last eighteen years. The purpose of this exercise will be to determine if the general conditions have remained the same, improved or worsened.

There are internal features of the neighbourhood that are important to the resident's image of the area. These features Include an elementary school, a community centre, neighbourhood parks and a number of churches. Some of these features are highlighted in Figure Twelve, which depicts some important neighbourhood landmarks. The layout of Lord Roberts and the inclusion of these internal landmarks coincides very closely with the Neighbourhood Unit theory of Perry. The population characteristics of the area are based on the most current Census material (1991). The population of Lord Roberts was 5547, which was down from the 1986 figure of 5905. The result was a net loss of 358 or -6.1%. During this period Winnipeg's population grew by 4.3%. In terms of employment, income levels and education, Lord Roberts had an 11.5% unemployment rate for both sexes. This was nearly 3% higher than the Winnipeg rate of 8.6%. The average income for census families was $40272, which was approximately $9300 less than the city average of $49619. Education levels varied in the neighbourhood with 12.5% of the population having high school degrees and 9.3% acquiring a University degree (Census Canada, 1995).

4.1.2 Riverview: An Urban Geography

Riverview lies nestled in the meandering banks of the Red River which provides the area with a natural boundary (Fig. 15). The only physical markers in the area are a light industrial zone located on the very edge of the northern sector, Osborne Street which separates the area from Lord Roberts and Riverview Health Centre (formerly the Municipal Hospitals), which is located on the banks of the Red River. The hospitals occupy a fairly large tract of land but do not intrude on the residents as the grounds of the complex are well treed, creating a visually pleasing green space that works as a buffer zone. The natural boundary of the Red River provides the neighbourhood with its most delightful area. This is the result of almost the entire river area being landscaped and treed into a pleasant park that includes trails, benches, playgrounds and even barbeque pits. The Churchill drive park also contains a boating club that is quite large and again, visually pleasing to the neighbourhood.

Movement in Riverview exhibits the same limitations as Lord Roberts with access into and out the area being regulated by Osborne Street and Jubilee Avenue. Internally the street pattern permits adequate vehicle flows on streets which are in fair condition. Transit service is supplied by the Morley bus that moves along Morley and Eccles and connects the residents with Osborne Street and Pembina Highway. Zoning in Riverview is mostly R1 with the exception of Osborne street and a small internal section (Fig. 16A). Along Osborne the zoning exhibits the same layout as Lord Roberts with mostly small shops and walk up apartments.

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NEIGHBOURHOOD FEATURES OF RIVERVIEW

A- PARK AREAS
B- RECREATION SITES
C- RIVERVIEW HEALTH CENTRE
D- BOATING CLUB
E- EDUCATION
F- MIXED INDUSTRY/NEW
RESIDENTIAL
G- CEMETARY

Figure Fifteen   *Source: City of Winnipeg and Jino Distasio.*

RIVERVIEW

ZONING

R1 — ONE FAMILY

R2 — TWO FAMILY

R3 — MULTIPLE FAMILY

C1 — LIMITED COMMERCIAL

C2 — COMMERCIAL

M1 — LIGHT INDUSTRIAL

M2 — LIGHT INDUSTRIAL

Figure Sixteen A

Winnipeg Characterization Study P.32

RIVERVIEW

LAND USE

- SCHOOLS
- PUBLIC BUILDINGS
- INDUSTRIAL
- PUBLIC UTILITIES
- AGRICULTURAL
- VACANT LAND
- LOW DENSITY DWELLINGS
- MULTIPLE DWELLINGS
- COMMERCIAL
- PARKS & RECREATION

Figure Sixteen B   *Winnipeg Characterization Study p.33*

69
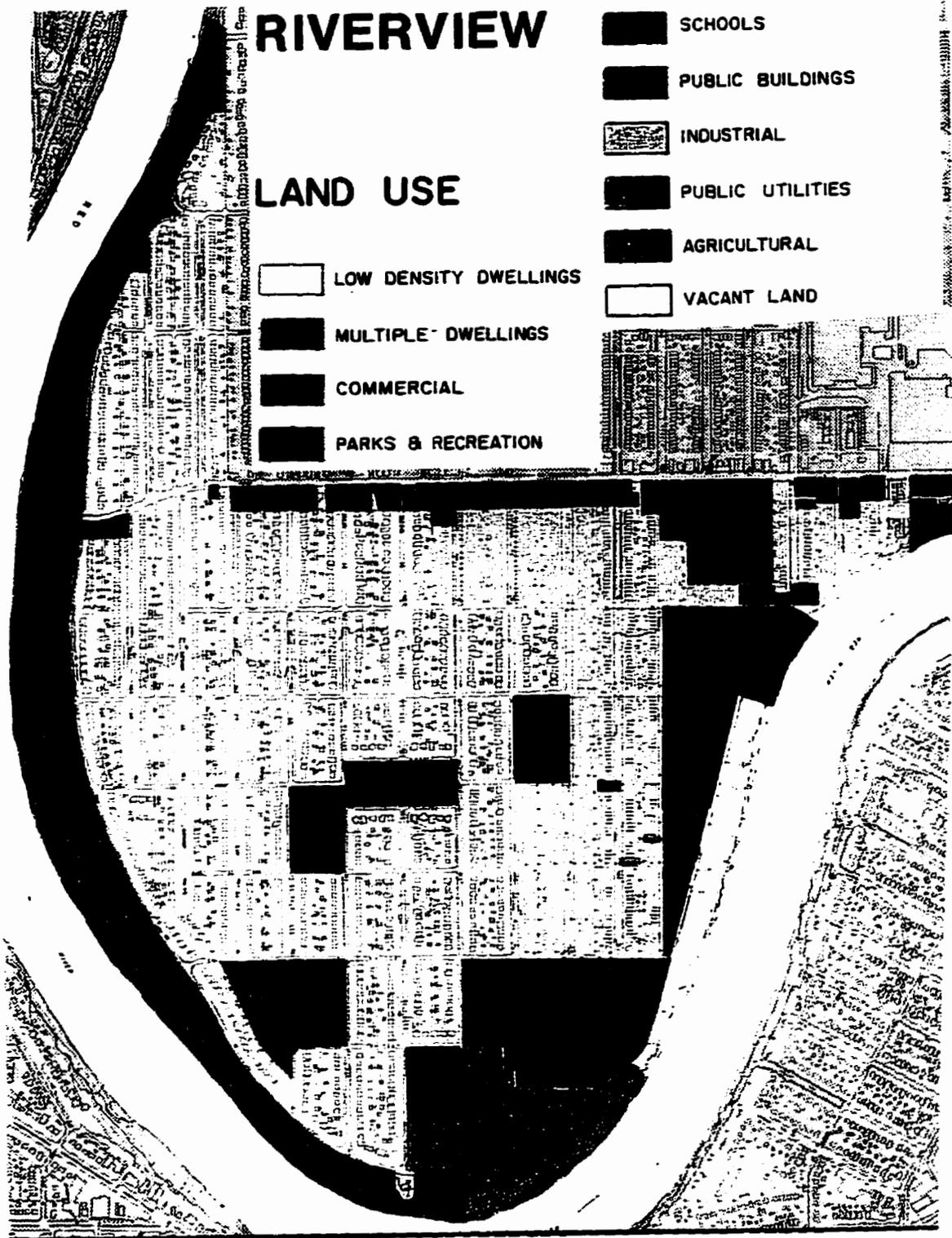
However, there are some differences on the Riverview side of the street. This is the result of some rather intensive redevelopment in the northern strip of Osborne Street. Although Figure. 16A shows a strip of M1 zoning in the northern area, this has been changed to R3, as three large condominium complexes have been added to the street scape in the last five years. The regions marked M2 zoning have also undergone some changes, with a portion of the older structures in the area being demolished. The only remaining industry is Tempro (an auto part manufacturer) and a small clothing manufacturer. The land use map of the area (Fig. 16B) exhibits many of the same characteristics as the zoning map. However, what is important to note is that the area has a fairly consistent land use pattern, with most activities being separated and placed appropriately.

Housing development in Riverview follows a basic grid pattern layout of streets that runs east-west from the river. The majority of blocks are small and contain between 10 and 12 units. Exceptions to this are the earliest streets in the area which are Morley, Arnold and Brandon. These streets contain higher densities of 20-24 units per block with lots that are small. Dwelling units alnog these higher density areas have little frontage space. The building styles throughout the higher density streets are basic frame construction with many dwelling units exhibiting very similar styles and sizes. Moving south of Morley, the lots begin to increase in size. In this section of Riverview, both the homes and lots are much larger with many dwellings being constructed of brick and brick veneer. Here the homes are set back from the street and construction styles and sizes vary quite substantially from quite modest to grand.

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According to the 1991 Census of Canada, Riverview had 1795 occupied private dwellings. Of this total, 70% (1245) were owner occupied while 30% (550) were rental units. Further to this, 73% (1300) units were single family detached. In Riverview, 42.5% (765) of the homes were constructed before 1946 while another 42% (755) were built during the period between 1946 and 1960. This period of time coincides with the subdivision of the River Park area and accounts for the high level of construction. Only 15.3% (275) of the neighbourhood homes were built between 1961 and 1991. The conditions of the homes according to the census vary with 14% (250) requiring major repairs and 30% (525) needed only minor repairs. The rest of the units 56% (765) were listed as regular maintenance only. (Census Canada, 1995).

In comparison to the Winnipeg Characterization study conducted in 1978 by the City of Winnipeg (Fig. 17), 65% of the dwelling units were classified as being in good condition while 31% rated as fair and the remaining 4% rated as poor. Again, the conditions of 1978 will be discussed in the next chapter which will attempt to chart the changes that have taken place in the last eighteen years.

Considering the internal landmarks in Riverview, one must include the aforementioned Churchill Drive Park, which encircles almost the entire neighbourhood, and Riverview Health Centre, which occupies a fairly large tract of land. The Riverview Community Club is also a major feature of the area as is Churchill High School. The park system, which includes the previously noted boating club, provides Riverview with many aesthetically pleasing amenities which enhance the quality of life of the residents.

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RIVERVIEW

GOOD – 65%

FAIR – 31%

POOR – 4%

VERY POOR

CONDITION OF
RESIDENTIAL
BUILDINGS
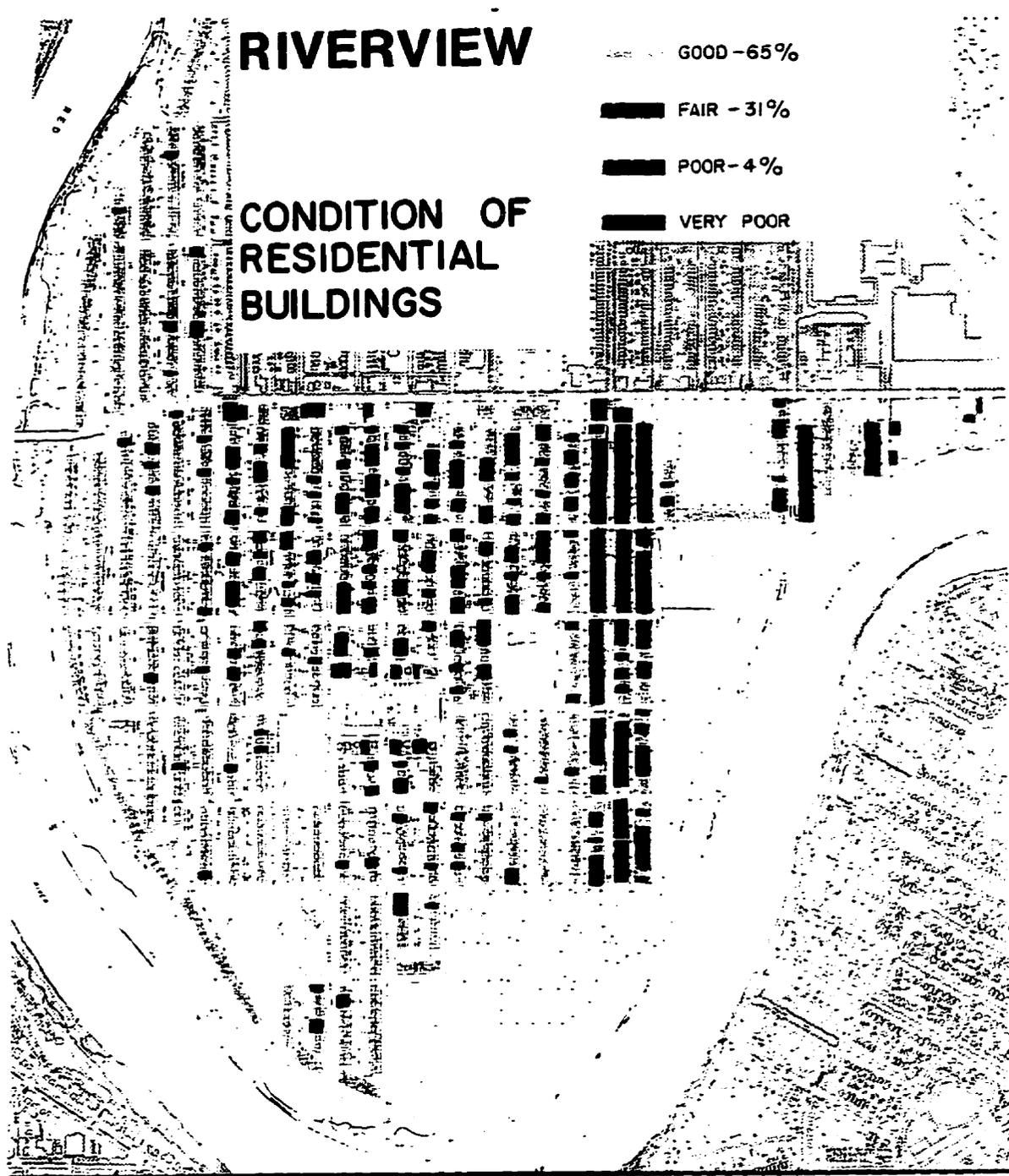
Figure Seventeen   *Source: Winnipeg Area Characterization Study P34*

The population characteristics of Riverview are based on 1991 Census material. The population of Riverview was 4256, which was up from the 1986 level of 4209. The result was a net gain of 47 or +1.1%. During this same period the Winnipeg population grew by 4.3%. The mobility rate in the neighbourhood was 13.5% of movers leaving the area.

In terms of employment, income levels and education, Riverview had an 8% unemployment rate for both sexes. This was .6% lower than the Winnipeg rate of 8.6%. The average income for census families was $49860 which was approximately $240 more than the city average of $49619. Education levels vary in the neighbourhood, with 11.6% of the population having completed high school and 22.76% acquiring a University degree.

4.2 Commercial Development along Osborne

Riverview and Lord Roberts are separated by what many geographers would call a "mental boundary" or an "edge" as Lynch might call it. This feature is Osborne Street, a four lane, thoroughfare between the two neighbourhoods that has served as the separating wall. It is also along Osborne Street that the trolley line located and subsequently where commercial development in the area took place. Apparently, there was only limited commercial development along Osborne Street before 1910[2]. The Western Canada Fire Underwriters' Association maps, dated from 1917, showed some early development in the area. This took the form of only five

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[2]

The level of commercial development was complied by searching the Henderson's directory of Winnipeg from 1905- 1995. The accuracy of this data source may be limited, however, it still provides a general description of the level of commercial development that occurred on the street during the last century.

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apartments and a few scattered stores while 97 vacant lots were surveyed and ready for construction[3]. Figure 16A shows the extent of the commercial district on Osborne Street. Although the map is a more current zoning plan, the extent of the commercial district remains the same. The only real differences are the classifications of residential and industrial areas. The commercial strip runs from the CNR underpass at Jessie and Osborne to the intersection of Jubilee and Osborne..

From 1915 onwards, the bulk of development took place along Osborne Street, with the intersections of Morley, Arnold and Walker Avenues being the most intensely developed. The intersection of Morley and Osborne was a stop on the trolley line and the location of two large apartment blocks. This area is also the junction of the old rail barns and the connecting road to the Winnipeg Municipal Hospital Complex on the Riverview side and the CPR and the trolley barns at the opposite end. The block by block increases in commercial activity are listed in appendix A. A five year interval was used to illustrate the development pattern along Osborne Street (Fig.18). A varied stage of development is clearly marked through the many periods of growth and decline over the ninety year period. Some of the notable changes that have occurred in the commercial area are the loss of many services that once flourished, such as shoe repair shops and jewellers. The numbers of small food stores, barbers and cleaners has also decreased along the street.

3

The use of the Canadian Fire Underwriters' Association maps which were dated 1917, provided a supplementary source of information that contributed accurate descriptions of the buildings located on the street. The maps also included information on the types of material used as well as the size and shape of the dwelling (both residential and commercial). The maps also detailed the dimensions and numbers of vacant lots. Due to the size of the maps and their location in the Manitoba Archives, duplication proved to be too expensive and rather difficult.

Figure 18

The loss of these and other services can be attributed to the larger forces that have shaped the modern city such as the increase in the importance of downtown shopping and more recently the emergence of the suburban mall as a major attraction for residents from all parts of the city. Data for the services were also collected by type of services and are listed in appendix B.

4.3 Census Data Analysis of the Neighbourhoods

The collection of census data for both neighbourhoods was accumulated in a number of different categories which are highlighted in Appendix C. The data were subsequently broken down into graphic form to chart the changes in the two neighbourhoods over time, and where possible compare them to the Winnipeg average. The period reviewed was 1951 to 1991. This provided a suitable forty year window in which to examine change.

The breakdown of male/female median income for the two areas has been

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compiled and compared with the Winnipeg average over the same time It is clear that the Lord Roberts average has consistently been lower than that of Riverview and Winnipeg as a whole (Fig. 19). In contrast, the Riverview average has been slightly higher. According to the most current 1991 census data, the Riverview total combined male/female median income was $40529 which was $4150 (10%) more than Lord Roberts and $2282 (5.5%) more than the Winnipeg average. In looking further at figure nineteen, during the early years of this period, the neighbourhoods (1951-71) showed a remarkably similar level of income from all three variables. However, since 1971, the gap between the two neighbourhoods has widen while at the same time the Winnipeg average remained consistently close with Riverview through the last ten years (1981-91)[4].

The level of occupied dwellings and the number of single detached units in both neighbourhoods have been charted (Figs.20,21). The data indicates that although Lord Roberts has more total units, the numbers have remained slightly more consistent in Riverview. The total change in owner occupied dwellings in Riverview increased from 1239 units in 1951 to 1790 in 1991, an addition of 551 units over the 40 year period. For Lord Roberts the change was an addition of 454 units over the same time period. Lord Roberts and Riverview have increased at approximately the same rate resulting in both remaining somewhat stable in the number of dwelling units. This can be attributed to the fact that by 1951, both neighbourhoods were almost completely subdivided and all the lots were in use.

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4 It should be noted that the male/female median income variable was selected because it is the only income indicator that has been used from 1951 through to 1991.

Another important factor is the value of the units in the area in relation to the city (Fig.22). Again, what is evident is the fact that Lord Roberts has consistently remained below the averages of both Riverview and the City as a whole. The current data show that the average home in Lord Roberts was valued at $64150 in 1991, which was $32856 or 34% less than the Winnipeg average of $97006. The Riverview average home value was $7395 (7.5%) dollars less than the city average but $25461 or 28% higher in value than Lord Roberts.

In terms of the owner/renter levels in the two neighbourhoods, both areas have shown some consistency. The only main fluctuation is in the renter levels in Lord Roberts, which increased sharply between 1961 and 1976 (Fig. 23). The most recent trend indicates a levelling off in this rise. In 1991, the owner/renter levels in Lord Roberts were 66% owner and 34% renter. This total is similar to Riverview which was only slightly higher with 70% owners and 30% renter.

Population levels in area peaked around the mid 1960's then began to decline somewhat. For Riverview the current population is approximately 100 persons less than its 1951 level. For Lord Roberts, the change has been more with a net loss of nearly 750 from the 1951 census levels (Fig. 24).

Med Income Male/Female

Figure 19

Occupied Dwellings
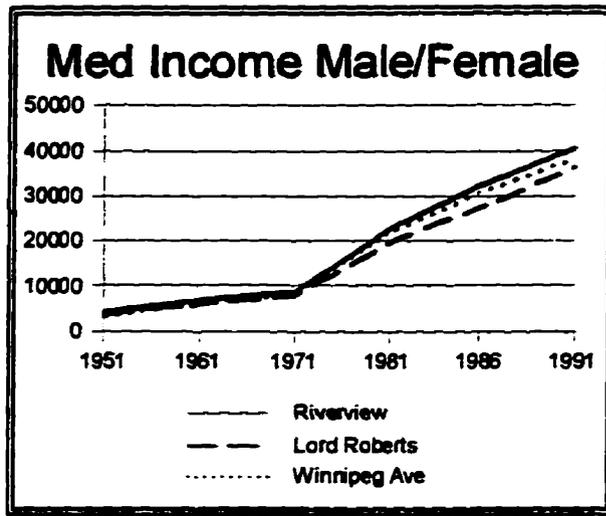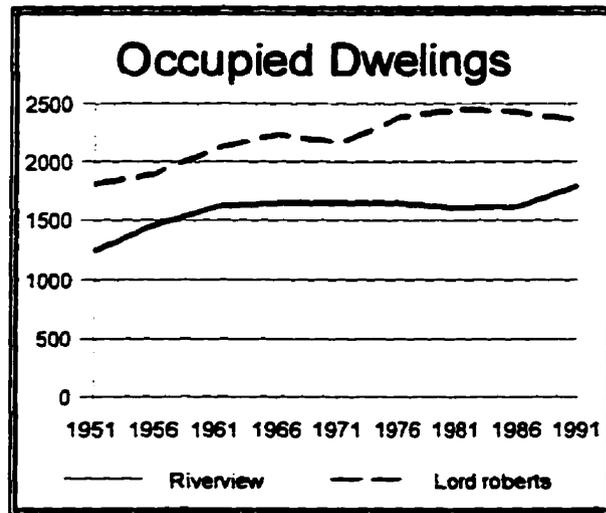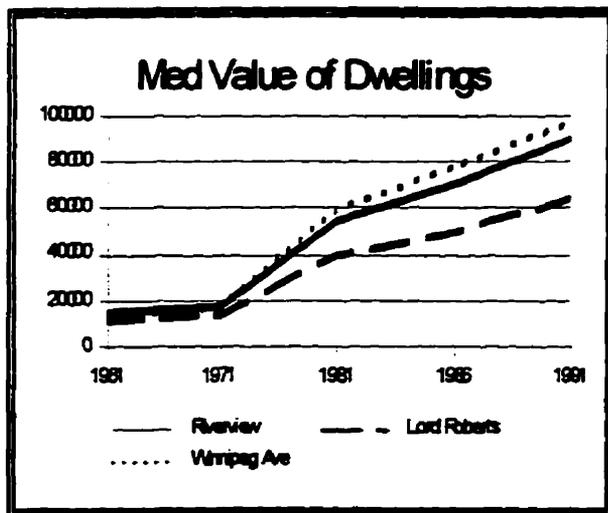
Figure 20

Figure 21

Figure 22
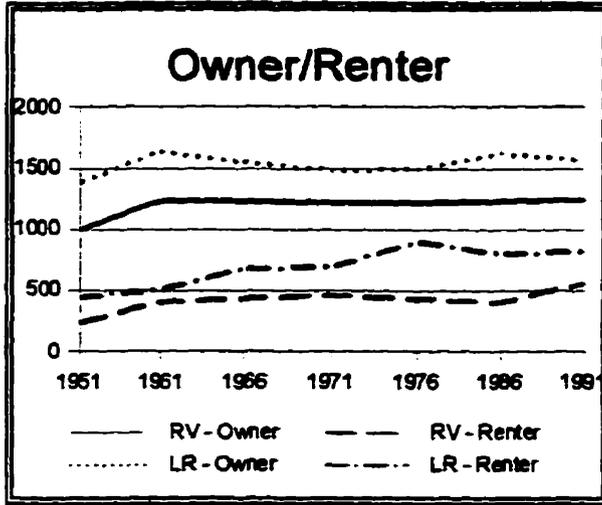
Figure 23
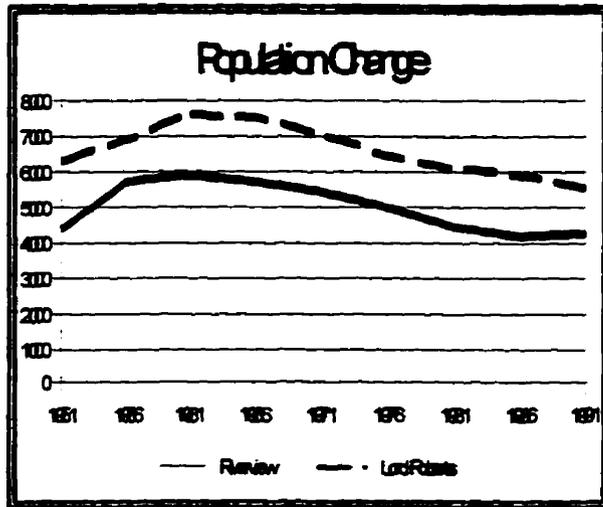
Figure 24

Figure 25, examines the rooms per dwelling and persons per room. These are good indicators of both crowding and density in each neighbourhood. In looking at the figure, it seems to display that persons per households have steadily decreased in both neighbourhoods.
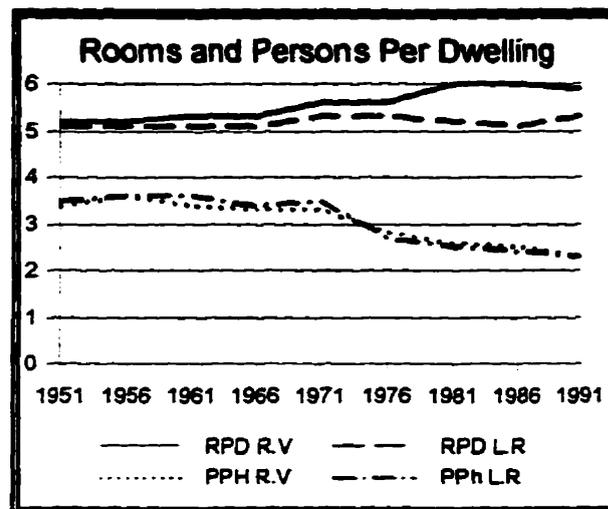
Figure 25

This signals an aging of the population mixed with the exodus of children from the homes of their parents. The rooms per dwelling variable demonstrates that the size of homes has been slightly larger in Riverview over the forty year period. This can be supplemented by the fact that the lot sizes and the actual size of dwellings in Riverview are somewhat larger with less dense residential streets than Lord Roberts.

4.4 Summary

The goal of this chapter has been to outline the major indicators of change and evolution in each neighbourhood. This was achieved by first exploring the historical development of the general area and explaining the basic urban geography

of each neighbourhood. The prominent role that transportation has played in the early development of the neighbourhoods has also been investigated.

The subsequent overview of Census Canada material has demonstrated that many changes have taken place over the last few decades. This includes population changes, changes to the structures of the household as well as income shifts. When compared with the rest of the city, Riverview has more closely matched to the Winnipeg average while Lord Roberts fell from just under Winnipeg's average, to substantially below it in the value of dwellings. The use of the census data also supplied another window from to view the evolution of each neighbourhood. This material will be referred to in the final chapters, which seek to define some of the key evolutionary differences in each neighbourhood.

Chapter Five

Housing Evaluations and Neighbourhood Survey Analysis

5.0 Introduction

The purpose of this chapter is to consider the findings from two research exercises that were conducted in Riverview and Lord Roberts. First, an exploration into the condition of housing was conducted through the physical inspection of 3154 units. The evaluation of dwelling units was employed in order to measure the change that has occurred since the City of Winnipeg last completed a similar undertaking in 1978. This eighteen year window provided a excellent opportunity to measure the level of change that has taken place in these neighbourhoods. Section two of this chapter attempts to determine, through a neighbourhood survey, the residents' perceptions of both neighbourhoods. The survey also delves into specific components of neighbourhoods, such as: housing, services, amenities and neighbourhood interaction. These sections will ultimately lead to answering the first two research questions.

5.1 Methodology for the Housing Evaluation

Over an eight week period, all the residential dwelling units in both neighbourhoods (3154) were physically evaluated in order to measure the change that has occurred since 1978. It was at that time the City of Winnipeg Environmental Planning Department embarked on an ambitious evaluation of all city neighbourhoods. In order to ensure that consistent methods of data collection and analysis were utilized, the department and the 1978 survey material were extensively

consulted prior to commencing the survey.

The methodology used to evaluate the dwelling units was obtained by the City of Winnipeg and is listed in Appendix D. The evaluations were conducted by physically examining each dwelling based on the requirements detailed in the guidelines. The categories used to rank each dwelling unit were Good, Fair, Poor and Very Poor. The physical evaluation consisted of a site inspection of each unit's exterior condition taking into account basic structural deficiencies, rotted or leaking windows, cracks in the sidewalks or stairs and the general condition of the roof and chimney. The severity and the number of deficiencies were combined in order to rate the unit against the guidelines.

The limitations of these data are that the accuracy between the two surveys was kept as consistent as possible but in the end it is the individual researcher who is forced to make a judgement call on the condition of the building. It should be noted that using the guidelines established by the City proved to be flawed in differentiating homes within certain categories, especially those considered Fair. This was because many of the structures within the Fair category varied substantially and the investigator should have been given the latitude to list a home as "good fair" and "poor fair". Allowing for this latitude would have resulted in a more accurate picture of the neighbourhood as many homes that had to be listed in Fair condition were well kept and on the verge of being considered Good except for their age or a few minor problems. However, there were also homes that were on the cusp of being considered Poor but according to the guidelines had to be listed as Fair.

A second limitation of the data collected is that the boundaries used to denote

each neighbourhood vary. In the 1978 survey, The City of Winnipeg changed the neighbourhood boundaries from the census tract. To ensure that the comparison is as accurate as possible the data were categorised using both boundaries. However, all subsequent and previous analysis in this thesis incorporates the use of the census tract boundaries.

Along with the four rankings used in the initial survey, one additional category has been included. This is "Recent Upgrade" and it was incorporated to estimate the level of recent upgrade work completed in each neighbourhood. Included are major renovations such as additions to the structure, extensive exterior work including new siding and windows, new stucco work and a general improvement in the unit. It must be stated that some structures were extensively renovated but failed to be listed in the Good category because there were remaining deficiencies in the unit: for example, the roof required replacement or the stairs and sidewalks were in disrepair. As a result the Recent Upgrade category was broken into three sections:

1) **Good Upgraded.** This included homes that were considered good by the standards set out by the City and to which additional improvements had been made by the owner.

2) **Fair Upgraded.** Homes that had received renovations but still failed to meet the all the requirements for a Good category.

3) **Infill.** New homes that have replaced the previous structure.

5.2 Data Analysis from Evaluations: An Overview.

The results of the 1978 survey were introduced at the end of Chapter Four

(Figs. 14 & 17) and they have been summarized along with the findings of the 1996 evaluation (Table 1). As noted at the outset of this chapter, the fact that the City used slightly different boundaries has been incorporated by listing the results from both measures. The differences in the results proved to be only slight but still important enough to outline. This was most evident in Lord Roberts, which accounted for an almost 4% change in the Good and Fair categories. The general outcome of the evaluation indicated a modest improvement in Riverview, while Lord Roberts experienced drastic changes within the Fair and Poor categories. This was marked by a 22% increase in the number of units classified as Fair along with a 14% decrease in the number of units considered Poor.

Table 1. Summary of Evaluation Results

Area	Condition	1976	1996[A] percent & unit total City Boundary	1996[B] percent & unit total Census Boundary	%change [A]	%change [B]
Riverview	good	65%	75.4% (1121)	75.6% (1019)	+10.6%	+10.3%
	fair	31%	23.4% (348)	22.8% (306)	-7.9%	-8%
	poor	4%	1.1% (17)	1.2% (17)	-2.9%	-2.8%
	very poor	<1%	0.1% (2)	0.1% (2)	-0.9%	-0.9%
[A] 1488 [B] 1344 total:						
Lord Roberts	good	25%	17.1% (283)	21.5% (368)	-7.9%	-3.5%
	fair	55%	77.1% (1285)	73.2% (1324)	+22.1%	+18.2%
	poor	19%	5.6% (94)	5.2% (94)	-13.4%	-13.8%
	very poor	1%	.2% (4)	.2% (4)	+0.1%	+0.1%
[A] 1666 [B] 1810 total:						

The results of the housing evaluations have also been mapped (Figs. 26A, 26B). These two figures clearly show the patterns of housing types in each neighbourhood. What is important to note is that the spatial dispersion of the dwelling unit conditions

is most apparent in Riverview which has a high degree of homes in the Good category. Also, what becomes obvious is the pattern of homes classified as being in Fair condition. For Riverview, Morley and Arnold Avenue stand out as the two streets that contain the bulk of homes not only in the Fair category but also homes rated as Poor. As for recent upgrade activity, again, there is no detectable spatial pattern that exists in either neighbourhood.

Looking at Lord Roberts specifically (Fig. 26B) it appears that there are no patterns of types of homes except for the area in the southwestern corner of the neighbourhood that highlights a high degree of homes in the Good category. This area of the neighbourhood is close to the riverbank park and is also the area considered to be in Riverview by the Planning Department. The recent upgrade indicators do not have a pattern of concentration in any specific portion of the neighbourhood. The main difference between the areas is that the majority of homes denoted as 'upgraded' fall into the 'Fair Upgraded' category.

In order to fully appreciate the nature of change and the spatial patterns that exist in each neighbourhood, it is important to first understand the physical structure of the different types of housing in each area. The average style and size of homes in Riverview and Lord Roberts vary quite substantially (Figs. 27-30). These four homes all exhibit different styles and sizes and each represents a slightly different time of construction. In Lord Roberts, the inclusion of many multi-family zoning pockets is evident in the land use map (Fig. 13A). This type of housing (Figs. 31, 32) details two different styles and areas of multi-family zoning in Lord Roberts. Homes listed in the Fair, Poor and Very Poor categories are also exhibited (Figs. 33-36).

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RIVERVIEW

GOOD		VERY POOR	
FAIR		INFILL UNIT	
POOR		UPGRADED	
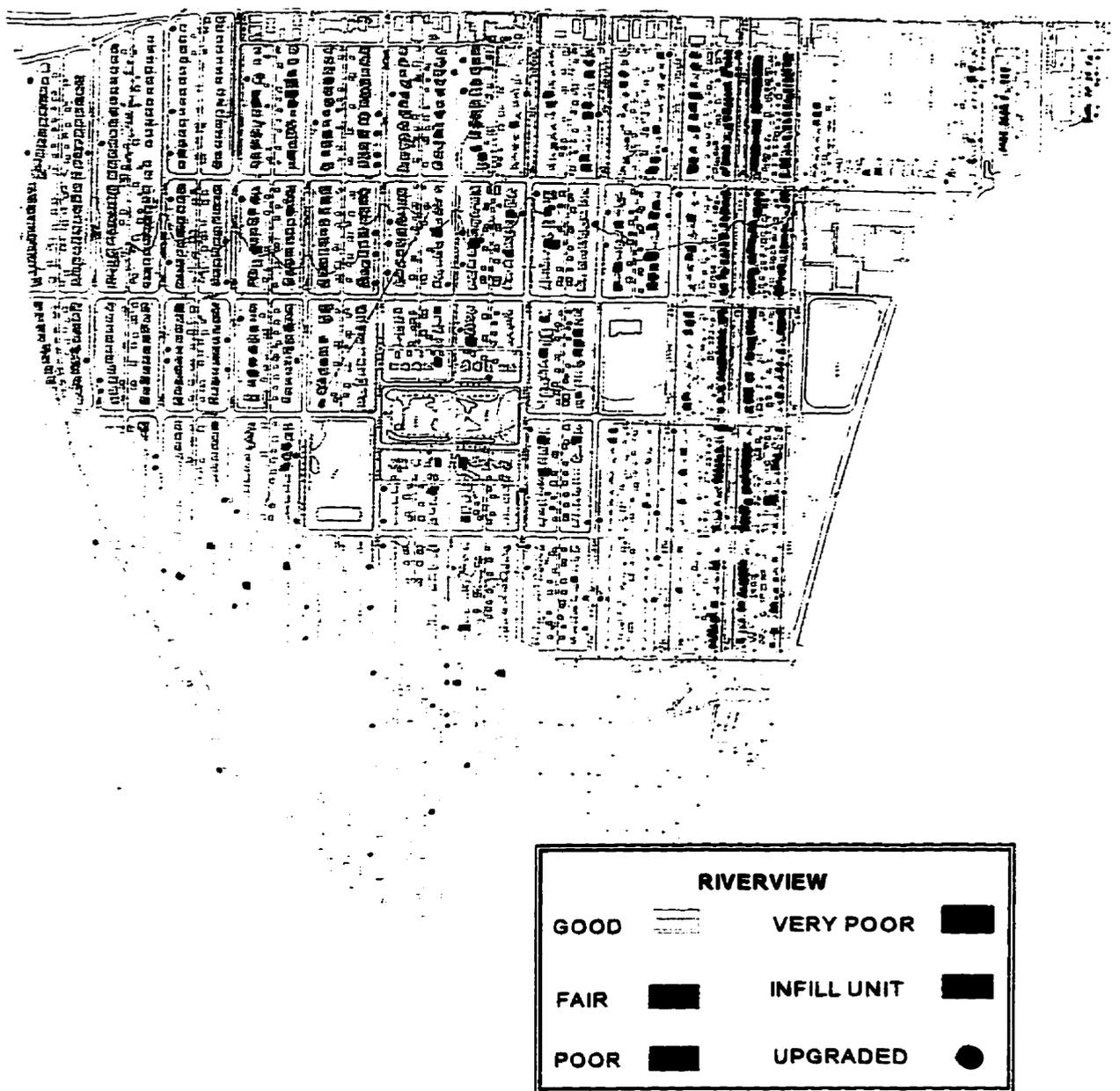
Figure Twenty-six (A)   Source: Jino Distasio

Figure Twenty-six (B)   Source: Jino Distasio

LORD ROBERTS			
GOOD		VERY POOR	
FAIR		INFILL UNIT	
POOR		UPGRADED	●

Figure Twenty-seven (top). Figure Twenty-eight (Bottom) Examples of Two Average Homes

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Figure Twenty-nine (Top). Figure Thirty (Bottom). Two Average Older Homes

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Figure Thirty-one (Top). Figure Thirty-two (Bottom). Multi-Family Units in Lord Roberts
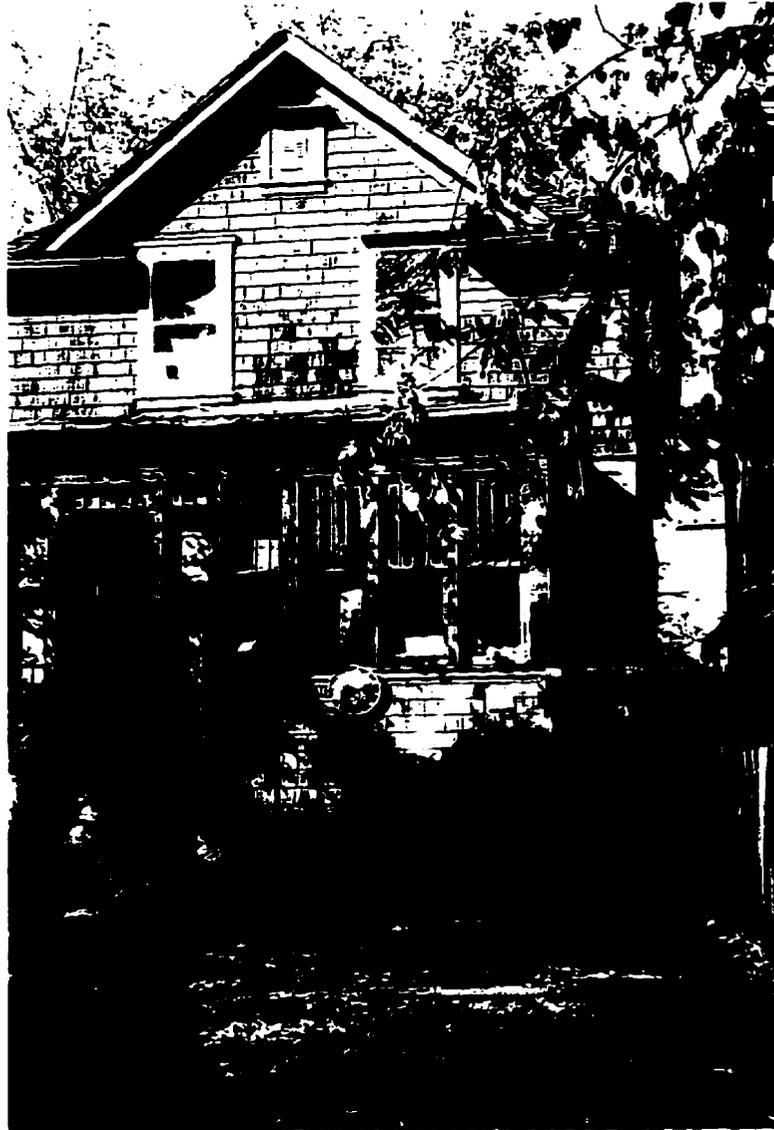
Figure Thirty-three. Home in Very Poor Condition (Lord Roberts)

Figure Thirty-four. Home in Poor Condition (Riverview)

Figure Thirty-five. Home in Fair Condition (Riverview)

Figure Thirty-six. Home in Fair Condition (Lord Roberts)

Considering the damage to the home in Figure 33, it is easy to see how it ranked as Very Poor with crumbling stairs, rotted porch, windows, roof and eaves and a foundation out of plumb. Given the severity of damage to this home, it would not be possible to repair it without an enormous amount of money. The only feasible solution would be demolition, however, for many homeowners and landlords, this is not a viable economic proposition. Homes that are considered Poor (Fig.34) exhibit slightly less severe damage, yet in looking at the larger home, it is clear that the porch is rotted and the roof is sagging and out of plumb all of which merits this home a Poor ranking. The final two homes in this series (Figs. 35 & 36) are examples of homes that are on the cusp of being classified as Poor but according to the guidelines had to be listed as Fair.

The final set of examples (Figs. 37-40) details different levels of renovation and complete replacement of homes. The first of these examples is from Lord Roberts (Fig.37) and the second from Riverview (Fig. 38). Both show two common renovation projects. The first is a basic roof replacement with the stucco and windows being upgraded (Fig.37) while the second included door and eaves replacement along with the installation of vinyl siding (Fig.38). A third example of renovation (Fig.39) is a more extensive project and included a complete second storey addition to the home. The last two examples, both in Riverview, are replacement homes (Figs. 40 & 41). It could not be established what the condition of the prior homes was but it is probably reasonable to assume they were in poor condition.

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Figure Thirty-seven. Renovated Home (Lord Roberts)

Figure Thirty-eight Renovated Home (Riverview)

Figure Thirty-nine(Top) Upgraded Home in Riverview. **Figure Forty (Bottom)** Infill Home in Riverview

5.2.1 Riverview

The 1996 census tract of Riverview in contained 1344 dwelling units which were evaluated over an eight week period. Overall, Riverview showed an improvement in the condition of the dwellings between 1978 and 1996 with this being most evident in the number of homes listed as Good. The bulk of this increase, ten percent (from 65% - 75.6%), was mainly due to new housing construction and the improvement of units previously considered Fair. The Fair category decreased 8%, from 31% in 1978 to 23% in 1996. The remaining categories (Poor and Very Poor) changed only slightly (-2.8% for Poor and a negligible change for Very Poor) with just seventeen of the 1344 homes in Poor condition. The reductions in the Poor and Very Poor categories can probably be attributed to extensive owner upgrading or demolition of homes for new infill units.

In general, Riverview's housing stock appears to be quite stable with two thirds (1019) of the homes being considered in the Good category. The Fair category, which contained 309 units, made up most of the other 25%. The location of the majority of the homes listed as Fair and Poor were concentrated in the oldest streets in the area, Morley, Arnold and Brandon Avenue. Of these, Morley contained the highest number with 137 listed as Fair and 10 of the 17 units listed as Poor. The street by street breakdown of the homes for both neighbourhoods is contained in Appendix E.

5.2.2 Lord Roberts

Lord Roberts had 1810 dwelling units which were evaluated during the same

eight week period as Riverview. From 1978 to the 1996 evaluations, Lord Roberts experienced only a slight change in the number of units listed as Good (-3.5%). The biggest changes for Lord Roberts occurred in the Fair category, which went from 55% in 1978, to 73% in 1996. The positive outcome of this change is the fact that the Poor category decreased from 19% to only 5.2%. This 14% improvement is quite substantial, thus showing that there has been activity in both incumbent upgrading and the replacement of poor homes with new infill units. Generally speaking, the change for Lord Roberts has been somewhat positive given the fact that the Poor category has declined so drastically over the eighteen year period. Even when taking into account the two different boundaries, the differences in the Poor category show extremely similar percents (5.6 and 5.2%) respectively.

The condition of housing in Lord Roberts is essentially the opposite of Riverview, with nearly two thirds of the homes listed as Fair (1324) and only twenty percent (388) being listed as Good. Using the City of Winnipeg boundary, the results worsen by nearly four percent in both categories. Another important fact to consider is that there are nearly 100 units deemed to be in the Poor category. Unlike Riverview, there is no concentration of the Fair or Poor homes. However, when considering the homes in the Good category, the highest concentration is in the area that occupies the river front of Churchill Drive and the nearby streets of McNaughton and Montague.

5.3 Comparison of Recent Upgrades

Both Lord Roberts and Riverview have exhibited a high degree of owner

upgrading of residential dwelling units. The results are summarized and indicate the level of upgrading by the three categories outlined at the outset of this chapter (Table 2).

Table 2. Levels of upgrading in each neighbourhood by type					
Riverview	Good Upgraded	104	Lord Roberts	Good Upgraded	21
total: 131	Fair Upgraded	14	total: 121	Fair Upgraded	85
	Infill Unit	13		Infill Unit	15

The results are also categorized by streets and are listed in Appendix E. The findings from the study proved to be quite similar with respect to total homes renovated with Lord Roberts at 121 or 6.7% of all homes and Riverview at 131 upgraded or 9.75% of total homes. Again the trend seems to follow along the same path as the rankings with the majority of homes in Riverview being evaluated at the "Good Upgrade" while Lord Roberts exhibited a very high number of "Fair Upgraded" homes. As for the number of infill units, both neighbourhoods had almost equal numbers with Riverview at thirteen and Lord Roberts fifteen. The style and type of infill housing varied in both neighbourhoods with the majority of units in Lord Roberts being two family style while Riverview seemed to show a high degree of larger, single family detached homes.

5.4 RESEARCH QUESTION ONE

As stated in chapter one, the ultimate goal of this thesis is to answer the three research questions that were outlined. Thus far, the material examined in this chapter has attempted to shed light on the first of these questions by examining the

condition of the housing stock in both areas and measuring the change that has taken place since 1978;

> ### Research Question 1
> What changes have taken place over the last eighteen years in terms of housing conditions and has there been a detectable improvement or decline in either neighbourhoods?

The data collected indicate that there has been a high degree of change over the eighteen year period. This has been highlighted by the improvement of the housing stock in Riverview, with a 10% increase in the number of homes being considered in the Good category. As for Lord Roberts, the change has been more significant in terms of the rise in the homes listed as Fair, with a 22% increase. More importantly for Lord Roberts is the 14% decrease in the number units considered to be Poor. This is a substantial reduction, and again indicates that upgrading activity in the area has taken place.

In general then, there has been upgrading activity in both neighbourhoods within the categories outlined by the City and also within the "Upgrade" category put forth in this thesis. Again, both neighbourhoods, showed activity in this form, with a combined improvement of 250 units in both areas. Breaking this down, it was shown that Riverview's activity was highly concentrated in the "Good Upgrade" category, with 104, units while Lord Roberts focused on the "Fair Upgrade", with 85 units. Taking into account the results, Riverview, did show a higher level of improvement in the Upgrade category, with a 9.75% improvement rate for all homes while Lord Roberts came in at just under 7% of neighbourhood homes.

Whether or not there has been a detectable improvement in either neighbourhood is difficult to assess accurately. However, when taking into account all the material outlined in this chapter it seems clear that there has been a significant level of improvement in Lord Roberts with the 14% reduction in the Poor category. This along with a nearly 7% improvement in the overall housing stock, leads to the conclusion that there has been a detectable improvement. Whether the 22% increase in the Fair category in Lord Roberts detracts from this is not clearly understood.

Riverview also shows evidence of improvement with a 9.75% housing stock upgrade level and a meaningful shift in the number of units listed Good. In Riverview, as opposed to Lord Roberts, there is a detectable level of concentration of homes that are listed as Poor and Fair. This is illustrated by zooming in on Morley and Arnold Avenues which exhibited the highest concentration of homes in these two categories. Aside from this problem zone, the majority of Riverview's housing stock shows improvement.

5.5 Introduction to the Survey

The use of survey material has been included in this thesis in order to gauge the perceptions of the residents, not only about their own neighbourhood but also their neighbours' across Osborne Street. The survey questionnaire is reproduced in Appendix F. The structure of the survey was developed with the goal of examining many different aspects of neighbourhood life including: knowledge neighbourhood boundaries; understanding basic interaction levels within the area; rating

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neighbourhood facilities; the use of services; and estimation of homeowner improvements. In addition, asking open-ended questions about the neighbourhood were asked in order to enable residents to offer undirected views. These factors, combined with a section that has the neighbourhoods rating each other, produced a clear picture of 'a sense of the neighbourhood' through both quantitative and qualitative interpretations of the data. The goal of this section is to answer the second research question through an analysis of the data supplied by the responses of the residents. As stated in Chapter One, the purpose of the second research question is to understand the residents' perceptions of both neighbourhoods;

Research Question 2

In terms of both qualitative and quantitative data recovered from the survey, do the two neighbourhoods view themselves as being different?

To answer this question, it is important to gain a basic introduction of the survey results from each area. This will consist of an overview of the survey through a basic summary of the questions and a specific section that describes and interprets the results of the open-ended questions. This will be followed by a more detailed analysis of the data which will allow for a comparison of the two neighbourhoods and providing the information necessary to answer the second research question.

5.6 Survey Methodology

The survey consisted of a forty-eight questions organized into seven sections, each examining a component of the neighbourhood. The sample size used was based on a 5% random sample of all households in each area. The 5% sample size

correlated with the work of Nachmias and Nachmias (1987) who asserted that "there are numerous suggestions about the necessary size of a sample. One is that the sample be a regular proportion often put at 5 percent" (Nachmias and Nachmias: 195). For this thesis, a 5% sample this translated into 160 survey questionnaires distributed; 70 in Riverview and 90 in Lord Roberts. The response rate for the survey was quite encouraging, with a 30% return rate achieved for the entire area. However, when breaking this number down into each neighbourhood, Riverview achieved a much higher rate of return (44%) than Lord Roberts (22%) (Table 3). All data analysis performed in this thesis was rendered using SPSS for Windows.

Table 3. Survey Response Rates			
Area	Total Surveys	Return Rate	Percentage
Riverview	70	32	45%
Lord Roberts	90	20	22%
Total	160	52	32.5

5.7 Survey Analysis: An Overview

Part A of the survey asked the residents to identify their neighbourhood boundaries on a base map of the city of Winnipeg. This exercise produced varied results with many respondents not being able to identify the basic boundaries of their neighbourhood. This was illustrated by the fact that only 40% of the residents of Lord Roberts could identify their neighbourhood on the map. This number was higher in Riverview, with 62% being able to accurately identify their boundaries. Following this, questions one and two asked the respondents to list their length of stay in both their present home as well as in the neighbourhood. For Riverview, the average stay

in the neighbourhood was 24.4 years, with the last 15 being spent in the present home. Lord Roberts was slightly less, with 21.8 being spent in the area and 11 in the present home.

Question three dealt with the residents' past neighbourhoods by asking them to list the most recent areas in which they had lived. The responses to this question proved to be too diverse as there were not many areas that were mentioned frequently. Of the responses in Riverview, the only multiple-listed areas were Downtown and Norwood. For Lord Roberts, Riverview was listed as a past neighbourhood six times. The next set of variables was compiled from question four and deal with the residents' main reasons for choosing to live in the area (Table 4).

Table 4. Reasons For Choosing Area		
Factor	Riverview %	Lord Roberts %
reasonable housing costs	50	75
safe neighbourhood	62	55
convenient location	66	85
neighbourhood amenities	60	50
character area	60	35
born here	37	20
good place to raise children	53	30

The results obtained show that there was considerable differentiation in the reasons respondents chose their present neighbourhood. Most notable was the fact that the importance of 'reasonable housing costs' and 'character area' both differed by 25% between the two regions. These two factors seem to support the notion that there is an obvious difference in the two neighbourhoods in terms of reasons for choosing

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to locate. The table also shows a high level of variance in both 'convenient location' (19%) and 'good place to raise kids' (23%). In looking specifically at 'character area', it is reasonable to assume that with the higher value of dwellings, larger homes and lots, Riverview would be a more desirable place to live. This is also evident in the architectural differences among the dwelling units as well as in the design of the neighbourhood, which incorporates a high level of green space throughout the area. These pull factors are not evident in the more highly dense Lord Roberts neighbourhood.

For Lord Roberts, 'convenient location' indicates, to some extent, the importance of the proximity of the neighbourhood to other sections of the city. This may perhaps, include living close to work and even to bus routes. Also, given the fact that 'reasonable housing costs' was more important to the residents of Lord Roberts, it's reasonable to conclude that the central pull factors for Lord Roberts are inexpensive housing and good access to other areas of the city. However, for Riverview, the pull factors vary with character area and amenities being the main reasons for choosing the neighbourhood.

Questions twelve and thirteen of the survey shifted the residents thinking into rating community facilities and neighbourhood conditions on a '1 - 10' scale with one being the worst and ten being the best (Table 5).

Table 5. Ratings for neighbourhood facilities and conditions		
factor	Riverview	Lord Roberts
community centre	7.7	6.8
overall park system	8.2	7.3
sports facilities	8.2	7.7
meeting spaces	7.8	7.6
general condition of neighbourhood	8	6.8
condition of housing	7.7	6.9
condition of apartments	6.4	6.2
condition of roads	5.9	5.2
friendliness of residents	8.4	7.6
AVERAGE SCORE	7.6	6.9

Table Five demonstrates again that there is similarity and differentiation between both areas. In terms of the similarities, sports facilities, meeting spaces, condition of apartments and condition of roads were all ranked quite closely, with the last two variables being rated the lowest. In terms of the other five factors, the residents of Riverview rated each one higher with 'the general condition and appearance of the neighbourhood' showing the greatest variance at 1.2. The higher rating for the general condition of the neighbourhood and the condition of housing reinforces the results of the physical evaluations which clearly showed that the two neighbourhoods contain different concentrations of homes in the Good and Fair categories

The final question in section three (question seventeen) asked the residents to rate their neighbourhoods in various ways. First, they were asked to *look back over the last year or two and say that the condition of the neighbourhood has:*

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improved, remained the same, or become worse. For Riverview, the majority (65%) stated that the area had stayed the same while 19% felt that the neighbourhood had improved. In the responses from Lord Roberts, 85% stated that the area remained the same, with only 10% indicating an improvement. As for the area becoming worse, only 3% in Riverview and 5% in Lord Roberts stated their neighbourhood had worsened.

Question eighteen asks the residents to rate their neighbourhood as being Excellent, Good, Fair, Poor and Very Poor, the responses showed many distinct differences. The residents of Riverview (53%) rated their neighbourhood as being Excellent as compared with only 10% in Lord Roberts. In the Good and Fair categories, 40% in Riverview and 55% in Lord Roberts listed their neighbourhoods as Good while only 6% in Riverview and 35% in Lord Roberts rated the neighbourhoods as Fair. The most gaping contrasts between the two neighbourhoods were in the excellent and fair categories, which showed a high degree of discrepancy (43% for excellent and 29% in fair). These variations indicated a high degree of perceptual difference in assessing the condition of the neighbourhoods.

The final two questions, twenty-three and twenty-four, asked the residents first to rank their neighbourhood as being in the top five, ten, or top twenty range in terms of all city neighbourhoods and second to list which factor best described the area. Rankings for the two neighbourhoods exhibited a significant variation with 78% of Riverview listing the neighbourhood as being in the top five as compared to only 35% in Lord Roberts. Furthermore, 35% listed Lord Roberts as being in the top

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ten, with the final 10% indicating the area was in the top twenty. Clearly, there was not a high degree of correlation between the residents of Lord Roberts and the ranking range into which area fell.

Question twenty-four asked, *What best describes the neighbourhood; declining, improving, somewhat stable or vary stable*. In this question there were some similarities such as 12% in Riverview and 15% in Lord Roberts listing the area as 'improving' and 43% in Riverview and 50% in Lord Roberts stating the area was 'somewhat stable'. In relation to their neighbourhoods declining, only 3% in Riverview, as opposed to 10% in Lord Roberts, considered the area to be deteriorating. The key difference was in the very stable category, with 34% in Riverview opposed to 20% in Lord Roberts indicating very stable.

5.7.1 Riverview

To gain an understanding of the "feel" of the residents, it is important to grasp the general sense of what was being stated. To achieve this, an examination of the open-ended responses of the residents will be outlined. Through this qualitative approach, a basic foundation will be laid for further understanding the analysis component as well as the comparative examination of both neighbourhoods. There were six open-ended questions that were asked and they will each be discussed in order. Reference will also be made to descriptive data pertinent to each of the questions in order to supply, where possible, quantitative support.

In examining the responses in question nine, *On the whole, do you feel that you are a part of this neighbourhood?*, an overwhelming majority consistently

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referred to three themes: the community centre, neighbours, and strong roots in the area. In terms of the community centre, it was clear that many respondents identified their ties to the neighbourhood through a strong bond with the community centre. It seemed to play a vital role in the neighbourhood as a place to meet people, socialize and to form new friendships in the area. In a sense, the community centre became the hub that brought in residents and sent out new friendships. The survey also asked the residents to rate the community centre on a scale of one to ten. The response average was a 7.91, with 54% of the people stating that they used it frequently.

The second theme that surfaced in question nine was that of the importance of neighbours. Many of the residents described very strong and healthy ties with neighbours that have been forged through long-term relationships. "The neighbourhood is very family friendly and interactive. We reached out to our neighbours and they reached out to us. There are many shared values. People in the neighbourhood create involvement and shared events that we enjoy and contribute" (Riverview Resident). It is apparent that 'sense of community' is built upon the strong association that the residents have with their immediate neighbours. This point is illustrated by the fact that 94% of the residents know their neighbours, with the relationships being described as 40% friendly and 34% very friendly. Also 94% felt that they were part of the neighbourhood.

The final theme listed was that of roots or strong ties to the area. A large number of residents indicated that their level of being part of the community was highly dependent on the fact that they have formed strong bonds with others through

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growing up in the area and the desire to stay. "I've lived here all my life. Through school, athletics and social events I've made many friends and acquaintances here. I identify with it" (Riverview Resident). The attachment level to the neighbourhood was described as 59% strongly attached and 28% somewhat attached. All these factors add up to a high importance rating for the association that residents have with their neighbours. A further 53% stated they have family in the neighbourhood.

Questions fourteen and fifteen asked the residents to indicate the most important problem, and the one best thing about the neighbourhood. The reaction to the one problem in the neighbourhood produced numerous responses that included concerns about crime, condition of the streets, improvement of the parks and snow removal concerns. Considering the findings, the most frequently stated problem was that of an increase in break-ins. In terms of burglaries, 31% saw this issue as becoming a problem and a further 25% listed it as being a minor problem. Secondly, the survey dealt with the issue of youth crime, and the responses were 28% indicating it was a minor problem, with nearly 16% listing it as becoming a problem. On the whole, the majority of the respondents felt that crime, in general, was increasing in the neighbourhood.

The second major problem listed was that of the condition of the roads, although this was seen as only a minor problem to most, the overall rating for road conditions in the area was 5.9 out of ten. Also, 19% stated that street maintenance was a major problem and a further 25% saw it as becoming a problem. The fact that many listed snow removal as an issue may be attributed to the fact that at the time of this survey, the city of Winnipeg had just received a record amount of snow fall

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and the clearing process was considerably slower than usual.

Question fifteen asked residents to state the one best thing about the neighbourhood. This question proved to be quite difficult to assess as many themes arose in the responses. However, as in question nine, sense of community and the river park system were the two most frequent responses. Along with these issues one additional factor was raised: location. This was important to the residents because they felt that Riverview has good access to downtown and services. It was reflected in the fact that 68% of the residents listed 'convenient location' as a reason for choosing the neighbourhood. The responses can be summed up by one resident who felt that, "the strong commitment by enough people to create community, probably enhanced by the clear geographical demarcation of the neighbourhood" was the best thing about the area. Yet from this statement, it becomes obvious that there is not a single dominant factor that can be used to describe the area. Instead, it is a blending of many factors and a strong sense of place, with convenient location being critical.

It is clear that the residents of Riverview express a strong sense of place and a feeling of belonging to their neighbourhood. From this perspective, it is important to shift the focus of the residents perceptions to that of a comparison with Lord Roberts. This question is a critical aspect of this thesis, which is to understand the differences between these two neighbourhoods through both qualitative and quantitative analysis.

In relation to the general sense of the responses to question twenty- nine, *In a brief answer, what do you think makes Riverview different from Lord Roberts?*,

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many central issues surfaced. On the whole, the majority of those who answered the question specified that Riverview had larger lots, bigger homes, higher incomes, less traffic, more open space, long time residents and generally homes in better repair. There was also a recurrent theme that described Riverview as "white collar" as opposed to the "blue collar" image of Lord Roberts. Many of the responses detailed similar sentiment such as; "Riverview has bigger homes, more affluent residents and more professional white collar workers while Lord Roberts is working class" (Riverview Resident). "The homeowners in Riverview, from my observation, are more long time residents and tend to feel more 'rooted' to the neighbourhood. Lord Roberts seems to have more first time home owners than other areas" (Riverview Resident).

Overall, many responses referred to "image" as being important and stated that there is a perception that Riverview benefits from a better image. "Riverview benefits from the large area exposed to the river while Lord Roberts is surrounded by major streets and the railway etc." (Riverview Resident). This statement correlates to the "images" that Lynch deals with, such as boundaries and edges. For the study area, Osborne street is a clear boundary between the two neighbourhoods. While the river banks create a pleasant edge in Riverview, the rail yards in Lord Roberts act as a negative edge that cuts off the neighbourhood. The views of the Riverview residents is that these physical edges and boundaries are combined with the sense that Lord Roberts is more working class or, as one resident put it, "Riverview has always been known as the district while Lord Roberts is the other side of Osborne".

The final open ended question was Forty-Seven, which asked the residents to discuss things about their neighbourhood that make it unique and alive. The responses were powerful and contained much information and 'feeling' about the neighbourhood. The key ingredients in the responses contained references to the river park setting and the impressive green spaces within the area. The importance of trails and the huge trees that line the residential streets also merited high marks. The natural streetscape created by the presence of the mature trees is clearly very central to the image of the residents. "Due to the age of the neighbourhood, the streets and parks are lined with large trees, which adds to the character of the neighbourhood, unlike newer areas where the streets are lined with expensive, characterless homes with no canopy of trees" (Riverview Resident). Character area was mentioned quite frequently in the answers and 60% of the residents listed it as a key reason for choosing the area. Amenities in the neighbourhood also ranked high, with many referring to the natural amenities as being positive attributes to the area and again, 60% listed amenities as a reason for moving to or staying in the area.

As important as these factors are, the most quoted and important feature of the area is not a physical feature, it is human. The people of Riverview were the most referred to part of the area. "The greatest asset in the area is the core of people who work at making Riverview a great place to live. They sit on the committees, do the organizing and bull work, raise the issues with government, schools etc" (Riverview Resident). "The value of the people cannot be over-rated" (Riverview Resident). "The combination of services and 'rootedness' to the

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neighbourhood gives Riverview a real sense of community unlike some of the newer, developing areas or areas that have a high turnaround of residents" (Riverview Resident).

To sum up, the common image produced by the residents of Riverview is quite positive. They view their neighbourhood as a mature area blessed with the park like surroundings of the natural river boundary. It contains large, character homes and streets lined with a canopy of trees. It's an isolated neighbourhood of low traffic yet convenient to downtown and services. However, in the end, it is the people and the "rootedness" that many feel are the key ingredients. The people of Riverview have created a sense of place that correlates with Paul Knox's simple notion that "A neighbourhood is simply what its inhabitants think it is".

5.7.2 Lord Roberts

The residents of Lord Roberts were asked the same questions as those outlined in the previous section that examined Riverview. In terms of the responses, many of the residents from Lord Roberts expressed similar themes in regards to their neighbourhood. There were also many distinct images that emerged that were not part of the responses from the Riverview residents.

The first question asked the residents of Lord Roberts to state whether or not they felt a part of the neighbourhood. There were three distinct themes that emerged: work in the area, volunteer in the area, and association with the neighbourhood. The first theme, work in the area, was not mentioned in the Riverview section, however, for the residents of Lord Roberts, many indicted that

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they felt a part of the neighbourhood through the fact that they worked in the area. This created a sense of belonging and association with the neighbourhood. The second theme referred to was that of volunteering at the local community centre and legion. Most of the residents stated that they spent time helping out at the community centre, which was rated at 6.8, while the sports facilities rated slightly higher at 7.7 (out of ten). In terms of the usage of the community centre, 70% stated that they used it frequently. As in Riverview, the community centre is a significant component of the neighbourhood.

The final response that emerged from question nine was that of 'neighbours'. Many people stated that they felt a part of the neighbourhood through the strong association with their neighbours. "You could be walking down the street and you could almost stop and talk to every person you see" is the way one Lord Roberts Resident put it. In fact, 100% of the residents indicted they knew their neighbours and felt themselves a part of the neighbourhood. In terms of the friendliness of the residents, the respondents rated it at 7.6 out of 10. The attachment level varied in the neighbourhood, with 60% feeling somewhat attached while 35% felt strongly attached. This high level of attachment could be partly influenced by the fact that 65% stated they had family in the neighbourhood.

Questions fourteen and fifteen asked the residents to indicate the one most important problem and the one best thing about the area. As in Riverview, many indicated more than one issue for each question. The responses to the one problem in the area included: crime in general, break and enter, vandalism, youth crime, and gang activity. In terms of burglaries, 40% indicated that it was a major problem

while 35% listed it as a minor problem. As for youth crime, 35% stated it as a major problem in the area with a further 20% listing it as becoming a problem. The responses about the one best thing about the neighbourhood contained references to convenience, neighbours, and a strong sense of community. Convenience was listed by many who viewed the location of the area as being its best feature. This was highlighted by the fact that 85% listed 'convenient location' as a factor in choosing to live in Lord Roberts. The second and third most frequently stated were positive attributes: neighbours and a strong sense of community respectively. "The neighbours all look out for each other. If one is out everybody watches your home" (Lord Roberts Resident). It is difficult to assess the responses further because many of the answers did not contain much elaboration.

Question twenty-nine shifted the attention of the residents by asking them to draw a comparison of Lord Roberts with Riverview. Many of the responses matched those highlighted in the Riverview section, with references to housing, income status and the physical amenities in the area. Housing is the most often cited difference between the two neighbourhoods with many stating that homes seem to be better in Riverview as well as being bigger, with streets that are less dense. Also, many indicated a higher level of pride of home ownership in Riverview. "Lord Roberts is generally lower of an area because Riverview has larger homes and more parks. They also have more pride in their homes" (Lord Roberts Resident). "The quality of the housing is superior, making the value of the homes worth more. The lots are larger and the streets are quieter due to less traffic for connecting to busy streets" (Lord Roberts Resident).

Income level is also listed as a major difference between the two areas. There is a general feeling that the residents of Lord Roberts are in a lower income bracket than Riverview. "Income, income in Lord Roberts is generally lower. People are, in general, not as educated and don't care as much about their homes, yards etc. but again, this is probably due to income" (Lord Roberts Resident). Physical amenities also rated high as being major differences with many stating that the rail tracks along side of Lord Roberts and the river park area in Riverview are the central factors that distinguish the areas from one another.

The final difference raised was that of 'pride', which can be summed up by a response from a Lord Roberts resident who moved into the area from out of province. "Number one difference, attitude. I am from out of province so this district was new to us and I am still surprised that after 18 years, how if you live in Lord Roberts, they still refer to the people of Riverview, and many people I know grew up and are now raising their families here still cannot drop: the other side of Osborne attitude. As I see it, it has made two communities out of one small area. Sad!" (Lord Roberts Resident).

The last open-ended question asked the residents to talk about their neighbourhood and indicate the things that make it unique and alive. The responses generated a wealth of information that included references to roots in the area, affordable housing, and location. From the many responses the number one thing about the neighbourhood was the 'roots' of the residents and the perception that there are many longtime people in the neighbourhood who tend to grow up in the area and form new households as adults. This sentiment was echoed in many of the

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surveys that each felt a strong attachment to the neighbourhood. "Lots of second and third generation families living in the area people stay in the area" (Lord Roberts Resident). "Many residents grew up in the area, and have now returned" (Lord Roberts Resident). This feeling was strong not only in response to the final question but throughout the survey, thus reflecting a sense of community through strong bonds with the entire area. The second feeling addressed by the residents is affordibility of housing. There is a general perception that housing is still affordable in the area. "The good thing about this area is that it is a great place for new or first time home buyers" (Lord Roberts Resident).

Considering the issues raised thus far, location seems to be one of the most important aspects of the neighbourhood. Many people like the fact that they can walk to most services in the area and are close to other parts of the city for both work and a variety of services. " I enjoy the closeness to services and stores. Almost everything that one needs is within walking distance, thus eliminating the use of the car" (Lord Roberts Resident). "For me it's close to work; everything is within walking distance; close to downtown" (Lord Roberts Resident).

The open-ended responses from the residents of Lord Roberts produced many valuable replies that served to better understand the neighbourhood through its most important feature: the people. The people of both Lord Roberts and Riverview provided a critical glimpse into the perceptions of the two neighbourhoods and the area as a whole. Through this basic inquiry, it is obvious that the two neighbourhoods are different on a number of fronts including income, type of housing and even educational attainment. However, on the most important front, the

people, both neighbourhoods exhibited a strong sense of attachment through the critical connection of the people to the area. This strong level of 'roots' in the area coupled with a high degree of association with neighbours, created a tight bond within the area as a whole. This bond that ties the residents to their neighbourhoods projects a crystal clear image of an area that is rich in diversity yet so similar in the level of pride and feeling of belonging.

5.7.3 comparison of the two neighbourhoods

To determine whether or not there are measurable differences between the two neighbourhoods, statistical tests have been used to evaluate three critical areas; comparing the two neighbourhoods by each other, looking at the levels of home owner renovations, and rating community components.

The statistical measure used to calculate the differences between Riverview and Lord Roberts was the *t- test*, which determines if there are differences in the mean scores from the two samples. This statistical test was combined with descriptive data to provide a clear understanding of the crucial differences that exist. The results of the t-test are shown in a series of tables listed in Appendix G.

5.7.4 results from the T - test analysis

As detailed at the outset, the key variable in this section is the way in which the two neighbourhoods view each other in terms of general condition, housing, recreational facilities, and the overall appearance of the neighbourhood. Examining the results from these variables leads to the discussion of two other important areas: home owner renovation, and rating neighbourhood components. In relation

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to homeowner renovation, questions were posed on previous work completed and proposed work for the future. Questions also asked which sections of the home have or will be renovated, and at what cost. The final element of investigation will explore how each area rated itself and various components within the neighbourhood.

In section VI of the survey (questions 25-27), residents were asked to compare their neighbourhood to the other, i.e. Riverview residents compared Riverview with Lord Roberts and Lord Roberts residents compared themselves to Riverview. The scale used in each question was about the same, better, worse, or not sure. The results obtained from this exercise are summarized (table 6).

Table 6. Neighbourhood Comparison by Each Area					
Neighbourhood	Rating	General Condition	Housing	Recreational Facilities	Overall Condition
Riverview Compared to Lord Roberts	same better worse not sure	6.5% 80.6% 0% 12.9%	3.3% 90.3% 0% 6.5%	54.8% 25.8% 6.5% 13%	12.5% 78.1% 3.1% 6.3%
Lord Roberts Compared to Riverview	same better worse not sure	20% 5% 60% 15%	0% 10% 80% 10%	45% 15% 30% 10%	35% 0% 65% 0%

The general outcome of the comparative section of the survey was quite important as the results clearly show a difference in the two neighbourhoods. In the third column of Table Six, 'general condition', 80% of the residents of Riverview felt that their neighbourhood was better in 'general condition' than Lord Roberts whereas, 60% of Lord Roberts residents felt that their neighbourhood was worse than Riverview in the same category. The next column exhibits similar results, with 90% in Riverview stating housing was better while 80% in Lord Roberts suggested that

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their housing was worse. Recreational facilities was the only category to exhibit some similarity. The final category, overall condition, again indicated a high degree of difference, with 78% in Riverview indicating their neighbourhood was better while 65% in Lord Roberts stated that their neighbourhood was worse.

To determine if these results are statistically significant in terms of difference in the means of the two neighbourhoods, the t-test was applied. The null hypothesis used in this analysis stated that there is no difference between the neighbourhoods in each of the four categories outlined. Conversely, the alternative hypothesis stated that there is a significant difference between the two areas in terms of the four comparative variables used. The results of the t-test analysis indicated that, at a 95% confidence level, there are significant differences in the 'condition of housing' category and in the 'general condition' category. These results were encouraging and supported the general feeling obtained in both the open ended questions discussed earlier in this chapter. Furthermore, these results can be substantiated by the findings detailed in Table One: the condition of housing in both neighbourhoods was clearly shown to exhibit a considerable degree of differentiation. This was especially true for Riverview, wherein 75% of the homes were listed as Good while only 21% of homes in Lord Roberts merited a Good rating. This would also affect the residents' perceptions of the 'general condition of the neighbourhood'. With homes in Riverview being in better repair and condition, it could be presumed that the residents would rate the two neighbourhoods based on the condition of the housing in each area.

The remaining two variables, overall condition and recreational facilities did

not show any significant differences at the 95% confidence level. However, when lowering the confidence level to 90%, 'overall condition' did reveal a significant level of difference. Recreational facilities did not exhibit a significant difference at any level which also supports the data outlined previously as both neighbourhoods rated recreation and the community centre quite high.

The second set of variables was tested by questions about the level of upgrading activity in the neighbourhoods. This was accomplished by examining planned renovations and completed renovations. These two indicators are important in attaining a better understanding of the results of the evaluations discussed at the outset of this chapter. A 'feel' could be gained from what the residents have and are planning to do to upgrade their homes.

In considering to undertake home renovation projects, the residents were very closely matched in question thirty-three with 69% in Riverview and 65% in Lord Roberts indicating they are going to 'improve their home'. It is also important to understand what types of renovation projects are being considered by the residents (Table 7).

Table 7. Planned Renovation Projects					
Project	Riverview	Lord Roberts	Project	Riverview	Lord Roberts
structure	14%	7%	bedrooms	14%	7%
exterior	64%	43%	basement	27%	7%
interior	41%	43%	windows	41%	21%
bathroom	40%	14%	garage	23%	14%
kitchen	22%	35%			

The results in the table show that there is slight difference the categories, with exception in exterior, bathroom, basement and windows. Again, the null hypothesis used in the analysis stated that there is no difference between the two neighbourhoods in relation to planned renovation projects while the alternative hypothesis stated that there is a significant difference. The results of the t-test indicated that there were no significant results in any of the proposed projects and therefore there is no evidence to support the alternative hypothesis. The result is that the null hypothesis is accepted.

Although these differences were not statistically significant, there are some meaningful conclusions that can be drawn form these data. Most notable are the projects that are planned to upgrade the outside of the dwelling unit including; structure, exterior, garage and windows. The fact that, in each of these variables, Riverview residents were higher in percent than Lord Roberts, contributes further support to the results obtained in the physical evaluations that were completed. This fact is exhibited from both Table One and to a greater extent Table Two. In specific

reference to Table Two, the fact that more homes were Upgraded in the Good category in Riverview adds justification for the higher percents in the planned exterior projects detailed in Table Seven.

The projected costs for the proposed renovations have been summarized (Table 8). It should be noted that the percentages are based on those who indicated they planned to complete projects in the near future as outlined in question thirty-five of the survey.

Table 8. Projected Renovation Costs					
Projected costs	Riverview (%)	Lord Roberts (%)	Projected Costs	Riverview (%)	Lord Roberts (%)
0-999	0%	28%	6000-9999	23%	7%
1000-2999	18%	21%	10000+	18%	7%
3000-5999	36%	28%	not sure	5%	7%

In examining the projected costs, it is clear that there are basic differences in the results obtained. This is most evident in the fact that 54% in Riverview and 77% in Lord Roberts plan to spend less than 5999 on renovations while 41% in Riverview and only 14% in Lord Roberts plan to spend between 6000 and 10000+ dollars on proposed renovations.

Regarding the data from Table Eight it is reasonable to conclude that the high degree of differentiation in price range is the result of economics. To understand this consideration, it is important to revisit the data supplied in Chapter Four (Figs.19, 22). In terms the median incomes in both neighbourhoods, it is fair to say that with higher incomes in Riverview, residents would have more disposable income to

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spend on renovation projects, thus supporting the differences detailed in Table Eight.

In question thirty-six, residents were asked if they had completed renovation projects in the last five years and 79% of Riverview and 94% of Lord Roberts residents stated that they had completed projects. The areas to their homes that were renovated have been summarized (table 9).

Table 9. Completed Renovation Projects					
Project	Riverview	Lord Roberts	Project	Riverview	Lord Roberts
structure	14	7	bedrooms	40	46
exterior	76	46	basement	25	15
interior	52	61	windows	50	38
bathroom	52	46	garage	5	8
kitchen	35	46			

The completed projects show a balanced result between the two neighbourhoods with the main areas of difference being; exterior, kitchen, and windows. As in the proposed renovations (Table Seven), t-test results indicated that there are no significant differences in any of the nine categories.

The completed projects also exhibit evidence to substantiate the results of the physical evaluations with similar differences in the work undertaken to the exterior, structure and windows. Income, again, appears to play a vital role in the ability of the homeowner to undertake costly renovation projects and for this example, the result would be less activity in Lord Roberts.

The costs of the completed renovations, question thirty-seven, shows a

similar outcome to the proposed projects with 39% in Riverview and 76% in Lord Roberts having spent less than $6000 dollars. The biggest difference is in the 6000-10000+ range where 43% in Riverview as opposed to only 4% in Lord Roberts spent in this price range (table 10).

Table 10. Renovation Costs of Past work					
Projected costs	Riverview (%)	Lord Roberts (%)	Projected Costs	Riverview (%)	Lord Roberts (%)
0-999	5%	20%	6000-9999	9%	3%
1000-2999	5%	26%	10000+	43%	4%
3000-5999	24%	26%	not sure	14%	5%

The completed renovations exhibit a similar pattern of distribution as in the proposed projects with corresponding results displayed in the under $6000 group and gaping differences in the $6000-10000+ range. However, the difference in the latter category is even more striking when taking into account the fact that only one Lord Roberts resident stated that they had spent in the 6000-10000+ range.

The results from this section indicate that there are no real measurable differences in the types of renovation projects that have been completed or those which are planned when the t-test was applied. However, when examining the price ranges, the differences become more clear, with the greatest discrepancies in the numbers of persons spending in the $6000-10000+ range. This can be further illustrated by combining the results of both categories which translates into 20 Riverview residents and only 3 Lord Roberts residents planning to or having spent in the $6000-10000+ range.

The importance of these differences correlate with Table Eight in that Riverview residents have higher income levels and thus more disposable funds for renovation projects. It is critical at this point to reiterate the results from Figure Twenty-three (mean value of dwellings) because with the substantially higher valued homes in Riverview, it would be reasonable to conclude that the home owners in Riverview have consistently out spent the home owners in Lord Roberts. When taking into consideration that the age of homes in Lord Roberts are generally older, maintenance costs would be expected to be higher. This is the pivotal junction for a neighbourhood because if maintenance levels do not keep pace with the natural deterioration of homes, the area will undoubtably begin to decay. This notion is further supported by Table Two (level of upgrading) which shows a higher percentage of homes in Riverview being upgraded (9.75%) as compared with Lord Roberts (6.7%).

Considering the extent of the renovation projects that have been completed as well as those that are projected, the residents were asked in question forty to list what condition they felt their home was in at the present time. For the residents of Riverview, 20% felt their home was in excellent condition while 56% listed good, 8% fair and 16% stated their home needed minor repairs. Lord Roberts residents indicated 7% excellent, 40% good, 13% fair, with 40% needing minor work. The next three questions discussed from the survey (17,18 & 24) asked the residents the following: describe their neighbourhood over the last two years; indicate the present condition of the neighbourhood; and to indicate what best describes the neighbourhood. The t-test was employed in order to better understand if there were

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differences in these variables. The results of the t-test indicated that of the four neighbourhood factors, only question forty, 'rate neighbourhood', showed significant difference. For this variable, the residents were asked to state whether their neighbourhood was excellent, good, fair, poor, or very poor. The key differences in the results were first, that 53% in Riverview and only 10% in Lord Roberts felt that their neighbourhood was excellent, and second, 6% of Riverview residents and 35% in Lord Roberts stated their neighbourhood was fair. These two factors contributed to the significant statistical differences evident in the t-test. The fact that the 'rate neighbourhood' question showed a significant difference gives further support to the material discussed in the open ended questions and to the results of physical evaluations. The final section is based on question sixteen, which had the residents rating different components of the neighbourhood (Table 11).

Table 11. Rating neighbourhood aspects									
Condition	Major Problem		Minor Problem		Not a Problem		Becoming a Problem		Not Sure	
	R.V*	L.R*	R.V*	L.R*	R.V*	L.R*	R.V*	L.R*	R.V*	L.R*
vacant buildings	0%	0%	9%	0%	81%	79%	6.3%	5%	3%	16%
deteriorated housing	3%	10%	37.%	45%	50%	20%	6.3%	15%	3%	10%
cost of housing	6%	0%	28%	5%	47%	70%	9%	15%	9%	10%
school quality	6%	0%	13%	10%	52%	50%	3%	10%	26%	30%
burglaries	6%	40%	25%	25%	9%	10%	31%	10%	28%	15%
youth crime	3%	35%	28%	30%	12%	5%	16%	20%	40%	10%
street maintenance	19%	25%	37%	35%	19%	25%	25%	15%	0%	0%
property tax	25%	45%	28%	20%	19%	15%	9%	15%	19%	5%

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In looking at the eight variables in Table 13, it is evident that there are many similarities in the responses of the residents. In applying the t-test to these variables, two produced significant differences; burglaries and youth crimes. This is clearly evident in the fact that only 3% of Riverview residents as opposed to 35% in Lord Roberts felt that youth crime was a major problem in the area. The same results were evident in burglaries as 40% in Lord Roberts saw burglaries as a major problem while 6% in Riverview only indicated it as being major. This was supported by the responses from both neighbourhoods in the open-ended questions which clearly showed Lord Roberts residents to be more concerned with crime in general.

5.8 Results (Answering RESEARCH QUESTION TWO)

The second question was introduced at the beginning of this section and it consisted of two critical components of investigation;

Research Question 2
In terms of both qualitative and quantitative data recovered from the survey, do the two neighbourhoods view themselves as being different?

The material that has been discussed in this section has clearly illustrated that there are key differences between the two neighbourhoods. At the outset, the first survey question revealed that residents of both neighbourhoods struggled in marking neighbourhood boundaries on a base map of the city of Winnipeg. Following this, it was shown that there were distinct differences in the 'reasons for choosing area' section. This was highlighted by a high degree of deviation in factors that included, reasonable housing costs, convenient location, character area, born here, and a good place to raise kids. These data was supported by the Lord Roberts residents

who cited convenient location as opposed to the Riverview choices of character area, neighbourhood amenities and a good place to raise kids. The neighbourhoods also exhibited distinct differences when asked to rank neighbourhood facilities and conditions. This was represented by the fact that the average score for the nine variables in Table Six was 7.6 for Riverview and 6.9 for Lord Roberts. It was also concluded that these findings further reinforced the results of the physical evaluations.

In shifting the focus to the residents' thoughts that were contained in the open ended questions, clear differences were also recorded in most of the six questions asked. In the first question that dealt with whether or not the residents felt a part of the neighbourhood, some distinct references were prevalent in each neighbourhood. The most obvious difference was that there were residents of Lord Roberts who considered themselves a part of the neighbourhood because that they worked in the area. This fact was not mentioned in the Riverview responses, which listed references to roots in the area, neighbours and the community centre. However, it should be noted that both areas considered a strong portion of feeling a part of the area as being attributed to the strong sense of community achieved through both roots in the area and the involvement the residents have with the community centre.

In looking at problems in the area, both neighbourhoods saw crime in general as being both a problem as well as an issue that was worsening. This sentiment was echoed in the open ended question as well as in the section that had each area rating the various neighbourhood components. The key difference in the perception of crime was the fact that when the t-test was applied to the variables, it was

revealed that there was a significant difference in the level or severity of the residents' perception of crime. This was denoted by the t-test resulted bolstered the fact that the Lord Roberts residents considered burglaries and crime associated with youths to be more of a concern in the neighbourhood than the residents of Riverview.

The second part of this question asked what the one best thing was about the area and again there were many similarities in the responses, with most dealing with sense of community and location. The key difference was in the residents' perception of location, which was listed by both neighbourhoods, but for different reasons. Both areas considered location as being good because of close proximity to downtown and other services, but for Lord Roberts many indicated that the good location was a result of internal features that made the neighbourhood convenient. This included references to the fact that all services were generally located within general walking distance. For Riverview, location reflected more on external conveniences such as access to downtown and to other parts of the city.

The critical section of the open ended question sought to understand the perceptions of the residents in terms of comparing themselves to one another. The results of this exercise showed that each neighbourhood agreed on most of the differences that apparently exist. This included mention of income, educational levels, housing size, and type of employment. Many of the residents from both neighbourhoods conceded that Riverview was more white collar as opposed to the blue collar image of Lord Roberts. These differences were also analysed though the use of the t-test and the results supported many of the sentiments of the residents

as significant differences were recorded in areas such as condition of housing (in general), rating of the neighbourhood, condition of homes (of respondents), and overall condition of the neighbourhood. Housing and home improvement also showed many similarities in type of work to be completed and type of projects proposed . However, the central difference between the two areas was shown to exist in the amount of money being spent, as Riverview residents clearly showed a higher percentage in the $6000-10000+ range (3 Lord Roberts residents and 20 Riverview residents). It is important to take into consideration that much of the data extracted from the survey correlated with the results of the physical evaluations that were conducted. This was most evident in the recorded perceptions of the residents in terms of housing and in the general condition of the neighbourhood. Income data from Chapter Four also underscore the differences in the amounts of money spent on renovation projets.

5.9 Summary

Considering all the results listed in this section as well as within the entire thesis, there is strong evidence to support the notion that the two neighbourhoods are quite distinct in many ways. These differences were illustrated at the outset of the chapter, which determined that the condition of dwelling units in each neighbourhood were distinctly different in type, density and in the level of home owner improvement. The subsequent survey material furthered this evidence by providing unequivocal qualitative support in the open ended questions and strong quantitative support from both the general descriptive data recovered as well as in

the statistical tests applied to key variables.

In general, the neighbourhoods showed differences in the physical and tangible attributes of income, education levels, condition of the neighbourhood, housing, amount of investment into homes, as well as in the physical makeup of the two neighbourhoods. Riverview is clearly blessed with the natural river bank area and the park-like settings it creates while Lord Roberts is cursed with the intrusive rail yards and transit garage. All of these tangibles lead to the conclusion that the two areas are absolutely different and thus should not have been compared. However, when taking into account the intangibles, such as, soul, feeling, sense of community and belonging, there is clearly an undercurrent that is passing through the two neighbourhoods that links the people to the area as a whole. These intangibles create a synergy that cannot be described by the modern approaches used in the understanding of neighbourhoods. More so, this synergy is the soul of the neighbourhood that has created two areas in the physical sense but has somehow fused them into one in their commitment to each other.

Chapter Six

Riverview and Lord Roberts: An Analysis of the Models and Theories

6.0 Introduction

Thus far this thesis has explored the area of Lord Roberts and Riverview through historical development, census data, housing conditions and finally survey material. Each of these sections has attempted to expose the many differences that have become evident between the two neighbourhoods. This became apparent in the differences in the evolution and the spatial formation of the two areas. Also, it was clear that the census data illustrated distinct differences in income, education and in many basic housing characteristics. Differences were also shown in both the condition of the housing and in the perceptions that the residents have about their own areas.

The goal of this chapter is to explore these differences further and assess whether the material covered in the literature review offers some rational explanation. Ultimately, this discussion will lead to answering the third and final research question which attempts to understand if the neighbourhoods show any differences in their evolutionary patterns;

Research Question 3

Have Riverview and Lord Roberts evolved differently and can the differences, if any, be measured with respect to the models and theories discussed in the literature review?

Answering this research question will be accomplished through a basic analysis of the models and theories previously discussed in Chapter Three. It should be noted

that not all of the models and theories were applicable to the study area. Also, many of the models theories such as factor analysis and the economic theories proved to be beyond the scope of this thesis and would have required data input from many neighbourhoods. However, in all, six different theories will be discussed briefly in regard to the study area of Riverview and Lord Roberts. These include the basic principles of Perry, Vernon and Hoover, Public Affairs Counselling, Edmonton Strategic Planning Branch (SAB.), Lynch, and Weeing. These six models and theories will be used as the catalyst in answering the final question and ultimately providing the material necessary for the final conclusion and summary chapter.

6.1 Methodology

The basic objective of this chapter is to attempt to infuse the principles of the outlined theories into the study area of Riverview and Lord Roberts. In each model and theory, an attempt has been made to ensure that the methods of the original researcher have been employed in this analysis. However, it is important to note that in some cases the present research is forced to make an interpretation based upon the material that may or may not conform to the original methodology as intended. This limitation of the data is unavoidable as many of the models and theories are open to personal interpretation of the criteria supplied in the work. Nevertheless, it is intended that the interpretation used in the present research is as accurate as possible to ensure both respect and correct use of the work of the original authors. In the end, the present research offers only a descriptive interpretation of the models and theories. Those that included complex statistical analysis of relevant

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variables have been excluded and deemed to be beyond the scope of this exploratory level research endeavour.

6.2 The early theories

The work of Clearance Perry, and Raymond Vernon and Edger Hoover has been discussed in Chapter Three. As stated at that point, the importance of these two early studies of urban neighbourhoods cannot be overlooked. The structure of many current neighbourhoods follow along the principles discussed by Perry in 1929. In relation to the study area, the two neighbourhoods exhibit similarity in their planning and present layout, and seem to have been influenced by the Perry school of thought. This is most evident in the layout of Riverview, which exhibits many of Perry's basic principles including: a centrally located elementary school and park, and recreational facilities. Although these features are present in most neighbourhoods, the fact that Riverview was planned at the time of Perry was combined with many of the internal attributes, suggests that it has been influenced by him. Further evidence is that within a 1947 Neighbourhood Plan for the city of Winnipeg, many of Perry's principles surfaced again. This document was mentioned in Chapter Four in discussing proposed urban expansion in the River Park area. Lord Roberts also exhibits many of the same internal features as Riverview, and again on a very simplistic level, also seems to have been influenced by the early planning principles of Clearance Perry.

Shifting to the more related measurements of neighbourhood life cycle, the early work of Hoover and Vernon postulated a five stage model of a neighbourhood

life cycle. With respect to the study area, the two neighbourhoods seem to display characteristics of the model. For Riverview, the stages outlined seem to indicate that Riverview is a cross between a stage two (transition stage) and stage three (down-grading) neighbourhood which is characterized by construction of new apartments and the conversion of older homes to higher densities. However, this stage is not completely accurate as Riverview does not exhibit a high degree of the required "slum invasion".

By contrast, Lord Roberts would probably be considered a stage four (thinning out) neighbourhood. This type of neighbourhood is characterized by reductions in both density and dwelling occupancy rate along with a decline in household size. This is furthered by "little or no residential construction and a decline in population" (Vernon and Hoover: 199). These conditions exist in the neighbourhood but as in Riverview's, both neighbourhoods show some sign of being in stage three and four respectively. However, the key factor of "slum invasion" has not affected either neighbourhood to any great extent. Arguments for Riverview can be made with respect to the Arnold and Morley concentration of homes in poor and Fair condition, yet within this area there are pockets of homes that have been improved.

Overall, both neighbourhoods could be pigeonholed by simply placing them in the most appropriate stage, however, by not fully meeting all the outlined criteria, it would be difficult to assert that either neighbourhood fits into the scale offered by Hoover and Vernon with any confidence. Therefore, on the elementary level Riverview might be considered a "form" of a stage three neighbourhood while Lord

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Roberts would be a "form" of a stage four neighbourhood. The key issue for this discussion is the simple fact that the neighbourhoods differ in terms of rank in relation to the basic interpretation of the model.

6.3 Recent Theories

As stated in Chapter Three, many researchers built upon and furthered the work of Vernon and Hoover. The U.S Department of Housing and Urban Development (HUD) put forth a model that incorporated many of their principles. In relation to the study area, Riverview is closely matched with stage two (incipient decline), while Lord Roberts can be considered to be a stage three (clearly declining) neighbourhood. With respect to Riverview, a stage two neighbourhood is one that is exhibiting some signs of obsolescence and the accompanying higher maintenance costs. This stage is also marked as the breaking point for the neighbourhood because if homes are not maintained, they could begin to slip into becoming a stage three neighbourhood. The evidence that regular maintenance is taking place is the high level of owner upgrading in the neighbourhood (Table 2) as well as a high level of expenditures (6000-10000+) on homes (Tables 8, 10). This can also be supported by the fact that nearly three quarters of the homes in the area are considered to be in the Good category (Table 1). These factors seem to support the theory that the residents are keeping the area above the breaking point of decline and except for the age of the homes, the area could be considered a stage one neighbourhood.

Lord Roberts, on the other hand has lost the battle with stage two and shows the early signs of stage three, which is characterized by home values well below the

city average (Fig.19) the loss of population, and the number of persons per dwelling (Fig.25). These elements, combined with the fact that nearly 75% of the homes in the area are in the Fair category (requiring some maintenance), indicate that neighbourhood decline is becoming evident. This is supported by the age of the dwellings in the neighbourhood as well as a lower investment range than Riverview for both past and projected projects. Most residents indicated costs to be below $6000 (Tables 8,10). The positive aspect of this stage is that the decline process can be slowed, but more home improvement is required. In the case of Lord Roberts, there seems to be some improvement in this respect as indicated by the decrease in the number of homes considered poor (Table 1) and encouraging results in the comparisons of dwelling unit upgrades (Table 2).

In a report prepared for the city of Edmonton by the Strategic Planning Branch, the principles of neighbourhood decline are examined through the establishment of a six stage model that incorporates four key variables: median age of the residents, average household size, number of households and population. The model works by taking these four factors and creating a six-phase hypothesis of neighbourhood life-cycle. By examining the results from the data compiled for the study area, it was found that each neighbourhood fit into a different profile or stage of neighbourhood life-cycle. For Riverview, the evidence supported a clear stage four while Lord Roberts closely matched a stage five.

The stage four neighbourhood is marked by decreases in population, an increase in the number of households, an increase in median age of the residents and a decrease in household size. These four markers indicate a neighbourhood

characterized by the following criteria;

Although there is some movement of single family people into the
neighbourhood, population has begun to decline because the children of the
original families are moving out of the area. (Strategic Planning Branch: 5).

In looking at the results obtained for Riverview, there is clear evidence that all of

these criteria have been met (Fig. 42).
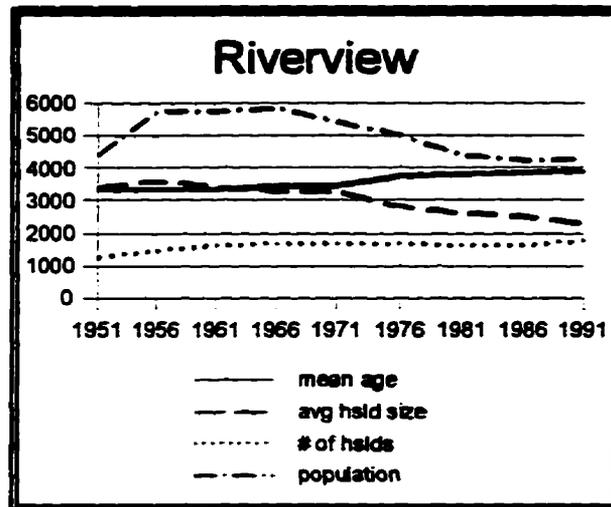
Figure 42

Stage five neighbourhoods are characterized by decreases in population,

stability in the number of households, increase in median age, and a decrease in

average household size. Stage five neighbourhoods can be summarized as

exhibiting,

Population continuing to decline and the potential for future growth is
diminished because there is no longer growth in the number of households
in the area (Strategic Planning Branch, 1990: 5).

Lord Roberts shows evidence of being a stage five neighbourhood as all four

indicators support the required levels (Fig. 43). The only real difference between the

two areas is in the number of households. Riverview shows this number to be

increasing through the addition of dwelling units while in Lord Roberts, the number of dwelling units has remained quite stable, although slightly declining since the mid 1970's.
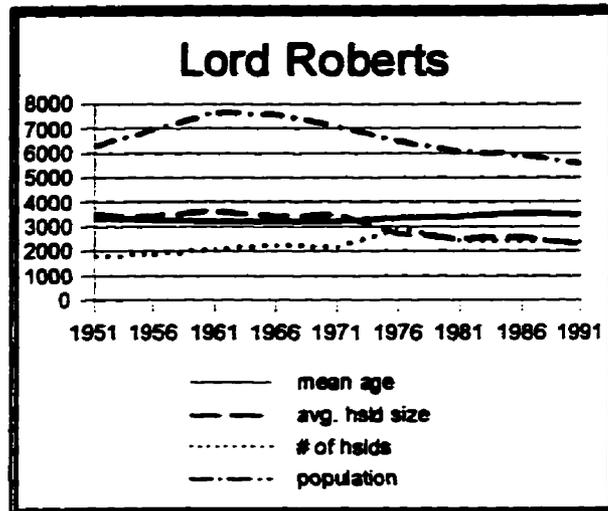
Figure 43

The models of Hoover and Vernon, HUD, and the Strategic Planning Branch have in some way described the study area as being different. The differences have been, to some degree, small such as in the SPB model. In terms of the HUD and in Hoover and Vernon examples, the differences were evident in the level of deterioration in the neighbourhoods. Although, arguments can be made for the applicability of each of these models to the study area, it been shown that the differences correlate to the material outlined in this thesis, indicating that the two neighbourhoods are different.

6.4 Alternative Theories

The final two theories to be discussed are those of Kevin Lynch and Michael

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Weeing. Both of these theories were discussed in the 'alternative' section in Chapter Three. They are included in this section to offer a different approach to the measurement and understanding of the neighbourhood. The applicability of Lynch's work to the study is quite limited as no mental mapping exercises were included in this research. However, when taking into account the results from the open-ended questions in the surveys, the responses suggest that the residents throughout the area have a 'mental image' of both neighbourhoods.

In Riverview, the residents created a picture of a neighbourhood that is rich in character and beauty. There are references to the mature trees that adorn the residential streets and parks. The river park area also adds to the mental illustration by infusing the picturesque setting of the river area and the smaller parks scattered throughout the neighbourhood. In the physical sense, large character homes that are well maintained make up most of the residential area. However, it was the people who were most discussed; through strong bonds and long time friendships forged over the years have played a big part in the formation of the mental image of the area.

For the people of Lord Roberts, the image that surfaced in the survey is a neighbourhood built upon friendship and longtime residents. It is a picture of a working class neighbourhood in which many work nearby. People also play an important role in the neighbourhood and many feel connected to it through the community centre and their volunteer work in the neighbourhood. Also, the fact that many walked to most of the services created a sense of community and attachment. In the physical realm, Lord Roberts is a cohesive neighbourhood characterized by

affordable older homes which attract many younger, first time owners. Although the size and density of many homes may be quite different from Riverview, the pride in the area is quite evident.

The final theory is that of Weeing, who examined "sense of community" by producing a neighbourhood typology based upon the level of neighbouring (fig. 5). In considering the fit between Weeing's theory and the study area, it is hard to place a strong emphasis on the applicability of the model as Weeing's typology are based on a exhaustive survey that examines the level of neighbouring. But through the few questions asked in the present thesis in regards to sense of community and attachment to the area, both neighbourhoods seem to fit into the general description of his Type A neighbourhood, which is characterized by;

A Strong sense of community and many neighbouring activities. In this type of neighbourhood, information diffusion will be relatively fast, and social influence will presumably be rather strong (Weeing: 59).

There is strong evidence to support the notion that the study area is representative of this type of neighbourhood. This was clear in the high level of attachment and the high number of people indicating strong relationships with their neighbours and also in feeling a part of the neighbourhood.

6.5 Answering Research Question Three

The goal of this chapter has been to examine the material covered in the literature review and to establish whether or not the neighbourhoods have evolved differently over time. The third research question, was broken into two key components for consideration.

<u>Research Question 3</u>
Have Riverview and Lord Roberts evolved differently and can
the differences, if any, be measured with respect to the models
and theories discussed in the literature review?

In terms of the first part of the question, there is no doubt that the two

neighbourhoods have evolved differently over the past one hundred years. This has

been clearly illustrated throughout the thesis. The outlined models and theories offer

more evidence in support of difference between the two areas in terms of both

evolutionary growth and the pattern of change that has taken place.

In considering the implications of the outlined models, all those that were

applicable to the study area again supported the fact that the two areas are different.

This was evident in the early model of Hoover and Vernon as well as in the SPB

model. Conversely, the two alternative theories of Lynch and Weeing showed that,

through the physical and socio-economic road blocks put forth, the two areas

showed similarities in the intangible measures of soul, feeling and sense of

community. These factors, although not given much merit, indicated that the two

neighbourhoods are, on this plain, more similar than different. In Lynch, the mental

image produced by the thoughts and words of the residents clearly showed that each

area is different in the physical world but similar in the image of 'sense of

community'. In Weeing, the basic typology of the neighbourhood seemed to indicate

that the areas were both Type A neighbourhoods that exhibited a high degree of

neighbouring functions and interaction levels in the neighbourhood.

This chapter has attempted to briefly examine the study areas under the guise

of the models and theories outlined in this thesis. The end result has been that in

terms of the physical world of education, housing, and income, the two neighbourhoods show a high degree of variation and thus are classified as being distinct form one another. Yet, within this same area, through understanding the soul of the two neighbourhoods, they seem to be remarkably similar. The similarities, although overshadowed by conventional measures, illuminate the fact that there are shared experiences that need to be further investigated and analysed. Whether there are accurate measures of these intangibles is obviously a research question in itself. The truth that remains though is that there are many ways in which a neighbourhood is shaped over the years and not all that is alive within neighbourhoods is seen or experienced by the rigorous measures of empirical testing. The soul of the neighbourhood is much like that of the human soul whose existence is debated widely.

Chapter Seven

Summary and Conclusion

7.0 Objectives of the study

The purpose of this research has been to examine the Riverview - Lord

Roberts area of Winnipeg in order to analyse the processes associated with

neighbourhood evolution and reach a better understanding of them. The route

followed for this endeavour was guided by the three research questions outlined in

Chapter One. Each of these questions furthered the research along the route

towards understanding the dynamics that have shaped each neighbourhood as it

developed.

The questions posed were related to the evolution of each neighbourhood.

The first question considered the physical area of the neighbourhoods and sought

to identify the changes that have occurred over the last eighteen years by comparing

a survey of the housing conditions in 1978 with the present conditions of the homes.

Research Question 1
What changes have taken place over the last eighteen
years in terms of housing conditions and has there been
a detectable improvement or decline in either
neighbourhood?

The second research question explored the residents' evaluation of the

neighbourhoods, to get this information, a survey was conducted in the area.

Research Question 2
In terms of both qualitative and quantitative data
recovered from the survey, do the two neighbourhoods
view themselves as being different?

The final question attempted to determine whether or not the neighbourhoods

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showed any differences in their evolutionary patterns?

<u>Research Question 3</u>
Have Riverview and Lord Roberts evolved differently
and can the differences, if any, be measured with
respect to the models and theories discussed in the
literature review?

Each of these questions provided details into the very heart of the neighbourhoods'

psyche and they aided in illustrating the differences existing between Riverview and

Lord Roberts.

7.1 The research design

This thesis began with an attempt to provide the reader with an understanding

of the definition of neighbourhood as a concept, fundamental components and

critical elements within neighbourhoods. The opening chapter detailed the difficulties

in attempting to convey a simple definition. From the literature review, it became

obvious that there are many definitions that are important but each addresses the

particulars of its own discipline or perspective. From this, the literature review

detailed some important differences in the structure of neighbourhoods by citing key

components in both stable and declining areas. The chapter then shifted to a survey

of the crucial land use elements within neighbourhoods, such as streets and

sidewalks, housing, amenities, commercial zones and recreation areas. The final

segment of the chapter sought to detail the importance of transportation to the

overall evolution of the city and specifically the neighbourhood.

Chapter Three moved into the general theories and models that have been

used to describe the process of change in neighbourhoods. At the outset of the

chapter, historical themes were discussed to provide a background into some of the early makeup of the area. Following this, the chapter dealt with the literature in three themes: classical, economic and alternative. This format provided a strong and varied portrait of the pertinent literature that is used to analyse neighbourhoods both contemporarily and historically.

Chapter Four was the springboard for moving from the general to the specific examination of the two Winnipeg areas. First, the historical evolution of the area was discussed to give an overview of the development patterns in both neighbourhoods. Following this, a geography of each neighbourhoods was put forth, citing the key components and basic characteristics. Included in this section was an exploration of the topography, physical features, zoning, general layout of the houses, shops and recreational areas. The chapter concluded with the examination of census material covering the years 1951-1991. This forty year window provided a solid look into the evolutionary patterns of the neighbourhoods as well as a comparison of them to Winnipeg as a whole.

Chapter Five began by analysing the changes that have occurred over the last eighteen years with respect to the physical condition of the dwelling units in both neighbourhoods. The objective was to answer the first research question based upon the findings. The focus then shifted to an analysis of the data obtained from the neighbourhood survey in the context of the second research question. A synthesis and analysis of all the material covered in the thesis comprised Chapter Six, and led to answering the third and final research question.

7.2 Implications of the findings

The study of the Riverview - Lord Roberts area produced many important results within the parameters of the three research questions. The results provided a further understanding of the two neighbourhoods in terms of their housing condition, the perceptions of the residents on the neighbourhoods and finally the relationship of the theories and models of urban growth and neighbourhood development.. Each question supplied a wealth of information about each neighbourhood and illustrated the many distinct aspects of neighbourhood change and evolution. The findings also provided vital details into the very nature of the perceptions of the residents themselves, which uncovered an important area for future research consideration.

7.2.1 research question one

The first research question attempted to determine whether the condition of the housing in each neighbourhoods had improved, remained the same or worsened over the eighteen year period since the City of Winnipeg completed its Neighbourhood Characterization Study. The results of the housing evaluation of 3150 homes by the author showed that Riverview homes improved by 10% in the Good category and decreased by nearly 8% in the Fair category. Of major significance in Lord Roberts was the 14% decrease in the number of homes considered to be in Poor condition.

The second phase of the housing evaluation was concerned with the level of recent upgrading in each neighbourhood. The results indicated that both

neighbourhoods had some activity in home owner improvements with nearly 10% of Riverview residents and 7% of Lord Roberts residents completing exterior renovations to their dwelling units. Both of these indicators show that much change has take place in each neighbourhood. The differences that became evident were in the types of homes in each area, with 75% of Riverview's housing stock being considered in Good condition while in Lord Roberts, 73% were considered Fair.

7.2.2 research question two

The material related to research question two clearly illustrated that there are key differences between the neighbourhoods. At the outset, the first survey question revealed that both neighbourhoods struggled in marking neighbourhood boundaries on a base map of the city of Winnipeg. Following this, it was shown that there were distinct differences in the 'reasons for choosing area' category. This was highlighted by a high degree of deviation in factors that included 'reasonable housing costs', 'convenient location',' character area', 'born here', and a 'good place to raise kids'. Lord Roberts residents cited convenient location while residents in Riverview emphasized character area, neighbourhood amenities and a good place to raise kids. The residents of the two neighbourhoods also responded differently when asked to rate neighbourhood facilities and conditions on a scale of one to ten. The average score for the nine variables in table six was 7.6 for Riverview and 6.9 for Lord Roberts.

In shifting the focus to the open ended questions, clear differences were recorded in the residents' responses to most of the six questions. In the first

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question, which dealt with whether or not the residents felt a part of the neighbourhood, the most obvious difference was that the residents of Lord Roberts considered themselves a part of the neighbourhood through the fact that they worked in the area. This fact was not mentioned in the Riverview responses which instead listed references to roots in the area, neighbours and the community centre. However, it should be noted that residents in both neighbourhoods attributed much of their feeling a part of the neighbourhood to the strong sense of community achieved through both roots in the area and the association that they have with the community centre.

In looking at problems in the area, both neighbourhoods saw crime in general as not only a problem but also one that was worsening. This sentiment was echoed in the open ended questions as well as in the section in which the various neighbourhood components were rated. However, when the t-test was applied to the variables, it was revealed that there was a significant difference in the level or severity of the residents' perception of crime. Lord Roberts residents considered burglaries and crime associated with youths to be more of a pressing concern in the neighbourhood than did the residents of Riverview.

The second part of this question asked residents to identify the one best thing was about their neighbourhood and again, there were many similarities in the responses with most people listing sense of community and location. The key difference was in the perception of location, which was listed by both neighbourhoods, although for different reasons. For both areas, location was considered good because of close proximity to downtown and other services, but

many in Lord Roberts indicated that the good location was a result of internal features that made the neighbourhood convenient. Notable were references to all services being located within general walking distance. For Riverview, location focused more on external conveniences such as access to downtown and to other parts of the city.

The critical section of the open ended question sought to understand the perceptions of the residents about the other neighbourhood. The results showed that residents of each neighbourhood agreed on most of the differences that apparently exist, for example, income, educational levels, housing size, and type of employment. Residents from both neighbourhoods conceded that Riverview was more white collar as opposed to the blue collar image of Lord Roberts. These differences were also analysed though the use of the t-test and the results supported many of the sentiments of the residents, as significant differences were recorded in areas such as condition of housing (in general), the rating of the neighbourhood, condition of homes (of respondents), and overall condition of the neighbourhood. Housing and home improvement also showed many similarities in type of work to be completed and proposed projects. However, the was a difference between the two areas in the amount of money being spent, as Riverview residents clearly showed a higher percentage in the $6000-10000+ range.

7.2.3 research question three

In terms of the first part of question three, there is no doubt that the two neighbourhoods have evolved differently over the past one hundred years. In

comparing the research findings to the models discussed, those that were applicable to the study area were supported by differences between the two neighbourhoods. This is evident in the context of the early model of Hoover and Vernon as well as in the strategic Planning Branch model. The two alternative theories of Lynch and Weeing showed that, through the physical and socio-economic road blocks put forth, the two areas showed similarities in the intangible measures of soul, feeling and sense of community. These factors, although not given much merit, indicated that the two neighbourhoods are, on this plane, more similar than different. The mental image produced by the thoughts and words of the residents clearly showed that each area is different in the physical sense but similar in the image of 'sense of community' thus supporting Lynch's ideas. The basic typology of the neighbourhoods seemed to indicate that they were both Type A neighbourhoods, exhibiting a high degree of neighbouring functions as well as interaction levels within the neighbourhood as discussed by Weeing.

7.3 Conclusion

It has become apparent that the Riverview - Lord Roberts area presented a unique and challenging example for investigating the dynamics of neighbourhood evolution and change. The neighbourhoods have travelled separate routes in their respective evolution. These differences were illustrated in the fact that Lord Roberts developed into a typical working class neighbourhood highlighted by high density homes constructed on small lots. This working class image of Lord Roberts lingers in the minds of the residents who still see a hard working, blue collar workforce, and

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although the rail shops and the 600+ jobs have long since disappeared, this image still prevails. For Riverview, the image is of a white collar workforce living in larger, more expensive homes. This image is imbedded in the perceptions of the residents themselves, who view the area as a tight knit community.

Overall, the pattern of urban development in the study area has been shaped extensively by the influence of Albert Austin, who brought in the electric street car and subsequent masses of people into the River Park grounds. This factor subsequently facilitated the opening of the area to residential development. Along with being the vehicle for opening up the area, the influence of the street car on the commercial street scape is still evident nearly one hundred years latter as the location and clusters of businesses are still centred around the old trolley stops along Osborne Street.

The eventual demise of River Park gave birth to two important features in the area; a substantial residential subdivision along the banks of the Red River, the area's most treasured feature; Churchill Park. In essence, Austin brought cutting edge technology into Winnipeg, created one of city's most frequented attractions, and laid the foundation for the development of two neighbourhoods and a park.

Many aspects of neighbourhood change and evolution have been explored within this thesis. Each area of investigation has produced results that have supported the hypothesis that the neighbourhoods are different. This was highlighted in each of the three research questions posed at the outset. Yet within each research question, an alternative proposition has also been raised. This proposition is that although the neighbourhoods exhibit differences in population characteristics

such as income and education, along with housing conditions and even in the type of neighbourhood, there are nevertheless many similarities.

To conclude, the neighbourhoods are different in certain tangible socio-economic and physical characteristics that can be measured quantitatively. However, when sufficient weight is given to the intangibles of soul, feeling, and sense of community, the neighbourhoods mesh together in a fusion that is difficult to measure statistically. Therefore, it is critical to end with a reflection not only on the importance of understanding soul and sense of "rootedness", but also to somehow try to uncover a way to measure these intangibles in order to discern from reality, a balanced sense of a neighbourhood that synthesizes the intangibles with empirically tested measured.

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APPENDIX A - BLOCK BY BLOCK INFORMATION (BY YEAR)

Henderson Information Block By Block 1915-1995	1915	1920	1925	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
300 Block																	
Services	0	0	0	0	1	0	0	0	3	2	2	1	3	2	1	1	3
Professional	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Food Stores	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400 Block																	
Services	2	4	2	2	3	2	4	4	3	1	4	6	5	4	3	7	3
Professional	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0
Food Stores	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Medical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500 Block																	
Services	9	10	5	13	16	15	17	17	6	7	19	13	17	13	15	23	18
Professional	1	1	0	3	2	1	1	0	0	0	2	2	3	1	2	2	1
Food Stores	0	4	4	6	3	8	1	3	0	0	0	3	2	3	1	1	1
Medical	0	1	1	3	0	1	3	2	2	3	5	2	2	2	2	3	2
600 Block																	
Services	0	2	6	11	13	11	14	14	12	9	14	13	15	13	12	11	7
Professional	0	0	1	0	0	0	0	0	0	0	1	2	4	3	5	4	5
Food Stores	1	0	1	1	3	1	1	3	0	1	2	3	0	3	1	1	2
Medical	0	0	0	0	0	0	0	2	0	0	2	1	1	2	1	2	0
700 Block																	
Services	2	1	1	5	5	5	7	7	7	6	15	10	10	9	14	10	16
Professional	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2
Food Stores	4	3	4	4	4	4	1	1	1	0	3	0	1	3	1	3	0
Medical	0	1	1	1	1	1	1	0	2	2	2	2	1	2	3	3	1
800 Block																	
Services	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	10
Professional	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Food Stores	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
edical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX B - HENDERSONS DATA BY TYPE AND YEAR
HENDERSON'S DIRECTORY WINNIPEG 1947-1996

CATEGORIES	1915	1920	1925	1930	1935	1940	1947	1950	1955	1960	1963	1971	1975	1985	1985	1990	1995
SERVICES:TOTAL	8	12	13	26	34	26	30	27	24	19	33	32	31	27	34	43	33
RESTAURANTS	0	1	1	2	3	5	2	5	3	3	9	5	6	5	7	10	14
MEDICAL/ PHARMACIES	3	2	2	4	3	3	4	3	4	5	9	6	4	6	6	5	4
SHOE SHOP/ REPAIR	2	1	2	4	5	4	4	4	2	2	5	2	2	3	3	2	1
BARBER SHOPS/ BEAUTY SALONS	1	2	1	3	6	5	6	6	3	5	8	12	12	7	9	8	5
CLEANERS	1	0	2	1	3	1	5	4	2	2	5	2	2	2	2	3	2
3DEPARTMENT/ HARDWARE STORES	1	1	2	2	1	2	2	2	2	2	2	2	3	3	3	2	2
TAILORS	1	2	2	4	3	3	3	2	3	2	1	1	0	1	2	2	1
JEWELLERS	0	0	0	1	1	0	3	2	1	1	1	1	1	0	0	0	0
FOOD STORES	6	7	9	10	12	17	5	5	3	2	4	10	5	3	3	5	3
LIBRARIES	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ENTERTAINMENT	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
BANKS	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
PROFESSIONAL	0	0	0	0	0	0	0	0	0	0	4	2	8	5	8	6	7

Source: Henderson's Directory of Winnipeg; 1915-1995.

**total services include; service stations shoe shops. Department stores,tailors, cleaners, barber shops and jewllers Professional icludes, lawyers, geophysisits, enginners architechs and other misc professional occupations.

APPENDIX C - CENSUS MATERIAL BY YEAR AND TYPE

CT'S 1951	POPUL	OCC DWELLS	SNG DETACH	APT	RMS/DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	4373	1239	1000	220	5.2	1000	230	48	NA	M-2722 F-1253	33.58	3.5
LORD ROBERTS	6293	1816	1520	280	5.1	1380	435	38	NA	M-2444 F-1321	33.36	3.4
WINNIPEG	NA	NA	NA	NA	NA	NA	NA	39	NA	M-2226 F-1199	NA	NA

CT'S 1956	POPUL	OCC DWELLS	SNG DETACH	APT	RMS/DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	5715	1465	NA	NA	NA	NA	NA	NA	NA	NA	33.17	3.6
LORD ROBERTS	6933	1902	NA	NA	NA	NA	NA	NA	NA	NA	32.15	3.6
WINNIPEG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CT'S 1961	POPUL	OCC DWELLS	SNG DETACH	APT	RMS/DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	5863	1627	1307	360	5.3	1231	396	83	14312	M-4753 F-2156	33.64	3.4
LORD ROBERTS	7651	2116	1721	272	5.1	1626	490	77	10683	M-3914 F-1936	31.8	3.6
WINNIPEG	NA	NA	NA	NA	4.9	NA	NA	71	12999	M-3907 F-1961	NA	NA

*PPH DENOTES PERSONS PER HOUSEHOLD

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APPENDIX C - CENSUS MATERIAL BY YEAR AND TYPE

CT'S 1966	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	5758	1653	1280	352	NA	1233	420	NA	NA	NA	34.67	3.3
LORD ROBERTS	7586	2228	1643	451	NA	1551	677	NA	NA	31.7	3.4
WINNIPEG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CT'S 1971	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	5420	1645	1270	385	5.6	1210	460	107	17830	M-6551 F-1968		3.3
LORD ROBERTS	7115	2160	1635	425	5.3	1480	690	103	13252	M-5931 F-1963		3.5
WINNIPEG	NA	NA	NA	NA	5.1	NA	NA	108	17780	M-6054 F-2135		NA

CT'S 1976	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	5001	1645	1255	335	NA	1220	425	NA	NA	NA	37.6	2.8
LORD ROBERTS	6457	2385	1585	525	NA	1490	895	NA	NA	NA	33.7	2.7
WINNIPEG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

*PPH DENOTES PERSONS PER HOUSEHOLD

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CT'S 1981	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL.	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	4405	1610	NA	NA	6.0	NA	NA	258	53590	M-16021 F-6664	38.31	2.6
LORD ROBERTS	6086	2455	NA	NA	5.2	NA	NA	376	39663	M-13388 F-6456	34.3	2.5
WINNIPEG	NA	NA	NA	NA	5.4	NA	NA	320	58866	M-15220 F-6647	NA	NA

CT'S 1986	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL.	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	4209	1620	1305	205	6.0	1225	395	373	70656	M-20963 F-9989	38.7	2.5
LORD ROBERTS	5905	2420	1650	245	5.1	1620	800	401	49608	M-17393 F-9989	35.2	2.4
WINNIPEG	NA	NA	NA	NA	5.4	NA	NA	425	77844	M20483 F-10251	NA	NA

CT'S 1991	POPUL.	OCC DWELLS	SNG DETACH	APT	RMS/ DWELL.	OWNER	RENTER	MED RENT	MED VALUE	MED INCOME	Average Age	PPH*
RIVERVIEW	4256	1790	1300	NA	5.9	1245	550	503	89611	M-25074 F-15455	39.1	2.3
LORD ROBERTS	5547	2370	1620	NA	5.3	1556	810	518	64150	M-22675 F-13704	35	2.3
WINNIPEG	NA	NA	NA	NA	5.7	NA	NA	514	97006	M-24515 F-13732	NA	NA

*PPH DENOTES PERSONS PER HOUSEHOLD

Appendix D

Evaluation Criteria For Rating Dwelling Units. Supplied by the Department of Environmental Planning at the City of Winnipeg.

1). **Good Housing**: all buildings free of deterioration except for that of a very minor nature. This includes those in sound structural condition and in good repair but does not necessarily include only new housing

2). **Fair Housing**: needs a little more repair than would be provided in the course of regular maintenance. It has one or more of the following minor deficiencies that must be corrected:

> 1) Holes, open cracks, rotted, loose or missing materials over a small area.
> 2) Broken or unsafe porch steps or railings.
> 3) Rotten or loose window sash or frame.
> 4) Damaged, unsafe or makeshift chimney.
> 5) Rotted eves, loose, rotted or missing gutter and down spout.
> 6) Structure in need of complete painting or cleaning.

3). Poor Housing: Has one or more of the following major deficiencies which could lead to serious damage if not corrected:

> 1) Walls obviously out of plumb, building settled and seriously deteriorated.
> 2) Rotted, loose or missing building members.
> 3) Holes, open cracks, rotted, loose, or missing materials over a considerable area.
> 4) Roof sagging, rotted, or makeshift construction.
> 5) Rotted or sinking foundation.
> 6) Rotted or loose window frames.
> 7) Combination of three or more minor deficiencies.

4) Very Poor Housing:

Does not provide safe and adequate shelter. Has three or more major deficiencies, cannot be renovated at a reasonable cost. These deficiencies must be corrected if the unit is to continue to provide safe and adequate shelter. Should included:

> 1) Sagging or crumbling foundation.
> 2) Faulty roof or chimney.
> 3) Rotted door sills and window frames.

PPENDEX E.
STREET BY STREET BREAK DOWN OF EVALUATIONS
RIVERVIEW CENSUS TRACT MEASUREMENTS

Rating	Glassgow	Woodward	Brandon	Arnold	Morley	Bartlet	Maplewood	Oakwood	Baltimore	Ashland	Balfour
good	4	18	19	41	43	60	79	88	95	109	86
fair	9	0	16	44	137	37	17	11	11	0	15
poor	0	0	1	6	10	0	0	0	0	0	0
very poor	0	0	0	2	0	0	0	0	0	0	0
good upgraded	3	0	1	3	5	6	6	6	13	19	6
fair upgraded	1	0	4	3	5	1	0	0	0	0	0
infill unit	1	0	0	2	6	1	1	1	1	0	0

Rating	Claire	Montgomery	Wavell	Churchill Drive	Fisher	Hay	Darling	TOTALS
good	98	98	63	78	22	8	6	1016
fair	9	0	0	0	1	2	0	309
poor	0	0	0	0	0	0	0	17
very poor	0	0	0	0	0	0	0	2
good upgraded	11	9	4	6	2	3	1	104
fair upgraded	0	0	0	0	0	0	0	14
infill unit	0	0	0	0	0	0	0	13

Appendex E
LORD ROBERTS CENSUS TRACT MEASUREMENTS

Rating	Brandon	Carlaw	Heatherington	Arnold	Morley	Kylemore	Walker	Rathgar	Beresford	Rosedale	Jubilee
good	5	10	13	23	13	30	13	5	24	33	46
fair	21	51	56	74	95	81	185	141	118	212	190
poor	4	6	13	11	14	4	10	9	11	2	5
very poor	0	0	1	2	0	0	0	1	0	0	0
good upgraded	1	0	1	1	3	1	0	0	1	4	1
fair upgraded	0	3	2	2	9	4	17	10	7	18	10
infill unit	2	0	0	3	2	0	2	1	0	1	2

Rating	McNaughton	Montague	Churchill Drive	Nassau	Berwick Pl.	Berwick St.	Hugo	Daily	TOTALS
good	45	43	16	8	26	25	5	5	388
fair	14	11	14	47	4	10	0	0	1324
poor	0	0	0	5	0	0	0	0	94
very poor	0	0	0	0	0	0	0	0	4
good upgraded	3	1	0	0	2	2	0	0	21
fair upgraded	0	0	0	3	0	0	0	0	85
infill unit	0	1	0	1	0	0	0	0	15

APPENDIX F
NEIGHBOURHOOD SURVEY FALL 1996 (LORD ROBERT'S AND RIVERVIEW)
General Section I

1) How long have you lived in this neighbourhood?

_____

2) How long have you lived in this home?

_____

3) What are the most recent neighbourhoods that you have lived in?
a)_____ b)_____
c)_____ d)_____
e)_____

4) Why did you chose to live in this neighbourhood? (Check as many reasons that fit)
a) cheap housing_____
b) safe neighbourhood_____
c) convenient location_____
d) neighbourhood amenities (parks, recreation etc)_____
e) character area_____
f) schools_____
g) born here_____
h) good place to raise kids_____
I) other (please list) _____

5) Do you have family in the neighbourhood? (Yes/No)_____

6) Thinking about your attachment and involvement in the neighbourhood do you think that you are: (check one)
a) strongly attached_____
b) somewhat attached_____
c) undecided_____
d) not strongly_____
e) not at all_____
f) don't know_____

7) Do you know your immediate neighbours?
Yes_____ No_____

8) Which of the following best describes your relationship with your neighbours?
a) casual (just saying hello)_____
b) friendly ((borrow eggs)_____
c) very friendly (go out, have coffee)_____
d) not friendly (don't know them at all)_____
e) not sure_____

9) On the whole, do you feel that you are a part of the neighbourhood?
Yes_____No_____

if yes, why?

_____

_____

If no, why?

_____

_____

Neighbourhood Facilities Section II

10) Thinking about the neighbourhood facilities in the area which do you most frequently use?
a) community centre_____
b) parks/tot lots_____
c) trails_____
d) none_____
e) others_____

11) What types of activities do you take part in the neighbourhood? (Check as many that apply)
a) bingos_____
b) community awareness groups_____
c) sports teams_____
d) fitness groups_____
e) others _____
f) none_____

12) On a scale on 1 to 10 (1 being the worst 10 being the best) how would you rate the following neighbourhood facilities?
a) community centre_____
b) overall park system_____
c) sports facilities (skating, soccer, baseball etc)_____
d) meeting centres (spaces for community groups)_____

Neighbourhood Conditions III

13) On a scale of 1 to 10 (1 being the worst and 10 being the best) how would you rate the following?

a) general condition of the neighbourhood_____
b) condition of the housing (not including apartments)_____
c) condition of the apartments in the area_____
d) condition of the roads_____
e) friendliness of the residents_____

14) What is the One problem in this neighbourhood that you consider to be the most important issue today?

_____

_____

15) What is the ONE thing about this neighbourhood that you consider to the best?

_____

_____

16) Considering the following list of issues how would you rate them

	Major Problem	Minor Problem	Not a Problem	Becoming a Problem	Not Sure
a) vacant buildings	_____	_____	_____	_____	_____
b) deteriorated housing	_____	_____	_____	_____	_____
c) cost of housing	_____	_____	_____	_____	_____
d) schools	_____	_____	_____	_____	_____
e) burglaries	_____	_____	_____	_____	_____
f) youth crime	_____	_____	_____	_____	_____
g) litter and garbage	_____	_____	_____	_____	_____
f) street maintenance	_____	_____	_____	_____	_____

17) Looking back on the last year or two would you say that the condition of the neighbourhood has

a) improved_____
b) remained the same_____
c) gotten worse_____
d) not sure_____

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18) Generally speaking, how would you rate this neighbourhood?

a) excellent_____

b) pretty good_____

c) fair_____

d) poor_____

e) very poor_____

f) not sure_____

19) How long are you planning to stay in the neighbourhood?

_____ (years or months) Not Sure_____

20) If you plan to move please, check off as many items that fit (If no skip to question 22)

a) leaving the city_____   e) moving out of parents home_____

b) want to be closer to work_____   f) want to buy instead of renting_____

c) want a newer home_____   g) other_____

d) don't like the neighbourhood_____ /   _____

21) Which neighbourhood would you like to move to? (List a number of choices if you are undecided)

_____

22) Thinking about the entire city of Winnipeg, could you list YOUR top five neighbourhoods in the city?

1)_____

2)_____

3)_____

4)_____

5)_____

23) Where would you rank your neighbourhood?

_____(rank it by position i.e. in the top 10, top 20)

24) Which of the following best describes the neighbourhood? (Pick one)

a) declining area_____

b) very stable area_____

c) somewhat stable_____

d) improving area_____

e) not sure_____

Comparison Section IV

25) In general, how would you compare Lord Roberts with Riverview?(reverse for Riverview)
a) about the same_____
b) better_____
c) worse_____
d) fairly close_____
e) not sure_____

26) Thinking specifically about housing how does Lord Roberts Compare with Riverview?
a) about the same_____
b) better_____
c) worse_____
d) fairly close_____
e) not sure_____

27) Thinking specifically about recreational facilities (community centre and parks) how does Lord Roberts Compare with Riverview?
a) about the same_____
b) better_____
c) worse_____
d) fairly close_____
e) not sure_____

28) Thinking about the overall appearance and conditions of the two neighbourhoods, how does Lord Roberts compare with Riverview?
a) about the same_____
b) better_____
c) worse_____
d) fairly close_____
e) not sure_____

29) In a brief answer, what do you think makes Lord Roberts different from Riverview (use the back of the page if there is not enough room)

_____

_____

Use of Neighbourhood Shops and Services V
30) Do you do the majority of your grocery shopping in the neighbourhood?
Yes_____ No_____
If no where?_____

31) What other services do you use in the neighbourhood?

a) cleaners_____

b) drugstores_____

c) clothing_____

d) video rental_____

e) bookstores_____

f) car maintenance_____

g) restaurants/bar_____

h) others_____

32) Thinking about the services in the neighbourhood overall, how would you rank them?

a) very good_____

b) not bad_____

c) adequate_____

d) could be improved_____

Housing Section VI (Complete if you are a home OWNER) if you are a RENTER skip to question #41

33) In terms of your housing are you considering undertaking any home renovation projects to improve the house?

Yes_____ No_____ if no skip to question #36

34) Are you planning to upgrade any of the following (check any applicable)

a) structure_____   h) windows_____

b) exterior (painting, siding)_____   I) garage (adding)_____

c) interior (general)_____   j) others_____

d) bathroom_____   _____

e) kitchen_____   _____

f) bedrooms_____   _____

g) basement (building rec room)_____   _____

35) In approximate dollars what do you anticipate the price range for your plans to be in?

a) $0-1000_____   d) $6000-10000_____

b) $1000-3000_____   e) $10000 or higher_____

c) $3000-6000_____   f) not sure_____

36) Have you completed any renovations in the last five years?

Yes_____ No_____ if no skip to question #40

37) Did you use any Government assistance programs?
Yes_____ No_____
if yes, which ones? If no leave blank

_____

_____

38) Going back to your previous renovations, to which section of the home did you renovate? (Check as many as needed)

a) structure_____   h) windows_____
b) exterior (painting, siding)_____   I) garage (adding)_____
c) interior (general)_____   j) others_____
d) bathroom_____   _____
e) kitchen_____   _____
f) bedrooms_____   _____
g) basement (building rec room)_____   _____

39) What was the approximate price range of the renovations?

a) $0-1000_____   d) $6000-10000_____
b) $1000-3000_____   e) $10000 or higher_____
c) $3000-6000_____   f) not sure_____

40) What condition would you classify your home as being in at the movement?

a) excellent_____   f) needs some work_____
b) good_____   g) needs major work_____
c) fair_____   I) not sure_____

40a) If you had the opportunity to renovate your home which of the following would you do?

a) structure_____   h) windows_____
b) exterior (painting, siding)_____   I) garage (adding)_____
c) interior (general)_____   j) others_____
d) bathroom_____   _____
e) kitchen_____   _____
f) bedrooms_____   _____
g) basement (building rec room)_____   _____

OWNERS PLEASE SKIP TO THE LAST QUESTION #47

41) How long have you been a renter in the neighbourhood?

_____

42) Do you have plans to buy a home in the next year or two?
Yes_____ No_____

43) If yes, do you plan on staying in the neighbourhood?
Yes_____No_____

44) If no, which neighbourhood would you move to? (List more than one if not sure)

_____

_____

45) What condition would you classify your home as being in at the movement?
a) excellent_____   f) needs some work_____
b) good_____   g) needs major work_____
c) fair_____   I) not sure_____

46) What would you improve or have the land owner improve in the dwelling unit at this time?
a) structure_____   h) windows_____
b) exterior (painting, siding)_____   I) garage (adding)_____
c) interior (general)_____   j) others_____
d) bathroom_____   _____
e) kitchen_____   _____
f) bedrooms_____   _____
g) basement (building rec room)_____   _____

Final Section VII

47) Thinking about the questions thus far asked, is there anything you would like to ad about your neighbourhood in terms of good qualities, bad qualities, great places that you like to use in the area. I would like you to take some time to think carefully about the importance of your neighbourhood and try to tell me things that you think people should know about this special place.Please write as little or as much as you'd like. Use the back of this sheet to continue or if you prefer, type out some thoughts because I would greatly appreciate hearing about your neighbourhood and the good and bad things that make it unique and alive!

_____
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APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
CONDITION OF NEIGHBOURHOOD LAST TWO YEAR				
RIVERVIEW	28	.8214	.476	.090
LORD ROBERTS	19	.9474	.405	.093

Mean Difference = -.1259
Levene's Test for Equality of Variances: F= 2.456 P= .124

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.94	45	.350	.133	(-.394, .143)
Unequal	-.97	42.60	.335	.129	(-.387, .135)

Variable	Number of Cases	Mean	SD	SE of Mean
RATE NEIGHBOURHOOD				
RIVERVIEW	32	.5313	.621	.110
LORD ROBERTS	20	1.2500	.639	.143

Mean Difference = -.7188
Levene's Test for Equality of Variances: F= .239 P= .627

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-4.02	50	.000	.179	(-1.078, -.359)
Unequal	-3.99	39.63	.000	.180	(-1.083, -.355)

Variable	Number of Cases	Mean	SD	SE of Mean
PRESENT CONDITION OF HOME				
RIVERVIEW	25	1.2000	.957	.191
LORD ROBERTS	15	1.8667	1.060	.274

Mean Difference = -.6667
Levene's Test for Equality of Variances: F= 1.681 P= .203

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-2.05	38	.047	.325	(-1.326, -.008)
Unequal	-2.00	27.25	.056	.334	(-1.352, .018)

APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
BEST DESCRIBES NEIGHBOURHOOD				
RIVERVIEW	30	2.1667	.791	.145
LORD ROBERTS	19	1.8421	.898	.206

Mean Difference = .3246
Levene's Test for Equality of Variances: F= .074 P= .786

t-test for Equality of Means   95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.33	47	.191	.245	(-.167, .817)
Unequal	1.29	34.82	.206	.252	(-.187, .836)

Variable	Number of Cases	Mean	SD	SE of Mean
EXTERIOR DONE				
RIVERVIEW	21	.2381	.436	.095
LORD ROBERTS	13	.5385	.519	.144

Mean Difference = -.3004
Levene's Test for Equality of Variances: F= 4.350 P= .045

t-test for Equality of Means   95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.81	32	.079	.166	(-.638, .037)
Unequal	1.74	22.25	.096	.173	(-.658, .057)

Variable	Number of Cases	Mean	SD	SE of Mean
INTERIOR DONE				
RIVERVIEW	21	.4762	.512	.112
LORD ROBERTS	13	.3846	.506	.140

Mean Difference = .0916
Levene's Test for Equality of Variances: F= .950 P= .337

t-test for Equality of Means   95%

Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.51	32	.614	.180	(-.275, .458)
Unequal	.51	25.79	.614	.179	(-.277, .461)

APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
STRUCTURE DONE				
RIVERVIEW	21	.8571	.359	.078
LORD ROBERTS	13	.9231	.277	.077

Mean Difference = -.0659
Levene's Test for Equality of Variances: F= 1.379 P= .249

t-test for Equality of Means Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.57	32	.576	.117	(-.303, .172)
Unequal	-.60	30.25	.552	.110	(-.290, .158)

Variable	Number of Cases	Mean	SD	SE of Mean
BATHROOM DONE				
RIVERVIEW	21	.4762	.512	.112
LORD ROBERTS	13	.5385	.519	.144

Mean Difference = -.0623
Levene's Test for Equality of Variances: F= .028 P= .869

t-test for Equality of Means Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.34	32	.734	.182	(-.432, .308)
Unequal	-.34	25.30	.735	.182	(-.437, .313)

Variable	Number of Cases	Mean	SD	SE of Mean
BEDROOM DONE				
RIVERVIEW	20	.6000	.503	.112
LORD ROBERTS	13	.6154	.506	.140

Mean Difference = -.0154
Levene's Test for Equality of Variances: F= .030 P= .863

t-test for Equality of Means Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.09	31	.932	.180	(-.382, .351)
Unequal	-.09	25.65	.933	.180	(-.385, .355)

APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
KITCHEN DONE				
RIVERVIEW	20	.6500	.489	.109
LORD ROBERTS	13	.5385	.519	.144

Mean Difference = .1115
Levene's Test for Equality of Variances: F= 1.007 P= .323

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.62	31	.537	.178	(-.252, .476)
Unequal	.62	24.68	.543	.181	(-.261, .484)

Variable	Number of Cases	Mean	SD	SE of Mean
BASEMENT DONE				
RIVERVIEW	20	.7500	.444	.099
LORD ROBERTS	13	.8462	.376	.104

Mean Difference = -.0962
Levene's Test for Equality of Variances: F= 1.836 P= .185

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.64	31	.524	.149	(-.401, .208)
Unequal	-.67	28.74	.509	.144	(-.391, .198)

Variable	Number of Cases	Mean	SD	SE of Mean
GARAGE DONE				
RIVERVIEW	20	.9500	.224	.050
LORD ROBERTS	13	.9231	.277	.077

Mean Difference = .0269
Levene's Test for Equality of Variances: F= .377 P= .543

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.31	31	.761	.088	(-.152, .206)
Unequal	.29	21.82	.772	.092	(-.163, .217)

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APPENDIX G T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
WINDOWS DONE				
RIVERVIEW	20	.5000	.513	.115
LORD ROBERTS	13	.6154	.506	.140

Mean Difference = -.1154
Levene's Test for Equality of Variances: F= 1.057 P= .312

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.63	31	.530	.182	(-.486, .256)
Unequal	-.64	26.03	.530	.181	(-.488, .257)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE EXTERIOR				
RIVERVIEW	22	.3636	.492	.105
LORD ROBERTS	14	.5714	.514	.137

Mean Difference = -.2078
Levene's Test for Equality of Variances: F= .472 P= .497

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.21	34	.233	.171	(-.556, .140)
Unequal	-1.20	26.95	.240	.173	(-.562, .147)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE INTERIOR				
RIVERVIEW	22	.5909	.503	.107
LORD ROBERTS	14	.5714	.514	.137

Mean Difference = .0195
Levene's Test for Equality of Variances: F= .047 P= .829

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	.11	34	.911	.173	(-.333, .372)
Unequal	.11	27.41	.912	.174	(-.338, .377)

APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
USTRUCT upgrade structure				
RIVERVIEW	22	.8636	.351	.075
LORD ROBERTS	14	.9286	.267	.071

Mean Difference = -.0649
Levene's Test for Equality of Variances: F= 1.500 P= .229

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.59	34	.559	.110	(-.288, .159)
Unequal	-.63	32.77	.535	.103	(-.276, .146)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE BATH				
RIVERVIEW	22	.5909	.503	.107
LORD ROBERTS	14	.8571	.363	.097

Mean Difference = -.2662
Levene's Test for Equality of Variances: F= 15.762 P= .000

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-1.71	34	.096	.155	(-.582, .050)
Unequal	-1.84	33.35	.075	.145	(-.560, .028)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE BEDROOM				
RIVERVIEW	22	.8636	.351	.075
LORD ROBERTS	14	.9286	.267	.071

Mean Difference = -.0649
Levene's Test for Equality of Variances: F= 1.500 P= .229

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.59	34	.559	.110	(-.288, .159)
Unequal	-.63	32.77	.535	.103	(-.276, .146)

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APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE KITCHEN				
RIVERVIEW	22	.7727	.429	.091
LORD ROBERTS	14	.6429	.497	.133

Mean Difference = .1299
Levene's Test for Equality of Variances: F= 2.401 P= .131

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	.83	34	.411	.156	(-.187, .447)
Unequal	.81	24.79	.428	.161	(-.203, .462)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE BASEMENT				
RIVERVIEW	22	.7273	.456	.097
LORD ROBERTS	14	.9286	.267	.071

Mean Difference = -.2013
Levene's Test for Equality of Variances: F= 12.805 P= .001

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-1.49	34	.145	.135	(-.475, .073)
Unequal	-1.67	33.86	.104	.121	(-.446, .044)

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE GARAGE				
RIVERVIEW	22	.7727	.429	.091
LORD ROBERTS	14	.8571	.363	.097

Mean Difference = -.0844
Levene's Test for Equality of Variances: F= 1.625 P= .211

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	-.61	34	.546	.138	(-.366, .197)
Unequal	-.63	31.14	.531	.133	(-.356, .188)

APPENDIX G T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
UPGRADE WINDOWS				
RIVERVIEW	22	.5909	.503	.107
LORD ROBERTS	14	.7857	.426	.114

Mean Difference = -.1948
Levene's Test for Equality of Variances: F= 6.624 P= .015

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.20	34	.239	.162	(-.525, .135)
Unequal	-1.25	31.15	.222	.156	(-.514, .124)

Variable	Number of Cases	Mean	SD	SE of Mean
VACANT BUILDINGS				
RIVERVIEW	32	2.0313	.538	.095
LORD ROBERTS	19	2.3684	.761	.175

Mean Difference = -.3372
Levene's Test for Equality of Variances: F= 6.023 P= .018

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.85	49	.070	.182	(-.703, .029)
Unequal	-1.70	28.79	.101	.199	(-.744, .069)

Variable	Number of Cases	Mean	SD	SE of Mean
DHOUSE DETERIORATED HOUSING				
RIVERVIEW	32	1.6875	.780	.138
LORD ROBERTS	20	1.7000	1.174	.263

Mean Difference = -.0125
Levene's Test for Equality of Variances: F= 5.385 P= .024

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.05	50	.963	.271	(-.556, .531)
Unequal	-.04	29.55	.967	.297	(-.619, .594)

APPENDIX G   T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
COST OF HOUSING				
RIVERVIEW	32	1.8750	1.008	.178
LORD ROBERTS	20	2.3000	.733	.164

Mean Difference = -.4250

Levene's Test for Equality of Variances: F= 1.023 P= .317

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-1.63	50	.109	.260	(-.948, .098)
Unequal	-1.76	48.74	.085	.242	(-.912, .062)

Variable	Numbe of Cases	Mean	SD	SE of Mean
SCHOOL QUALITY				
RIVERVIEW	31	2.2903	1.189	.213
LORD ROBERTS	20	2.6000	1.046	.234

Mean Difference = -.3097

Levene's Test for Equality of Variances: F= .002 P= .964

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	-.95	49	.346	.326	(-.964, .345)
Unequal	-.98	44.34	.334	.317	(-.948, .328)

Variable	Number of Cases	Mean	SD	SE of Mean
BURGLARIES				
RIVERVIEW	32	2.5000	1.320	.233
LORD ROBERTS	20	1.3500	1.496	.335

Mean Difference = 1.1500

Levene's Test for Equality of Variances: F= .269 P= .606

t-test for Equality of Means					95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.90	50	.005	.396	(.354, 1.946)
Unequal	2.82	36.65	.008	.408	(.323, 1.977)

APPENDIX G T - TESTS FOR NEIGHBOURHOOD VARIABLES

Variable	Number of Cases	Mean	SD	SE of Mean
YOUTH YOUTH CRIME				
RIVERVIEW	32	2.6250	1.362	.241
LORD ROBERTS	20	1.4000	1.429	.320

Mean Difference = 1.2250
Levene's Test for Equality of Variances: F= .007 P= .933

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	3.10	50	.003	.396	(.430, 2.020)
Unequal	3.06	38.99	.004	.400	(.416, 2.034)

Variable	Number of Cases	Mean	SD	SE of Mean
STREET MAINTENANCE				
RIVERVIEW	32	1.5000	1.078	.191
LORD ROBERTS	20	1.3000	1.031	.231

Mean Difference = .2000
Levene's Test for Equality of Variances: F= .278 P= .600

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	.66	50	.511	.302	(-.407, .807)
Unequal	.67	41.84	.507	.299	(-.404, .804)

Variable	Number of Cases	Mean	SD	SE of Mean
PROPERTY TAX				
RIVERVIEW	32	1.6875	1.447	.256
LORD ROBERTS	20	1.1500	1.309	.293

Mean Difference = .5375
Levene's Test for Equality of Variances: F= .452 P= .505

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	1.35	50	.183	.398	(-.262, 1.337)
Unequal	1.38	43.53	.174	.389	(-.246, 1.321)

APPENDIX H - NEIGHBOURHOOD CRITERA FOR ANALYSIS

Riverview	1951	1956	1961	1966	1971	1976	1981	1986	1991
mean age X 100	3358	3317	3364	3467	NA	3761	3831	3870	3907
avg. hisd size X 1000	3400	3600	3400	3300	3300	2800	2600	2500	2300
number of hisd	1239	1465	1627	1645	1645	1645	1610	1620	1790
population	4373	5715	5863	5420	5420	5001	4405	4209	4256
Lord Roberts	1951	1956	1961	1966	1971	1976	1981	1986	1991
mean age X 100	3336	3251	3180	3170	NA	3370	3429	3520	3495
avg. hisd size X 1000	3500	3600	3600	3400	3500	2700	2500	2600	2300
number of hisd	1816	1902	2116	2228	2160	2885	2455	2420	2370
population	6293	6933	7651	7586	7115	6457	6086	5905	5547