

THE MORPHOLOGICAL STRUCTURE OF “NEW URBANISM”:

A Viable Structure for Locally Integrated Neighbourhoods?

BY

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A Thesis

Submitted to the Faculty of Graduate Studies
In Partial Fulfilment of the Requirements for the Degree of

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Department of Architecture
University of Manitoba
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Inverness Corner Store – McKenzie Towne

Abstract

The morphological structure of a New Urbanist development, McKenzie Towne, is analysed to determine whether it succeeds at creating a locally integrated urban environment.

Traditional forms of urban growth have developed in a more integrative manner than contemporary forms of suburban growth, which occur on a larger scale and in a spatially fragmented manner. Contemporary suburban development is increasingly detached from an integrative and coherent territorial dimension. New Urbanism aims to reverse this process and to reintegrate the currently disjointed patterns of suburban growth.

Criteria that epitomise the morphological characteristics of locally integrated urbanism are compared between a traditional neighbourhood, (Wolseley,) a suburb, (Whyte Ridge), and a New Urbanist neighbourhood. (McKenzie Towne.)

The results show that McKenzie Towne achieves only partial success at creating a locally integrated urban realm. Many of the resultant morphological characteristics are symptomatic of suburban sprawl, however, other characteristics posit an improvement over conventional suburban development.

Table of Contents

1	Introduction	8
1.1	Introduction	8
1.1.1	Locally Integrated Urbanism	8
1.1.2	General Methodology and Outline of Chapters	9
1.1.3	Personal Note	10
1.1.4	Historical Context	11
1.1.4.1	Reacting to Instability	11
1.1.4.2	New Urbanism's Place Among Other Urbanisms	14
1.1.4.3	Re-coupling the Social and the Spatial Realms	18
1.2	Why Locally Integrated Development?	22
1.2.1	Re-establishing Public Space	22
1.2.2	Reintegrating Sprawl	26
1.2.3	Creating a Sense of Place	28
1.3	New Urbanism's Spatial Principles	32
1.3.1	Re-establishing Public Space	32
1.3.2	Reintegrating Sprawl	34
1.3.3	Creating a Sense of Place	35
1.4	Can Communities be created by design?	38
1.4.1	New Urbanism's Social Goals	38
1.4.2	"Community" vs. "Common good"	38
1.4.3	How does the urban environment influence people?	39
1.4.4	Summary	42
1.5	Summary	43
2	An Introduction to the Communities	44
2.1	The Selection of the Communities	44
2.2	An Overview of the Communities	45
2.3	The Location of the Communities	47
2.4	Introduction to Wolseley	49
2.5	Introduction to Whyte Ridge	52
2.6	Introduction to McKenzie Towne	55
2.7	Caution	58
2.8	Methodology	59
3.	The Community Comparisons	61
3.1	Introduction to the Criteria	62
3.1.1	Outside-in: Withdrawal from Contextual Surroundings	62

3.1.2	Selective assembly required: Selective and Bypass Networks	64
3.1.3	Public and Unstructured Spaces	65
3.2	Criterion No.1: Withdrawal from contextual surroundings	66
3.2.1	Boundaries	66
3.2.2	Functional Integration	73
3.3	Criterion No. 2: Selective and Bypass Networks	80
3.3.1	Local-Bypass Roads	80
3.3.2	Selective Access Road Networks	87
3.4	Criterion No. 3: Public and Unstructured Spaces	94
3.4.1	Unstructured Spaces	94
3.4.2	Structured Spaces	99
4	Conclusions	105
4.1	General Summary	105
4.2	McKenzie Towne's Inhibitors of Locally Integrated Urbanism	106
5	Bibliography	109

Table of Maps

Map 1: City of Winnipeg with the locations of Wolseley and Whyte Ridge.	47
Map 2: City of Calgary with the location of McKenzie Towne.....	48
Map 3: Wolseley Aerial Photo with Sample Area highlighted.....	49
Map 4: Wolseley Neighbourhood.	50
Map 5: Whyte Ridge Aerial Photo with Sample Area highlighted.....	52
Map 6: Whyte Ridge and surrounding context.	53
Map 7: McKenzie Towne Aerial Photo with Sample Area highlighted.....	55
Map 8: McKenzie Towne and surrounding context.	56
Map 9: Wolseley: Impermeable Boundaries.....	68
Map 10: Whyte Ridge: Impermeable Boundaries.	69
Map 11: McKenzie Towne: Impermeable Boundaries.....	70
Map 12: Wolseley: Functional Integration.	75
Map 13: Whyte Ridge: Functional Integration.	76
Map 14: McKenzie Towne: Functional Integration.	77
Map 15: Wolseley: Local Bypass Roads.	82
Map 16: Whyte Ridge: Local Bypass Roads.	83
Map 17: McKenzie Towne: Local Bypass Roads.	84
Map 18: Wolseley: Selective Road Networks.....	89
Map 19: Whyte Ridge: Selective Road Networks.....	90
Map 20: McKenzie Towne: Selective Road Networks.	91
Map 21: Wolseley: Unstructured Spaces.....	95
Map 22: Whyte Ridge: Unstructured Spaces.	96
Map 23: McKenzie Towne: Unstructured Spaces.....	97
Map 24: Wolseley: Structured Spaces and Pedestrian Paths.	100
Map 25: Whyte Ridge: Structured Spaces and Pedestrian Paths.	101
Map 26: McKenzie Towne: Structured Spaces and Pedestrian Paths.	102

Maps 9 through 26 have a scale of 1:10 000. There are scale bars on the other maps.

North is straight upwards for all maps.

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1 INTRODUCTION

1.1 Introduction

1.1.1 Locally Integrated Urbanism

The “New Urbanism” is a contemporary approach to urban design that is spearheaded by Andres Duany and Elizabeth Plater-Zyberk. It is variously known as either “Neo-Traditional Neighbourhood” design or as the “New Urbanism”¹. The New Urbanists strongly disapprove of suburban sprawl and its associated characteristics while zealously promoting the benefits of traditional precedents in urban design.

In contrast to suburban sprawl, which is characterised by spatial fragmentation between different buildings and spaces, traditional urbanism serves as an example of a locally integrated urban environment. Locally integrated urbanism contains the potential for buildings, spaces, and people to interact and engage through a shared and integrative spatial realm. These relationships are often articulated through structured pedestrian and public spaces, through integrative pedestrian and road networks that weave through local spaces instead of bypassing them, and by buildings that engage local spaces instead of withdrawing from them.

Unlike sprawl, where the spatially coherent and integrated dimension has ceased to exist, New Urbanism tries to create contemporary forms of locally integrated urbanism. The attempt to re-establish a locally coherent and integrated urbanism is a central theme and characteristic of New Urbanism.

The New Urbanists have many traditionally inspired principles that they are teaching to designers and developers in North America and around the world. These principles assume a literal form in documents and declarations such as “The Thirteen Points of

¹ New Urbanism has a relation to “Pedestrian Pocket” design and “Transit Oriented Development” which are promoted by Peter Calthorpe. Peter Calthorpe is associated with New Urbanism but he tends to focus on the regional scale, on sustainability, and on the use of transit more than New Urbanists generally do. (Calthorpe 1993, 10)

Traditional Neighbourhood Development”, the “Ahwahnee principles”, and more recently, the “Charter of New Urbanism.”²

1.1.2 General Methodology and Outline of Chapters

The primary goal of this research is to find out whether New Urbanism, in this case McKenzie Towne, manages to return to a locally integrated form of urban development as opposed to the spatially fragmented forms of development in current suburban sprawl. To do this, McKenzie Towne’s morphology is analysed by using criteria that can distinguish between urban morphologies that are locally integrative and morphologies that are not locally integrative. McKenzie Towne is analysed in parallel with a suburban development and a traditional neighbourhood. This serves as a measure against which McKenzie Towne’s morphological forms can be gauged.

Please see Chapter 2.8 for a more detailed methodology regarding the neighbourhood comparisons.

The introduction situates New Urbanism into a broader historical context. Different reasons for why the New Urbanists wish to return a locally integrated urbanism are then explored in Chapter One. Chapter Two introduces the different neighbourhoods that will be compared to each other. Chapter Three starts by outlining certain characteristics that will be compared between the neighbourhoods, and then proceeds to conduct the comparisons between them. Chapter Four summarises and concludes the results of the analyses and comparisons.

² Refer to URL: <http://www.cnu.org> for a current draft of the Charter of New Urbanism.

1.1.3 Personal Note

Important concerns about the currently predominant methods of suburban development are being addressed by the New Urbanists. Their ideas are growing in popularity and support. At present, however, it is hard to find meaningful research that is not excessively biased for or against New Urbanism and little research or literature exists that directly evaluates New Urbanism's morphological structure in relation to its aims.

The author's position is that the New Urbanist intention to create a locally integrated urbanism is a necessary one in the face of current suburban development and that methods should be pursued in order to address these concerns. However, doubts remain as to how effectively the New Urbanists are achieving what they have set out to do. (Krier 1998)

The author hopes that this analysis will contribute towards understanding and evaluating the successes and failures of New Urbanism. It is also hoped that this analysis will help to constructively illustrate how the New Urbanists can modify their approach in order to achieve the things that they aim to achieve.

1.1.4 Historical Context

It is important for the reader to be introduced to a broader historical context so that New Urbanism can be understood more clearly. The following introduction serves to situate the proceeding chapters in a general historical context.

1.1.4.1 Reacting to Instability

“Modernity questions all conventional ways of doing things, substituting authorities of its own, based in science, economic growth, democracy or law. And it unsettles the self; if identity is given in traditional society, in modernity it is constructed.” (Lyon 1994, 27)

The dramatic changes that have occurred in traditional social and functional routines allow individuals to negate traditional identities and cultural processes. The incessant questioning and dissolution of traditional norms permits people to engage life with a sense of freedom from past constraints. This gives them the opportunity to do what they have not been able to previously, but they simultaneously become subject to a life of relentless instability because familiar social and functional routines are perpetually undermined. (Berman 1988, 14-15)

The decreasing importance of traditional identities allows for new forms of identity to take shape. Ironically, while these new identities and social relations are increasingly free from traditional restraints, they are more subject to newly emerging forms of identity prescription through mass media and mass-consumption. Traditionally secure and predictable identities are resultantly replaced *“by a loose aggregate of personality traits”* that are *“assembled through the consumption of goods and images.”* (Dunn 1998, 67) This has stimulated a process that is now associated with the contemporary culture of

consumption. Producers are limited in the extent to which they can specialise their goods. In order to create ever-new products and an infinite demand they need to create new and superficial needs within the consumer. (Simmel 1997, 77; Baudrillard 1997, 214) Goods, images, and fragments of culture are continually and inexhaustibly recycled into ever new but artificial cultural constructs. These are then commodified and sold back to the consumer for consumption. For this reason *“Our age will no longer be one of duration, ...our only temporal mode is that of the accelerated cycle and of recycling: ...the breaking up of cultural molecules, and of their recombination into synthetic products.”* (Baudrillard 1997, 211)

Contemporary culture therefore causes many people to feel discontented. It continually creates and stimulates a desire for various forms of consumption while never offering a lasting or complete sense of satisfaction. This prevents consumer demand from being quenched. (Crawford 1992; Langdon 1994, 21) Keeping up with such a tumultuous yet unrewarding process of commodification and consumption *“requires one to relinquish much of oneself, including a coherent sense of identity and tradition.”* (Ellin 1996, 136)

Change and instability have therefore become central characteristics of contemporary life. Excessive change occurs at the expense of personal security and stability. (Ellin 1996, 2; Simmel 1997)

New Urbanism is partly a reaction to the instabilities of current society. The lack of traditionally predictable lifestyles and smaller town life has stimulated a desire to return to the past. This *“nostalgic impulse might be understood as a response to rapid change.”* (Ellin 1996, 124) New Urbanism places a strong emphasis on the past and on traditional urban precedents. It also attempts to recreate a sense of place and belonging in the contemporary context amidst what is otherwise mostly a homogenous and ambiguous urban realm.

New Urbanist proponents are diligently working to create an urban environment that contains all of the benefits of traditional neighbourhoods. They face a number of challenges though, that threaten to reduce their efforts to the norms that they hope to escape. Many developers have already adopted New Urbanism in a pretentious manner, by using traditional architectural language in their developments to appeal to the nostalgic desires of consumers, but do so while stripping these developments of the more important urban characteristics that are particular to traditional urbanism. (McCannell 1990, 109; Kunstler 1996, 194) New Urbanism therefore walks a fine line between providing a locally integrated urban realm in the manner of traditional urbanism, and the process of cultural recycling and commodification that reduces the past to a fictional and superficial present.

1.1.4.2 New Urbanism's Place Among Other Urbanisms

New Urbanist design strategies are largely a reaction to current suburban development. As part of its resistance to suburbanism, however, it has harnessed many older movements in urban design. A vast amalgamation of influences has therefore been assimilated under the general banner of New Urbanism. Andres Duany and Elizabeth Plater-Zyberk cite a variety of influences, from Ebenezer Howard and Raymond Unwin, (Garden cities,) to Leon Krier, (a key neo-rationalist,) to Kevin Lynch and Jane Jacobs, (who are associated with the Townscape Movement). (Duany et. al. 2000, 267-268) Writing about new large-scale "community" developments in general, (including New Urbanism,) Nan Ellin states that these developments have incorporated "*features of the townscape movement, regionalism, contextualism, neorationalism, neoclassicism, historical eclecticism, and the historic preservation movement in a variety of ways.*" (Ellin 1996, 87) The common thread in each of these movements is the resistance to modernist planning strategies. Various elements from each of these movements can be found to varying degrees in New Urbanism.

In contrast to modernism's rejection of the past and the context and its desire to reformulate traditional spatial relationships, postmodern urban design has tried to re-couple the link with the past and the site. The postmodernist approach seeks to reintegrate different functions³, to acknowledge regional and vernacular influences, to incorporate the building into its urban and environmental surroundings, to recreate public and people oriented spaces, and to incorporate community residents into the design process of new communities. (Ellin 1996, 111) Different postmodern urban design movements employ these themes to varying extents. In the case of New Urbanism, each of these characteristics is present to some

³ The word "functions" is here used to denote the presence of residential, commercial, civic, social, and other areas/services that are typically found in traditional urban environments.

degree. New Urbanist literature customarily mentions ideas such as using traditional urban design precedents as a model for contemporary development, reintegrating development into existing urban environments, making buildings fit into their contexts, incorporating vernacular themes and historical themes into their architecture, re-establishing the public realm, reintegrating different functions, etc.

New Urbanism is therefore a part of the general postmodernist resistance to modernist planning strategies and it is not necessarily a 'new' movement as such.

New Urbanism can be distinguished from most other forms of contemporary suburban development by its desire to engage and integrate the urban fabric instead of withdrawing from it. (Ellin 1996, 87) While other forms of suburban development tend to withdraw from a greater urban context, New Urbanism makes a conscious effort to engage this realm and to connect different people and places rather than separating them. (Langdon 1994, 123) How and why they attempt to do so is discussed at greater length in Chapter One.

A dramatic difference also exists between New Urbanism and other forms of contemporary academic approaches to urban design, of which "New Urbanism", "Everyday Urbanism" and "Post-Urbanism", as described by Douglas Kelbaugh, are predominant approaches at the present time⁴. (Kelbaugh 2000, 285)

Everyday Urbanism treasures the ordinary and everyday aspects of urbanism. It takes note of the unconventional use of urban spaces for the daily realities of its users. (Dupree 2002) Everyday Urbanism prefers an urban environment that permits various social routines to develop freely and it cherishes the unexpected forms of social processes that can occur in an urban environment. Examples include the use of front lawns, shopping carts, and medians

⁴ These are by no means the only current academic approaches to Urbanism, but they are the currently predominant approaches.

for commercial endeavours. (Gewertz 2000) Everyday Urbanism resultantly does not share New Urbanism's dislike for most contemporary forms of urban development or for the potentially unconventional things that occur there. While the New Urbanists bemoan the loss of public spaces, Everyday Urbanists suggest that unstructured spaces are being used as new forms of public spaces in which people can interact. (Gewertz 2000) It believes that the most mundane, ordinary, or marginal places in the urban fabric have tremendous social and functional potential. New Urbanism, on the other hand, tries to create spaces that can be used in predictable social ways. It believes that there is an ideal urban form and that such a form stimulates certain social processes and can nurture communities. Everyday Urbanists, however, are sceptical about structuralist links between design and behaviour and they believe that a utopian and perfectible urban environment is not attainable. (Kelbaugh 2000, 285)

New Urbanism is also very different to Post Urbanism and, in many ways, can be considered the antithesis of Post Urbanism. New Urbanism imposes an overarching order and hierarchy onto the urban fabric and regulates the relationships between different buildings and spaces. Post Urbanism, on the other hand, discredits the use of an absolute order and meta-narrative as repressive and as potentially stifling possible social and urban freedoms. (Kelbaugh 2000,286) They resultantly see New Urbanism's strategies as a form of oppression in which the rhetoric against suburban forms of development is being used to rationalise conformity to a tradition of utopian urban ideals. (Graham and Marvin 2001, 413) New Urbanism makes a conscious effort to subordinate individual buildings to the coherency of the greater urban environment. They believe that a commonly held code that preserves the interests of the greater good, ultimately serves to protect the public at large. (Scully 1994, 223-225) Post-Urbanism, which questions the presence of an absolute truth, meaning, or order in urbanism, is fundamentally at odds with the New Urbanist strategy of creating and enforcing an absolute urban order through the use of codes.

As Kelbaugh explains: *“If the New Urbanist tends to hold too high the best practices of the past and the Everyday Urbanist over-rates a prosaic present, the Post Urbanist is over committed to an endlessly exciting future.”* (Kelbaugh 2000,287)

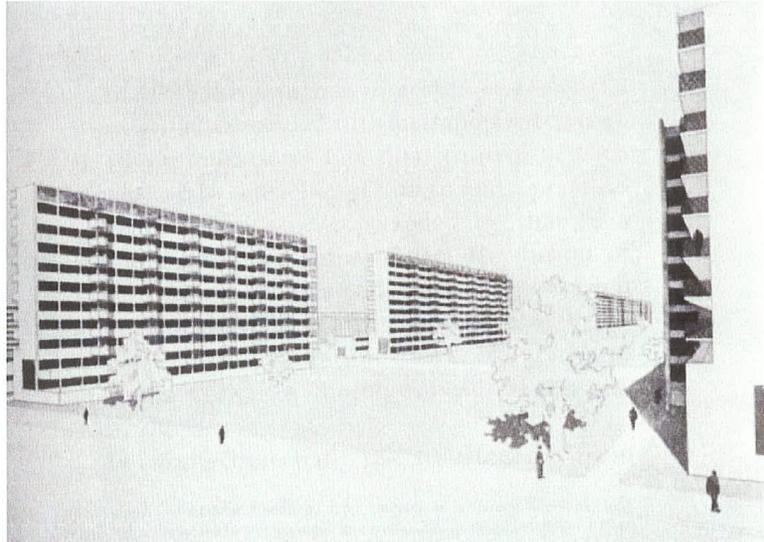
New Urbanism is set apart from other contemporary academic urban design approaches by its emphasis on the past rather than on the present or the future. In addition to this, it suggests that an overall prescriptive order be sought and maintained and that such an order is beneficial for the greater good and the success of a place as a community.

New Urbanism is therefore a unique movement in urban design. It opposes the practices of contemporary suburban design and it has stark contrasts to other forms of contemporary academic urban design movements. While it is a unique movement, the principles that it uses are not entirely new because it espouses approaches to urban design that can be found in a great variety of previously significant urban design movements.

1.1.4.3 Re-coupling the Social and the Spatial Realms

Over the course of the last century the car, freeway, telephone, radio, and television have taken root and have become commonplace. These technologies have a tremendous impact on our urban communities. A common element that is present in all of the above-mentioned technologies, which are only some of the more potent examples, is that each involves the potential manipulation of traditional social relationships and functional interdependencies in relation to the spatial realm in which they occur. Whereas people have previously been limited to interact with primarily local people and places, they are now able to extend those relationships to distant places while depending less on local people in their daily lives. Communities and social networks have therefore disengaged from a territorially confined area because new technologies are able to “compress” ever-larger distances. Families and communities have gradually spread out over vast distances. This has signalled an end to the predominance of the traditionally close-knit and spatially bounded community.

New technologies enable designers (and developers) to reconfigure the spatial arrangements of cities. Buildings and spaces have been removed from their traditional spatial relationships within the local context and have been coupled with other spaces by means of new mobility and communications technologies. It was at first assumed that modern forms of technology would serve to integrate people and places that are spatially distanced, however, this has ideologically obscured the fact that designers have been using these technologies in ways that fragment communities and places instead of integrating them. (Graham and Marvin 2001, 108; Pope 1996, 17, 58)



"Project for a Group of ten-storey Blocks of Dwellings" (Gropius 1965, 93)

Designers, such as Frank Lloyd Wright⁵ and Ludwig Hilbersheimer⁶ for example, have made full use of the potential manipulation of space-time relationships, so that buildings, places, and people are removed from a traditional spatial relationship with their communities. (Katz 1994, 224) As such, the person, the building, and the neighbourhood are released from their traditional contextual limitations, but they simultaneously suffer from the spatial fragmentation and instability that is now a part of life.

Whereas modern society allows for the loss of territorially bounded communities, the neighbourhood embodies a desire to maintain a link between the spatial and social realms. (Jeffres 2002, 4) Neighbourhoods offer an environment that presents a more intimate scale of interaction between people and does so within a territorially definable area. While the neighbourhood is dramatically removed from the concept of a traditional "Gemeinschaft", (traditionally close-knit and often spatially contained communities), it fulfils the desire that many people have for the integral life that is usually not found outside of small towns.

⁵ See Frank Lloyd Wright's Broadacre City scheme, which is discussed in the work of Robert Fishman. (Fishman 1987)

⁶ See Albert Pope's discussion of Ludwig Hilbersheimer. (Pope 1996)

(Jeffres 2002, 3) With the demise of walkable cities and integrated communities, neighbourhoods serve as a mediator between the demands of modern life and the longing for a sense of place and belonging. Neighbourhoods allow larger cities to maintain pockets of locally integrated urbanism that are walkable, that serve to create a sense of place, and that allow for a finer grain of functional diversity and interdependence. Unfortunately, many traditional neighbourhoods did not escape the scourge of modernism. Furthermore, while current suburbia may be somewhat different to most modernist urban design, it continues the tradition of spatially fragmented social and functional processes. (Scully 1994, 224; Calthorpe 1993, 11)

A driving force behind New Urbanism is the desire for the social dimension to be re-coupled to the spatial dimension. New Urbanists therefore wish to emulate traditional neighbourhoods, which generally contain varying degrees of integration between the social and the spatial realms. Most contemporary urban planning disengages social routines from the territorial context because new technologies can be used in ways that separate people and places physically while allowing them to maintain contact through various forms of technology.

The New Urbanists do not approve of the spatial fragmentation that currently exists between the various functional and social aspects of life and they hope to reintegrate different functions (such as commercial and residential functions) and different routines (such as shopping, working, walking, talking, etc.) into a territorially cohesive environment. The notion of re-coupling certain social and functional routines with a spatial dimension has prodded concerns that the New Urbanists are trying to return to a socially regressive and stifling environment. It is thought that it will never work in contemporary society because of advances in mobility and communications technologies. This concern is derived out of a general misunderstanding of New Urbanist intentions.

Whereas it is impossible to recreate a traditional *Gemeinschaft*, a close-knit and territorially bound community that is socially independent and has little relation to the outside world, it is not impossible to create a locally integrated urban environment. Hence, a distinction must be made between territorially isolated social communities, and locally integrated urban environments. Locally integrated urban environments have distinct advantages and are still popularly used and appreciated in the form of traditional neighbourhoods today. While traditional neighbourhoods contain various forms of social networks within an identifiable spatial realm, they are not socially isolated, regressive, or oppressive. Furthermore, while traditional neighbourhoods have access to certain conveniences within the local scale, such as corner stores and restaurants for example, by no means do traditional neighbourhoods attempt to resist functional interdependence with other neighbourhoods or with their greater contexts. (Jacobs 1961) Contrary to popular logic, the correct use of modern forms of mobility and communications technologies can actually enhance and stimulate locally integrated forms of urbanism rather than destroying them. (Hampton 2001, 170; Jeffres 2002, 64)

There are advantages to locally integrated urbanism of which those that are pertinent to the goals of New Urbanism will be discussed in greater detail in Chapter One.

1.2 Why Locally Integrated Development?

This chapter will look at some of the reasons why the New Urbanists would like to return to a locally integrated form of urban development.

1.2.1 Re-establishing Public Space

“Private rights now overwhelm group rights, at great cost to community. This trend has helped jump-start countermovements such as communitarianism and, to some extent, New Urbanism.” (Kelbaugh 2000, 286)

The New Urbanists hope to re-establish the importance and the significance of the public realm. (Kunstler 1996, 19) The public realm cannot exist without a local dimension in which to do so. Public space is resultantly missing from current forms of suburban development.

Public space is *“the easiest place to go. It is a place for everyone. It is a place in which you do not have to know anyone, or do anything in particular, except be there.”* (Gehl 1998, 17) It is openly accessible to local and non-local residents for any reasonable purpose. Public and semi-public spaces often serve a neighbourhood for various social or recreational purposes such as parks, or are used to articulate important community venues, such as schools, with their contexts.

Public space must be distinguished from “unstructured spaces”. Unstructured spaces have no practical purpose or pragmatic use but are leftover scrap spaces that are incapable of articulating different buildings and spaces. They are infrequently suitable for social or functional uses.

Buildings that have been built since the modernist era are generally disconnected from the larger urban fabric because of the manner in which designers have often removed buildings from a historical, social, and physical context. *"These celebrated the individual free from history and time. One could not make a community out of them."* (Scully 1994, 224) Suburbanism continues to place the overwhelming emphasis on personal and private spaces, such as homes, or on spaces of consumption, such as malls, but these isolated buildings and spaces exist in a public vacuum. While modernism stressed a break from the past and a reinvention of spatial and social relations by modern means, the contemporary suburb places the emphasis on extreme withdrawal into privately oriented enclaves that are only selectively accessible. These isolated spaces are traversed by another private means in the form of automobiles. For this reason, we have the emergence of large swaths of unstructured spaces with isolated buildings positioned within them. These unstructured spaces are not designed to articulate buildings with the local context and are therefore not amenable to pedestrian usage. There is almost a complete void of public space in suburbia.

Public spaces used to be a necessity for everyday life. However, the increase of technologies that permit distant spaces to be connected intimately has allowed developers to omit the traditional usage of the public realm that articulates buildings with local spaces. New Urbanists are concerned that developers⁷ will continue to develop socially and environmentally insensitive developments unless new standards and approaches are formulated. (Kunstler 1996, 145; Duany et.al. 2000, 211) In order to return to a viable public realm, New Urbanists propose that individual buildings must subordinate their importance to that of the public dimension. They therefore suggest revisions to government policies⁸ as

⁷ Developers tend to follow development formulas and this is one of the reasons that the New Urbanists are trying to establish alternative codes and formulas to those typically used by cities, designers, and developers. (Kunstler 1996, 213)

⁸ *"Is it the role of government to promote individual rights while defending the common good, or to promote the common good while defending individual rights? To those of us who are concerned with creating and*

well as the creation of a set of urban codes to guide the development of communities. By doing so, they hope to encourage development that will protect and value the interests of the community and the public at large (Katz 1994, 228) rather than purely benefiting the profit margins of the developer.

The idea of expecting buildings to conform to a set of urban codes in order to establish a public realm provokes fears and accusations of a potentially oppressive conformity. *“Traditional communities based on physical place, and propinquity are claimed to be stultifying, repressive, and no longer relevant in light of modern technology and telecommunications.”* (Kelbaugh 2000, 286) A valid question should then be posed. Why do the New Urbanists want to re-establish the public realm?

There are two general reasons for this. Firstly, *“these civic elements determine the quality of our shared world and express the value we assign to community.”* (Calthorpe 1993, 23) New Urbanists believe that we need space in which people can interact with other people and in which common community and public interests can be represented and pursued.

Secondly, an environment with a public dimension has benefits for the average person in regards to territorial identity, local accessibility, and social diversity. (Talen 2000) This is because a public realm creates and maintains an openly accessible environment unlike the highly selective contemporary networks that tend to *“bypass the least valued users, districts and cities”*. (Graham and Marvin 2001, 176) A basic example is that of people who cannot afford cars, or who do not have drivers-licenses, and therefore have difficulty living in suburbs because sprawl does not permit walking as a viable option to driving. Public space offers an alternative to the more selective forms of mobility networks.

maintaining community, it seems obvious that our government has too long favored the former objective...”
(Duany, et.al. 2000, 219)

Another potential argument against public spaces is that these spaces are not likely to be used effectively in the contemporary context and that they are therefore unnecessary and pretentious.

Contrary to traditional forms of public space that were used as an important dimension of everyday life, whether for meeting, market, or traffic spaces, contemporary forms of public space serve an important role for recreation or for getting away from the office or home environment. (Gehl 2000) *“Far from being phased out by societal changes, life in public spaces can—given the necessary support—grow and develop. Traditional uses centered around working and trading have been supplemented and to a wide extent superseded by social and creative activities.”* (Gehl 1998, 17.) Furthermore, confident and overwhelming support for public spaces has been proven in areas where public spaces have been previously limited. These benefits are thought to be similarly valuable in car-laden societies such as in North America. (Gehl 1998, 2000)

Public spaces require a realm that consists of shared spaces. These shared spaces serve to link different buildings, spaces, and by extension, people, together. These public spaces are openly accessible and are easy to traverse for pedestrians. Sprawl offers a bare minimum of these spaces. Some people may argue that shopping malls offer a new kind of public space but research has shown that these spaces of consumption lack the characteristically open and accessible nature of public space. Malls are closely monitored environments that are tailored to stimulate the consumption of goods and the commodification of items. (Crawford 1992, 13,21 Langdon 1994, 21) It is safe to say that sprawl offers no truly public space.

1.2.2 Reintegrating Sprawl

“Liberated from its centers and its edges by advances in communication and mobility and by a new world order bent on a single citizenship of consumption, the new city threatens an unimagined sameness even as it multiplies the illusory choices of the TV system.” (Sorkin 1992, xii)

New Urbanism’s reversion to traditional urban forms is also a reaction against the fragmentation of our urban realm, a process that is epitomised by suburban sprawl.

Suburbia has gone through many phases of development but its current forms bear little resemblance to its historical origins. Originally, suburbs were places where poor people who could not afford to live within the cities would reside. (Fishman 1987) Mobility and communications technologies were limited at that time, which meant that inner city areas with speedy access to a variety of daily services were valuable and were located in contexts that were conducive to commerce. Properties in these areas were prime residential and commercial real estate. This changed with the emergence of new forms of mobility and communications technologies as it became possible for affluent people to live in suburbs while commuting into the cities that these suburbs served. Suburbia continued to evolve, gradually developing into its current form that operates in a distinctly abstract manner. Offices, retail, schools, and even social functions, followed the residential outflow into the suburbs. The suburb no longer has a definite relationship with the city it serves but it has become an entity within itself. Suburban growth, unlike traditional urban growth, therefore occurs in a very fragmented and abstract manner. (Fishman 1987, 16)

This kind of abstract suburban growth has been fuelled by a complex concoction of factors. The advent and commercialisation of new technologies like automobiles, telephones, and the Internet have decreased the need for territorial proximity. Compounded by the allure of the “countryside” and the repulsion of industrialising modern cities, this has

opened the doors for developers to buy cheaper land on the outskirts of cities and to make it accessible to the general populace. (Smith 1979, 247) Fuelled on by mortgage, “interstate”⁹, and other programs, these tracts of land have been speedily developed with single-function planning formulas. This has resulted in dismembered and abstract urban growth.

An abstract urban environment is an environment that severs and resists the diverse relationships that can potentially function in neighbourhoods and cities. These diverse relationships can only emerge in a setting that permits local integration to occur in a complex manner.

Planning and development through recent history has done much to destroy the natural complexity of cities and to replace it with abstract systems that operate in a manner that is not conducive to local diversity. (Jacobs, 1961) Suburbia has since taken this tendency towards new extremes. These abstract arrangements do not only operate at a scale that is far too big for a functionally diverse realm to exist, but the buildings and residential enclaves within contemporary urban sprawl exist in a spatial vacuum by withdrawing from surrounding contexts. Local functional diversity is essential for urban vitality at the pedestrian scale and therefore large concentrations of homogenous functions tend to destroy the vigour of neighbourhoods. *“Whereas contrast is essential at the small scale, it can be destructive at the large scale... one cannot juxtapose large areas, each concentrating similar functions, along a sharp interface. Substructure has to appear giving rise to connective boundaries and transition regions...otherwise one region damages the other. Much of what is built today abruptly juxtaposes two or three homogenous large-scale forms that have different high-density functions...”* (Salingaros 2000, 15) Larger scale integration must therefore occur in a manner that does not threaten the potential functional diversity at a

⁹ Interstate programs have played a role in the development of suburbia in the context of the United States. Other countries have also developed extensive highway and freeway systems, but generally not to the same extremity as in the U.S.A.

local scale. Urban environments must couple at all scales, of which the local scale is the most sensitive. (Salingaros 2000)

The contrasting logic between abstract and integrated urbanism is also reflected in the differences between traditional and contemporary road networks. Roads have changed from gridded and integrative systems to what Albert Pope has called a “laddered” system. (Pope 1996) These new systems were initially thought to open and integrate the urban fabric but the reverse has consistently proved true. *“Euphoria in the postwar victory of modern architecture – in the unprecedented openness of space and the dematerialization of built form – ideologically obscured the fact that that (sic) the city was, in fact, moving in exactly the opposite direction.”* (Pope 1996, 28) The traditional grid was able to sustain and host an infinite variety of complex relationships both with local and distant places. This allowed cities to grow in an organic and integrated manner. Current forms of road networks, however, are consistently becoming more selective in access thus limiting potential movement and diversity between even nearby places. Major road arteries are becoming increasingly detached from the local urban scale.

Abstract urban environments such as sprawl, are significantly hostile to integrative diversity. Contrarily, locally integrated environments are conducive to this kind of integration. Locally integrated growth is more ecologically sustainable, is conducive to functional variety, and it is convenient for pedestrians. Territorial integration also offers the potential for lively and interesting urban areas to develop.

1.2.3 Creating a Sense of Place

“The importance of place has diminished as global flows of people, ideas, capital, mass media, and other products have accelerated...The most common ways to describe this

shift—both geographical and perceptual—are de-territorialization and placelessness. A by-product of this shift is a profound sense of loss and a corresponding deep nostalgia for the “world we have lost.”” (Ellin 1996, 13)

Significant changes have occurred in the shift from traditional to current forms of communities, which has caused many people to feel that there is a loss of a “sense of place” or of a “sense of community”. Contemporary communities of interest and consumption do not place the emphasis on the prescription of identities, but rather on the individual’s ability to selectively assemble one, and this increasingly occurs in different and diverse places. Whereas traditional communities often had a close correlation to a physical place, modern communities have become increasingly detached from geographical areas. Communities have therefore not disappeared, as such, but their structures and organisations have changed noticeably.¹⁰

The concepts of “place” and “community” are sometimes related to each other but are not necessarily synonymous. (Jeffres 2002, 5) When people complain of a lack of either, they are likely referring to traditional territorial communities that were typically found in neighbourhoods or smaller towns. *“Although new technologies and the decline of the public realm may perhaps generate new kinds of community—communities of consumption and of specific interests, not communities based on propinquity or the common good—they have chipped away at the traditional sources of collective identity and security.”* (Ellin 1996, 131)

¹⁰ Some people feel that the traditional sense of the word “community” is completely lost. Martin Pawley argues that the words family, community, and society have become: *“a quaint verbal system for discussing the logistics of a population of anonymous consumers who long ago abandoned territoriality in the sense of entailed inheritance, and community in the sense of a delicate hierarchy of rank...Can these shoals of anonymous commuters fed on sports reports and salacious advertising really be called communities...Surely not: there must be other words to use.”* (Pawley 1974, 10)

The neighbourhood is a type of community that has a spatial aspect¹¹ because it combines aspects of “place” and “space” with aspects of “community” and “identity”. This does not mean that non-local communities cannot exist or function in neighbourhoods but rather that contemporary neighbourhoods serve as an intermediary zone where local communities intermingle with non-local communities. This is called a “community of limited liability” in which residents maintain “*ties with religious, ethnic, occupational, or other types of communities while interacting with the neighborhood to the extent it fits their interests and lifestyles.*” (Jeffres 2002, 6-7) Neighbourhoods do not inhibit the many forms of non-local communities that people rely on in the contemporary context, and by extension, attempts to create neo-traditional neighbourhoods should not necessarily be seen as socially stifling or as regressive.

However, the question remains: Why are people looking for a territorial dimension to associate with if most social and functional relationships in contemporary society are sustained not through territoriality but through various means of mobility and communications technologies¹²?

A “*sense of place*” is arguably one of the most important ideas in a world beset by constant change.” (Jeffres 2002, 17)

A predominant characteristic of contemporary society is the fast pace of change and the associated instability. This instability is fuelled by an emphasis on consumption as a

¹¹ Leo Jeffres (Jeffres 2002) shows that there are many different definitions of both the community and the neighbourhood and that the distinction between neighbourhood and community should not be blurred. He demonstrates different definitions for neighbourhoods of which the general consensus is that a neighbourhood contains a spatial and physical elements in unison with social and community elements.

¹² A common assumption is that mobility and communications technologies are automatically destructive to local communities. On the contrary, research has often shown that modern forms of communications technologies can actually enhance local social ties. For example, “*rather than isolating people in their homes, CMC encourages visiting, surveillance, neighbour recognition, and the maintenance of local social ties.*” (Hampton 2001, 170) (CMC = “Computer Mediated Communication.”) Local Newspapers were found to have similar advantages. (Jeffres 2002, 64) Mobility and communications networks can serve to add more effective diversity to neighbourhoods by allowing different areas to integrate functionally and socially. This can benefit neighbourhood businesses and amenities as well as personal social networks.

benchmark of social status and by shrewd marketing techniques that keep lasting satisfaction out of reach while perpetually creating new “needs”. (Crawford 1992, 13,21) This is epitomised in suburbia by spaces of consumption that are created in lieu of traditional public spaces. At first glance these spaces of consumption appear to be a new form of public space¹³ but are instead spaces in which personal identities and “realities” are continually invented, fed, and dismantled; a very instable process. (Langdon 1994, 21)

These ever-changing processes and instabilities are compounded by a sense of “placelessness” in suburbia, which is composed of an endless and homogenous matrix of gas stations, freeways, fast food joints, shopping malls, and anonymous housing enclaves. On the contrary however, a recognisable and identifiable physical environment with which an individual can associate him or herself, offers a potential beacon of predictability in an otherwise quickly changing and instable society. (Jeffres 2002, 17) While neighbourhoods with a territorial dimension hardly replace non-local social ties and relationships, they do present a physical and territorial realm that offers a sense of stability that is often desired.

¹³ *“Like the suburban house, which rejected the sociability of front porches and sidewalks for private backyards, the malls looked inward, turning their back on the public street.” (Crawford 1992, 21)*

1.3 New Urbanism's Spatial Principles

The New Urbanists use planning principles to address the concerns mentioned in chapter 1.2. The concerns that were mentioned will here be correlated to the planning principles that the New Urbanists use. This is to show the reader how the New Urbanists intend to translate their theories into reality by the use of design principles. The design principles that are cited come directly from the Charter of New Urbanism.

1.3.1 Re-establishing Public Space

The New Urbanists believe that we need to take steps to create and preserve an integrated public realm. They are concerned that contemporary architecture is too withdrawn from the public realm and that it is oblivious to its urban context, characteristics that were first demonstrated by modernist designs. *"The modern architects of the International style had largely taken abstract painting as their model, and they came to want to be as free from all constraints as those painters were, free from everything which had always shaped and limited architecture before...but most of all from the restraints of the urban situation as a whole: from the city, from the community. Their buildings were to be free of zoning laws, and from the need to define the street, and from all respect for whatever already existed on and around the site."* (Scully 1994, 224)

The New Urbanists feel that current architecture and development still has little respect for urban integrity and that we therefore need to create an urban design code that can encourage individual buildings to contribute towards creating a cohesive and structured urban environment. Guidelines are given for elements such as the public realm, civic buildings, the pedestrian network, and the articulation of buildings to public spaces.

The design principles that are used to create a public realm¹⁴:

- The economic health and harmonious evolution of the neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
- A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
- Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
- The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
- In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
- Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
- Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.

¹⁴ These principles have been taken directly from the Charter of New Urbanism. The Charter contains the principles that the New Urbanists seek to employ in their designs.

1.3.2 Reintegrating Sprawl

The industrialisation of our cities has brought various forms of segregation and specialisation. Single-use zones that are joined by technological means to other specialised single-use zones have replaced integrated mixed-use areas. Various aspects of life have resultantly become increasingly spatially fragmented and scattered. (Calthorpe 1993, 11)

“Our social relations become stretched over time and space, connected by tissues of TV signals and fibre-optic cables.” (Lyon 1994, 21)

The loss of integration between the work, home, and retail functions and between the different social classes is what the New Urbanists would like to remedy. They are also trying to create an environment that can host a variety of different densities and price-ranges of residential development. *“A single word sums up the traditionalist approach to planning: connection.”* (Langdon 1994, 123)

The design principles used for reintegrating sprawl¹⁵:

- Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
- Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
- Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.

¹⁵ These principles have been taken directly from the Charter of New Urbanism. The Charter contains the principles that the New Urbanists seek to employ in their designs.

- Neighborhoods should be compact, pedestrian-friendly, and mixed use...
- Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
- Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
- Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
- The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.

1.3.3 Creating a Sense of Place

People increasingly feel that subdivisions lack a sense of place and belonging. There has been a *“transformation from communities that were more “concrete and immediate” into those whose boundaries are more distant, abstract, and diverse.”* (Dunn 1998, 60, citing John Hewitt.)

As a reaction to the increasing sense of placelessness in suburbia, New Urbanists hope to offer a predictable and identifiable territorial context that re-couples the link between certain daily social routines and an identifiable spatial realm.

New Urbanists try to accomplish the creation of a sense of place by using various means. The New Urbanists acknowledge the local climate and topography in their designs¹⁶. They also use traditional and vernacular building styles as precedents in their developments. Furthermore, public buildings and spaces are detailed to denote their importance and are arranged in a manner that structures common spaces to establish a sense of place and spatial congruity. Lastly, they attempt to situate daily social and functional routines into the local territorial context.

The design principles used for creating a sense of place and belonging¹⁷:

- Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
- The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
- The Neighborhood, the District, and the Corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
- Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes.

Schools should be sized and located to enable children to walk or bicycle to them.

¹⁶ While New Urbanism has addressed sustainability in their work, it has only recently become a primary focus in some of their designs. See Civano in Tucson, Arizona, and Coffee Creek Center in Chesterton, Indiana.

¹⁷ These principles have been taken directly from the Charter of New Urbanism. The Charter contains the principles that the New Urbanists seek to employ in their designs.

- A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighbourhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.
- Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.

1.4 Can Communities be created by design?

1.4.1 New Urbanism's Social Goals

The New Urbanists ultimately hope to re-couple the link between the social and the spatial dimensions. They hope to use design principles (that have been mentioned in Chapter 1.3) to do this.

In the “Thirteen Points of Traditional Neighborhood Development”, an early rendition of New Urbanist principles, it is stated that “The social and environmental benefits of a traditional neighbourhood development *result from* certain physical and organizational characteristics.” (Emphasis added.) They therefore suggest a relatively direct correlation between their planning principles and their social goals, which are often simply called “community”. They have resultantly been accused of trying to engineer “community” through design.

There is a great deal of debate about whether New Urbanism can “create” communities by using traditionally inspired neighbourhood design principles. Is it possible to stimulate communities by design?

1.4.2 “Community” vs. “Common good”

It helps if a distinction is made between the New Urbanist view of community and the social sciences view of community, the latter of which is related to mostly socio-demographic factors. This matter is somewhat clarified by Emily Talen who contrasts the definition of community from the social sciences view with the New Urbanist view. She shows that when these differing intentions and definitions are clarified some reconciliation can be achieved. (Talen 2000)

Social scientists are referring to many different and complex factors that are mostly non-territorial and socio-demographic in nature when they refer to “community”. These kinds of community structures do not normally originate with environmental factors. *“If ‘community’ and ‘design’ are conventionally defined, getting from New Urbanism to Sense of Community is a pretty arduous process.”* And *“What we are left with, the best that we can confidently say, is that certain types of physical designs promote certain types of social behaviors and responses for certain kinds of people, sometimes.”* (Talen 2000)

Talen suggests that New Urbanists define their social goals as the “common good” rather than as “community”, the latter of which contains a vastly different array of non-territorial elements that have little to do with New Urbanism.

“This is not community in the sense of optimal social relationships, but community in the sense of common good. To the extent that this good is not sublimated to individual rights, this follows in the traditions of Bellah et. al. (1982; 1985), Etzioni (1993) and many others who have argued that personal mobility and fulfilment have unfortunately come to replace a sense of civic responsibility that we must seek to regain” (Talen 2000)

New Urbanism can directly influence the “common good” by planning for social diversity, (mixed housing types,) common accessibility, (high density, mixed use, and pedestrian orientation,) and neighbourhood identity, (boundaries and centres, with prominent civic buildings and spaces.) These are convincingly linked to specific design elements. (As mentioned in brackets.) (Talen 2000)

1.4.3 How does the urban environment influence people?

While the majority of New Urbanist social goals can be described adequately under the banner of the “common good”, New Urbanists still suggest *“a direct, structural relationship between social behavior and physical form. ... it posits that good design can*

have a measurably positive effect on sense of place and community” (Kelbaugh 2000, 285)

Can the design of the physical environment influence social behaviour?

Casual forms of social interaction:

Research shows that the environment can influence social behaviour but only in regards to the more casual forms of social interaction. *“As intensity increases from “chatting” through “long personal discussions,” the correlation with neighborhood decreases...For the most intense form of social contact, the original low correlation with neighborhood is completely accounted for by variation in the Sociodemographic characteristics of the respondents.”* (Haggerty 1982, 367) The more casual the relationships are, the greater the effects of the neighbourhood environment, while the more personal the social relations are, the more socio-demographic factors play a role while eliminating environmental factors.

Haggerty points out that casual forms of social interaction, like waving and chatting, are greater in denser areas than in sparser areas and that the environmental effects were evident for all the different socio-demographic groups he studied. Furthermore, environmental factors also help to prevent a sense of alienation from neighbours. (Haggerty 1982, 370-371; Garling and Skjaeveland 1997, 194))

Public and semi-private spaces:

There is a *“spectacular correlation between the physical qualities of a public space and the volume and character of life there.”* (Gehl 1998, 15) People need good quality space in which they can socialise with other people. These spaces have an important psychological impact on people and need to be designed carefully. *“Architects have neglected the effects of aesthetics on human experience but research finds that the formal variables like enclosure, complexity, and order are important for human spatial experience.”* (Garling and

Skjaeveland 1997, 182) Not only do people need space in which to interact with one another but this space also needs to be structured and designed in a manner that makes it welcoming.

People need semi-private spaces or defensible spaces that offer a sense of security and control while still allowing them to interact with adjacent public spaces. (Garling and Skjaeveland 1997, 193) A low-income neighbourhood revitalisation project in which New Urbanist principles are employed, similarly finds that a delicate layering of semi-private and public spaces is very important. Fences and front porches, which establish a protective semi-private realm adjacent to a definitive public realm, are noted as important characteristics. The establishment of front yard gardens and defensible spaces encourages a sense of identity while simultaneously allowing each person to make an individual contribution to the neighbourhood's environment. (Bothwell et.al. 1998)

Pedestrian paths and local retail:

Locally available retail and well-designed pedestrian path networks have also been shown to have a positive result on casual social relations. People that have access to local shops and commercial facilities will likely use them and will often walk to them. (Person 2001) Even so, if that area has access to regional commercial facilities like a shopping mall the trips to that area will be significant as well. (Handy 1992, 266-267) Findings also suggest that walking is positively correlated with unplanned encounters and neighbouring, however, these relate more to casual walking than to destination trip walking. (Casual walking is generally unrelated to the pedestrian environment or to local destinations.)

A positive view of the pedestrian environment positively influences the perception of people who use it, while personal attitudes and environmental perceptions, particularly of safety, play a role in stimulating walking. (Person 2001; Lund 2002) Safety in turn can also be correlated to design factors. (Jacobs 1961)

1.4.4 Summary

New Urbanists believe that there is a close correlation between the physical design of places and the success of these places as communities. Closer scrutiny shows that what New Urbanists call “community” is generally not community in the normal sociological sense of the word but is used in the sense of the “common good.” Contemporary forms of communities tend to have very little relation to concrete places and correspondingly, physical places cannot create communities.

While it is true that people have their personal social ties in non-territorial communities, research does show that the territorial environment can host casual social behaviour, like waving and chatting. These casual forms of social interaction are generally related to factors like density, available structured spaces, the layering of semi-private and public spaces, and local retail and pedestrian facilities. Traditional and New Urban developments contain many or most of these elements and therefore provide a more conducive setting for these casual social relations than suburban areas that tend to lack the above mentioned characteristics.

The spatial malaise and ambiguity in suburbia create a highly unstructured environment in contrast to New Urbanism’s emphasis on creating a uniformly pleasing, accessible, and safe pedestrian environment. Furthermore, New Urbanism presents more options than suburbia does. It offers private spaces and public spaces, both the car and the pedestrian oriented environment. (Lund 2002, 310) Another possible advantage of a territorial environment is that casual social relations can be more general and inclusive than strictly personal and intimate communities are. This is because they *“often occur between people with different interests, and thus serve the function of bridging the diverse groups that typically comprise a neighbourhood.”* (Garling and Skjaeveland 1997, 184.)

1.5 Summary

New Urbanists believe that the fragmented and abstract character of de-territorialised development is largely to blame for most of our urban problems. They therefore propose that we return to locally integrated forms of development instead. Three of the predominant motivations for pursuing a locally integrated urbanism have been discussed, and are:

- To re-establish a public realm,
- To re-integrate the fragmented components of sprawl,
- To establish a territorial sense of place and identity.

The benefits of locally integrated urbanism are significant and range from ecological to functional and to social concerns. While many critics agree with what the New Urbanists do in principle and theory, they voice a concern over whether they accomplish these things in reality. (Krieger 1998)

The proceeding chapters will now analyse a New Urbanist development in parallel with a traditional neighbourhood and a suburban development in order to determine whether New Urbanism manages to return to a locally integrated form of urbanism.

2 AN INTRODUCTION TO THE COMMUNITIES

This chapter will introduce the reader to the three different communities that will be compared.

2.1 The Selection of the Communities

The communities were selected according to their inherent characteristics and their proximity to Winnipeg, Canada.¹⁸

The closest New Urbanist community that demonstrates a fair level of build-out progression is “McKenzie Towne” in Calgary, Alberta, Canada. It is consistent with New Urbanist design principles and is widely known as a New Urbanist community.

Winnipeg has a number of traditional and suburban communities. Out of these, Wolseley was chosen for its consistent demonstration of “traditional” characteristics and for its reputation of having a noticeable sense of community. Whyte Ridge was chosen for its stereotypical suburban characteristics and for the surrounding retail development that is characteristic of sprawl.

¹⁸ Winnipeg is where the author was situated.

2.2 An Overview of the Communities

Name:	Wolseley¹⁹	Whyte Ridge²⁰	McKenzie Towne²¹
Location of development:	Neighbourhood in Winnipeg, Manitoba, Canada	South-western suburb of Winnipeg, Manitoba, Canada	South-eastern suburb of Calgary, Alberta, Canada
Population of development:	8165 (1996)	4445 (1996)	3963 ²² (2002)
Single-detached housing:	58.1%	99.3%	77% @ Build-out 76% Current
High-density or multi-family housing:	39.8%	0%	23% @ Build-out 24% Current
Area of the development:	1.73 km ² Built-out	2.86 km ² eventual, Almost built-out	3.88 km ² eventual, Not yet built-out
Car/Foot/Transit ratio of work commuting:	58% / 13% / 22% (Rounded numbers)	91% / 2% / 6% (Rounded numbers)	82% / 6% / 12% ²³ (Rounded numbers)
Sample area size for comparisons:	1.4 km ²	1.4 km ²	1.4 km ²
Date of Aerial Photograph:	May 2002	May 2002	September 2002
House prices²⁴:	+/- \$75,000 - \$200,000 +	\$120,000-\$300,000 ²⁵	\$120,000-\$400,000
Date that the development commenced:	+/- 1882	1986	1994

¹⁹ Census 1996 data.

²⁰ Census 1996 data.

²¹ Information from Gause 2002, 281: "Great Planned Communities".

²² Calgary Census, 2002

²³ Household Activity Survey results of McKenzie Towne performed in the Fall season of 2001.

²⁴ When comparing price ranges, please remember that Wolseley homes are significantly older than the more recently built McKenzie Towne and Whyte Ridge homes. Also note that Calgary's house prices are higher than Winnipeg's as a general rule.

²⁵ House prices of Whyte Ridge were taken from Remax's Winnipeg Internet Site @ URL: http://www.remax-winnipeg.com/neighbour_whyte.htm



Wolseley

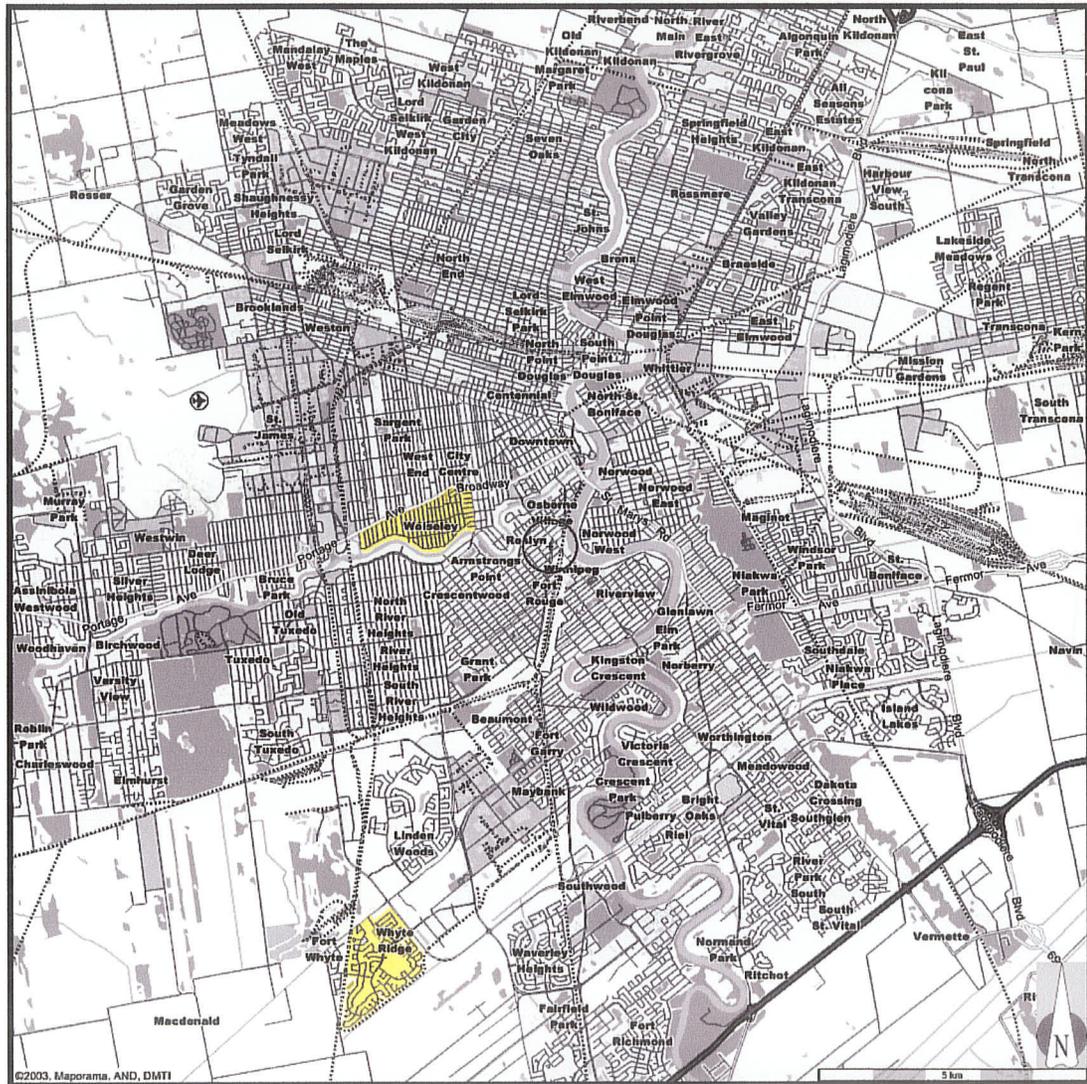


Whyte Ridge



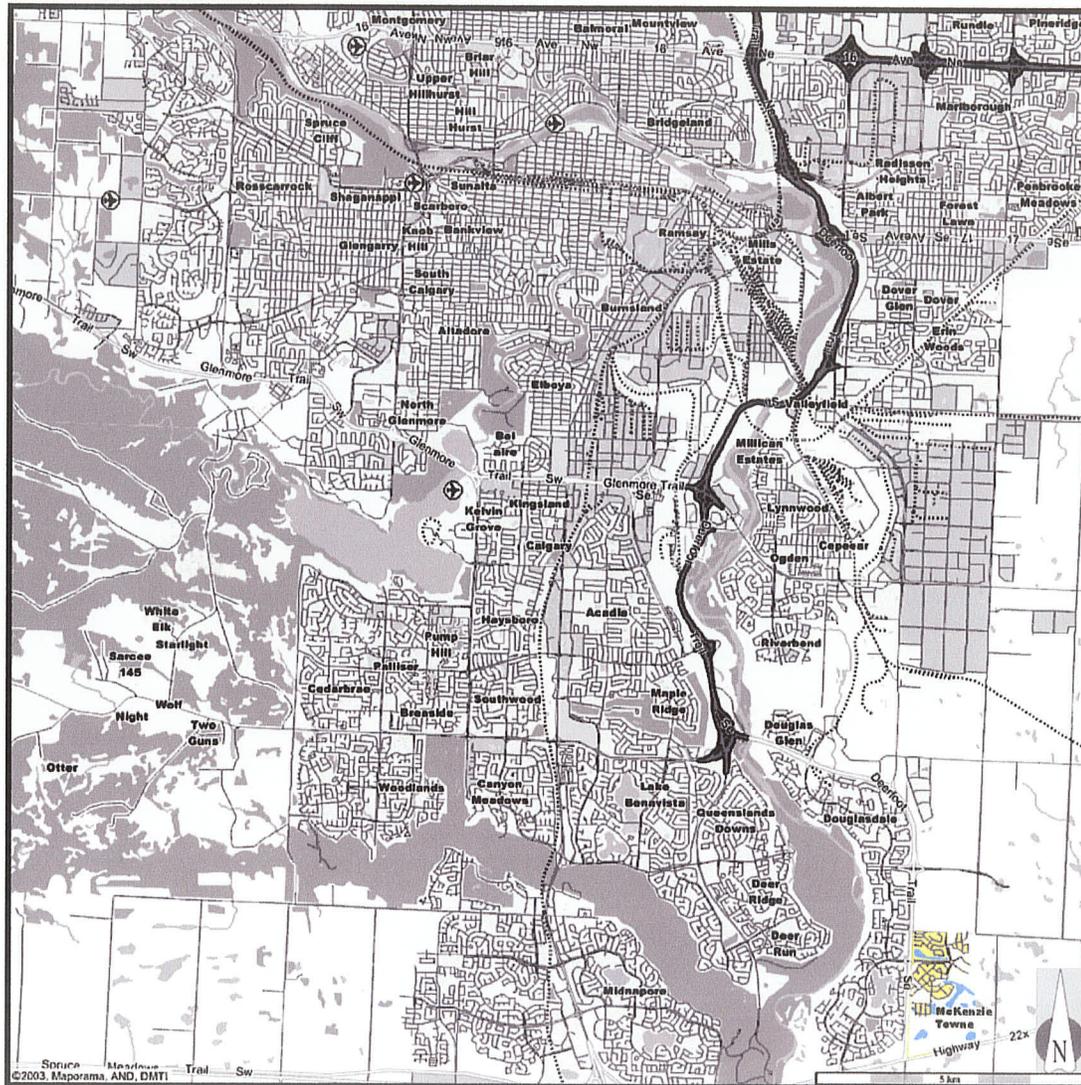
McKenzie Towne

2.3 The Location of the Communities



Map 1: City of Winnipeg with the locations of Wolseley and Whyte Ridge.²⁶

²⁶ Map generated at Maporama at URL: <http://www.maporama.com/>



Map 2: City of Calgary with the location of McKenzie Towne.²⁷

²⁷ Map generated at Maporama at URL: <http://www.maporama.com/>

2.4 Introduction to Wolseley



Map 3: Wolseley Aerial Photo with Sample Area highlighted.

The neighbourhood of Wolseley is an older and more established neighbourhood that is a little over a hundred years old. It is a traditional neighbourhood with a network of gridded streets that are accompanied by a fairly diverse grain of functions. The houses were built in styles that were popular at the time they were constructed in. (Such as the “Queen Anne Revival” style.) Sidewalks and front-porches are standard features while corner-stores and higher density residential are relatively common.

From the 1870s to the 1910s, Winnipeg experienced remarkable growth in its population. As Winnipeg grew to the south, north, and to the west, the original areas of the city became the industrial and commercial cores. Wolseley is part of the Western expansion that occurred in 1882 from Maryland Street to St. James Street, growth that was generally constituted of the middle-classes. (Artibise and Dahl, 1975, 211) This westward expansion therefore saw the inception of the Wolseley Neighbourhood area.

Originally, areas adjacent to the Red and Assiniboine rivers were divided up into roughly parallel parcels of farmland. The area of Wolseley, which is north of the Assiniboine River in the map below, was originally a collection of farming lots. The positions of these farms influenced the later street locations as the city grew to engulf some of these farms in 1882.

Early trails that converged in the area of Winnipeg later became major roads. Portage, the major arterial north of Wolseley, was one of these early trails.



Map 4: Wolseley Neighbourhood.²⁸

²⁸ Map generated at Maporama at URL: <http://www.maporama.com/>

The expansion of the streetcar system in Portage street west of Sherbrook Street in the first decade of the 20th century made Wolseley a practical alternative for the middle-classes. (Buckley, et.al. 1988) Aside from Portage Street, Sherbrook Street on the eastern edge of Wolseley and Westminster Street within Wolseley became streetcar routes as well. These streets were able to develop a measure of functional diversity that is still evident today²⁹. The presence of stores at a local pedestrian scale worked well with mass-transit systems that served an otherwise mostly pedestrian population. As the average occupancy per dwelling dropped in the 1900s, and as car usage increased, these stores suffered somewhat of a decline. They do seem, however, to be rebounding due to an increasing interest public interest in traditional neighbourhoods and due to a vibrant local community.

The houses in Wolseley were built individually by the original residents or in groups by land speculators and contractors. The houses are predominantly similar in style but they have particularities and variations that provide a measure of variety.

²⁹ Due to the earlier positioning of the streetcar system on Sherbrook Street, Sherbrook will be considered as the functional boundary of Wolseley in these comparisons even though the political boundary is one block west, in Maryland Street.

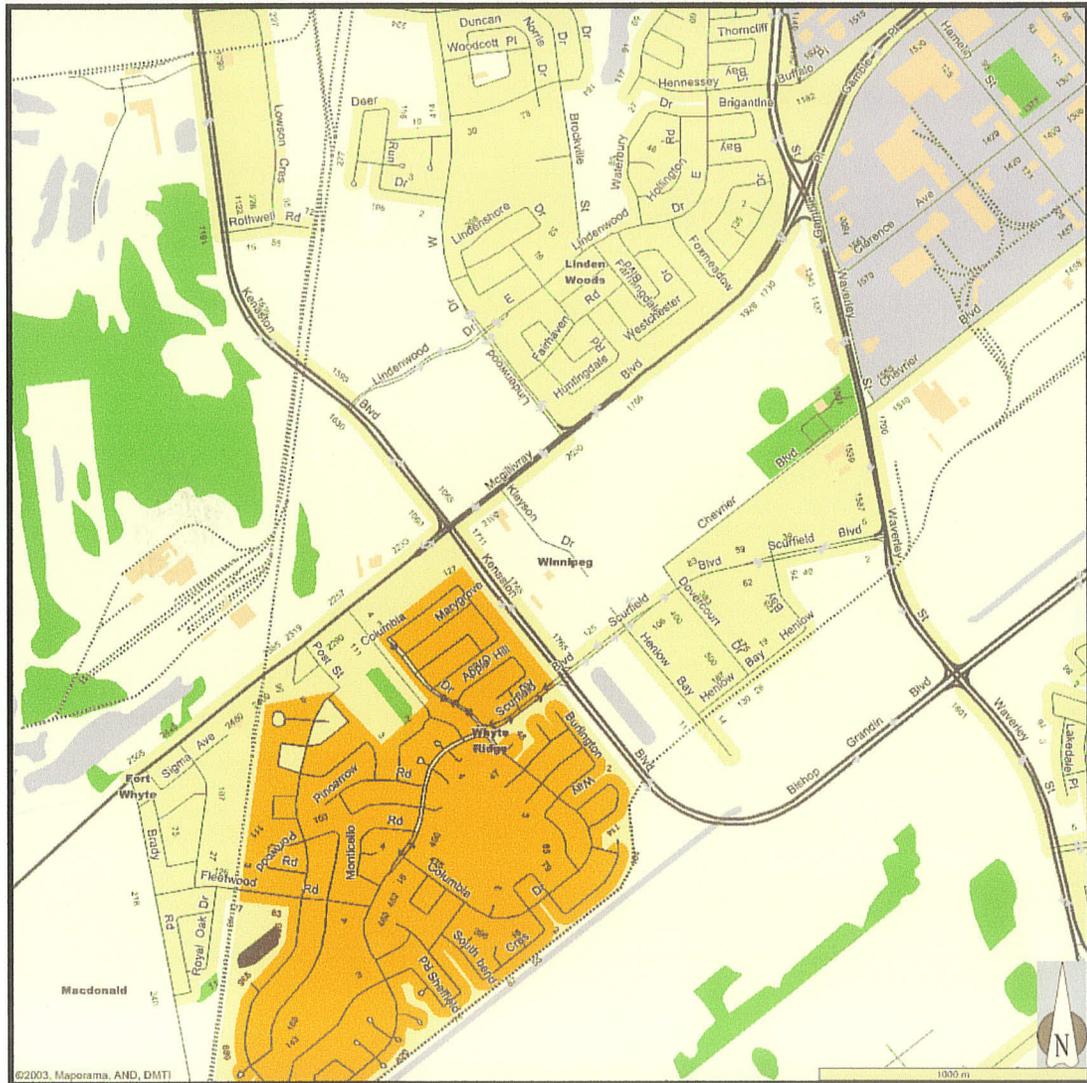
2.5 Introduction to Whyte Ridge



Map 5: Whyte Ridge Aerial Photo with Sample Area highlighted.

Winnipeg, like most of the larger cities in North America, is experiencing a large amount of suburban development. Numerous suburban developments have been built around Winnipeg over the last few decades and this is set to continue into the future. Whyte Ridge, located on the southwestern fringe of Winnipeg, is one of these suburbs.

Whyte Ridge is built in the typical manner of suburban development. The community is strictly single-function in use, a single-detached residential enclave, with the exception of a church, a gas station, and two schools. The homes are fronted by garages that assume a pronounced presence on the street while entrances are moved farther back and to the side.



Map 6: Whyte Ridge and surrounding context.³⁰

At present, and into the foreseeable future, Whyte Ridge is flanked by farmland to the south and the west of the development and by sprawl to the north and east. It is conveniently

³⁰ Map generated at Maporama at URL: <http://www.maporama.com/>

situated near the intersection of McGillvray and Bishop Grandin roads, which offer access to large portions of the city—a developer’s dream. Strip malls, big box retailers, suburbs, and light industrial developments are situated around the intersection of these two roads. This is a classic example of suburban sprawl.

2.6 Introduction to McKenzie Towne



Map 7: McKenzie Towne Aerial Photo with Sample Area highlighted.

McKenzie Towne is a “New Urbanist” development that is situated in southeastern Calgary, Alberta. The developer, “Carma”, decided to go with a neo-traditionalist (New Urbanist) approach in response to certain trends in the housing market.

In order to accommodate the anticipated growth that the city will experience, Calgary has set about finding ways to situate this growth in a sustainable manner. The intensification potential of much of Calgary’s existing areas is limited, leading to a future need for more suburbs. The city is trying, however, to build these in a more sustainable manner that allows for less car-dependency. They have adopted an approach that has a lot in common with New Urbanist principles. (White, 1996, 16) They are therefore accommodating in the design and

new offshoot (the location of which can be seen in the upper-right corner of the aerial photograph) has reverted to standard front-garage-type suburban development.

McKenzie Towne is situated off the Deerfoot Trail freeway that merges into Highway 22 to the south. Deerfoot Trail offers quick access to Calgary, which is to the North. On the opposite side of Deerfoot Trail there is a large suburban development that is one of many that have sprung up in southern Calgary. To the east of McKenzie Towne there is undeveloped farmland that will be developed as part of McKenzie Towne in the future, though not necessarily in a New Urbanist format.

2.7 Caution

It is necessary to clarify a potentially ambiguous issue. Observations can be made about the physical forms that these urban developments assume but the physical characteristics should not necessarily be extrapolated to apply to the social or functional habits of the people that live there.

If a neighbourhood has locally integrative characteristics this does not mean that its residents have forsaken modern forms of networking or communities. Instead, this territorial dimension serves as an optional realm that includes certain advantages like pedestrian accessibility. This option exists in parallel to modern forms of non-territorial communities that are dominant. People only engage in the local dimension to the extent that it suits them.

Locally integrative development typically engages the local scale but it does not inhibit engagement with distant places. This in contrast to suburban development that engages the non-local scale but does so at the expense of the local scale. This is a crucial distinction. Nikos Salingaros shows that a city needs integration on all scales, both local and distant. When the delicate local scale is not treated sensitively, local integration is typically compromised. (Salingaros, 2000)

For example, suburbia caters to cars at the expense of viable pedestrian networks but traditional neighbourhoods cater both to cars and to pedestrians. This does not mean that all people in traditional neighbourhoods are pedestrians. On the contrary, most residents tend to drive to where they need to go but walking remains an option when it suits them or when a resident does not have a car³¹.

A second caution is that the results of these findings can be applied specifically to McKenzie Towne and generally to suburban New Urbanism but the results should be

³¹ 13% of Wolseley residents walk to work and 22% use public transit in contrast to Whyte Ridge's 2% and 6%

applied with discretion to New Urbanism as a whole, particularly in the case of infill or “brownfield”³² development. Other New Urbanist developments in a suburban context, however, do demonstrate many of the same characteristics that McKenzie Towne does, but they should ideally be compared on an individual basis. Furthermore, while McKenzie Towne’s original concept plan was the work of DPZ,³³ the developer made some changes at a later stage. Please also note that McKenzie Towne is not yet built-out at the time of writing.

2.8 Methodology

The primary goal of this research is to find out whether New Urbanism manages to create locally integrated urbanism. Locally integrated urbanism allows for buildings, spaces, and people to integrate in the local scale though not necessarily to the exclusion of integration with distant places.

In order to find out whether New Urbanism can successfully return to locally integrated urban forms it is necessary to first deduce what the characteristics of such urban forms are. These criteria are deduced and compared in the next chapter. The aim is to compare the criteria between a new-urbanist, a traditional, and a suburban community. The criteria are equally valid for comparing the different developments at both the morphological and the typological scales, but the primary focus of this comparison is morphological.

The criteria of locally integrated urbanism will be used to analyse and contrast the three different developments. The traditional and suburban communities provide a useful measure against which the New Urbanist development can be gauged. This helps to

³² “Brownfield” development is the redevelopment of older, often blighted, urban areas.

³³ The firm headed by Andres Duany and Elizabeth Plater-Zyberk who are the “founders” of New Urbanism.

determine whether the New Urbanist development gravitates more towards a traditional and locally integrated urban structure or to a contemporary suburban structure.

In order to compare the different developments, a 1.4km² area has been selected in each³⁴. These smaller sample areas will be used for the comparisons. They have been chosen in accordance with their ability to demonstrate the internal characteristics of each development and the manner in which the developments merge with their surroundings. These areas also contain the regional retail facilities.

The samples have been traced from aerial photographs into a CAD program and were then converted into a raster format. The samples are arranged into the various maps that proceed in the comparisons. Each of the sites have been visited and documented in January and February of 2003 by the author. Aerial and mapping data has been correlated to what exists on the sites and photographs have been taken in order to supplement mapped information.

³⁴ 1.4 km² is an appropriate size for capturing the important morphological characteristics of McKenzie Towne. It was decided to use the same area size for the other two developments that are being compared.

3. THE COMMUNITY COMPARISONS

The communities that will be compared to each other were introduced to the reader in the previous chapter. This chapter will proceed to conduct the comparisons between them.

The comparisons are designed to discriminate between urban environments that engage and integrate the local scale and urban environments that do not. To do so, it is first necessary to select morphological criteria that can be used to distinguish between locally integrated and un-integrated forms of urbanism. Section 3.1 introduces the reader to the morphological criteria that will be used to evaluate the communities that are being compared.

The criteria reflect some common observations about contemporary urban development that can be found in a wide variety of literature on urbanism. While these are commonly perceived characteristics of contemporary urban development, the author has personally selected and grouped the following three criteria as the prime criteria for distinguishing morphologies that are locally integrated from those that are not.

Criterion 1: Buildings, spaces, and districts that withdraw from their surrounding contexts instead of integrating with them.

Criterion 2: Road networks that are only selectively accessible and that bypass the local scale instead of integrating with it.

Criterion 3: An absence of structured pedestrian and public spaces and the overwhelming presence of unstructured spaces.

It is important to note that the three criteria typically work in concert and should therefore be seen as three different facets of the same general condition. Suburban sprawl,

for example, typically contains a powerful presence of all three of the criteria while traditional neighbourhoods contain none of them.

Even though these themes are often mentioned various literature about urbanism, the author would like to mention some specifically important personal influences. For the first criterion; the work of Jane Jacobs, and Nikos Salingaros; for the second criterion; the work of Stephen Graham and Simon Marvin, and Albert Pope; and for the third criterion; the work of the New Urbanists. The discussion of these characteristics is by no means limited to the work of the authors mentioned.

3.1 Introduction to the Criteria

Traditional towns, neighbourhoods, and cities possess an immensely different spatial logic to suburban sprawl. While traditional urban fabrics are spatially coherent and structured, sprawl is spatially fragmented and disparate. Traditional urban fabrics are therefore locally integrative while suburban environments are not. The following three criteria help distinguish between them.

3.1.1 Outside-in: Withdrawal from Contextual Surroundings

Space, is “nothing”. It is ordinarily defined and structured by the objects within it. Our conception of a unifying and ordered spatial realm is therefore dramatically affected when the presence of buildings that integrate with the greater urban context, and the spatial relationships between them, disappear.

New technologies have permitted people to live very private lives without being subject to the public environment. (Pawley 1974, 64-65; Ellin 1996, 125) Designers and developers have therefore been able to neglect the public realm in new suburban

developments. Buildings are resultantly no longer designed to contribute towards a spatially coherent and structured environment and they withdraw from the larger urban fabric instead.

Buildings and districts in conventional development fail to integrate with their immediate contexts due to their inability to couple with the local scale. (Salingaros 2000) They are generally oblivious to other buildings or places in the surrounding environment. The typical suburban hodgepodge of malls, gas stations, drive-through restaurants, walled-off housing enclaves, office parks, and parking lots creates a spatial malaise in which buildings are chaotically scattered in seemingly nonsensical arrangements. The unintelligible placement of introverted buildings and the absence of structured spatial relationships between them make an ambiguous and undefined spatial realm. Much like space loses its legibility with the absence of objects that structure it, locally integrated spaces cannot exist without buildings that engage and structure a common realm.

Symptoms:

Locally fragmented: Manifest as publicly withdrawn buildings, functions, and neighbourhoods that are surrounded by either physical or access related boundaries. These boundaries are non-permeable and are only selectively accessible.

Locally integrated: Buildings, functions, and neighbourhoods that integrate with their local surroundings. It is important to note that local-scale integration does not hinder non-local integration but occurs in parallel to it.

3.1.2 Selective assembly required: Selective and Bypass Networks

Newly emerging mobility and communications networks allow for personally and selectively assembled relationships to develop between isolated buildings and spaces. These networks, however, typically bypass the local scale. Not only do these networks bypass and detach from the local scale but they are also becoming more selective in access and are increasingly inaccessible to those without the resources to participate in them. (Graham and Marvin 2001)

One of the most evident examples of the loss of locally integrative infrastructures is the manner in which streets have changed in design and use. Streets have traditionally served to integrate different people and places. These traditional street networks, usually in the form of a grid or other integrative pattern that permits natural and complex interrelations to develop, allowed for thorough integration between multiple places but within a unified and publicly accessible network. Contemporary road networks, on the other hand, are only selectively accessible and they almost always bypass the local scale. The essential logic of streets is therefore reversed from locally integrative to locally withdrawn. They connect the most valued users and spaces while bypassing and isolating the spaces in-between. (Graham and Marvin 2001, 176; Pope 1996, 29) Contemporary road networks, which bypass local spaces and are only selectively accessible, cannot serve to integrate the local-scaled urban environment.

Symptoms:

Locally fragmented: Manifest as selective-access road-networks that bypass local spaces rather than directly integrating them.

Locally integrated: Road and pedestrian networks that are readily accessible to the public and that integrate the local scale instead of bypassing it.

3.1.3 Public and Unstructured Spaces

The inevitable result of combining privately oriented buildings that neglect the local scale instead of integrating with it, with infrastructure networks that bypass instead of integrating the local scale, is that the public and spatially coherent realm becomes impossible to sustain. (Calthorpe 1993, 23)

Public space is no longer an imperative for daily life and, while it can be used effectively in newly evolving ways, there is a dramatic lack of it in car-dominated societies like North America. (Gehl 2000) The continual emergence of new technology has steadily reduced the necessity of public spaces as integral for everyday life. Cars, for example, allow people to get from one place to another place without having to use public space. Public space has traditionally served to integrate different places and people through a commonly accessible connective realm. (Langdon 1996, 36)

Developers and planners have neglected the public dimension and its associated structured spaces that are suitable for public and functional endeavours. This results in large amounts of wasted and unusable open spaces that have not been configured for use by the public at large.

Symptoms:

Locally fragmented: The demise in truly public space is accompanied by an increase in unstructured spaces that are manifest as unstructured residue spaces between large isolated buildings, big parking lots, spaces that have no relationships with surrounding areas or buildings, etc.

Locally integrated: Buildings have a definite relationship with a common realm, thus defining public and structured spaces. Most spaces have a direct relationship with surrounding buildings and unstructured spaces are resultantly rare.

3.2 Criterion No.1: Withdrawal from contextual surroundings

This is the first of the three criteria that will be used to contrast the neighbourhoods. Two indicators will be used to gauge this criterion: "Boundaries" and "Functional Integration". What needs to be determined with this criterion is whether these neighbourhoods and the buildings in them have the opportunity to integrate spatially and functionally with the surrounding territorial context.

3.2.1 Boundaries

Objective: To find out if the neighbourhoods are able to integrate with their surrounding contexts or whether they are separated from their surrounding contexts instead.

Criteria: Does a permeable or a non-permeable envelope surround the development?
(External Boundary) Are there boundaries between different portions of the development?
(Internal Boundaries)

Buildings and spaces are becoming increasingly private and withdrawn, as are the suburbs and neighbourhoods in which people live. A telltale symptom of whether a development is withdrawn from its surrounding urban fabric is the boundaries that surround it. Furthermore, the boundaries within a development indicate whether the development's internal areas are separated from one another. The less a development is integrated into its surrounding urban context the more pronounced and impermeable these boundaries tend to be.

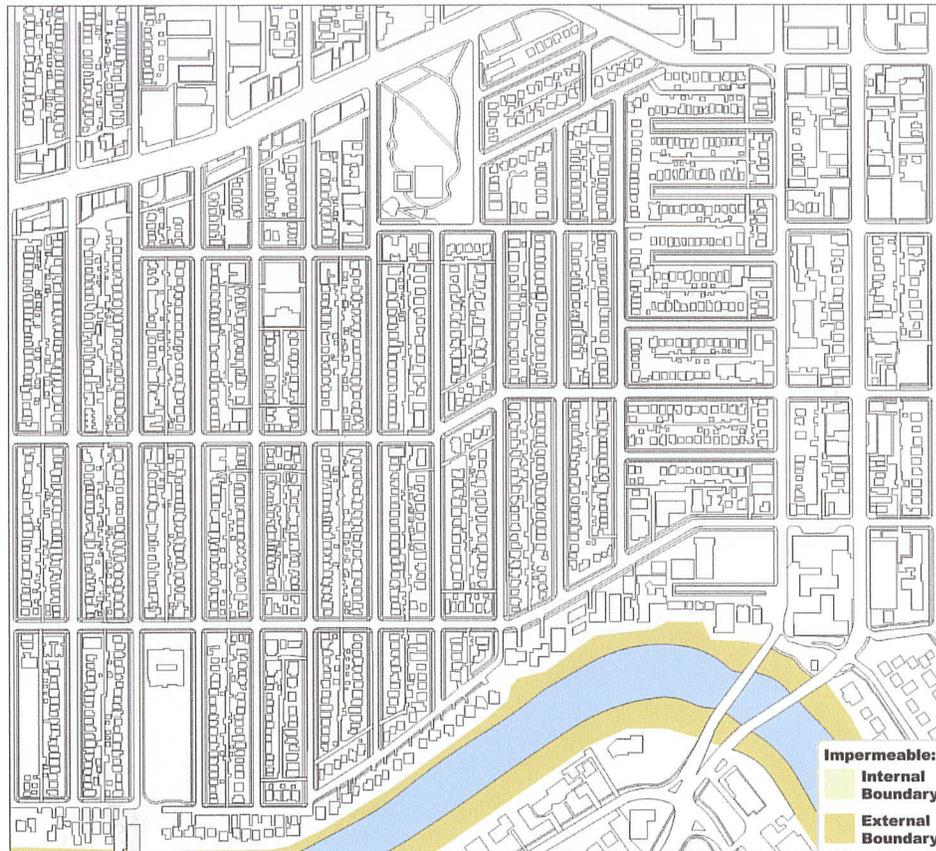
Neighbourhood boundaries in traditional neighbourhoods often served to establish a neighbourhood envelope, but did so by means of articulating rather than dividing different

spaces. (Salingaros, 2000; Bothwell et. al., 1998) Traditional boundaries are therefore porous and they connect different neighbourhoods and spaces together rather than separating them. (Jacobs 1961, 257) While permeable, they are still able to demarcate and identify different areas, functions, and spaces.

Traditional neighbourhoods are often separated from other neighbourhoods by important roads that serve as a locus of commercial and social activity between them. People in the neighbourhoods on either side of the boundary road, as well as people from distant areas that travel on the boundary road, are able to benefit from the social and functional services that are offered in them. Such a solution benefits the neighbourhoods on a local scale by offering, within walking distance, various functions and services. Small local businesses can simultaneously benefit from non-local customers as well, which allows for a certain amount of specialisation and interdependence to develop between various scales and places.

The use of boundaries in contemporary development is the exact opposite. Boundaries are used to stop interaction between different areas instead of providing a locus or common space that can articulate them. These boundaries assume many extreme forms like walls or lakes and are not traversable or integrative. By physically separating these spaces local interaction between them is severely restricted.

These boundaries are a clear demonstration of whether a neighbourhood or a suburb has the potential to integrate with other local areas. Articulate and porous boundaries integrate and weave different neighbourhoods together, while divisive boundaries keep them apart both spatially and functionally.



Map 9: Wolsley: Impermeable Boundaries.



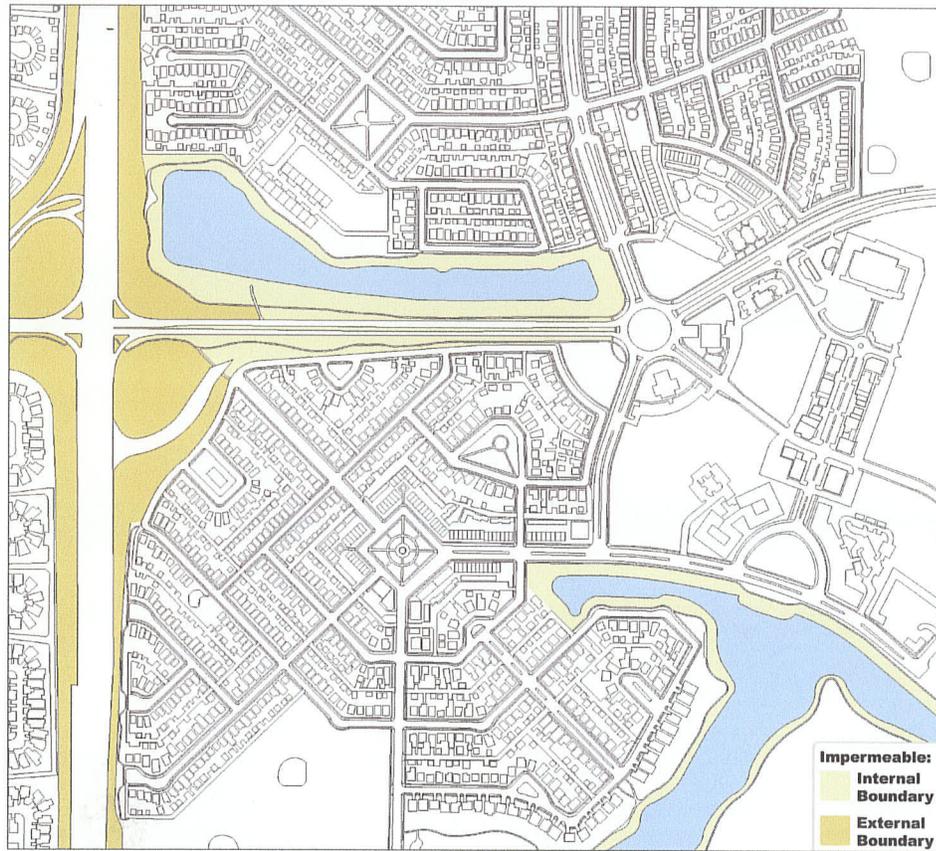
Porous articulation between neighbourhoods



Map 10: Whyte Ridge: Impermeable Boundaries.



Boundaries surrounding Whyte Ridge



Map 11: McKenzie Towne: Impermeable Boundaries.



Artificial boundaries created by the lakes

Comparison of Boundaries:

Wolseley: Wolseley has very permeable boundaries. Other than the river to the south, all of its boundaries are porous and serve to integrate Wolseley with its surrounding neighbourhoods. There are no impermeable boundaries within Wolseley.

Whyte Ridge: Whyte Ridge is entirely surrounded by an impermeable boundary. It also has a high number of internal impermeable boundaries that take the form of lakes and the shape of roads that are lined by walls. These boundaries effectively separate different portions of the development from each other.

McKenzie Towne: McKenzie Towne is surrounded by impermeable boundaries. It also has internal boundaries that occur primarily between the neighbourhoods, though not within them. The internal boundaries assume the form of lakes.

Discussion:

McKenzie Towne has a notable amount of separation between its internal neighbourhoods. When it is compared to Wolseley a significant difference exists in how the different neighbourhoods relate with one another.

McKenzie Towne is a greenfield³⁵ development that is accessed off a freeway. It is understandable that a system of walls and earth berms next to the freeway would be used for privacy and for reduced traffic noise. However, the internal boundaries between neighbourhoods within McKenzie Towne are unnecessary. New Urbanists place a great deal of emphasis on distinguishing between different neighbourhoods but they do this by creating boundaries between them. These boundaries are often impermeable and do not permit functional integration between adjacent neighbourhoods, in contrast to Wolseley, which merges seamlessly with its surroundings.

³⁵ A greenfield development is a development that has been built on previously undeveloped land.

The internal impermeable boundaries wreak havoc with spatial or functional integration between McKenzie Towne's internal neighbourhoods, particularly between Prestwick and Inverness due to the storm-water retention pond that has been arranged to separate them. The other retention pond blocks about a third of Inverness from having a more direct route of access to the main street, and blocks potential interaction between Inverness and the as yet un-built, "Village IV". Even though no lake exists between the neighbourhoods of Inverness and Elgin, the green space effectively separates them too. (Please refer to page 55 for clarity on where the different neighbourhoods are situated.)

Within the individual neighbourhoods of McKenzie Towne, however, a relatively integral arrangement exists in contrast to Whyte Ridge where arterials are lined by walls that serve to separate the adjoining spaces.

3.2.2 Functional Integration

Objective: To find out if there is a potential for functional integration within and between different neighbourhoods.

Criteria: The presence, scale, and distribution, of different functions will be contrasted between the three developments.

As explored in the previous indicator, neighbourhoods and the buildings within them have generally withdrawn from their local surroundings. While this is reflected spatially in the boundaries between adjacent spaces, it is also reflected in the distribution of different functions³⁶ within the neighbourhoods. Functional differentiation is therefore another telltale sign of potential integration between local areas.

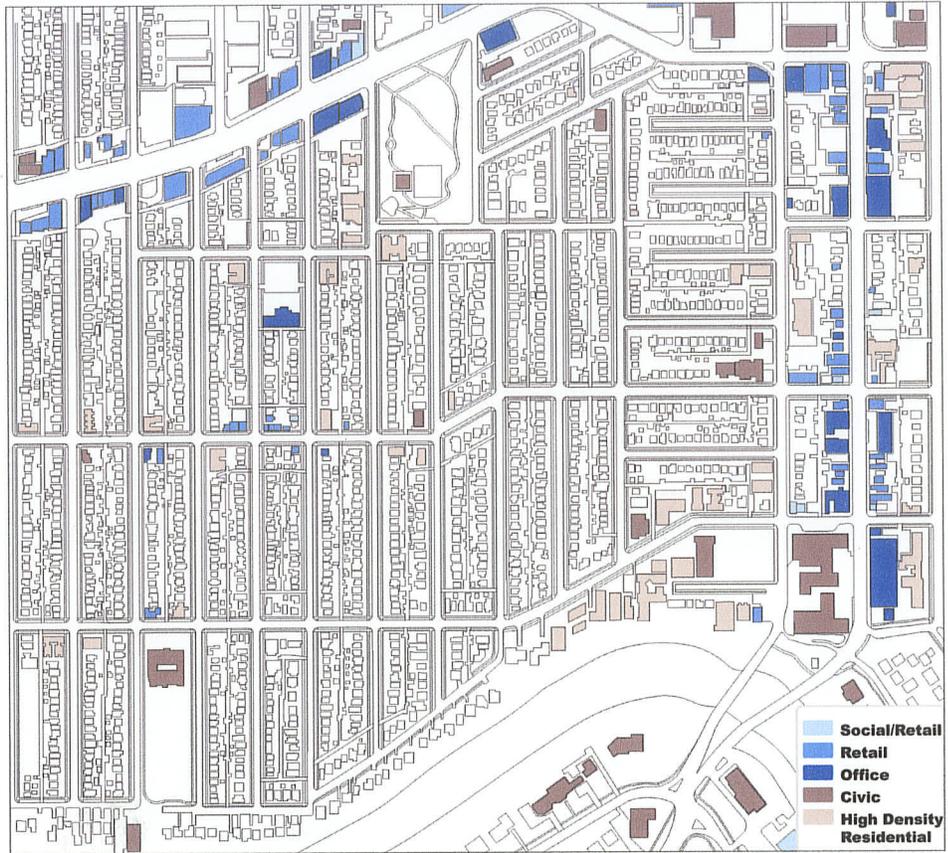
Similar functions are unable to integrate with each other while different functions are able to integrate with each other. (Salingaros 2000) Homogenous single-use areas that are confined to a single function are unable to integrate internally. For example, a homogenous single-use residential area does not contain the necessary diversity of different functions, such as shops, schools, civic services, social venues, etc., that are able to integrate the residents of this type of single-use residential area. Similar functions (like single-detached homes) need other diverse functions (like businesses, libraries, schools, restaurants) in the local area to bind them together. (Salingaros 2000; Jacobs 1961) Functional diversity serves not only to integrate a neighbourhood but also to integrate neighbourhoods with other neighbourhoods in the vicinity. (If these neighbourhoods are not separated by impermeable boundaries.) Functional diversity is a key characteristic of traditional neighbourhoods.

³⁶ The word "functions" is here used to denote the presence of residential, commercial, civic, social, and other such areas and services.

In suburbs, however, it is common for homogenous residential enclaves to be positioned next to each other. They resultantly have no internal integration or integration with their surrounding single-function residential areas.

Traditional neighbourhoods often place the more diverse functions on the neighbourhood boundaries. This allows them not only to integrate the neighbourhood with surrounding neighbourhoods, but it also allows them to draw on non-local residents. When these functions are able to draw on different people from different places they have a larger customer base while still providing the local population with critical services on a pedestrian accessible scale.

Functions that are positioned internally opposed to on the boundaries of neighbourhoods predominantly serve the local neighbourhood. The capacity for internally located functions is limited and particularly so if the community is spatially isolated.



Map 12: Wolseley: Functional Integration.



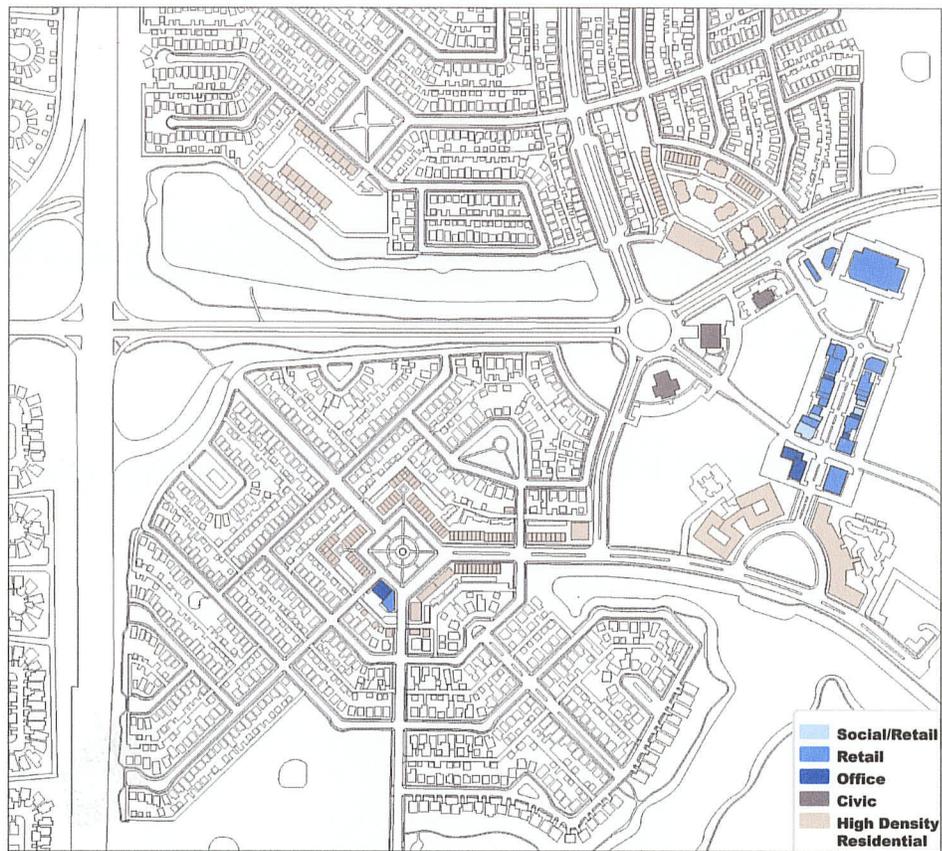
An inner-neighbourhood supermarket in Wolseley



Map 13: Whyte Ridge: Functional Integration.



A gas station near Whyte Ridge's entrance



Map 14: McKenzie Towne: Functional Integration.



McKenzie Towne's Main Street

Comparison of Functional Integration:

Wolseley: Wolseley has a significant amount of functional diversity. Much of this diversity is located on the edge of the neighbourhood where it benefits from other neighbourhoods and non-local customers. There is also a smattering of internal functions within the neighbourhood.

Whyte Ridge: Whyte Ridge has very little functional diversity. Besides two schools, a gas station, and a church, it has no high-density residential, noticeable retail, or office space.

McKenzie Towne: McKenzie Towne has a large amount of functional diversity in the development, though little of this is located in the neighbourhoods. It has a fair amount of high-density residential development in most parts of the development.

Discussion:

McKenzie Towne succeeds in placing a remarkable amount of functions within the development. This is a relatively rare occurrence in conventional suburban development and can be contrasted to Whyte Ridge, which has no high-density residential and no mentionable retail or office space. The only internal retail in Whyte Ridge is a gas station that in some ways can double as a corner store; however, it can only be practically reached by car for most residents. McKenzie Towne offers a vastly different scenario. It has a thorough cross-section of functions within the development, including a coffee shop, a subway, a pub/restaurant, medical offices, a supermarket, video-store, day-care centre, travel agency, hair dressers, two churches, a fire-station, etc. This is a great boon to the residents of McKenzie Towne.

The corner-store in the neighbourhood of Inverness works very well. It is a regular destination for walks and it comes alive when the school bus arrives or departs. McKenzie

Towne also contains a significant portion of higher density development such as an assisted-care home, a retirement complex, row homes, apartment blocks, granny flats above garages, and basement units underneath the row houses.

McKenzie Towne falls short of Wolseley, which has plentiful access to a variety of different functions on its north and east side, as well as internally located corner-stores, retail, and offices. Unlike Wolseley, McKenzie Towne does not use the retail to integrate different neighbourhoods. It has placed most of its retail away from the relatively single-function residential neighbourhoods rather than using the retail to stimulate integration between them. The main street is also somewhat far away from most-residents to be within a casual walking distance but the distance is still walkable and pleasantly so. The assisted care and the retirement facilities are placed adjacent to the main street thus making it convenient for seniors to walk to most of the shops. It is also easy to walk from one shop to another, unlike Whyte Ridge where it is highly impractical to walk from the development to the surrounding retail, or to walk in-between the scattered retail functions.

3.3 Criterion No. 2: Selective and Bypass Networks

This is the second criterion. Two indicators will be used to gauge this criterion; “Local Bypass Roads” and “Selective Access Road Networks”.

The purpose of this criterion is to find out whether the road networks in these developments bypass the local scale or whether they thread through the local scale, and to find out whether these road networks are only selectively accessible or not.

Network infrastructures are becoming progressively more adept at bypassing spaces and are increasingly becoming more selective in their use. (Graham and Marvin, 2001) This is true for road networks as well. Contemporary road networks have effectively reversed the logic of the traditional interconnected street grid from open to closed and from accessible and integrative to selective and fragmented. (Pope, 1996)

3.3.1 Local-Bypass Roads

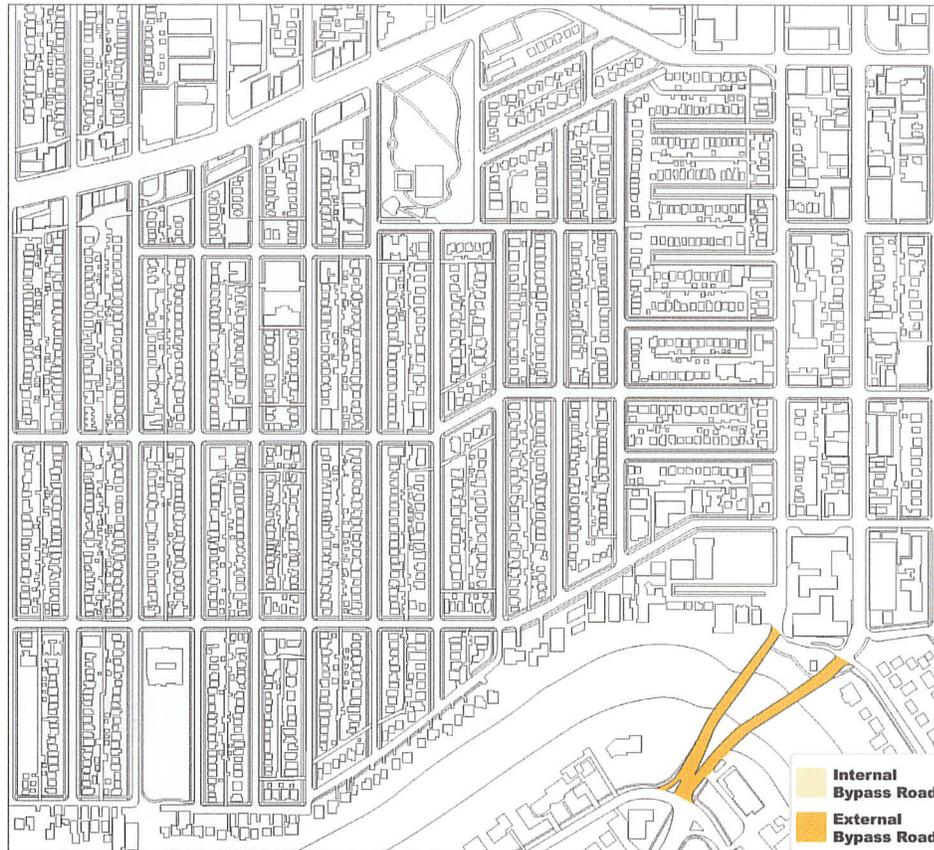
Objective: To determine if the roads bypass the local scale or if they integrate and thread through the local scale.

Criteria: “Local-bypass” roads serve to move traffic into and out of an area while not serving any buildings or places in the local context. Trademark characteristics of a bypass road include an absence of buildings and sidewalks adjacent to it and an absence of on-street parking.

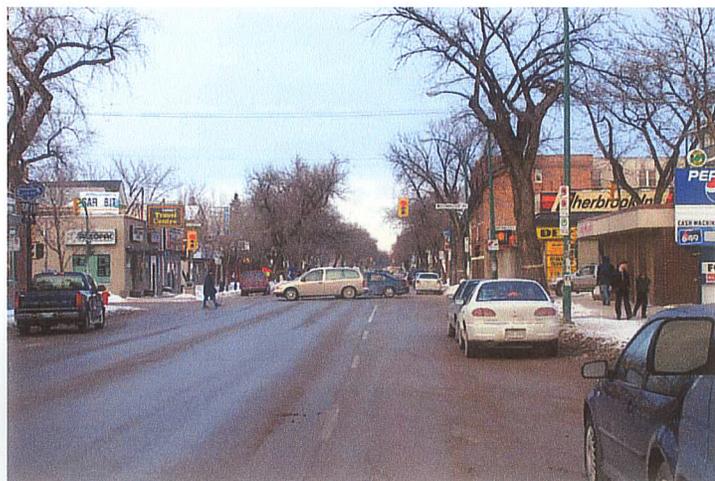
Roads in suburban development are designed to bypass spaces. Their intended purpose is to move people as speedily as possible from one place to another place while bypassing as much as possible between the two points of interest. An evident example of this is the use of freeways that intentionally disengage from the local context and therefore

provide a means of bypassing other local-scale places. The majority of arterial and collector roads in suburbia are not designed to move people through the local scale but to bypass as much of the local scale as is possible. Bypass roads do not engage the local scale and therefore cannot integrate it. They are frequently lined with walls, open spaces, ditches, and parking lots.

On the contrary, traditional road networks serve to integrate the urban fabric and to move people through those spaces. These roads have a direct functional and spatial relationship with sidewalks and buildings that flank them. Traditional and integrative road networks also provide parking on the street instead of off it so that parking lots do not separate buildings from the street. Traditional roads integrate the urban fabric in contrast to bypass roads that isolate it.



Map 15: Wolseley: Local Bypass Roads.



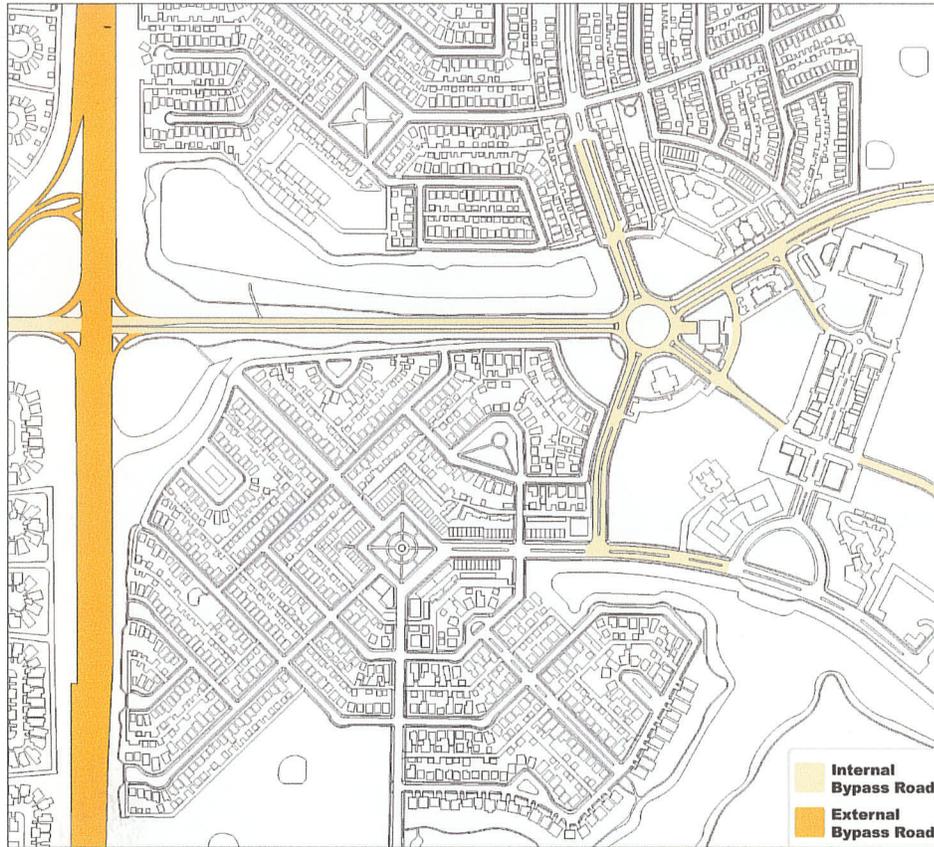
None of the roads in Wolseley are bypass roads



Map 16: Whyte Ridge: Local Bypass Roads.



The collector roads in Whyte Ridge are bypass roads



Map 17: McKenzie Towne: Local Bypass Roads.



A bypass road in McKenzie Towne

Comparison of Bypass Roads:

Wolseley: Wolseley does not have any local-bypass roads. Each road within and around the neighbourhood has a direct functional relationship with buildings and spaces around it.

Whyte Ridge: Whyte Ridge has a significant amount of local-bypass roads. These roads are located both externally and internally.

McKenzie Towne: McKenzie Towne has a fair amount of local-bypass roads. These are external and internal but they do not exist within the actual neighbourhood units.

Discussion:

Wolseley has a complete absence of any local-bypass roads. While its roads do serve to move traffic, each road also serves homes, businesses, schools, churches, and other such functions that frame it and that directly depend on it. However, in both Whyte Ridge and in McKenzie Towne, there are bypass roads that are not only external (highway or freeway) but that are also internal. These roads purely serve to move traffic.

The main entrance into McKenzie is by a local-bypass road that feeds the traffic circle. The traffic circle, in turn, feeds numerous branches of other local-bypass roads. When a circle is used as a locus in an otherwise integrated road network it can form a point of focus, but in this case where it serves as the primary point of access to various parts of the development, it is a tool of selectivity and bypass.

In the case of Whyte Ridge, the bypass roads spread throughout the internal residential areas. McKenzie Towne does not have any bypass roads within the actual neighbourhoods, where these bypass roads abruptly convert into a locally integrative variety lined by on-street parking and buildings. Whyte Ridge's road structure, on the other hand, is

designed to allow people to stay on collector roads for as long as is possible. At the last possible moment residents can turn into the street that will take them directly to their house.

3.3.2 Selective Access Road Networks

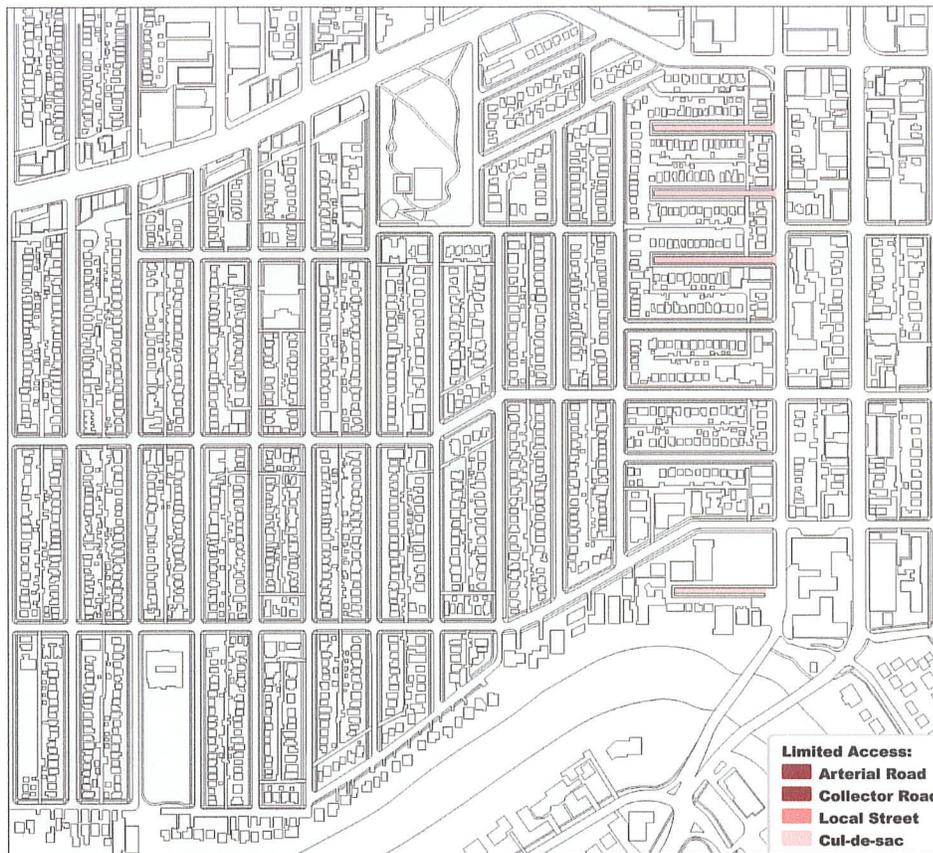
Objective: To find out whether these communities are only selectively accessible, a characteristic of development that is not locally integrated, or whether they are openly and easily accessible and therefore locally integrative.

Criteria: Selective roads and road networks have limited access points, and have very limited through routes. Please note that the legend on the maps is indicating not any type of arterial, collector, or local-street but is specifically indicating those that have limited access.

As networks become increasingly locally detached and capable of bypassing spaces, they also become more selective in terms of who can access these networks. (Graham and Marvin, 2001) Road networks in current developments are inherently selective in access and are therefore withdrawn from public access—sometimes to the point of having a gate or guardhouse that restricts access into a community. In most cases, however, this is managed through a refined technique of arterial, collector, and cul-de-sac combinations that make traversal through certain spaces impossible and entrance into them totally pointless unless someone lives there. A level of selectivity is consequently maintained which is destructive to public space and to local-scale integration.

Traditional road networks are designed to integrate different places and functions together. They are publicly accessible, traversable, and functionally useful even for people who do not live in a particular area. These integrative street networks are a benefit to local businesses that can draw people from distant areas while providing services to local residents as well. Furthermore, an integrative or gridded street network stimulates functional diversity and mixing in a way that cannot be equalled in highly selective and bypass oriented networks. (Pope 1996, 21)

There is also a growing realisation that bypass roads combined with limited access networks place a great burden on fewer roads, in contrast to traditional interconnected grids that offer a multitude of routes. (They offer an inherent advantage to functional diversity for this reason.)



Map 18: Wolseley: Selective Road Networks.



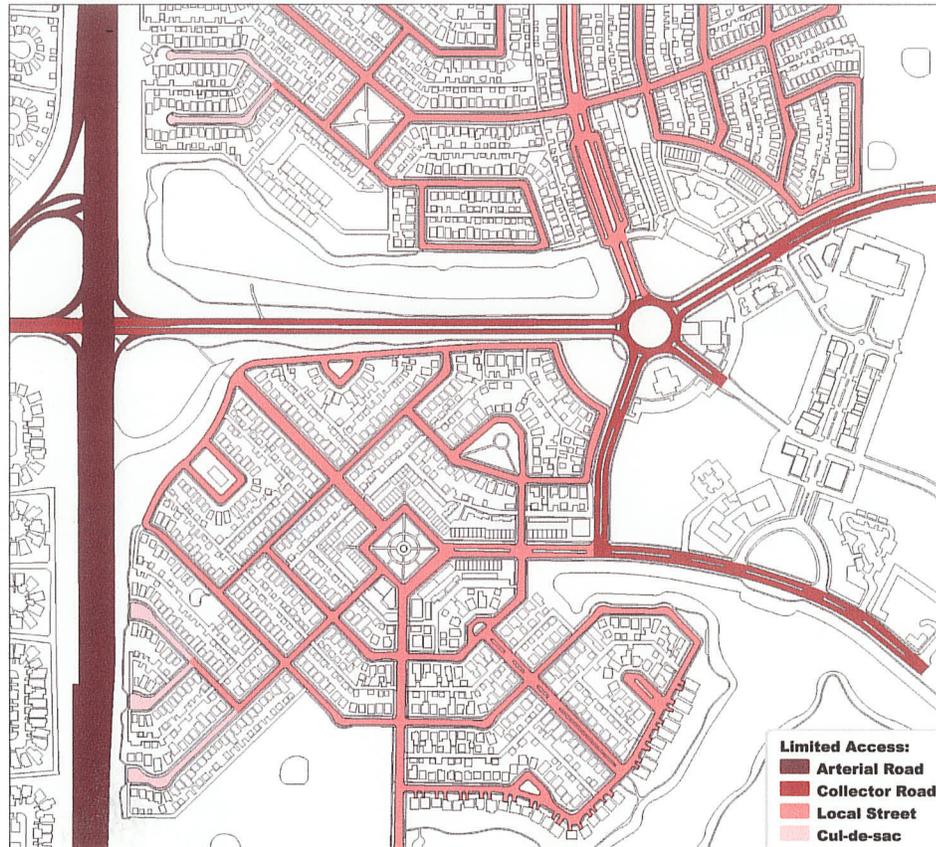
Wolseley has numerous entrances and exits



Map 19: Whyte Ridge: Selective Road Networks.



There is only one practical route into most of Whyte Ridge



Map 20: McKenzie Towne: Selective Road Networks.



Five major roads branch off from the McKenzie Towne Circle

Comparison of Selective Access Road Networks:

Wolseley: Wolseley is a very accessible neighbourhood with a well-integrated and connected street grid other than some dead-end streets on the eastern side of Wolseley. Wolseley has twenty-six entrance points.

Whyte Ridge: Whyte Ridge is only selectively accessible. Its internal streets are also limited in access and functional potential. Whyte Ridge has two potential entrance points.

McKenzie Towne: McKenzie Towne is only selectively accessible as are its individual neighbourhoods. Within these neighbourhoods, however, a fairly consistent interconnected street network exists.

Discussion:

Wolseley is again very different from the other two communities. With the exception of the four dead-end roads indicated, all of the other roads in Wolseley form part of the integrative grid that networks the neighbourhood together internally and to its neighbouring urban fabrics. In contrast, the other two developments demonstrate a significant level of "selectivity" and hence a great deal of withdrawal from the surrounding urban fabric. They have no relation with neighbouring developments and take this a step further by dividing and separating their internal road networks as well.

Both of McKenzie Towne's current neighbourhoods, Inverness and Prestwick, only have one practical entrance. While the street networks form an integrative grid within the neighbourhoods, they only have one point of access, which renders these streets useless in terms of stimulating the associated advantages of local integration. Similar to how freeways that have been imposed on an integrative grid can ruin streets that do not correspond to freeway exit ramps, (Pope 1996, 110) a limited amount of entrances into a closed off

integrative street network limits the potential of the streets that do not correspond with the entrance locations.

It is interesting to note that McKenzie Towne's commercially oriented areas like the main-street, the IGA, bank, gas-station, etc. are nestled in a network of roads that are somewhat less withdrawn than the road networks in the residential neighbourhoods. This hints at the fact that the more a road network is isolated, the less it lends itself to true integration with retail functions.

3.4 Criterion No. 3: Public and Unstructured Spaces

The withdrawal of neighbourhoods from their surrounding urban fabrics and the increasing bypass ability and selectivity of road networks inevitably creates unstructured spaces and a scarcity of public space.

Two indicators will be used for the third criterion: “Unstructured Spaces” and “Structured Spaces”, the latter of which will also indicate the presence of pedestrian path networks.

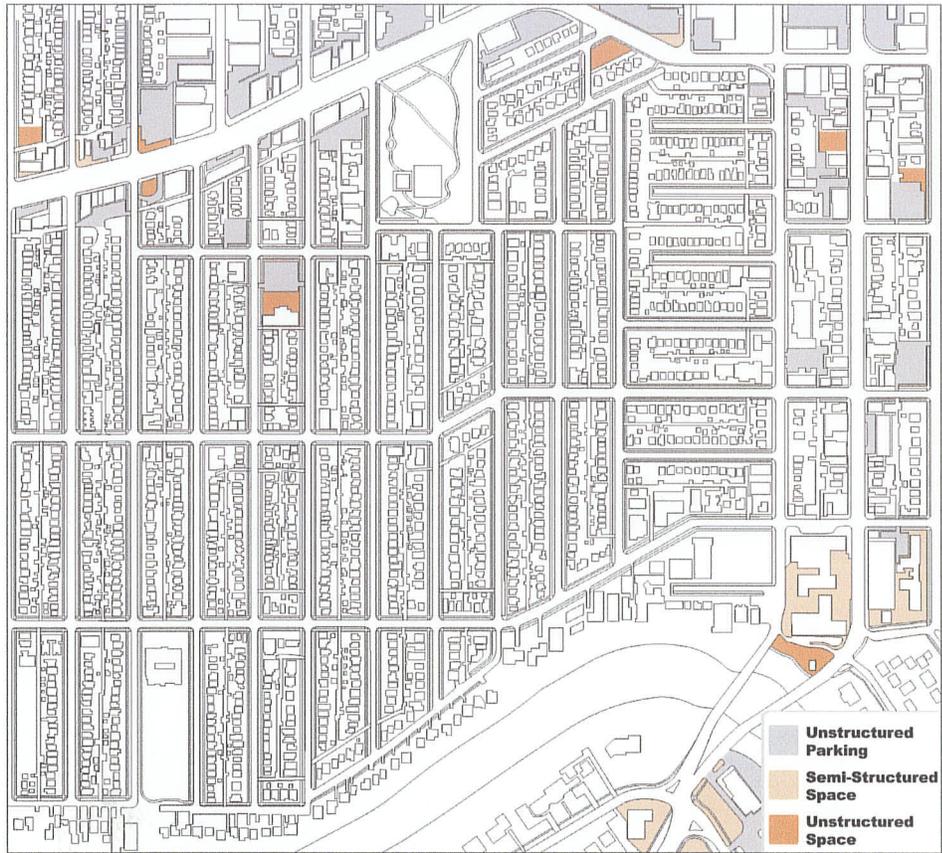
3.4.1 Unstructured Spaces

Objective: To determine the quantity of residue and unstructured spaces.

Criteria: Spaces that do not have a self-contained function that is useful for pedestrians, or that do not have a direct functional relationship with surrounding buildings and spaces. This includes “scrap spaces” and large parking lots. (Spaces currently under construction or soon to be built on were exempted.)

The manner in which locally non-integrative urbanism is adept at disengaging from the local context and at destroying viable pedestrian spaces, results in a residue of voids between big-box stores and highways, inoperative spaces between homes, deserted spaces in parking lots, and so forth. These scrap spaces are here called “unstructured space.”

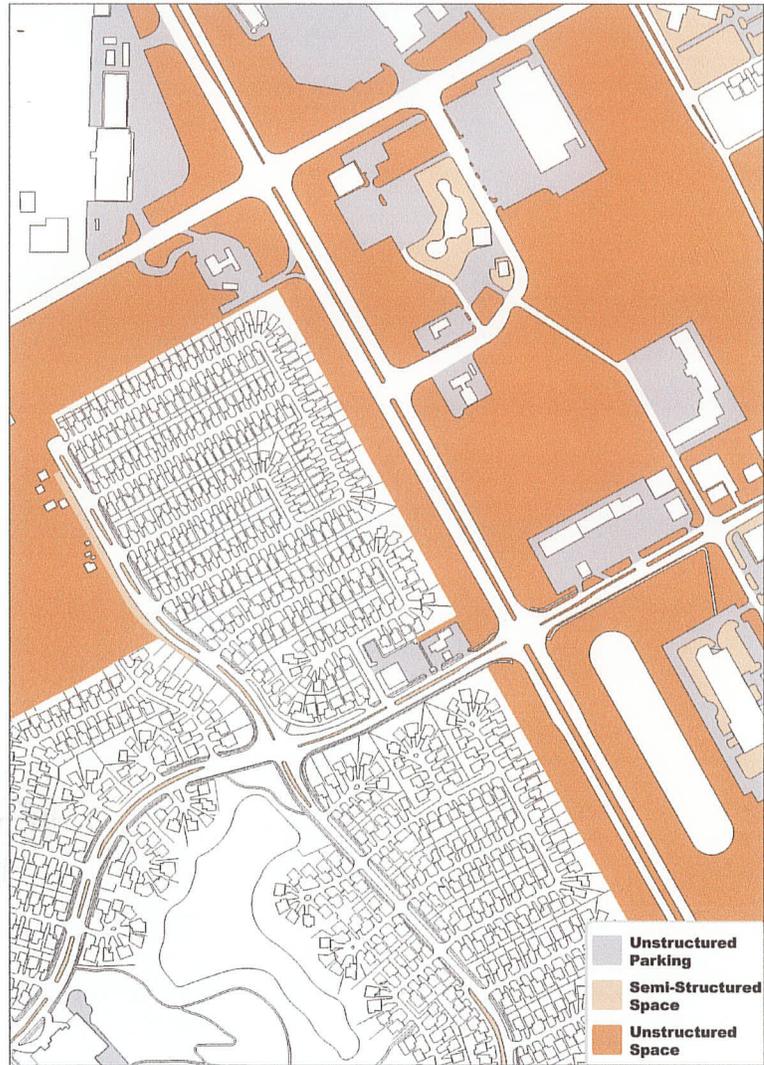
The lack of structured space shows that the space is not capable of being used for social, functional, or recreational purposes. A preponderance of these unstructured spaces is a clear characteristic of development that does not integrate with the local scale.



Map 21: Wolseley: Unstructured Spaces.



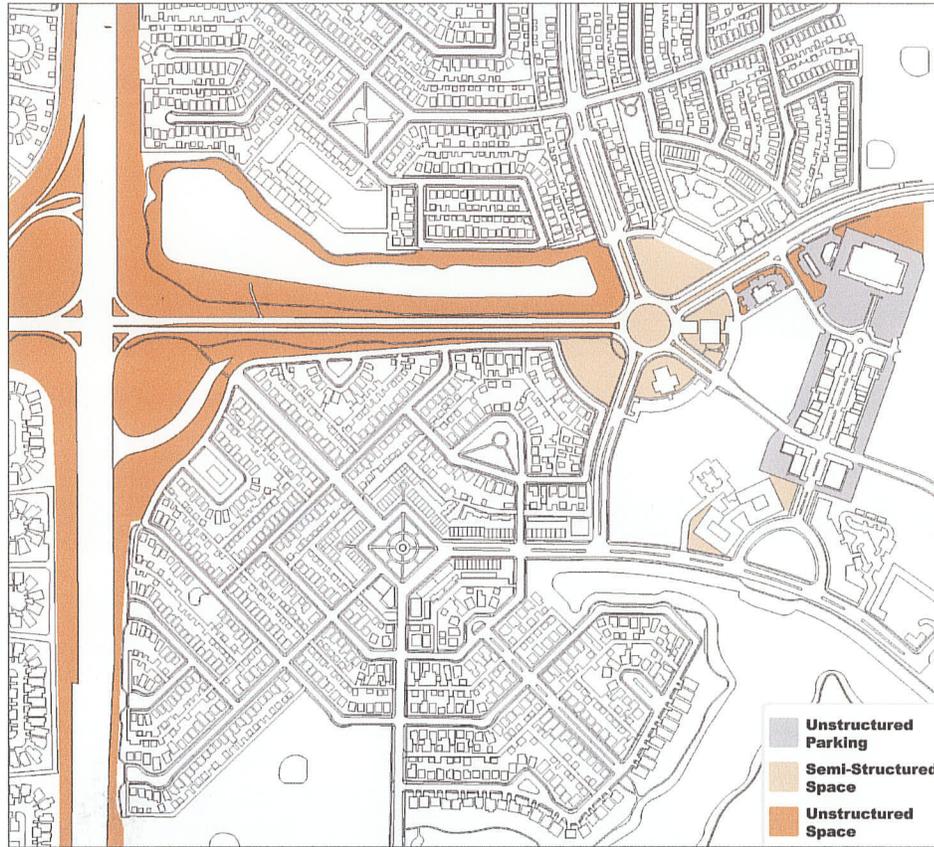
The spaces in Wolseley are generally well defined and useful



Map 22: Whyte Ridge: Unstructured Spaces.



The retail areas surrounding Whyte Ridge have a tremendous amount of unstructured spaces



Map 23: McKenzie Towne: Unstructured Spaces.



Unstructured space around the McKenzie Towne IGA in contrast to what is otherwise a well-structured environment

Comparison of Unstructured Spaces:

Wolseley: Wolseley has little unstructured space. Most of the spaces have been designed or planned to serve some kind of purpose.

Whyte Ridge: Whyte Ridge has a limited amount of unstructured space within the development, but has an overwhelming amount outside the development. The unstructured space consists of scrap spaces between big-box stores and large parking lots.

McKenzie Towne: McKenzie Towne has some unstructured space within the development that consists of spaces that flank bypass roads, spaces around the IGA supermarket, and spaces around the drive-through bank and garage.

Discussion:

Not only are the residential components of the developments being compared, but their corresponding regional retail equivalents are being considered as well. In the case of Wolseley this is integrated into the neighbourhood, in the case of Whyte Ridge it is external, and for McKenzie it is internal though distinct from the two currently built neighbourhoods.

Wolseley's non-residential functions are of a relatively fine grain and are dispersed so that big parking lots are not required. Some residue spaces have been formed where modern intervention has occurred.

In McKenzie Towne an effective main street has been created. This allows for good structuring of the spaces in front of the shops. The effect is ruined by an IGA store and its parking lot at the end of the street. (It appears that this was not included in the original concept plans.) Other unstructured spaces exist around the garage, the bank, and the fire station. This scenario presents a sliver of unstructured space in the midst of what is otherwise a well-structured environment. On the other-hand, the spaces within the neighbourhoods are very well structured and provide a feeling of security and usability that

cannot be found in Whyte Ridge. Whyte Ridge maintains an eerie feeling of unease for the pedestrian. The unstructured spaces around Whyte Ridge are extremely profound.

3.4.2 Structured Spaces

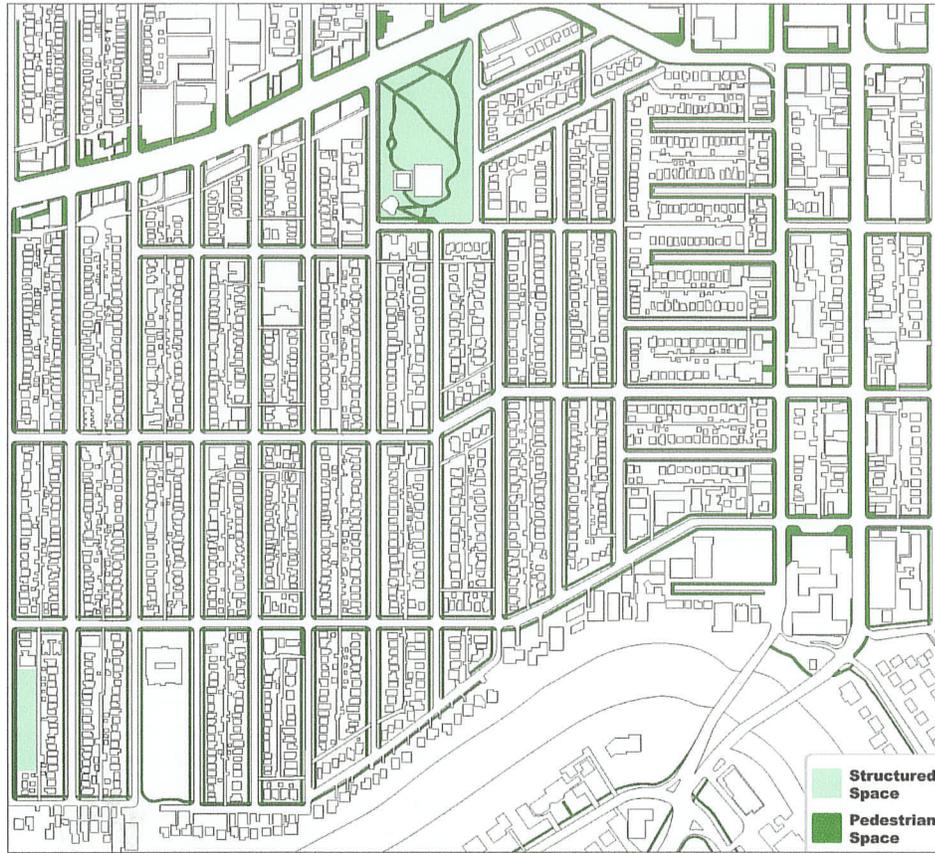
Objective: To determine whether local spaces are designed and structured in a manner that makes them useful and pleasant to residents and the public in general.

Criteria: Spaces that have a social, functional, or recreational potential that can be utilised by local residents or by the public at large, as well as characteristics that lend a psychological sense of enclosure, safety, and purpose.³⁷ Pedestrian paths and spaces are also noted.

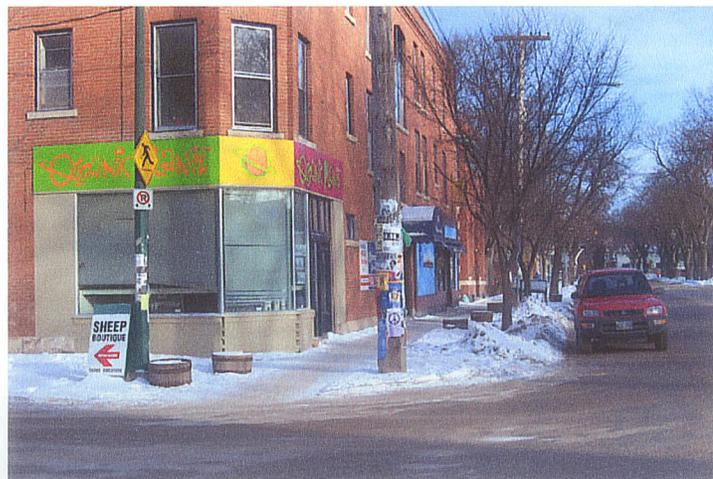
Traditional urban development structured spaces in order to make them navigable and useful to people. Research shows that structured space plays an important role in making spaces useful and inviting to residents (Garling and Skjaeveland, 1997) by allowing them to use this space for functional, recreational, or social purposes. Locally integrated development arranges buildings and streets in a manner that results in spaces that meet these requirements.

In contemporary development, public space tends to be missing, as are pedestrian paths. In the stead of these, private spaces, semi-private spaces, and what could possibly be called pseudo public spaces (shopping malls), exist. (Pawley 1974, Crawford 1992)

³⁷ Please note that some spaces have many characteristics that could ordinarily be associated with a structured space, however, some of these spaces are often leftover spaces between buildings, other spaces, and roads. Although attempts are sometimes made to “structure” these by adding paths and the like, they often lack the necessary characteristics for a psychologically and functionally effective “structured” space. These lacking characteristics include things such as a lack of sufficient enclosure, a lack of surrounding functional destinations, overexposure to surrounding traffic-intensive roads, etc. These factors are often complex and may not always be evident on the maps.



Map 24: Wolesey: Structured Spaces and Pedestrian Paths.



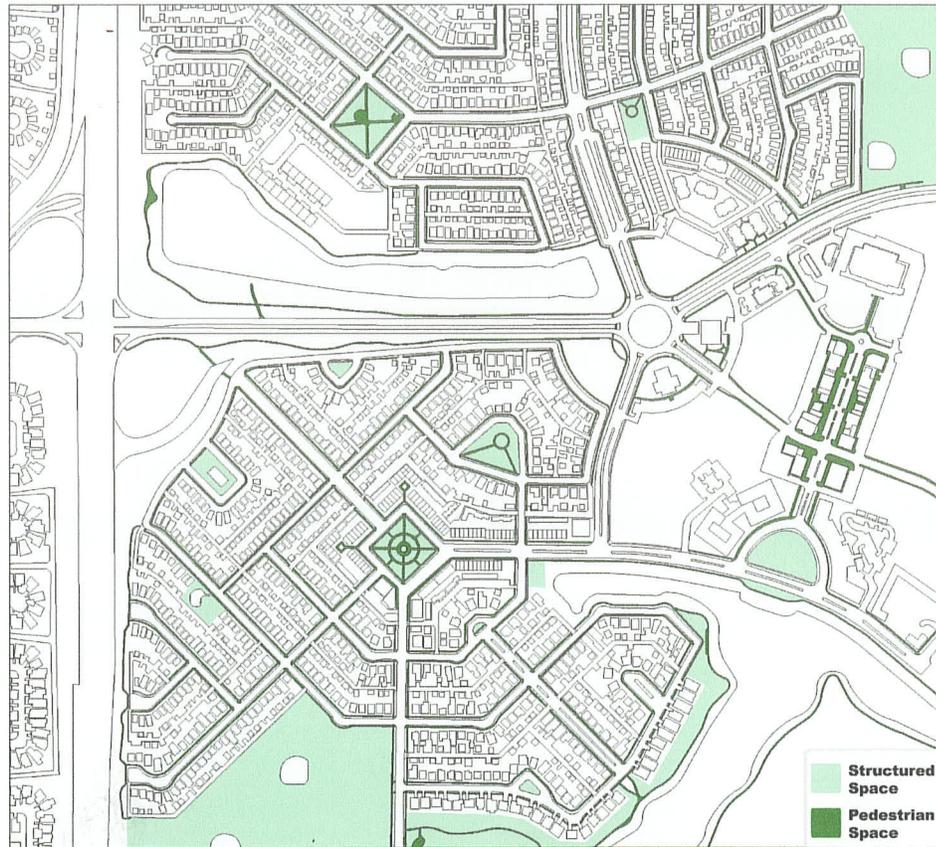
Wolesey has a consistent and navigable public realm



Map 25: Whyte Ridge: Structured Spaces and Pedestrian Paths.



Whyte Ridge has a park, but otherwise few public spaces exist within or without the development



Map 26: McKenzie Towne: Structured Spaces and Pedestrian Paths.



McKenzie Towne's retail was designed to create a public realm, as was its parks

Comparison of Structured Spaces:

Wolseley: Wolseley has a fair amount of structured spaces that are useful for social, recreational, or functional purposes. These include a park, a consistent network of pedestrian paths and spaces, and a well-defined pedestrian realm next to shops on busy streets.

Whyte Ridge: Whyte Ridge has very little space that can be used by residents or non-residents whether within or without the development. There is a park that can be used for recreational purposes but little else exists besides a few scattered pedestrian paths next to collector roads. Structured common space is non-existent outside of the development.

McKenzie Towne: McKenzie Towne is thoroughly criss-crossed by a network of pedestrian paths. Numerous public spaces that are suitable for social or recreational purposes exist in the form of parks. A main street environment also presents a very useful public realm for pedestrians.

Discussion:

Wolseley and McKenzie Towne present a strong contrast to Whyte Ridge. They have a dense network of pedestrian paths that provide a realm that is consistently suitable for pedestrians. These pedestrian networks are also linked to spaces that have a functional public purpose, such as well-used pedestrian spaces that serve and integrate the shops.

McKenzie Towne has a significant proportion of well-structured parks, such as the square in Inverness and various tot-lots that are located throughout the neighbourhoods. These provide areas that are popular and well used, particularly by children, for recreational and social purposes. Wolseley has fewer of these parks but still offers enough park space that is well integrated into a plausible and pleasant public realm.

Whyte Ridge exists in stark contrast. Besides an open park space, very little exists that could possibly be considered as well-structured space. The pedestrian networks are

almost non-existent and the lack of public spaces becomes especially pronounced in the areas that surround the neighbourhood. The overwhelming presence of unstructured spaces that are not navigable for pedestrians leaves automobiles as the only worthwhile option of transport in these spaces.

4 CONCLUSIONS

4.1 General Summary

A locally integrated urban environment is an environment in which the potential exists for buildings, spaces, and people to interact within the immediate and local scale. These relationships are often articulated through structured pedestrian and public spaces, through integrative pedestrian and road networks that weave through local spaces instead of bypassing them, and by buildings that engage local spaces instead of withdrawing from them. The New Urbanists wish to return to locally integrated forms of urbanism. This is a central motive and theme in their work.

A locally integrated environment should not be understood to exist in a vacuum of non-territorial communities or functional inter-relationships. Instead, the local dimension occurs in conjunction with other forms of communities and functional relationships that are non-local. When blending the local dimension with modern forms of social and functional networking, the result is that people generally continue interacting with non-local communities and places while simultaneously engaging the local-scale to the extent that it suits them. (Jeffres 2002, 6-7)

The preceding comparisons have analysed the morphology of McKenzie Towne, a New Urbanist development, to find out whether it is locally integrative or not. Most of the results proved to be unfavourable to New Urbanist aims. McKenzie Towne's morphology resembles that of conventional suburbia in many different ways. There were some results, however, that share similarities with traditional neighbourhoods.

The author would like to note that the problems with McKenzie Towne's morphology are not necessarily inherent to New Urbanism and that New Urbanism can, with the necessary effort and change, address these issues.

4.2 McKenzie Towne's Inhibitors of Locally Integrated Urbanism

The New Urbanists hope to create a locally integrated urbanism by using certain principles that are embodied in the Charter of New Urbanism. However, the comparisons that have been conducted show that the development of McKenzie Towne, while following the charter quite faithfully, only marginally succeeds at re-establishing viable local integration. The New Urbanists demonstrate an earnest desire to create a locally viable urban environment but there are some significant hindrances in their approach.

The first hindrance in McKenzie Towne is the manner in which the neighbourhoods are articulated with one another. The manner in which this is done resembles conventional suburbanism. This happens because a great deal of emphasis is placed on defining and demarcating the neighbourhood unit in the New Urbanist approach. The reason why New Urbanists have tried to create clearly defined and demarcated neighbourhoods is that they believe that a neighbourhood should have a 5-minute walk diameter. They also want to create identifiable neighbourhoods that allow for a distinct neighbourhood identity to develop. Unfortunately, these principles are applied in ways that separate the neighbourhoods into individual pods that are functionally and spatially severed from each other. Traditional neighbourhoods, on the other hand, have boundaries that serve to articulate and join them with adjacent neighbourhoods. Traditional Neighbourhoods still offer a comfortable neighbourhood diameter and a clear local identity.

The problem for New Urbanists is that their emphasis on trying to create an identifiable neighbourhood is being interpreted as a need to somehow separate these neighbourhoods from each other, whether spatially or functionally, in order to better define them. The consequences are enormously detrimental to the greater aims of the New Urbanists. Isolated neighbourhoods are unable to integrate with adjacent areas.

This is directly reflected in McKenzie Towne's road networks that effectively demonstrate a withdrawn rather than an integrated approach. These road networks are only practically accessible to a limited amount of residents that live in the respective neighbourhoods.

The designers of McKenzie Towne understand that the grid is a crucially important aspect of urban design and that a consistent and integrated road network is necessary for the creation and sustenance of an integrated and locally viable urban fabric. However, they impede the fruition of this logic by creating isolated pockets of grid networks instead of a consistently integrated network between all of the neighbourhoods in McKenzie Towne. This effectively negates the potential integration between the neighbourhoods and introduces a logic that is consistent with suburbanism and Albert Pope's concept of the eroded grid. (Pope 1996.)

Further, access to the neighbourhoods in McKenzie Towne is by means of "bypass" roads that fail to engage the immediate local context. These roads only serve to move people into and out of the neighbourhoods, not to weave the different neighbourhoods together. In traditional neighbourhoods, however, major roads are not bypass roads because they serve an active role in integrating and engaging the surrounding spaces. These roads are thoroughly connected to adjacent neighbourhood grids at frequent intervals while hosting a multitude of various functions. Retail needs to draw on a significant number of people to succeed. If retail and other functions are to achieve the necessary traffic and access from non-local sources while being truly locally accessible at the same time, they should preferably be positioned on the boundaries of neighbourhoods. At these locations they have convincing access to multiple adjacent neighbourhoods on a local scale as well as access to non-local customers via the busy roads that typically articulate adjacent neighbourhoods in a traditional context. These locally accessible forms of retail serve to integrate the larger development functionally while omitting the need for bypass roads or unstructured spaces.

McKenzie Towne's results are not all negative though. While there are significant barriers that hinder local integration within McKenzie Towne, there are also some dramatic improvements over conventional suburban development.

The retail and office space in McKenzie Towne, though separate from the neighbourhoods, is still agreeably incorporated into the larger development. Even if these are not closely integrated on as local a scale as in traditional neighbourhoods they are still accessible for pedestrians. While some unstructured spaces are introduced due to the fragmented relations between the different neighbourhoods, McKenzie Towne still makes good use of its spaces in general. This is clear in the abundant public spaces that are pronounced, useful, and well used. The main street is well designed and will likely become more successful as McKenzie Towne's population grows. Conventional suburbs keep most retail and commercial functions outside of the residential developments.

Another important distinction is that McKenzie Towne has a significant presence of high-density residential that is completely absent in most suburban enclaves. This high-density residential offers alternative forms of accommodation for those that do not want a regular house, while offering these people the same kind of access to the various amenities in the community. Furthermore, an assisted care home and a retirement home for seniors that are conveniently located at the end of the main-street, offer attractive options for senior citizens who will likely enjoy the easy access to stores minus the necessity of a car.

McKenzie Towne is a turn for the better. More remains to be done, however, if New Urbanists are to succeed convincingly and to the extent that is truly possible at creating a morphology that is conducive to a locally integrative urbanism.

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