

Waterloo Region's Light Rail Transit – A Missed Planning Opportunity?

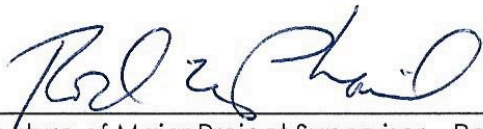
Amanda Wyszynski

November 26th 2015

Report of a Major Project submitted to the Faculty of Environmental Studies in partial fulfillment of the requirements for the degree of Masters in Environmental Studies.

York University, North York, Ontario, Canada

Signature of student – Amanda Wyszynski

A handwritten signature in black ink, appearing to read "Rodney McPhail", written in a cursive style.

Signature of Major Project Supervisor – Rodney McPhail

Table of Contents:

Abstract.....i

Forward.....ii

Acknowledgements.....iii

Dedication.....iv

List of Figures.....v

Methodology.....vi - vii

Purpose of Major Project.....viii - x

Key Map.....xi

Introduction.....1-2

Chapter 1: Theoretical Perspective and Context.....3-9

 The Region of Waterloo.....4

 Why Waterloo Region.....4-7

 Why Use the Sprawl Repair Manual.....7-8

 Scales of Repair.....8-9

Chapter 2: The iON.....10-28

 The Process of Determining Light Rail Transit.....11-15

 Cost of the Project.....15-16

 Political Controversy.....16-17

 Introducing the iON.....17-23

 Published Materials.....24-25

The Three Goals of the LRT.....	26-28
Chapter 3: Existing Conditions.....	29-97
Repair at the Community Scale.....	31-57
Route Selection.....	58-60
Station Cataloguing and Mapping.....	61-97
Chapter 4: Analysis and Conclusions.....	99-106
Analysis.....	99-102
The Fourth Goal of the iON.....	102-103
Conclusions.....	103-106
Chapter 5: My Recommendations.....	107-121
Route Alignment.....	108-110
Station Potential.....	111-112
Redevelopment Potential.....	112-114
Amendments to the Official Plan.....	114-117
References.....	118-121
Appendices:	122-161
Geoffrey Keyworth - Senior Transportation Planning Engineer Blair Allen – Manager Transportation and Environmental Services Adam Lauder – City of Waterloo Policy Planner Ken Seiling – Regional Chair Doug Craig – Cambridge Mayor Dianne Vernille – Member of Provincial Parliament	

Abstract:

Higher levels of public transit, like the Region of Waterloo's iON, are being introduced throughout South-western Ontario not only to support Provincial Growth Plan legislation, but also to reduce demands on road infrastructure that has reached its capacity during peak periods in many cities. Through legislation like the Places to Grow Act, specific cities are required to meet employment and residential density targets. To do this, the Region of Waterloo concluded that a two-staged Light Rail Transit was the correct path after they reviewed different options. The purpose of this major project, in partial fulfillment of the requirements for the degree of Masters in Environmental Studies, was to see if there were missed opportunities in improving station locations and rider experience because the route was impacted by political, financial or existing infrastructure constraints? Four sections within this major project are dedicated to determining if there were missed opportunities, and if there were, how the Region could have improved the iON. The Region stated within their various promotional materials that their three goals are to move people, limit urban sprawl and protect farmland. Each of the nineteen stations were catalogued and reviewed to see what the Official Plan requires, what is present and finally, its redevelopment potential. Through this analysis, it was determine that the Region wants intensification and mixed-use development along the iON, which is within the Central Transit Corridor. This is a commendable goal to have, but the Region needed to do more to satisfy their goals. If the Region wanted to move people, they needed to have stations that further penetrated residential areas, and most importantly, stations located at both universities. After reviewing Official Plans, Master Transportation Plans, Environmental Assessments and published promotional materials, the Region's true goal with the iON was to spark economic development along the iON route. This is commendable to have, as it will create jobs, but if this was the Region's true goal, their goals should have accurately reflected this. There were missed opportunities in improving the iON in regards to station locations and the rider experience, as the Region's main focus was economic development and not whom will be using the iON. The Region should have clearly explained how the iON will benefit people of different demographics, all of which have different needs, but they did not. Some citizens are confused as to why a LRT was the preferred solution instead of adding more busses to the already existing Grand River Transit, why the City of Cambridge is only receiving trains in Phase Two, funding issues at Provincial and Federal levels, and why the iON has a capital cost of \$818 million dollars. These major project questions were important to undertake and answer, as citizens are still confused, some are outraged, and the iON will have an impact, hopefully positive, on the Region regardless of its issues for many years to come.

Foreword:

This major project was important to write, as public transit is always a contentious issue. Not everyone is always happy with the LRT solution, or they are confused as to why it is needed. There needs to be a better connection between transportation planning and urban planning as they are impacted by each other, and they are interconnected. Reviewing the Region of Waterloo's iON for missed opportunities satisfies components of my Plan of Study. Specifically, the barriers of introducing public transit into cities that are automobile dependent and the relationship between transportation, the suburbs and the urban form. The three main objectives of this major project are; to see if there were missed opportunities in improving station locations, to contain urban sprawl by intensifying land use in proximity to future stations and ridership experience and as a result, how the Region could have improved the iON, directly support my area of concentration. Describing how stations and ridership experience could have been improved by using ideas from *The Sprawl Repair Manual* (2010) by Galiana Tachieva satisfies the area of concentration by learning how public transit creates physical and social connections to other sections of the Region.

Please note that all imagery is the authors own unless otherwise stated.

Acknowledgements:

Mr. Rodney McPhail, your support through this process has been unwavering and I cannot adequately express how appreciative I am.

And Mike, you are my constant.

Dedication:

To my parents, David and Janet. This is as much yours as it is mine.

List of Figures and Tables:

Figure 1: Scenario and Staging Options

Figure 2: Wall Anchor Design and General Station Location Information

Figure 3: Public Consultation Centers

Figure 4: Conestoga Mall Deficiency Map – Single Building Type and Use

Figure 5: Conestoga Mall Deficiency Map – Lack of Walkable Block Structure

Figure 6: Conestoga Mall Deficiency Map – Dispersed and Exposed Parking

Figure 7: Conestoga Mall Deficiency Map – Lack of Civic Space

Figure 8: Conestoga Mall – Repair at the Community Scale Map

Figure 9: Fairview Park Mall Deficiency Map – Single Building Type and Use

Figure 10: Fairview Park Mall Deficiency Map - Lack of Walkable Block Structure

Figure 11: Fairview Park Mall Deficiency Map - Dispersed and Exposed Parking

Figure 12: Fairview Park Mall Deficiency Map – Lack of Civic Space

Figure 13: Fairview Park Mall - Repair at the Community Scale Map

Figure 14: Uptown Waterloo Deficiency Map - Lack of Neighbouring Structure and Transit Deficiency

Figure 15: Uptown Waterloo Deficiency Map – Lack of Urban Building Types and Mixed Uses Deficiency

Figure 16: Uptown Waterloo Deficiency Map – Underutilized Open Space

Figure 17: Uptown Waterloo – Repair at the Community Scale Map

Figure 18: Downtown Kitchener Deficiency Map - Lack of Neighbouring Structure and Transit Deficiency

Figure 19: Downtown Kitchener Deficiency Map - Lack of Urban Building Types and Mixed Uses Deficiency

Figure 20: Downtown Kitchener Deficiency Map - Underutilized Open Space

Figure 21: Downtown Kitchener Repair at the Community Scale Map

Figure 22: Research and Technology Park Deficiency Map – Single Building Type and Use

Figure 23: Research and Technology Park Deficiency Map – Lack of Walkable Block Structure

Figure 24: Research and Technology Park Deficiency Map – Dispersed and Exposed Parking

Figure 25: Research and Technology Park Deficiency Map – Lack of Civic Space

Figure 26: Research and Technology Park Repair at the Community Scale Map

Table 27: Conestoga Mall iON Stop Information

Table 28: Northfield iON Stop Information

Table 29: R&T Park iON Stop Information

Table 30: University of Waterloo iON Stop Information

Table 31: Seagram iON Stop Information

Table 32: Willis Way iON Stop Information

Table 33: Waterloo Town Square iON Stop Information

Table 34: Allen Street iON Stop Information

Table 35: Grand River Hospital iON Stop Information

Table 36: King and Victoria Transit Hub iON Stop Information

Table 37: Gaukel Street iON Stop Information

Table 38: Benton Street iON Stop Information

Table 39: Young Street iON Stop Information

Table 40: Frederick Street iON Stop Information

Table 41: Cedar Street iON Stop Information

Table 42: Borden Street iON Stop Information

Table 43: Mill Street iON Stop Information

Table 44: Block Line iON Stop Information

Table 45: Fairview Park Mall iON Stop Information

Figure 46: Redevelopment Potential of Station

Figure 47: Recommended Station Alignment

Methodology:

The Waterloo Region iON Light Rail Transit (LRT) is being promoted throughout the Region as a project for the future, as the Region is expected to reach growth targets laid out by the Provincial Government in the Places to Grow Act, and in order to do that, they feel that an LRT is the correct path. Phase One, is currently under construction and is set to begin at Conestoga Mall in Waterloo and end at Fairview Park Mall in Kitchener, with a total of nineteen stops. From Fairview Park Mall to Cambridge Downtown, Bus Rapid Transit (BRT) is being implemented, which will eventually turn to an LRT in Phase Two. A project of this magnitude will undoubtedly have an impact on the Region, but will the iON meet its three goals? Will it successfully move people, protect farmland and reduce sprawl? This major project will examine the iON's marketed and promotional materials, published official documents and engineering documents from a theoretical perspective to see if opportunities were missed to improve ridership experience and to better locate stations, or whether these decisions were impacted by financial, political or existing infrastructure restrictions.

The Sprawl Repair Manual (2010) by Galina Tachieva was chosen as the theoretical perspective because it was created using real-life projects that have been successful. The commonalities between these projects allowed for Tacheiva to create theories and methods like Repair at the Regional Scale, the Community Scale and at the Building scale, among others. These methods are especially appropriate because the iON needs to be examined at all scales as the impacts will be felt at all scales; at the level of community, the region and the city. To achieve comprehensive analysis of the Waterloo Regional iON, it is important to interview people from all sides of the process. City and Regional planners will be interviewed along with politicians (municipal and provincial), and the common taxpayer. All of these different people need to be interviewed because of the differing perspectives they provide on various aspects of the project.

To see if the iON fulfilled its three goals (move people, reduce sprawl and protect farmland), a variety of components will be analyzed to understand the context of the project. These components include; Why Waterloo Region was chosen for an LRT, the Proposed LRT, Sector Mapping, and Missed Opportunities. Through this analysis, station locations will be catalogued based on the 500m pedestrian shed to see why this location was chosen and how the Regional and City Official

Plans support it. In addition, the Region's process on how they determined an LRT was the correct solution will be reviewed. Specifically, the Multiple Account Evaluation performed by the IBI Group that compared bus rapid transit and light rail transit and additionally, dictated the staging plan.

Purpose of Major Project:

The idea for this major project came from attending an information session about the iON with my father. My childhood home is located less than one kilometer from a station. At the meeting, many of the residents were looking at the proposed route and were wondering why an LRT was needed, and whether adding busses would suffice. They were also overwhelmed by the \$818 million capital cost of the project. Some of the questions that began to be raised for me included; Why did people have such a hard time understanding the benefits of this project? Could the Region have done a better job of explaining why a higher level of transit was needed and what their goals were? Entering the Masters in Environmental Studies (MES) program at York University, my interest aligned with transit and the suburbs, which then developed into the idea of how transit can be better integrated into the suburbs. The goals of the iON are to move people, limit sprawl and protect farmland, all of which intersect with my interests in MES and ultimately my Plan of Study.

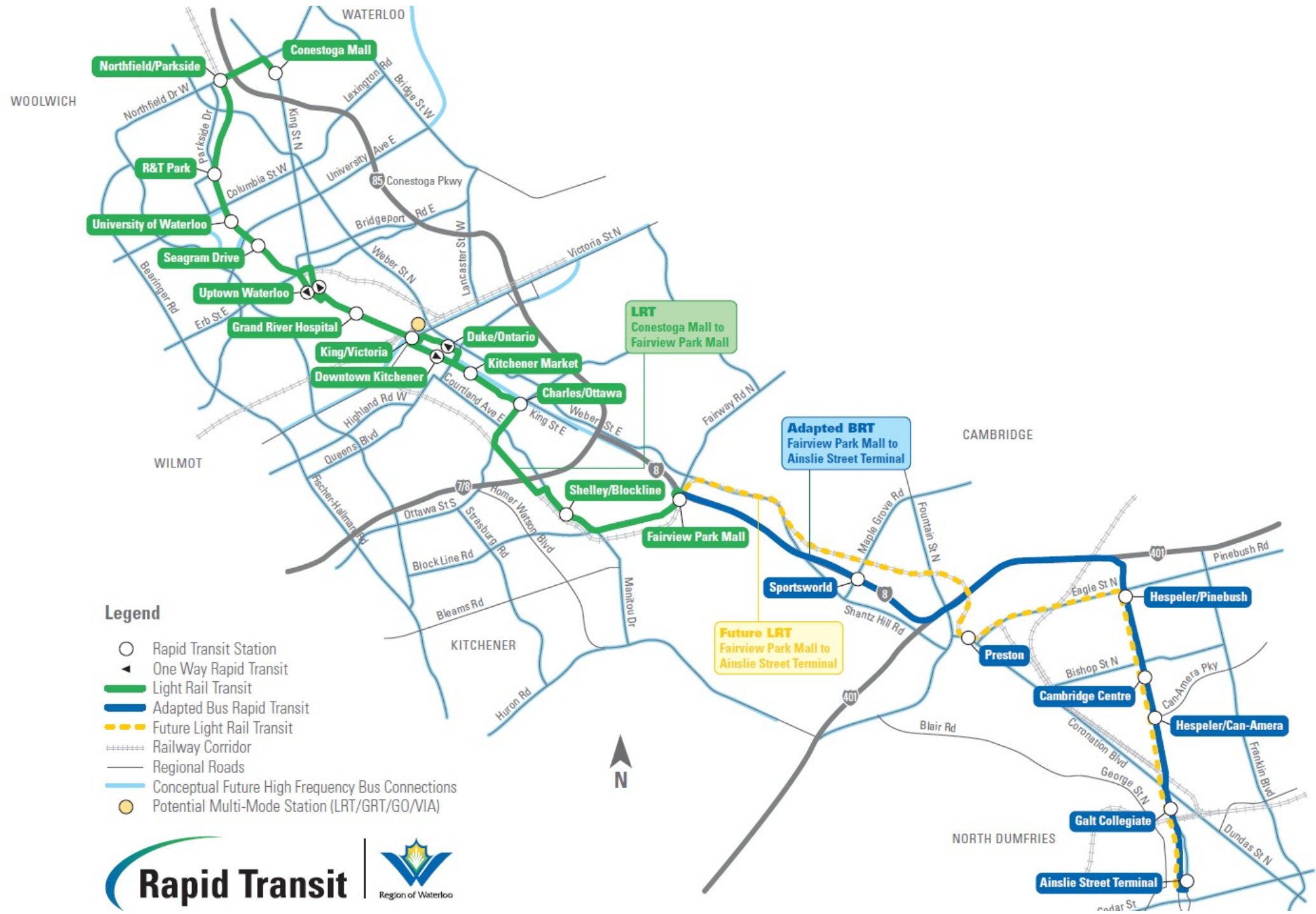
Specifically, the key words from my Plan of Study helped to give me direction as to what kind of research to pursue for my major project. I knew the Waterloo Region iON was the right choice because it was a topic of personal interest and impact, but also because it satisfied all five key words in my Plan of Study; transit, intensification, political, suburbs and consultation. The iON is a higher level of transit which will work in conjunction with the existing Grand River Transit to meet the three goals of the iON and the Places to Grow Act. Discussing the Act was important because it was the main motivation behind the iON project, and it also aligned with the key word, 'intensification'. Politics has had a massive impact on the iON from early on, including the efforts made by certain politicians, who spent a decade trying to get the iON approved. Others, who were opposed to the iON, ran campaigns with the sole purpose of cancelling the iON, even after it was already under construction. One of the three goals of the iON is to move people throughout the Region, which has a large number of suburban homes. The Region has been referred to as a commuter Region (Brennan, 2014) with a heavy dependency on the automobile. To offset this, the iON connects transit hubs like Conestoga Mall, Fairview Park Mall, the University of Waterloo, Downtown Kitchener and Uptown Waterloo, where Grand River Transit has their suburban routes meeting with the iON. This will allow those from the suburbs to use transit and perhaps also attract choice riders, those who are not dependent on transit but choose to utilize it for various reasons. Consultation is an extremely important key word for this major project, because not only did the idea for the project come

from attending an open house, which is a part of the consultation process, but the Region believes they performed more than enough due diligence with the thirty-one consultation meetings of different types (Region of Waterloo, 2012).

The goal of this major project is to determine if there were missed opportunities in improving the iON in regards to station locations and rider experience and whether these decisions and compromises were made as a result of financial, political and infrastructure constraints. Through this investigation, I wanted to understand how the iON will benefit people and how it can be improved. I believe the Region of Waterloo and specifically the City of Waterloo is at an important juncture of time. Portions of the population are retiring and choosing to stay in the homes where they raised their families, but others are choosing to move to urban centers that offer a different kind of lifestyle. Additionally, the Region has two universities and multiple colleges. How will the iON benefit my retired parents living in the suburbs, my friends living in downtown Waterloo and my grandparents living in retirement homes? These three groups of people have different needs and wants. How can the iON serve all three to its full capability? Through this major project, I was able to critique the process the Region used to determine an LRT was the correct path and to choose the approved route. In addition, interviewing politicians at the Municipal and Provincial levels allowed for different perspectives to be heard, although they were contradictory. The iON allows for my two main interests; transportation and the suburban area to be combined, which supports my academic experience and professional goals.

The area of concentration in my Plan of Study focused on how traditional planning practices encouraged urban sprawl and how transit needs to be better integrated in the suburbs, not only to encourage intensification, but to promote alternatives to the automobile. The development of transit hubs such as Conestoga Mall, Fairview Park Mall, Downtown Kitchener, and Uptown Waterloo, will help suburbanites to better access mass public transit. This access to transit will help to create physical and social connections to other areas of the city, while encouraging higher density development to meet the targets put in place by the Places to Grow Act. Ultimately, this major project is meant to be an extension of my plan of study because the core concepts of each are the same; transit and the suburbs. Through my major project, I will fulfill my plan of study and its components.

I chose to highlight five components from my plan of study because they have evolved into sections within my major project. Component 1.2 describes how I want to gain understanding on the relationship between transportation, the suburbs and the urban form. I have fulfilled this component by analyzing documents from the Region of Waterloo and the twin Cities of Waterloo and Kitchener, and by furthering my understanding of the Region's concept of transportation, the suburbs and the urban form. Through the iON, the Region wishes to connect people (the goal to move people) while limiting suburban sprawl, and in turn protect the valuable farmland that surrounds the urban areas. The purpose of component 2.1 is to gain a comprehensive understanding of how mass public transit can improve the physical urban form of the suburbs but also the lives of those living there. This goal transformed into developing an understanding of how the Region believes the iON will benefit those living in the suburbs in their daily activities. Component 2.3 supports the others by analyzing government policies that can be changed to encourage mass public transit in the suburbs. This has been accomplished by reviewing the Regional and Municipal Official Plans and commenting on what should be written and why. In addition, cataloguing each of the 19 station locations allowed for a greater understanding of the government policies used to determine locations and their development potential. Additionally, component 3.1's goal was to gain an understanding of the public consultation processes that have been undertaken and how they can be further improved. In my major project, I discuss the different consultation processes the Region utilized while developing the iON and ways in which they were useful, but I also critiqued what could have been improved. The Region could have been clearer on the three goals of the iON and why they felt the LRT was needed. Finally, component 1.4 of my Plan of Study discusses how I want to obtain general planning knowledge on; skills, ethical values and planning work experience in order to obtain OPPI/CIP recognition with an urban regional planning perspective. My major project, along with my class and work experience, fulfills these goals and OPPI as I have begun to understand the importance of a planner, but also the problems planners can face. My research has shown that while the regional planners tried to reach as many people as possible for consultation, the processes they used to achieve this goal could have been improved.



Waterloo Region iON Key Map
 Archived Maps (2009, June 1). Retrieved October 31, 2015, from <http://rapidtransit.regionofwaterloo.ca/en/projectinformation/archivedmaps.asp>

Introduction:

When thinking about light rail transit (LRT), what comes to mind? Large urban cities like Toronto or Chicago? Or fast, efficient and sleek modern trains? Light rail transit is all of those things, but it is also more. Light rail provides an alternative to the automobile by making public transit look attractive in regards to its appearance, but also its ability to meet the needs of different demographics. In this major project, when thinking about light rail transit, the idea of a Region that has an unhealthy dependency on the automobile, is sprawled out, but has a continual increase of riders (Blair, 2015) on its already existing Grand River Transit bus services. Through environmental assessments, multiple account evaluations and a designation as a Place to Grow from the Provincial government, the Region of Waterloo has decided to introduce a two-phased LRT called the iON, with service beginning in 2017. This major project will focus on phase one of the iON which runs from Waterloo's Conestoga Mall to Kitchener's Fairview Park Mall with express bus service to the City of Cambridge (see key map). Were there missed opportunities in improving the iON in regards to station locations or ridership experience? Was the iON impacted by political, financial or existing infrastructure constraints? These two questions are the focus of this major project as the iON will have a significant impact on the Region.

Although the iON is already under construction, and the express bus service is already running in Cambridge, it is important to review and critique aspects of the iON as it will have a significant impact on the Region, but also because citizens are still confused in regards to LRT technology, the route, station locations and cost. The idea for this major project began after attending information sessions on the iON and listening to the questions people were asking. They liked the idea, but they were confused or did not understand. They do not understand why an LRT is needed, why adding more busses to Grand River Transit was not sufficient, the perceived high operating and capital cost of \$1.6 billion or why the funding promise from the Provincial government changed. This lack of understanding, is it because the Region did not do enough to explain the goals of the iON, how the iON will benefit many demographics, or is it because the citizens themselves did not participate in the consultation process? This major project was undertaken, as the iON will have a significant impact on the Region, and in my opinion, there were missed opportunities. The Region of Waterloo had three goals with the iON; to move people, limit sprawl and to protect farmland. Will the iON meet these goals, and how will the Region measure for success? To answer these questions, in addition to determining if there were missed opportunities due to project restrictions, four categories were researched; theoretical perspective and context, the iON itself, cataloguing and mapping and finally, recommendations.

Through these categories, each of the nineteen stations were reviewed, catalogued and analyzed to determine what is currently present, what the Official Plan calls for and their redevelopment potential. Redevelopment potential is an important aspect to consider at each of the nineteen stops as the Regions goals may be to move people, limit sprawl and protect farmland, but it also is economic development along the iON route within the Central Transit Corridor.

To keep consistency, *the Sprawl Repair Manual* (2010) by Galiana Tachieva was used as the theoretical perspective. This manual was chosen because it was created using successful examples, and basically was laid out as a checklist to improve urban sprawl, retrofit outdated strip malls and how to repair at different urban scales. Her concepts can be applied to the station locations that need improvement in order to fulfill their full potential. Additionally, her concepts are supported by Pierre Fillion, Daniel Schaffer, John Sewell and Kevin Krizek and Ahmed El-Geneydy. These authors echo her concerns of the dependency on the automobile, the dominance of sprawl, but they are all supportive of the introduction of public transit for various reason. Sewell describes in his book *The Shape of the Suburbs Understanding Toronto's Sprawl* (2009) how transit makes people more accepting of others as they are interacting with them on a daily basis. For example, one moment a high powered stock broker may be occupying a seat on a street car, then the next person may be a student or someone from another demographic. Similarly, Kevin Krizek and Ahmed El-Geneydy describe in their article *Segmenting Preferences and Habits of Transit Users and Non-Users* (2007), how the experience of the rider is important. They need to feel safe using transit, which includes the transit vehicles, who uses transit and the immediate area surrounding transit stops. Additionally, Pierre Fillion and Daniel Schaffer discuss in their respective articles *Automobiles, Highways and Suburban Dispersion* (2013) and *After the Suburbs* (1991) how the introduction of public transit will reduce the demand on the at capacity road infrastructure and how this can transform areas of sprawl. These authors demonstrate how transit can be beneficial in many ways, and this supports the goals of the Region with the iON. The Region hopes to limit sprawl, protect farmland and to move people, but they also want to encourage economic development along the iON route.

Chapter 1: Theoretical Perspective and Context

The Region of Waterloo:

The goal of this major project is to examine Waterloo Region's iON Light Rail Transit project to determine if more could have been done to improve station locations and the overall rider experience, or if there were missed opportunities because of potential financial, political, or existing infrastructure project constraints. The Region of Waterloo recognized the need to be proactive and create a serious alternative to the automobile as their population is only increasing due to Places to Grow and their proximity to other areas. In trying to be progressive, they asked for a Multiple Account Evaluation (MAE) Rapid Transit Environmental Assessment to be completed which would evaluate Bus Rapid Transit, light rail transit and a combination of both with a variety of staging options. However, before reviewing the theoretical perspective that will be used to analyze the proposal and the specifics on why the Region thought they needed more advanced transit, an understanding of the Region is needed. Having a basic understanding of the background of Waterloo Region is important as the Region has very unique characteristics, and as a result, the iON will have different impacts at different scales.

In regards to geography, the Region of Waterloo is located in Southern Ontario approximately 115km from Toronto within a two-tier municipality. The upper tier is the Region of Waterloo, commonly referred to as Waterloo Region. The lower tier consists of the Cities of Waterloo, Kitchener and Cambridge, and the townships of North Dumfries, Wellesley, Wilmot and Woolwich. What makes the Region interesting is the proximity to farmlands and Mennonite communities, and its reputation as a tech hub, known as tech town North (Vernille, 2015), which has developed as a result of the many tech company founders who are graduates of the University of Waterloo and Wilfred Laurier University. Influencing the area's development is the major Provincial Legislation it falls under; the *Places to Grow Legislation*, which created the *Greater Golden Horseshoe Growth Plan*. According to Statistics Canada, the 2014 population of Waterloo Region is 506,900 making it the seventh largest population area in the Province.

Why Waterloo Region:

The Region of Waterloo is at a crossroads. They need to decide if they will continue to be a commuter region (Brennan, 2014) or if they will embrace their unique qualities and create their own identity. Within the Region, each city has its own distinctive characteristics. The City of Cambridge has a very unique and picturesque downtown with the Grand River running through the core past historic buildings. On the other hand, the City of Kitchener embraces its German

heritage by having the second largest Oktoberfest celebration in the world and focuses on intensifying its urban center. The final city in the Region is the City of Waterloo, which has become known for its two world class universities—Sir Wilfred Laurier University and the University of Waterloo—and for being “tech town North” (Vernille, 2015); These three cities, combined with other unique factors such as the extremely close proximity to farmland and a very well established Mennonite community, make for a very unique Region.

The Region of Waterloo has been designated by the Provincial Government in the *Places to Grow Legislation* as a Place to Grow. This means that the Region is required to meet specific density requirements and to accommodate for increased populations. The *Places to Grow* legislation helps to coordinate Regional Plans to encourage intensification, economic growth and protection of the environment. According to the Region of Waterloo's *The Story of Rapid Transit in Waterloo Region* (2014), 200,000 new residents are expected to move to the Region by 2031. This will bring the Region's projected population to 742,000. This works out to approximately 10,000 people moving to the Region each year (*The Story of Rapid Transit in Waterloo Region*, 2014). With these projections, the Region and the Regional Cities amended their Official Plans and Transportation Master Plans to reflect the new requirements. Previous to being labeled as a Place to Grow, the idea of rapid transit had been discussed as early as 1976 in the Region's Official Plan (Orman, 2015). However, discussions became more serious in 2000 when the environmental assessment was completed for the Region by the IBI Group. The iON has been controversial from the beginning; even with the most recent election, some mayoral candidates ran with the sole purpose of stopping the Light Rail Transit (LRT), commonly referred to as the iON. Why does Waterloo need an LRT? Would an alternative like Bus Rapid Transit be a better option? Or, does the LRT route serve all of its purposes? These questions have been asked, and they need to be answered. The goal of this major project is to examine Waterloo's iON Light Rail Transit to determine if there were missed opportunities for improving station locations and overall rider experience. If there are missed opportunities, were they because of project constraints such as financial, political or existing infrastructure concerns? This will in turn answer the questions that mayoral candidates ran on and citizens have asked.

A Multiple Account Evaluation (MAE) Rapid Transit Environmental Assessment was published in June 2009 to analyze the six different transit strategies the Region was discussing. The six strategies included individual Light Rail Transit, Bus Rapid Transit, or a combination of both, along with two different staging options.

Through the MAE, it was determined that an LRT is the right strategy for the Region and three goals were developed: to move people more efficiently in and around our community, to limit urban sprawl by integrating the built form in strategic locations, and to save our farmland through the protection and preservation of the environment (*The Story of Rapid Transit in Waterloo Region*, 2014). This will be discussed further in the second section entitled “The Proposed LRT”. The Region of Waterloo should be progressive and innovative, as the requirements under the *Places to Grow Act* and the *Greater Golden Horseshoe Growth Plan* are substantial. These goals relate directly to the distinctive characteristics of each city, picturesque urban cores, intensifying historic German centers, protecting farmland, and preserving Mennonite communities.

The three goals of the iON are very important to its success. The Region has marketed the LRT project as a necessity to accommodate the projected population by 2031 as dictated by the *Places to Grow Act*. As mentioned previously, the Region is at a pivotal point in its history and has decided to embrace its distinctive qualities and create its own identity. Yes, the LRT will require a massive upfront investment and continual operating expenses, but it will help to define the Region for years to come. On the other hand, the amount of road infrastructure that would have been required without the creation of the LRT is massive. According to *The Story of Rapid Transit in Waterloo Region* (2014), if the iON were not being built, 500 km of new road lanes would need to be built and maintained to accommodate the expected growth, which would only encourage further sprawl and dependency on the automobile, the opposite of the Region's goals and those of the iON. In addition, the University of Waterloo has been recognized as a world-class university, but once the students have graduated, they leave to move to bigger cities that offer more in terms of higher paying jobs, transit alternatives and social and economic centers. The Region wants to correct this. Policy Planner, Adam Lauder for the City of Waterloo, stated in his interview that new grads, or the millennial generation, desire options. They like that larger cities such as Toronto have multiple transit options and do not require dependence on vehicles. Or even ownership of an automobile.

The iON has been marketed as being beneficial for the Region overall, and throughout the controversy, the Region has emphasized how this project is not intended for the present, but for the future. It will be a generational project like the Expressway connecting Waterloo and Kitchener to the 401. The Region has been designated as a Place to Grow by the Provincial Government and will need to accommodate 10,000 new residents each year (*The Story of Rapid Transit in*

Waterloo Region, 2014). Through Official Plans, Transportation Plans and height and density studies, the Region and the Cities have embraced their unique characteristics and are creating their own identity. The iON Light Rail Transit will allow for people to move more efficiently, limit sprawl, and protect valuable farmland.

Why Use the Sprawl Repair Manual:

The Region of Waterloo is trying to be progressive with ideas of moving people more efficiently, limiting sprawl and protecting valuable farmland. One of the many ways they are working to achieve their three goals is through constructing a Light Rail Transit (LRT) line. This LRT will hopefully help achieve their goals. But, did the Region do enough in terms of consultation and research to ensure these goals were met? How were the station locations chosen? The goal of this major project is to examine Waterloo's iON Light Rail Transit to determine if there were missed opportunities in improving station locations and overall rider experience. If there are missed opportunities, were they because of project constraints such as financial, political or existing infrastructure concerns?

To analyze Phase One of the iON, I have chosen to use the *Sprawl Repair Manual* (2010) by Galina Tachieva. The book and methodology was chosen because of its focus on transforming the suburbs, which is one of the three goals of the iON. Through the LRT, the Region will move people more efficiently, limit sprawl and protect valuable farmland. *The Sprawl Repair Manual* (2010) is essentially a checklist divided into specific sections while presenting urban design, regulatory and implementation techniques. As Tachieva says, the manual "... created with a sense of urgency...A growing number of initiatives are focused on solving the pressing economic, social, and environmental problems of sprawl. To aid those initiatives and take advantage of the unique opportunities that now exist, this book provides a collection of sprawl repair tools and the lessons learned...(Tachieva, 2010)."

The *Sprawl Repair Manual* (2010) was created with the intention of repairing sprawl and includes lessons learned from successful projects. The manual is structured with each section dedicated to a different aspect of sprawl. Tachieva describes her book's focus as being "...the incremental retrofit of auto-centric suburban places into complete, vibrant communities through focused interventions" (pg. 2, Tachieva, 2010). This book complements the goals of Waterloo's LRT which are "to move people more efficiently in and around our community, limit urban sprawl and to save our farmland through the protection and preservation of the

environment" (*The Story of Rapid Transit in Waterloo Region*, 2014). The *Sprawl Repair Manual* (2010) provides information and perspectives on how to repair sprawl by focusing on the different scales: the region, the community, the local block and the individual location. Tachieva discusses how governments can be more proactive in their plans and regulatory systems by providing incentives. Throughout the manual, she approaches different planning scenarios, for example edge cities, business parks and subdivisions, with clearly defined steps and implementation techniques. Her ideas may be perceived as radical, but they have had positive results.

Scales of Repair:

As discussed earlier, *The Sprawl Repair Manual* (2010) is written with different scales in mind—the region, the community, the local block and the individual location. This can be applied to the Region of Waterloo's LRT because it will have an impact at each of the scales. The goal of this major project is to examine the iON to determine if there were missed opportunities in improving station locations, ridership by ways of strategic intensification and overall rider experience. If there are missed opportunities, were they because of project constraints such as financial, political or existing infrastructure concerns? To answer these questions, the LRT project will need to be reviewed with the *Sprawl Repair Manual's* scales in mind. Each proposed location will be catalogued within 500m with respect to zoning, pedestrian access, landscaping and what already exists. This will help to understand why those locations were chosen and if there were better potential locations.

These scales will be extremely useful when analyzing the Region of Waterloo's iON as the LRT will impact the Region, the community, the local block and at each of the nineteen stops. As Tachieva says, "the repair at the regional scale identifies redevelopment of existing commercial nodes based on efficient spacing for transit. After their transformation, these nodes will become mixed-use neighbourhood centers, town centers, and regional urban cores, ideally in proximity to transit stops" (pg. 34, *The Sprawl Repair Manual*). This statement directly supports the goals of the LRT to move people, protect farmland and limit urban sprawl. Tachieva's emphasis on transit supports the Region's argument that the iON will be beneficial to local businesses, particularly in the long-term. Additionally, the transformation of urban areas into mixed-use higher density areas supports not only the *Places to Grow Act*, but also the Regional and Municipal Official Plans and Transportation Master Plans. Similarly, at the community scale, Tachieva describes how repairing sprawl, and in turn transit, will have more economic benefits. She

notes on page 55, for example, that “Sprawl repair will have wide socio-economic benefits for the failing developments. The transformations of these single-use enclaves into vibrant, walkable, mixed-use communities will make them attractive for the upcoming market segments (Baby Boomers and Millennials), which may stop and even reverse the declining real estate values. Adding density will support the existing businesses, create the basis for new ones, and support mass transit”. Again, this is in line with the LRT proposal, as the Region had a very economically focused mindset when developing the iON. This is why the route is set to run along established areas such as Uptown Waterloo and the Universities, but also why it will run through areas like Borden and Allen Street that have immense potential for densification or in Tachieva's term, “repair.” In addition to using her scales, her design techniques will be used when reviewing the nineteen ION stops.

Chapter 2: The iON

The North American landscape is extremely spread out, which has resulted in a very car dependent society. This dependency has helped contribute to a lifestyle that does not encourage regular physical activity. With the introduction of alternative transportation, through this major project, the Waterloo Region iON Light Rail Transit (LRT) encourages citizens to be active by walking or cycling, and by using transit. In order for the North American landscape to become spread out and suburban, there must have been some appeal to families. The article *After the Suburbs* (1991) by Daniel Schaffer describes how the suburbs became dominant in the North American landscape by explaining their appeal. Schaffer notes that "Today's suburban communities, with their split-level or ranch houses, commercial strips, high-tech office parks, and regional malls provide the imagery- and place – for the nation's preferred life styles and cultural values. These deep seated preferences, combined with relatively cheap energy and (until recently) cheap housing, have enabled the nation's suburbs to continue to spill into the countryside (pg. 243)." He further describes how the suburbs are an extremely wasteful environment, because of their requirements for massive amounts of land, energy and resources, which results in car dependency (pg. 243). Schaffer believes this relationship could have been significantly reduced if alternative methods of transportation were embraced. Schaffer's argument relates directly back to the second and third goal of the ION, to limit urban sprawl and save farmland.

Since the previous chapter has already discussed why the Region of Waterloo thought they needed an increased form of alternative transit (increased population by 2031 and potential economic development), this section will focus on two major areas: 1) How the Region determined that the LRT was appropriate and how the current LRT route was chosen, and 2) The controversy surrounding the project, including political pressures, financial constraints and the lack of clarity among citizens about why the LRT is needed. Specifically, each of the nineteen proposed station locations of Phase One will be introduced, with a detailed cataloguing in the third section of the major project entitled *Missed Opportunities*.

The Process of Determining Light Rail Transit:

With any large-scale project, there will be controversy regarding cost, size and scope. In addition, the motives of politicians for opposing or favouring a project may simply be to get re-elected on the basis of their constituents' positions on the issue. In his book, *Planning Politics in Toronto* (2013), Aaron Moore discusses the issue of how politicians promote large-scale projects, like the Waterloo Region Light Rail Transit, but only run on terms of four years. For instance, some politicians may have short-sighted goals such as re-election. For the most part, large-scale projects can take longer than four years to complete. Therefore, given that

politicians have four-year terms, is it prudent to place all decision making for these projects in their hands? Or it is more appropriate to allow professionals like engineers, transportation specialists, planners, scientists, etc... to make these decisions?

The Region of Waterloo first recognized that they needed to improve the transit options available to their citizens with the publication of the *Places to Grow Act* (2005), which requires at least 40% of new development to occur within existing boundaries, rather than sprawling into new areas. Susain Swail, the Greenbelt Project manager at the NGO Environmental Defense, argues that to improve the quality of urban centers and the health of everyone in general, it is important to start building upwards instead of outwards. Not only is it too expensive, but it is bad for health as it encourages an unhealthy dependency with the automobile. This aligns perfectly with the second and third goals of the iON, limits sprawl and protecting the environment (*The Story of Rapid Transit in Waterloo Region*, 2014). Before the Region decided that an LRT was needed, they developed a Regional Transportation Master Plan while also updating their Official Plans which laid out the goals and their guiding vision. In conjunction with the Transportation Master Plan, experts like the IBI Group conducted substantial research on , most notably the *Multiple Account Evaluation* in 2009.

As previously mentioned, the Waterloo Region recognized the importance of transit options to reduce our dependency on automobiles, and in turn on infrastructure. When updating the Regional Transportation Master Plan in 2011, the following five factors were considered:

“1) there is a need for greater transportation choice (transit, cycling and walking). A 2006 survey found that 43% of residents lived within 5km of their place of work. Many of these residents represent potential active transportation commuters; 2) studies have indicated that a sedentary lifestyle and poor air quality are contributing to various health ailments at an unprecedented rate...; 3) auto congestion continues to increase, causing transit to experience more challenges in adhering to schedules that users depend on; 4) approximately 40% of land in urban areas is already used for roads and parking; 5) the Provincial Growth Plan requires at least 40% of new developments to occur within the built density boundary of the Region, anticipates higher order transit, and prescribes increased development densities (Multiple Account Evaluation, 2009, pg. ii).”

The five factors listed were used not only to update the *Transportation Master Plan (TMP)*, but to help determine what direction the Region should take. Should they invest in bus rapid transit or light rail transit? What would serve the Region most effectively? Interestingly, the Region's Grand River Transit has been deemed a success according to the TMP. They describe how from 1999 to 2009 ridership has increased 6.3 per cent annually from 9.5 million to 16.4 million. In less than a decade transit ridership has increased 74 percent, which is substantial. The Region's population has only increased 1.85 percent in comparison. The TMP credits this increase to the continual investment the Region has made in Grand River Transit, especially with the introduction of the various iXpress routes.

Through the *Multiple Account Evaluation (MAE)* published in 2009, the experts at the IBI Group evaluated six options, four of which were scenarios and two of which were different staging options. They state "The purpose of a MAE is to provide a broad-based assessment of a potential project or projects, to understand their costs and benefits. However, unlike traditional costs-benefits analysis, MAE is a more flexible framework capable of considering non-monetary and or qualitative measures of benefits (Multiple Account Evaluation, 2009, pg. ii)." The table below illustrates the six different options the MAE evaluated based on their location and whether they used predominantly light rail transit or rapid bus.

Scenario	BRT or LRT	Location
Light Rail Transit 1	LRT Spurline	LRT on the rail spur in North Waterloo, then via King Street, Courtland Ave, the CPR line and Hespler Road
Light Rail Transit 2	LRT King Street	LRT on King Street in North Waterloo, west on University Ave to the University of Waterloo, then via the rail spur, King Street, Courtland, the CPR line and Hespler Road
Bus Rapid Transit 1	BRT Spurline	BRT on the rail spur in North Waterloo, then via King Street, Courtland Ave, Highway 8/ Highway 401 and Hespler

		Road
Bus Rapid Transit 2	BRT King Street	BRT on King Street in North Waterloo, west on University to the University of Waterloo, then via the rail spur, King Street, Courtland Ave, Highway 8/ Highway 401 and Hespler Road.
Staging Options		
Staging Option A		A mixture of LRT and BRT spurline options – LRT from Conestoga Mall to Fairview Mall, BRT from Fairview Park Mall to downtown Cambridge
Staging Option B		LRT in the north portion, and adapted BRT constructed in the south portion of the corridor (from Fairview Park Mall to downtown Cambridge). Adapted BRT could include: a) Operational improvements: bus bypass shoulders, queue jumping, signal priority, additional stations, RT busses, automated ticketing, and real-time passenger information systems. b) Urban design improvements at stations – streetscape, bicycle and pedestrian amenities, connection to intercity transit.

Table 1: Scenario and Staging Options - (Multiple Account Evaluation, 2009, pg. ii - iii)

It was essential that the Region use an independent third party to review the different proposed options to bring confidence to citizens that their tax dollars were used wisely. Although Aaron Moore's book describes how politicians make short term decisions based on their four year terms, using an independent party and going through multiple phases of research and consulting, shows that the Region's politicians were insightful and understood the potential impact of their

decisions. They looked past their tenure and into the economic future of the Region. The iON is not meant as a project for today, but as a project for the future and perhaps this is not understood by the existing residents.

Cost of the Project:

Anything to do with increasing local tax dollars often leads to controversy. This is certainly the same for the iON as the total capital costs are \$818 million (The Record, 2015). Specifically, the main controversy regarding the iON is the funding. Initially, when the LRT was first discussed a decade ago, the Provincial Liberal Government of Dalton McGuinty promised that they would fund two-thirds of the project. However, now they are only funding one-third with the Federal Government and local taxpayers each contributing one-third (Lynn, 2015). To make things worse, the new Liberal Provincial Government has agreed to fully fund the Hamilton LRT and to fund trains that run from Mississauga and Brampton. Recently, there has been a lot of anger towards the Liberals, which has spurred many opinion pieces in the local paper and on the CTV Kitchener evening news. In a piece by the editor of the Waterloo Record, Karlo Berkovich, he strongly argues that the funding is not fair, and that it seems that the Province has two different sets of rules for cities close to the GTA and those which are farther away. He states in his article entitled *Ontario Coming up Short on iON Funding for Waterloo Region* (2015):

“It is difficult to find a more blatant example of disregard from Queen's Park than the sum of these simple facts: In Waterloo Region, the \$818-million capital cost of the Ion light rail system, under construction, is borne more or less equally by the federal government, the provincial government, and the local taxpayers. But other light rail systems that have been recently approved — one to run trains between Mississauga and Brampton, another in Hamilton — will require no contribution from local taxpayers, because the province will pay the whole shot.

There is no reason to treat these municipalities differently from Waterloo Region. None of them is impoverished; in fact, Mississauga has one of the wealthiest populations in Canada, and it can well afford to share in the \$1.6-billion cost. Meanwhile, Hamilton's civic leaders have been neither as prepared for, nor as committed to, light rail as those in Waterloo Region. But this week that city received a \$1-billion pledge from Queen's Park to pay all its light rail capital costs.

This inequity is so stark it has brought together the area's two opposition MPPs, who stood together, in a rare gesture, at a news conference on Friday and advocated for what they called "transit fairness" for regional taxpayers."

This sentiment is echoed by CTV News Kitchener reporter Frank Lynn, who did a piece called *Waterloo Region Short-changed on Transit Funding, Opposition MPPs Allege* on May 29th, 2015. In this news piece he describes how the opposition MPP's claim that the Region has been promised many things but have been short-changed. They do not understand why the Region has to pay one-third, but other cities like Mississauga, Brampton and Hamilton do not have to pay significant portions of their light rail transit costs. Yes, there are logical reasons, like the Hamilton LRT will be owned by the Province not the city, but if this is true, the Province should clearly describe what the differences are between the projects and why there are two different funding strategies. If the province clearly explained their reasoning in some sort of promotional material, perhaps there would be less controversy and more understanding. This is only one example of the controversy surrounding the project.

Political Controversy:

Without being labeled as a Place to Grow by the Provincial government, it might have been possible that Waterloo Region would not be getting an LRT. To their credit, the Region has been labeled as such and has embraced it through their Official Plans, Master Transportation Plans and the respective corresponding documents at the City level. As a resident of Waterloo Region, it is noteworthy that one politician in particular has been the driving force behind the iON, Regional Chair Ken Seiling. Without Seiling, there would have been no consistent driving force. Echoing what was discussed in Aaron Moore's book *Planning Politics in Toronto: the Ontario Municipal Board and Urban Development* (2013), politicians are elected on four year terms and will make many grand promises in order to get elected, and often they fail to deliver due to a variety of circumstances. However in this situation, Seiling has been on Regional Council for 30 years and was able to remain the consistent driving force. He encouraged the cities and the Region to work together to introduce substantial transit planning goals into their Official Plans and to develop a Regional Transportation Plan. However, in the most recent municipal election, some candidates were running with the goal of putting the LRT to a referendum or with the purpose of stopping it, regardless of financial implications. For example, former CTV News Kitchener long-term

weatherman of 42 years, Dave MacDonald was unsuccessful in his run for Mayor with the purpose of stopping the LRT. He stated in a January 2014 interview to CTV News,

“I have been against the LRT, the way it's been presented, from the beginning. I think it's going to go way, way over budget,' ... That's the party line, that it would be cost-prohibitive (to cancel) – but is it more prohibitive to spend \$200 million to kill a project, or to go \$600 or \$700 million over budget on the project?.”

Mentioning how a very vocal member of the community ran on a platform that strongly opposed the views of the Regional Council is important. It demonstrates that people are still opposed to the project even with all of the promotional material the Region has released. Perhaps it is because they are confused, not informed enough or potentially, they simply disagree. Has Waterloo Region promoted the three goals of the LRT enough? If so, would this have alleviated people's concerns and answered their questions?

After attending open houses and speaking to fellow citizens, the general consensus is that they like the idea of the iON but do not understand why it is needed. At the most recent open house in May 2015, citizens were reviewing the detail of the anchor wall designs, but were asking the Region's representatives why the iON was needed, or why more bus service could not be added to the already existing Grand River Transit (GRT)? Other questions that were overheard, related to finances. Why is it so expensive? Why does the Region have to pay one-third of the cost? Additionally, some who understood why the LRT was needed, wondered whether it would actually save them time commuting?

Introducing the iON:

The goal of this major project is to examine the Waterloo Region Phase 1 iON Light Rail Transit to see if there were missed opportunities in improving station locations and overall rider experience. If there are missed opportunities, were they because of project constraints such as financial, political or existing infrastructure concerns? This project has been referred to as a generational project, much like the Expressway was in the early 70's by City of Waterloo Policy

Planner Adam Lauder in his March 2015 interview. This relates to what the promoters of the iON have been saying, i.e. that it is not a project for now but for the future. This relates back to what Daniel Schaffer's *After the Suburbs* (1991) belief that if alternative transit were introduced, the car dependency would decrease.

To answer the fundamental question of this major project was the proposed Waterloo Region Light Rail Transit, known as the iON, able to meet all of the goals set out for the project or did they have to compromise the integrity of the project therefore resulting in missed opportunities? It is essential that each of the proposed nineteen station locations be examined and that the process that was undertaken be evaluated. In May 2015, the Region of Waterloo held two public open house consultations to review the station location anchor wall designs the consortium General Contractor (Grand Linq) has developed. Table 2, Station Design Detail, is intended to serve as an introduction to the nineteen stations and will state the information presented and published online at these open houses and the rationale given for the locations that were chosen. As mentioned previously, the third section *Missed Opportunities*, starting on page 29, will analyze each of the nineteen station locations in depth. It will catalogue each station location in regards to infrastructure, existing businesses, zoning, among others to determine if there were missed opportunities in improving station locations, ridership and overall rider experience which will then be reviewed by using the theoretical perspective of *The Sprawl Repair Manual* (2010) by Galina Tachieva.

1	Conestoga Mall	<ul style="list-style-type: none"> Bright coloured blocks of ceramic reflect the design on the exterior of the mall The bright colours give the wall presence on an existing low density car oriented corridor Different blocks of colour represent the different types of development coming to the area as it redevelops (mixed use). Provides a prominent feature to visually make ION and GRT transfers seamless The colour combination provides a feeling of excitement
2	Northfield	<ul style="list-style-type: none"> The Algonquin stone will tie into the heritage relationship of this stop as the park n' ride and future tourist train will form an important connection to St. Jacob's, Elmira and the Mennonite Community The warm tones of the stone compliment the

		finishes of the surrounding building
3	R&T Park	<ul style="list-style-type: none"> The red ceramic wall will reflect the red architectural features of Research and Technology Park The bold wall will give the stop visual prominence in a location that is currently remote from other landmarks Bold red is easily identified by users Red is the colour of energy, passion, youth, excitement, and action which is fitting for the high tech start up focus of the area
4	University of Waterloo	<ul style="list-style-type: none"> The gray, white, black and dark blue glass tiles fit the in with surrounding buildings including Engineering V Black ties in with the University of Waterloo branding Dispersed colour blocks represent multidisciplinary areas of

		<p>study coming together</p> <ul style="list-style-type: none"> • Blue and gray are colours of intelligence and black is a colour of sophistication
5	Seagram	<ul style="list-style-type: none"> • Eramosa stone compliments the natural area of Waterloo Park • The veins in the stone give an impression of wood grain which reflects the park • The texture provides a feeling of warmth, nature and earthiness
6	Willis Way	<ul style="list-style-type: none"> • The black, white and beige glass will symbolically represent the barrel wall in CIGI • The neutral colours compliment the surrounding buildings including CIGI, Knox Church, Seagram Lofts • The glass ties in with the prevalent use of glass in the surrounding buildings and gives a nod to the Clay and Glass Gallery • The neutral colours represent the heritage of

		<p>the area whereas the glass represents the modern redevelopment of the area</p> <ul style="list-style-type: none"> • The vertical lines tie in with the verticality of the design of the surrounding buildings, especially the award winning Knox Church
7	Waterloo Town Square	<ul style="list-style-type: none"> • The vibrant blue, dark blue and white glass reflects the vibrancy of Waterloo Public Square • The vibrant blue and the white matches the colours of the Uptown BIA brand • The vibrant blue pattern abstractly looks like a heart, representing the heart of Uptown Waterloo • The vibrant blue pattern represents the Uptown Loop whereas the dark blue square abstractly represents the public square
8	Allen	<ul style="list-style-type: none"> • The red glass represents the Red Condominiums

		<ul style="list-style-type: none"> • The beige glass represents the Bauer Lofts • The design represents old and new coming together • The pattern compliments the architectural lines of buildings in the area
9	Grand River General Hospital	<ul style="list-style-type: none"> • A solid soft blue ceramic represents the colour used for the H hospital symbol used on signage and maps • A soft blue will tie in with the design of the hospital and the GRH logo • The colour blue gives the feeling of serenity, calm, intelligence, and trust
10	King/ Victoria Transit Hub	<ul style="list-style-type: none"> • Glass is the most representative finish for this innovative area • The green glass pulls in the colours of the School Pharmacy • The blue glass pulls in the colour of One Victoria, the accents of the school and the iON branding

		<ul style="list-style-type: none"> • The design of the lines represents multiple modes of transportation coming together at a hub • The colour blue provides the feeling of intelligence • The colour green provides the feeling of equilibrium/ balance (amongst all modes) and environmental awareness
11	Gaukel	<ul style="list-style-type: none"> • The green ceramic represents Victoria Park • The blue ceramic represents Victoria Park lake and the various water features in close proximity • The grey ceramic represents the Iron Horse Trail through the park and the bridges over Victoria Park Lake
12	Benton	<ul style="list-style-type: none"> • The orange, blue, turquoise and grey ceramic are arranged like puzzle pieces • The design concept is diversity, people and

		<p>services coming together as puzzle pieces</p> <ul style="list-style-type: none"> The design provides a vibrant contrast to the area which doesn't have a specific landmark for which the stop serves
13	Young	<ul style="list-style-type: none"> The frosted, white and grey glass patterns will mimic the design of Kitchener City Hall The colours are neutral so as not to detract from the surrounding heritage buildings Glass will also tie in with design of the new City Center Block
14	Frederick	<ul style="list-style-type: none"> The frosted glass will tie in with the glass design of the new Courthouse and Market Square As the anchor wall is directly adjacent to a vehicular lane the design is light, airy and non-distracting
15	Cedar	<ul style="list-style-type: none"> Harvest coloured ceramic was chosen to represent food at the Kitchener Market

		<ul style="list-style-type: none"> Bold colours will give the stop a distinct visual market as it is located a block away from the Kitchener Market The red border graphically represents a C for Cedar Street The red border also represents a basket containing local harvest
16	Borden	<ul style="list-style-type: none"> The green and blue ceramic graphically represents Schneider Creek which is located near this stop The design represents the flow and change of development in the area
17	Mill	<ul style="list-style-type: none"> The neutral ceramic pattern represents ballasted rail tracks, the tracks that have rail ties This is the point where LRT from Borden and Ottawa come together and begin operation on the ballasted rail of the Huron Spur The neutral colours pull

		from the brick homes along Ottawa Street
18	Block Line	<ul style="list-style-type: none"> • The white and purple ceramic pattern represents the two row wampum which is the symbolic record of the first agreement between Europeans and Native Americans. This is the closest iON stop to a native archaeological site • Purple is the colour of creativity which is appropriate for the high school student users from St. Mary's High School
19	Fairview Park Mall	<ul style="list-style-type: none"> • The blue, black, grey and white glass patterns represent multiple lines of transit coming together at a terminal • The colours draw from the Fairview Park Mall branding and provides a sense of sophistication

Table 2: Station Design Detail Wall Anchor Design and General Station Location Information, Region of Waterloo (2015).

Published Materials:

Although this project has drawn some criticism, the Region has portrayed the LRT as a necessary project, not for now but for the future, which was echoed by City of Waterloo Policy Planner, Adam Lauder in a March 2015 interview. The City is trying to be progressive and be prepared for the massive growth they will see by 2031 as a result of their designation as a Provincial Place to Grow. Within the Region, they are heavily promoting the iON. At each of the station locations, large billboards have been placed promoting this site as a “future iON location.” These signs give citizens context as to what the LRT route is and perhaps more of an understanding of how it will benefit them or how it can support their daily lives. Along with the billboards, commercials have been running regularly on local stations. Additionally, the Region has held several open houses with scale models and informational boards. However, many of the promotional materials at the open houses use industry terms, also known as “jargon”. According to their own information, the Region has held over 130 public events with 31 public consultation centers. Figure 3 from *Transit Project Assessment Process Public Consultation (2012)* illustrates when the 31 public consultation centers occurred.



Research and Technology Park



University of Waterloo



Conestoga Mall



Northfield Drive

Public Consultation Centers	Dates	Number of PCC's
PCC Phase 1	April 5-6 2006	2
PCC Phase 2 Step 1	January 9-11, 2007	3
PCC Phase 2 Step 2	January 10, 15, 17, 2008	3
PCC Phase 2 Step 3	June 17, 19, 24, 2008	3
PCC on Preferred Rapid	May 19, 21, 26, 2009	3

Transit System		
PCC on Implementation Options	March 1, 3, 9, 10, 2011	7
PCC on Preliminary Preferred Option	May 3, 4, 5, 10, 12, 18, 2011	10
	Total	31

Figure 3: Public Consultation Centers
Region of Waterloo. (2012). Transit Project Assessment Process Public Consultation.
http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/resources/2012_rt_tpadisplayboards.pdf

The Region has released a variety of promotional materials, which are available online, along with the technical drawings and specs for review. This availability of technical documents is targeted more towards those who are educated or trained in related fields. For those who are curious about the project, but do not have technical training, the Region has released several promotional materials that document the process of determining an LRT but also why and what the iON is. The document entitled *Transit Project Assessment Process Public Consultation* describes the purpose of the project, overall goals and objectives, general project description and important locations like Uptown Waterloo and Dutton Drive, which is the maintenance yard location. Since this document was released in 2012, it has been useful in introducing the project without getting into specific details. The Region has released documents about the Central Transit Corridor and how the iON will be beneficial. The most informative document would be the *Community Building Strategy* (2013). This document was visually appealing with its informative graphics, but it also described the context behind the project, showed which key regional and local initiatives helped to develop the LRT and showed how the central corridor of the region is currently being used. This document brought together several elements that could easily be read and understood by the public.

The Three Goals of the LRT:

Limiting sprawl, moving people and saving farmland are the three goals of the Waterloo Region iON project. They seem simple enough, but in fact they are complicated and difficult to achieve. The Region of Waterloo, like many post World War Two North American Cities, was designed with the car in mind. A good example of this is the removal of the trolley tracks in Uptown Waterloo in the 1970s to make room for more cars. Interestingly enough, the LRT will be running in virtually the same location where less than four decades earlier these tracks were removed. It is commendable that the Region has these goals, but are they enough? Were there missed opportunities in improving station locations, ridership and overall rider experience in phase one of the LRT? If there are missed opportunities, were they a result of project constraints such as financial, political or existing infrastructure concerns?

To answer the above questions, *the Sprawl Repair Manual* (2010) by Galina Tachieva has been chosen as the theoretical perspective. Her "manual" was written with practical examples and real world experience. This is important as the LRT is already under construction and needs to be analyzed using successful examples, not just theories. As discussed in the first chapter of this major project, Tachieva separated her book into sections based on different scales; regional, community, block and building. The Region's goals relate to these scales as they can be applied at all levels. Limiting sprawl can be performed on block scale by implementing different zoning requirements, but it can also be applied on a regional scale through policies like Official Plans, that ultimately inform the lower scales. Similarly with the other two goals; moving people and saving farmland. The lower scales (building and block) are informed and influenced by the higher scales like community and regional. This is a very important concept to grasp as the goals of the iON seem simple, but they actually require a lot of persistence and structure in municipal policies.

It is generally accepted that the suburbs is not easily amenable to the adoption of suburban transit due to its layout and urban design. This allows for dependency on the automobile, which is unhealthy both financially and physically. In his chapter "Automobiles, Highways and Suburban Dispersion," from the book *Suburban Constellations* (2013), Pierre Fillion discusses how people are aware of the unhealthy effects of the car on people, but also on the environment. He states:

“Criticism of suburbs also stems from awareness of the adverse health effects of the sedentary suburban lifestyle. Long distances between activities and the general unsuitability of suburban environments for other modes rule out most alternatives to the car. There is also mounting awareness of environmental damages inflicted by suburban areas, especially the emissions of greenhouse gases by road transportation (pg. 82).”

This quote aligns with the iON goal of moving people. The Region wants to create an alternative to the car as many people within Waterloo Region live in the same city they work in. According to Richard Harris in his book *Creeping Conformity* (2004), “In a study of Kitchener- Waterloo, it was found that in 1997 almost no workers commuted between these two neighboring communities, even though they were geographically very close. Strikingly, much the same was true thirty years later, even though the two towns were now joined by continuous urban development. Those who worked in each community also lived there (pg. 68).” With the iON, people will be able to move more easily within the Region if they are near the LRT route.

When using public transit like the Waterloo Region LRT, the term ‘public’ is important. Riders understand that anyone has the right to take the same transit as them and they are generally understanding of that. In terms of the rider experience, it is important that the riders feel safe but in doing that, they do not exclude anyone from taking part. In *The Sprawl Repair Manual*, Tachieva discusses how the lack of diversity in the suburbs has led to social problems. (1) This sentiment is echoed by John Sewell who notes that transit is a good social program because it allows for a mixture of all demographics. In his book *The Shape of the Suburbs Understanding Toronto’s Sprawl* (2009), he states

“Transit promotes a sense of community: people are not competing with one another, but they are all on the same bus, sharing a common experience, reinforcing the idea of community. Transit promotes tolerance - individuals experience people who are different ages, speak different languages and have different colours of skin, and know they are not a threat. One starts tolerating others because there is no choice, but quite quickly, toleration becomes a matter of standard behaviour. Transit promotes civility. One is expected to be civil to those around you, sometimes crowding very close, and even going

out of their way to demonstrate respect. Teenagers do give up their seats to older people. The disabled do get priority. Riders do generally respect other riders (pg. 179)."

This quote shows one of the benefits of transit that is not commonly thought of. Generally, advantages of transit are thought of in an economic sense, but Sewell's quote demonstrates another benefit. To achieve the goal of moving people, which will in turn reduce congestion on the roads, the iON needs to attract "choice riders". These riders are people who live close enough to work that they can use alternative means but choose to drive for a variety of reasons; convenience, schedules, lifestyle, etc... Attracting these riders will help to reduce traffic congestion and benefit the environment. This idea is echoed in the article *Reconsidering Social Equity in Public Transit (1999)* by Mark Garrett and Brian Taylor. They discuss how transit operators are expected to solve these issues by attracting those who have the option of whether or not to use alternative transit. These riders are generally "single occupant commuters who tend to have higher incomes and far more travel options than transit dependents (Garrett and Taylor, 1999, 7)." Since the iON is a fixed route design, Garrett and Taylor note that those with higher incomes choose not to use bus service, but will use higher levels of transit (pg. 13). This brings up the idea of light rail transit being a "sexy" form of transit, whereas the bus is a "loser cruiser." Blair Allen, the Acting Manager for Transit Development at Grand River Transit, discussed this idea during his March 2015 interview. People like the idea of streetcars, LRT's and subways because they are perceived as being cooler than a bus. Additionally, LRT tracks are viewed as a permanent investment. As a result, economic development will generally occur around the tracks, or in this situation the Central Transit Corridor (CTC). It is this dynamic that the Region is encouraging and planning for.

Chapter 3: Existing Conditions

The goals of the Waterloo Region Light Rail Transit iON are to move people, reduce sprawl and protect farmland, but how will they measure their success? All three of the goals have the underlying theme of restructuring sprawl, but why does the Region think it is important? The third chapter of this major project will review and catalogue each of the nineteen station locations and 1) determine what is there, 2) determine why this location was chosen and 3) critically catalogue important features of each stop location. To do this, Tachieva's sector mapping technique was implemented from the *Sprawl Repair Manual* (2010), where she states, "It has long been established that most people will not chose to walk if a destination is more than five minutes away (roughly a quarter of a mile). The distance covered in this five-minute walk is commonly called a pedestrian shed, and is usually represented (in planning documents) by a circle with a quarter-mile radius (pg. 27)." This view is supported by the article *The Half-Mile Circle: Does it Best Represent Transit Station Catchment* (2011) from the University of California Transportation Center. Based on this estimate, a 500m radius pedestrian shed was used to analyze the nineteen iON stop locations. This mapping technique can be seen on Figure 26 to Figure 45.

Each of the station locations will be mapped and catalogued with the following information; city of stop, major intersection, zoning, nodes, major infrastructure present, city official plan designation, Grand River Transit routes present and redevelopment potential. These seven categories were chosen because they will create a complete analysis of the locations, while helping to answer the fundamental question of this major project: Were there missed opportunities in improving station location, ridership and overall ridership experience? And as a result was the route impacted by existing infrastructure, political or financial restrictions? Additionally, specific stops will be further analyzed using Tachieva's "Repair at the Community Scale Technique", which is chapter four of her manual. These stops include shopping centers, commercial strips, and business parks as the iON route connects to all three kinds of locations. Her design techniques have a variety of goals, but they focus on "connecting and transforming thoroughfares, creating a fabric of urban blocks, forming a variety of civic spaces, mixing uses both vertically and horizontally, introducing a variety of building types, restructuring parking... (Tachieva, 2010, 55)."

Repair at the Community Scale:

Without a doubt, the iON will have an impact on Waterloo Region. Depending on who you talk to, the impact will be viewed as either be positive or negative. Comments from common citizens range from, 'it'll make the Region world class' or simply 'change is not needed.' Hopefully the impact will be positive as a large amount of money is being invested. Additionally, Many of the Region's and the City's plans are based on the iON being successful; Transportation Master Plans, Official Plans and Economic Development Plans. The iON is intersecting with many important locations in the Region and these areas need to achieve their full potential and meet the goals the Region has set out for the LRT.

Using Tachieva's *Repair at the Community Scale* Technique, Fairview and Conestoga Malls will be analyzed as they fall within the Shopping Mall category and they are major locations on the iON route with incredible redevelopment potential. Both malls will act as terminal stations which connect to lower levels of transit (Grand River Transit), until Phase 2 is introduced much later. However, both malls were also built with very large footprints that take up significant amounts of space. On the positive side, Tachieva believes that shopping malls also have the most potential for repairing themselves. She believes they generally have good locations, extremely large footprints with large open spaces, originally intended for parking, which allows for opportunities for transit that can accommodate mixed uses. Although it would require a radical overhaul, both malls station locations could substantially benefit from introducing her methods to support the iON. According to Tachieva, it is not only the parking lots which need to be changed to introduce other buildings and potentially parking structures, but the interior of the malls would need to change their zoning to allow for different mixed uses such as "office, residential, hotel, civic or institutional buildings (pg. 129)." The main issues with shopping malls are: the large footprints, the lack of pedestrian accommodations, and the fact that the only public spaces are located inside the malls. Still, she believes these challenges represent potential opportunities. According to Tachieva's Manual, there are four applicable steps to repairing malls like Conestoga or Fairview. These include: 1) introducing new building types and mixed use spaces, 2) connecting and repairing thoroughfares, 3) rationalizing parking and 4) defining open and civic space (Tachieva, 2010, 129-139). Something as simple as making spaces more pedestrian friendly will encourage citizens to use the iON, which will in turn help it to become successful.

Figures 4-13 represent the various deficiencies associated with shopping malls, commercial strips and business parks as Tachieva has identified them in her manual. Drawn over satellite images of the areas, the separate images are meant to visually represent problems with areas that have iON stations. Generally, the problems are related to single building type and use, lack of walkable block structure, over scaled and exposed parking, and lack of civic space. In addition to these maps, a single map has been drawn showing how using Tachieva's methods can repair these areas. There are many ways of incorporating her methods, but this map is just one simple suggestion.

Shopping Malls:

The two shopping mall locations can benefit substantially from implementing Tachieva's four steps.—While applying all four steps may seem radical, it is necessary in order to fulfill all three goals of the LRT and to make it successful. The three goals seem simple, but they are not. To introduce new building types and mixed uses, is an important first step. This will help lay the groundwork for more complicated steps. Both malls are surrounded by commercial and business zoning with limited other designations. To address this issue, other designations can be introduced into the physical structure of the mall. Having more than one “attraction” at the mall, such as offices or apartments, will help attract more people to the area, which will have a trickle-down effect on the iON. By making the iON locations more attractive, the LRT will in turn become more attractive and successful. Secondly, connecting the large footprints of the malls to their surrounding areas, even if they are similarly zoned, will make the area more walkable. Walkable iON locations like the shopping malls will help improve the rider experience as they may feel safer (El-Geneidy & Krizek, 2007). Changing the large expansive parking at the malls to parking garages will also help create the demand for higher density and mixed uses, which supports Tachieva's first step. Finally, building off of the three previous community scale techniques, defining open and civic spaces can be achieved. These spaces will help people feel more connected to their surroundings and will be especially important in locations like Conestoga and Fairview Park mall as they are the main terminals for the iON. The following figures will illustrate how Conestoga Mall and Fairview Park Mall can incorporate the design techniques discussed in the *Sprawl Repair Manual* to repair themselves at the community scale.

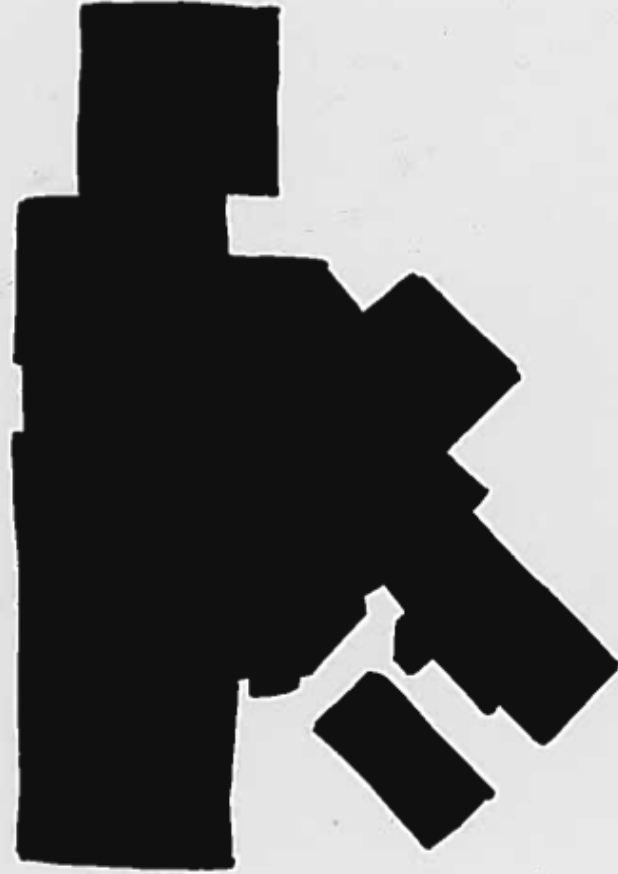


FIGURE 4
Conestoga Mall: Single Building Type and Use
Deficiency

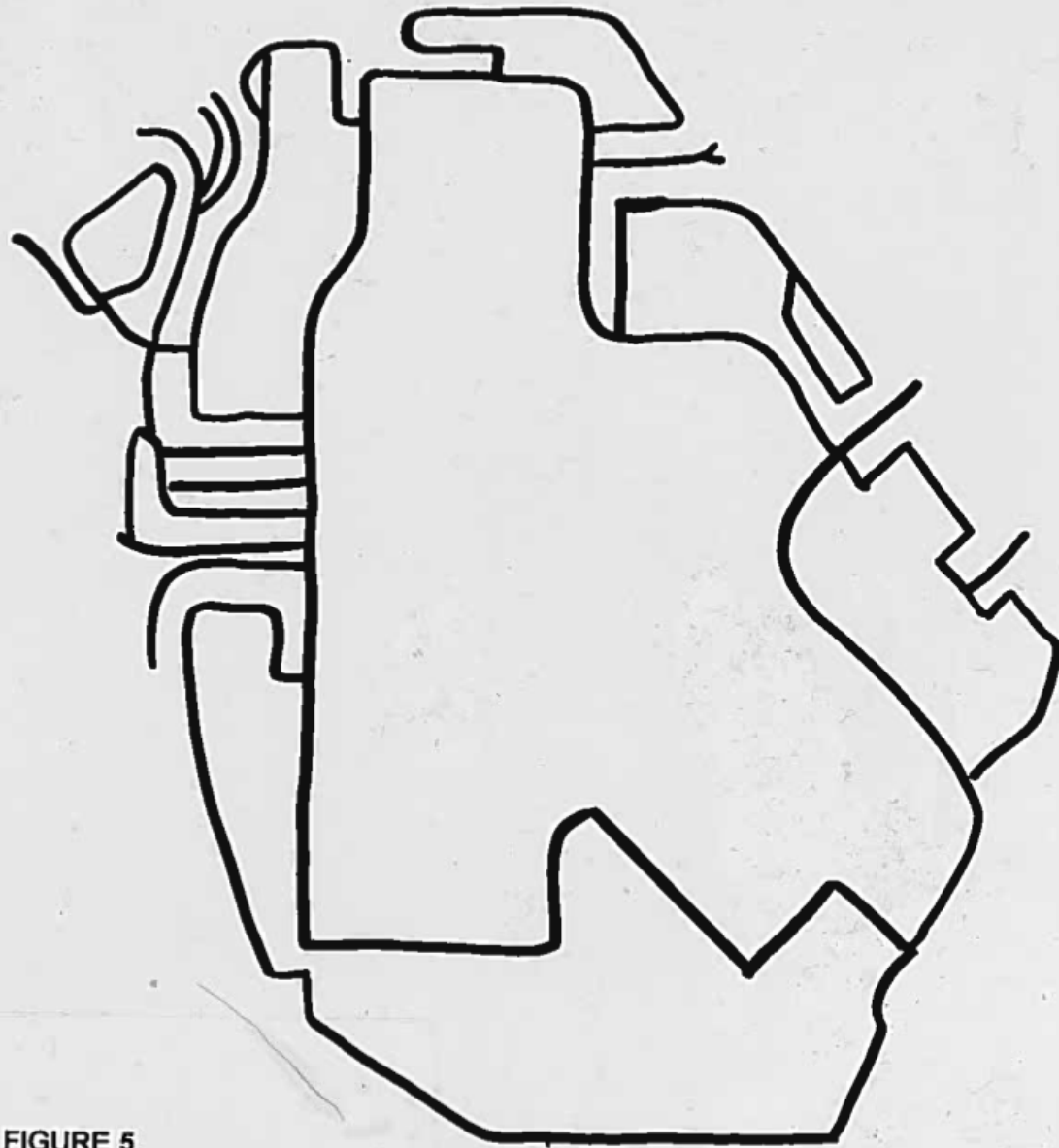


FIGURE 5
Conestoga Mall: Lack of Walkable Block
Structure Deficiency



FIGURE 6
Conestoga Mall: Dispersed and Exposed
Parking Deficiency

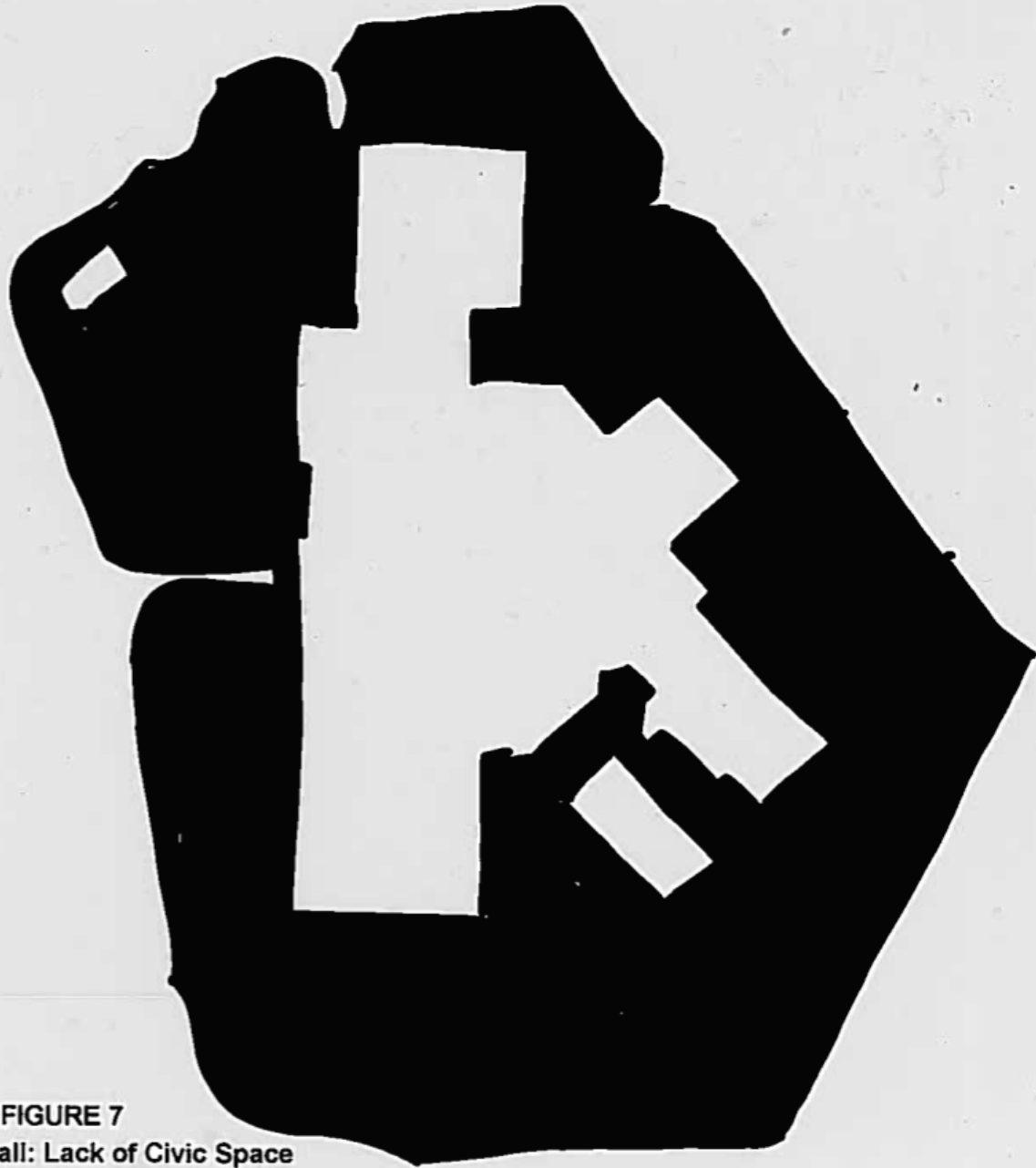





FIGURE 7
Conestoga Mall: Lack of Civic Space
Deficiency



Figure 8: Conestoga Mall- Repair at the Community Scale

-  New Building
-  Parking
-  Roads
-  Civic Space

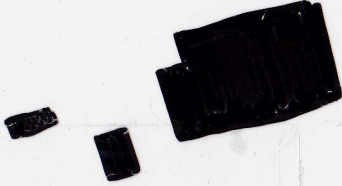
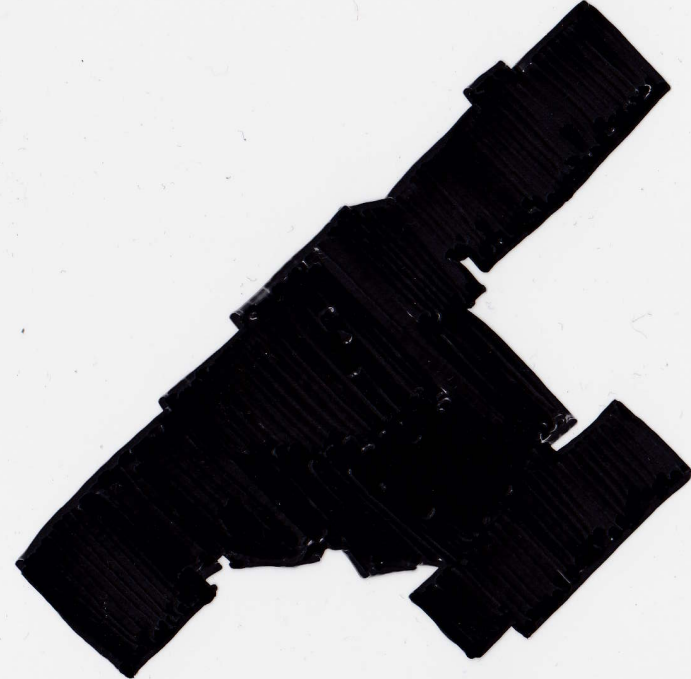


FIGURE 9
Fairview Park Mall: Single Building Type and
Use Deficiency

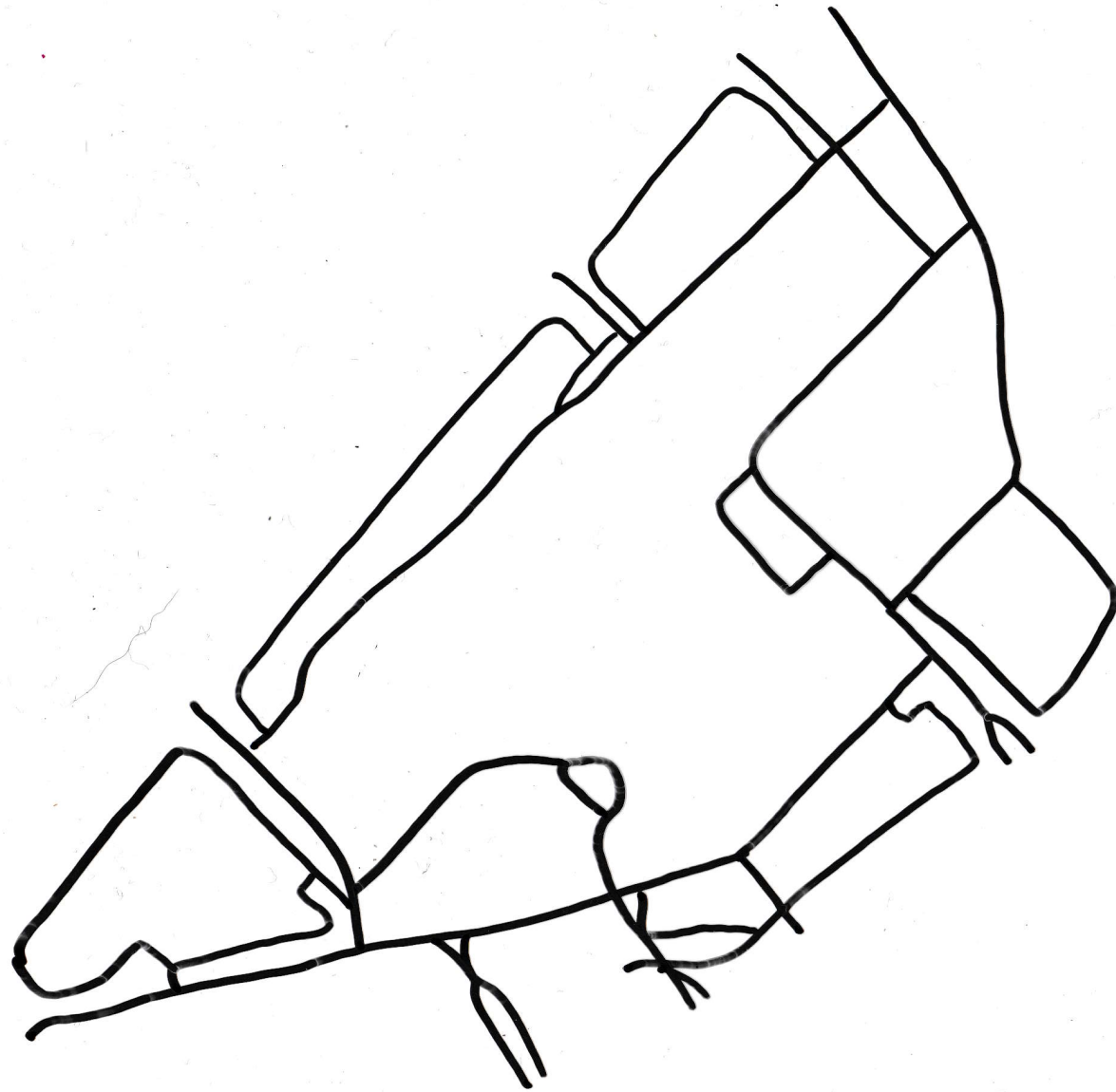


FIGURE 10
Fairview Park Mall: Lack of Walkable Block
Structure Deficiency

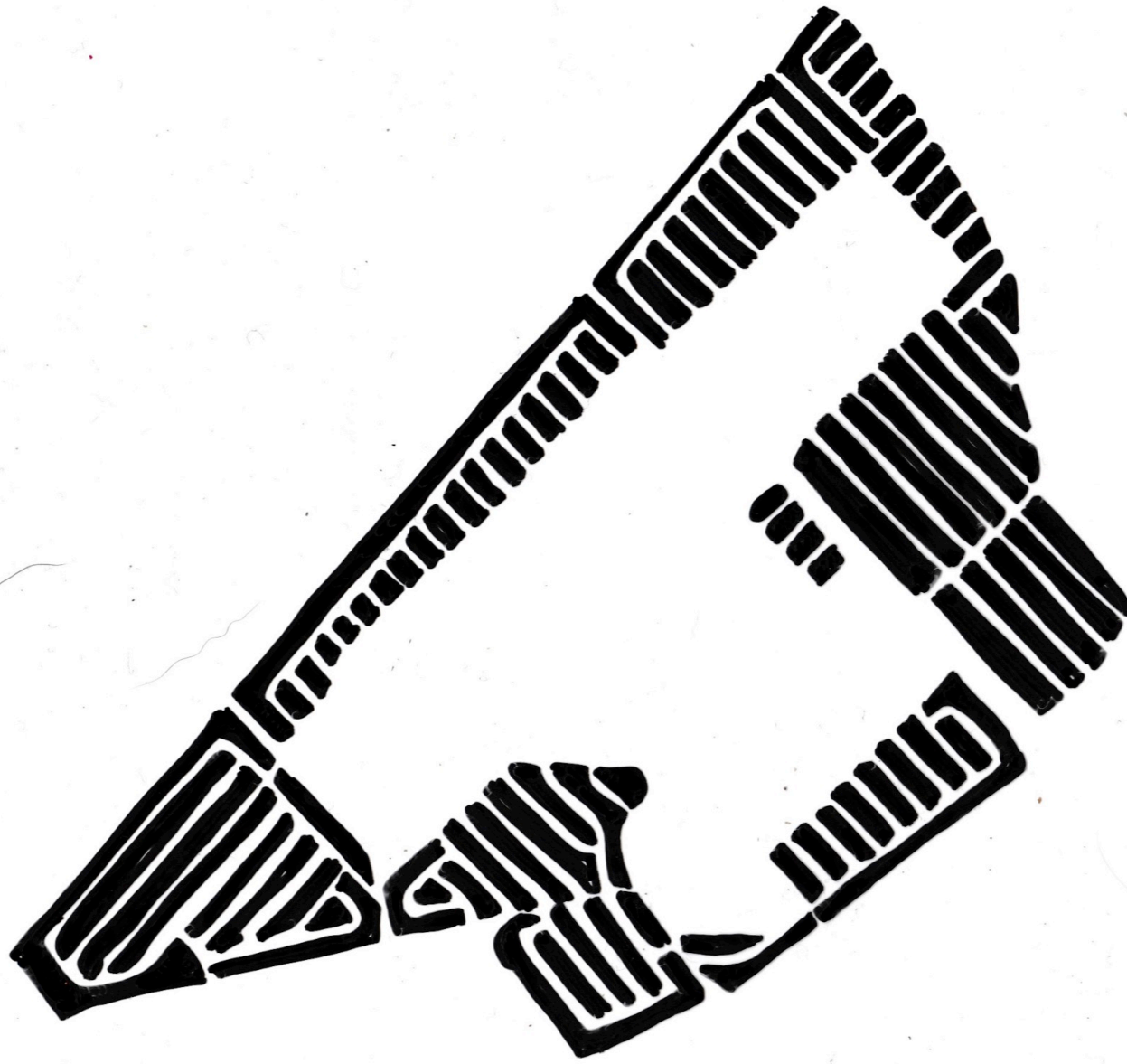


FIGURE 11
Fairview Park Mall: Dispersed and Exposed
Parking Deficiency

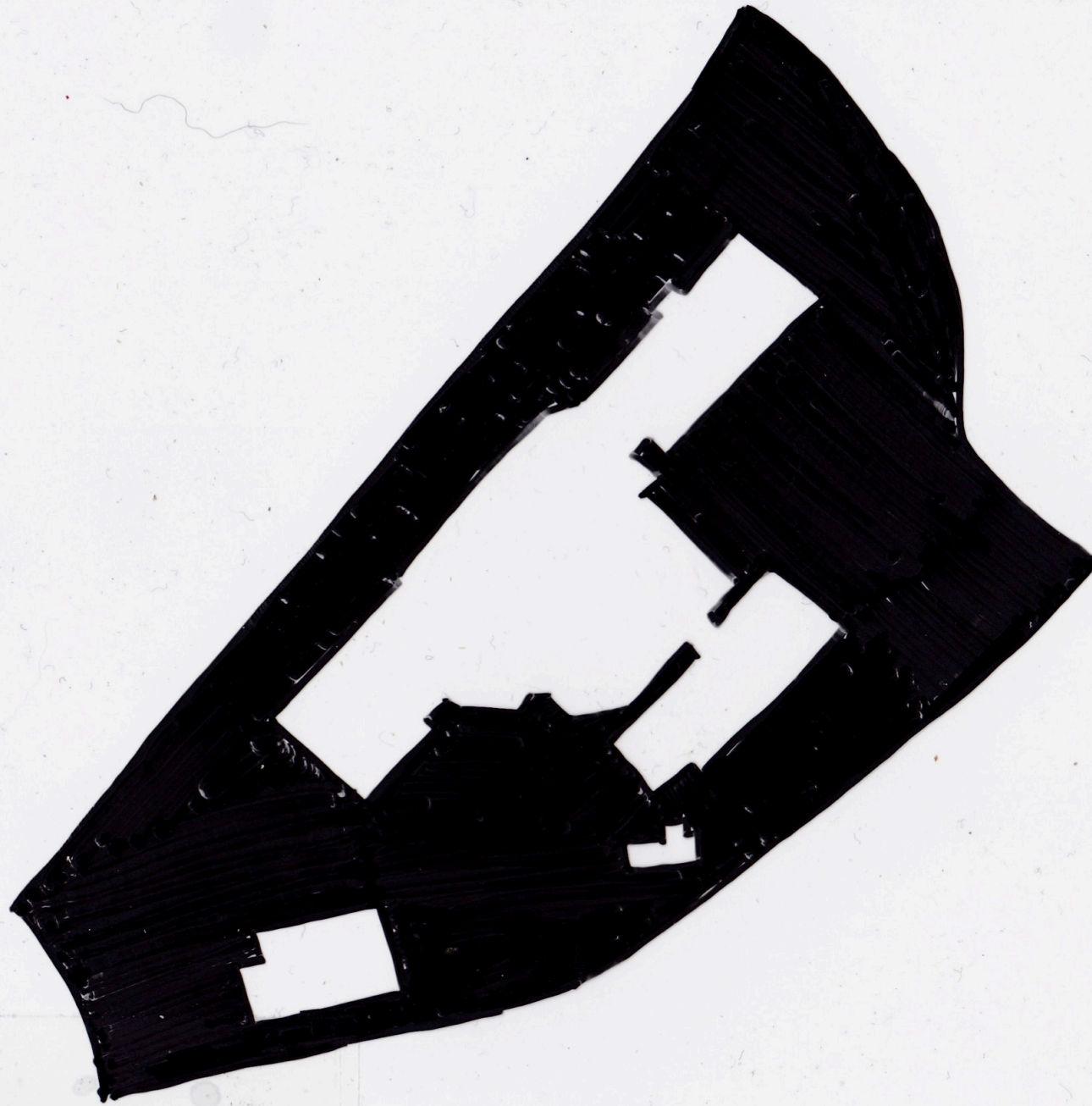


FIGURE 12
Fairview Park Mall: Lack of Civic Space
Deficiency

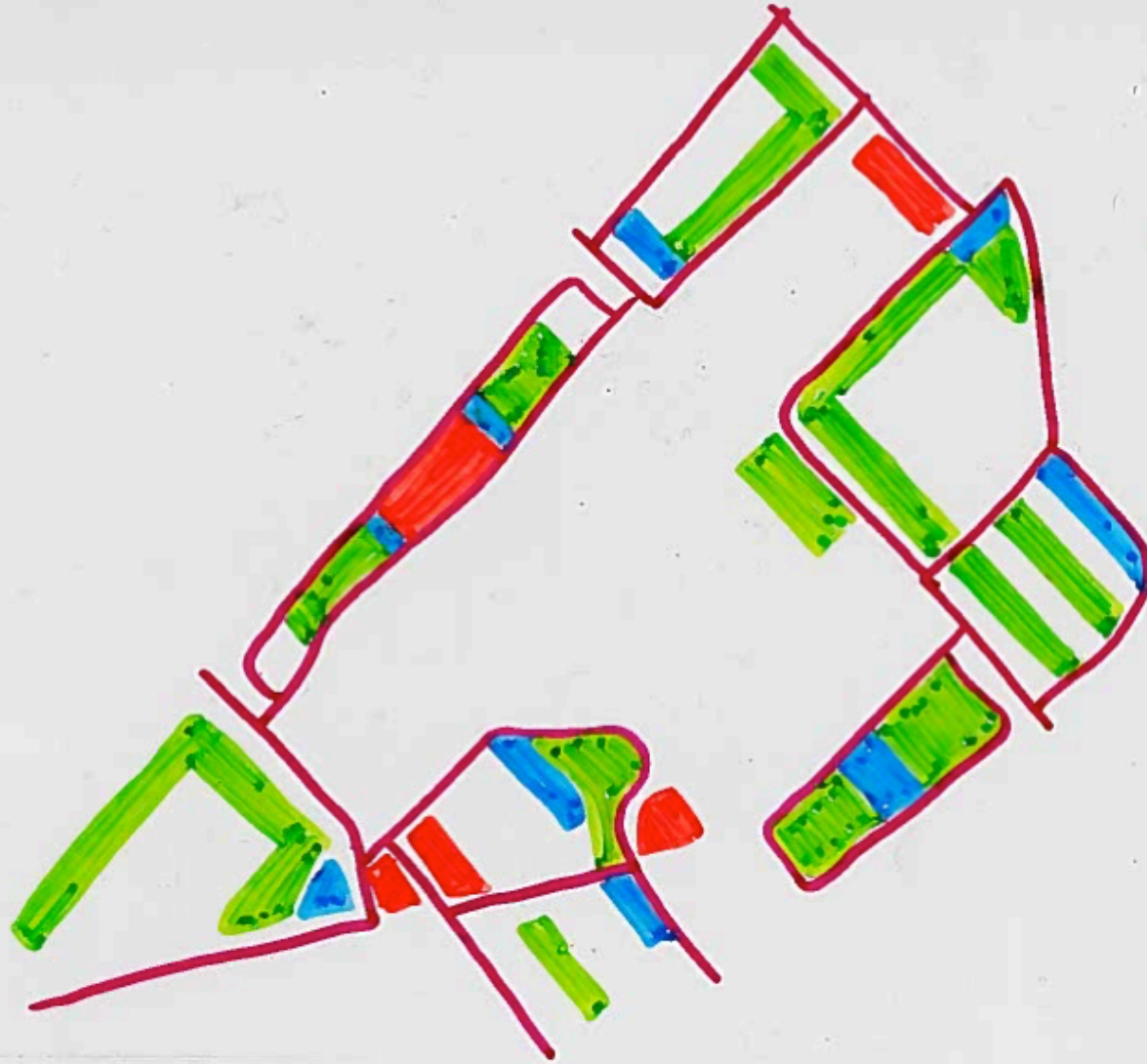


Figure 13: Fairview Park Mall- Repair at the Community Scale

- New Building
- Parking
- Roads
- Civic Space

Commercial Strip:

Similar to shopping malls, Tachieva recommends connecting thoroughfares, introducing different building types and mixed uses and defining open and civic spaces in commercial strips. Additionally, she recommends transforming commercial strips into a nodal transit boulevard (Tachieva, 151-157). She notes, for example, that repair of a commercial strip can only start once the area has been recognized as having potential for expanded transit with high density mixed use nodes. On the positive side, the Region of Waterloo has begun this in Uptown Waterloo and Downtown Kitchener, since they have been identified as a part of the Central Transit Corridor. Over the last few years both areas have been transformed with the introduction of higher density buildings of mixed use like the Tannery, 140 Red Condo and the Seagram Building. The Region and Cities saw the potential for improved transit and densities and labeled King Street Corridor as a Central Transit Corridor with those requirements (Region of Waterloo, 2014). The King Street commercial strips are very important to discuss, as there are multiple stops in each location (Willis Way, Uptown, Young Street, Fredrick and Cedar). Tachieva recommends transformation into a nodal transit boulevard, and the Region is currently implementing this. Yes they will have an LRT and busses running through Uptown and Downtown, but they need to ensure that the transit stops are comfortable for rider experience and are located at regular intervals within the pedestrian walking shed (500m). To address improving the rider experience, connecting thoroughfares will help to accommodate transit and improve pedestrian sheds. The use of new thoroughfares is to break up the large land parcels, which will in turn create a pedestrian realm.



FIGURE 14
Uptown Waterloo: Lack of Neighbouring
Structure and Transit Deficiency

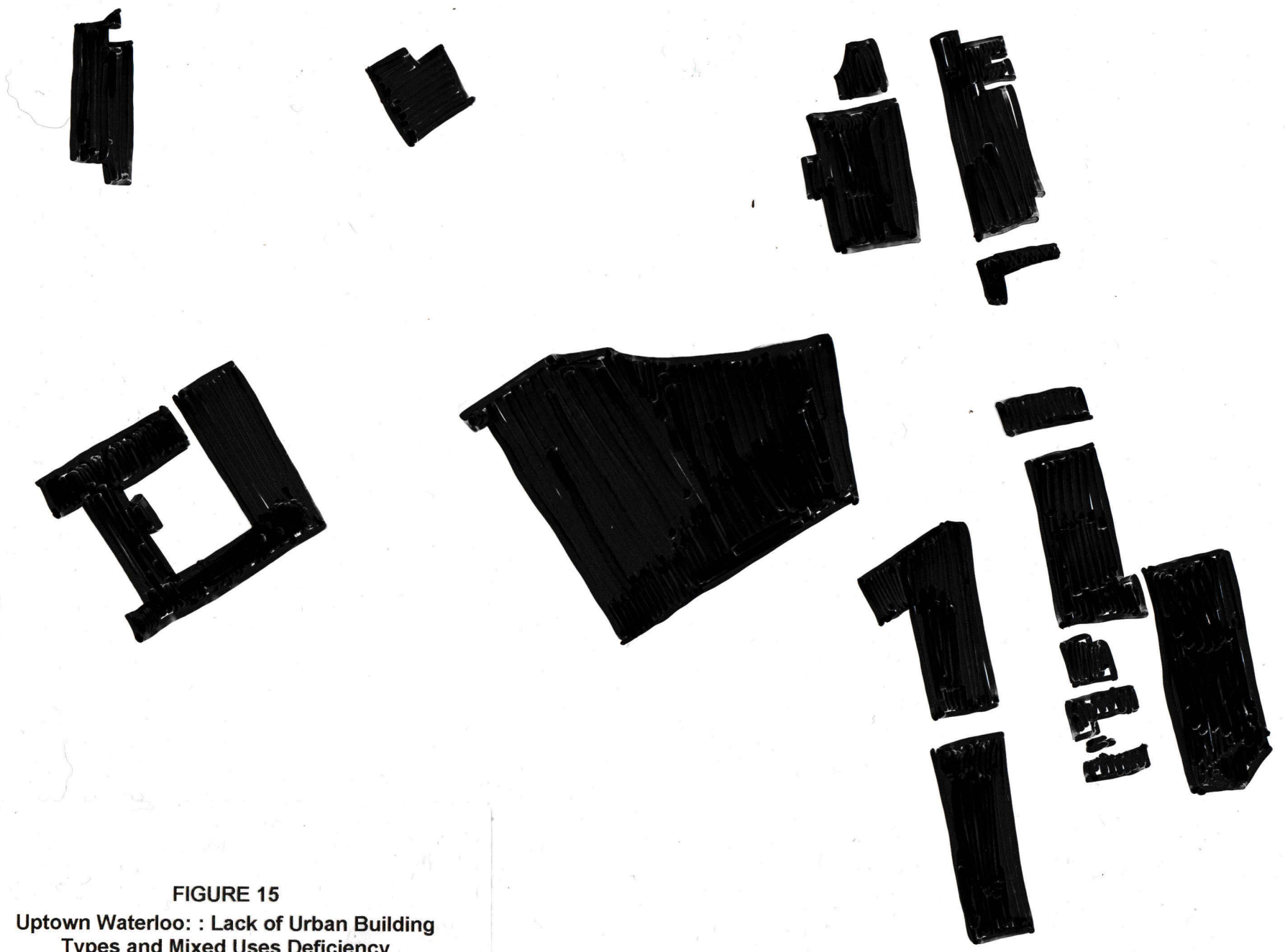


FIGURE 15
Uptown Waterloo: : Lack of Urban Building
Types and Mixed Uses Deficiency

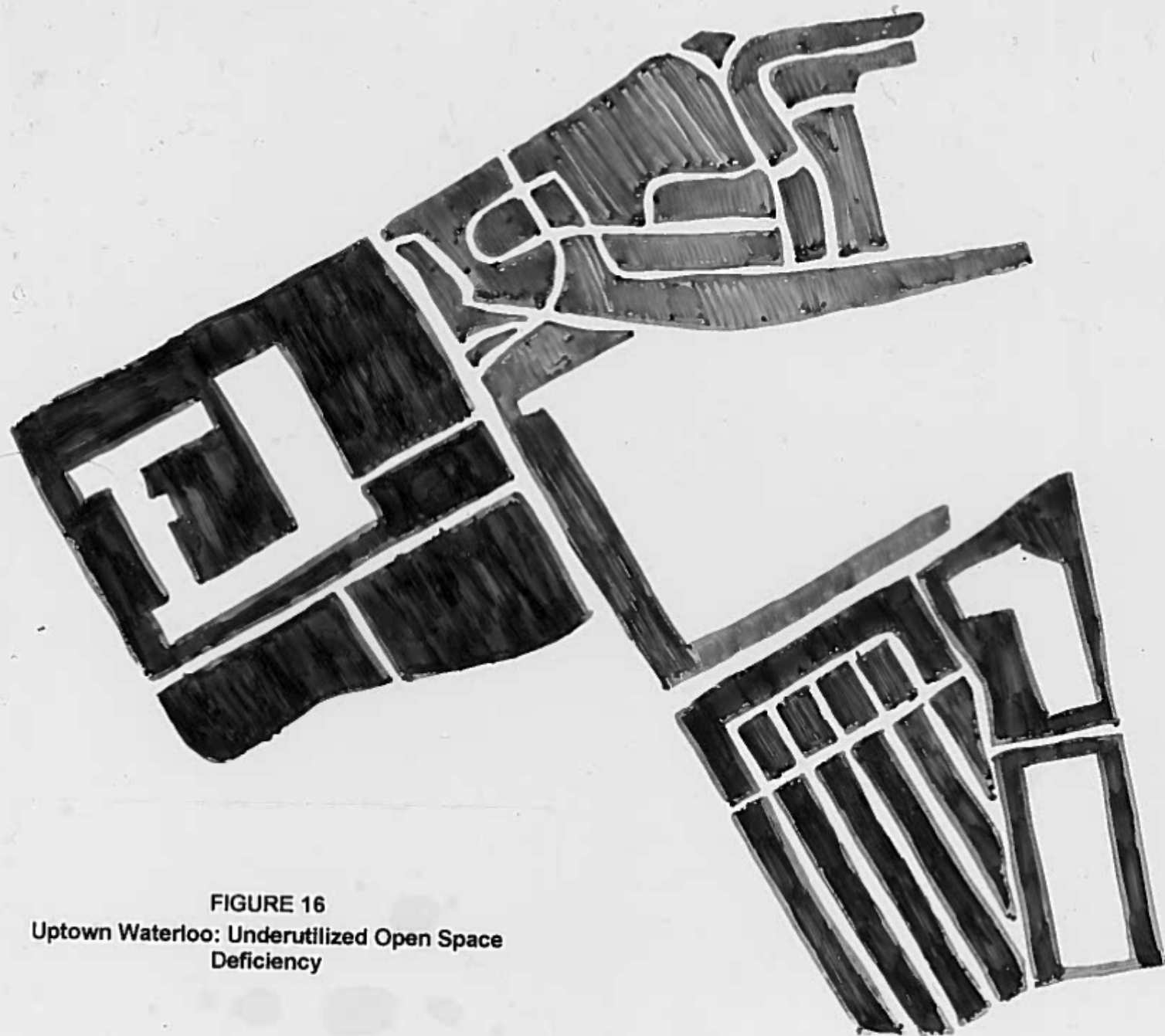


FIGURE 16
Uptown Waterloo: Underutilized Open Space
Deficiency



Figure 17: Uptown Waterloo- Repair at the Community Scale

-  New Building
-  Parking
-  Roads
-  Civic Space

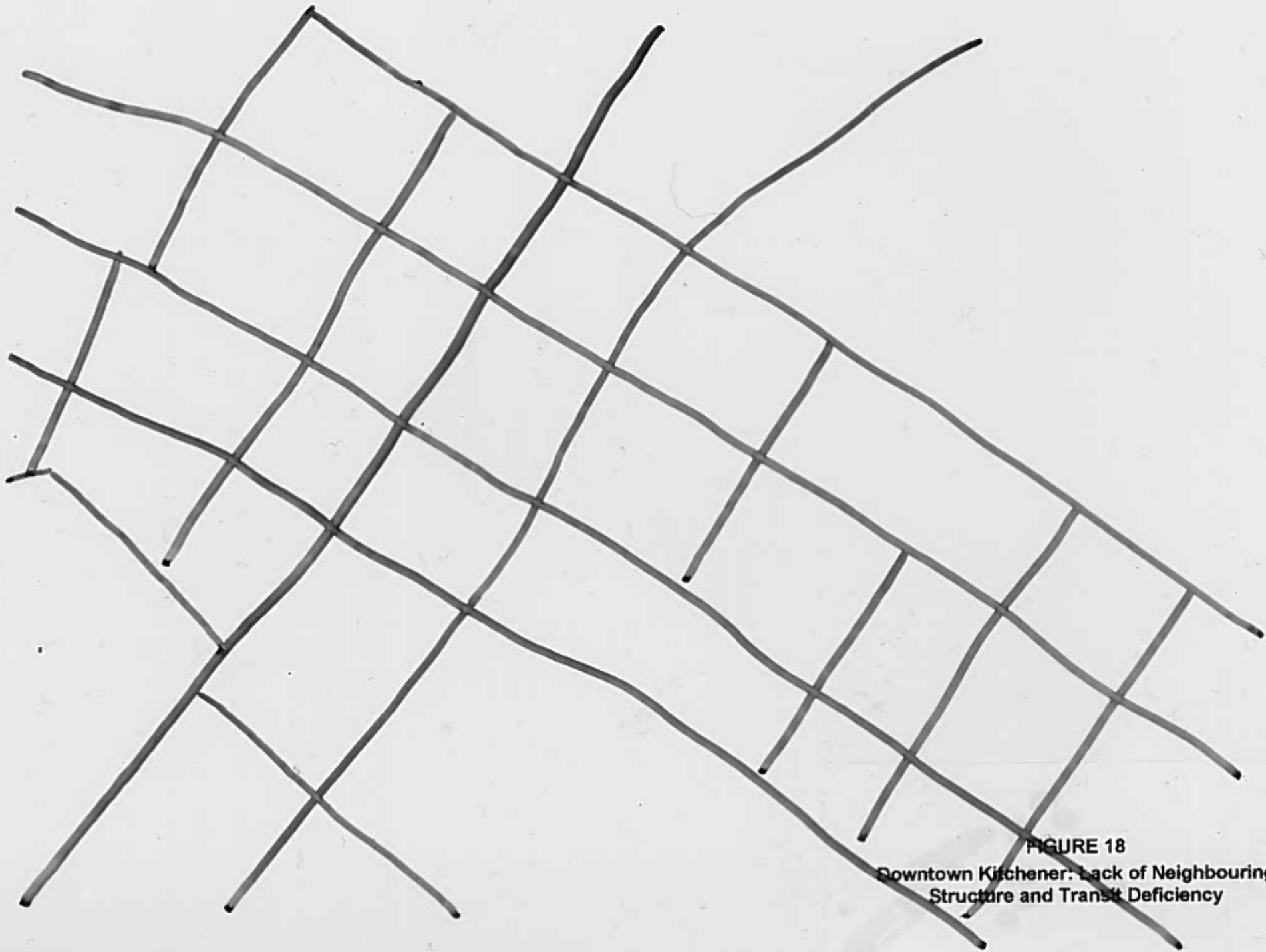


FIGURE 18
**Downtown Kitchener: Lack of Neighbouring
Structure and Transit Deficiency**

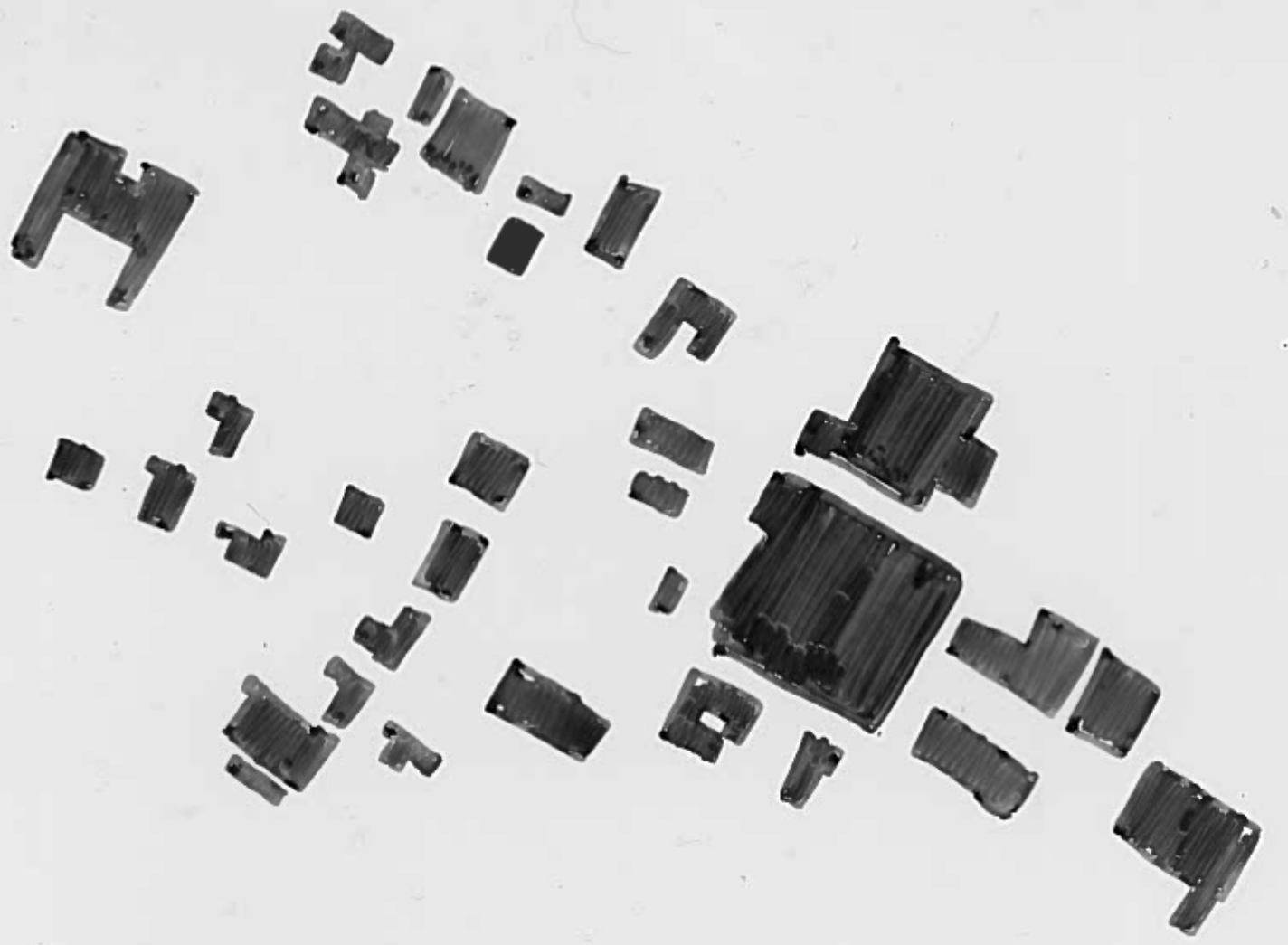


FIGURE 19
Downtown Kitchener: Lack of Urban Building
Types and Mixed Uses Deficiency



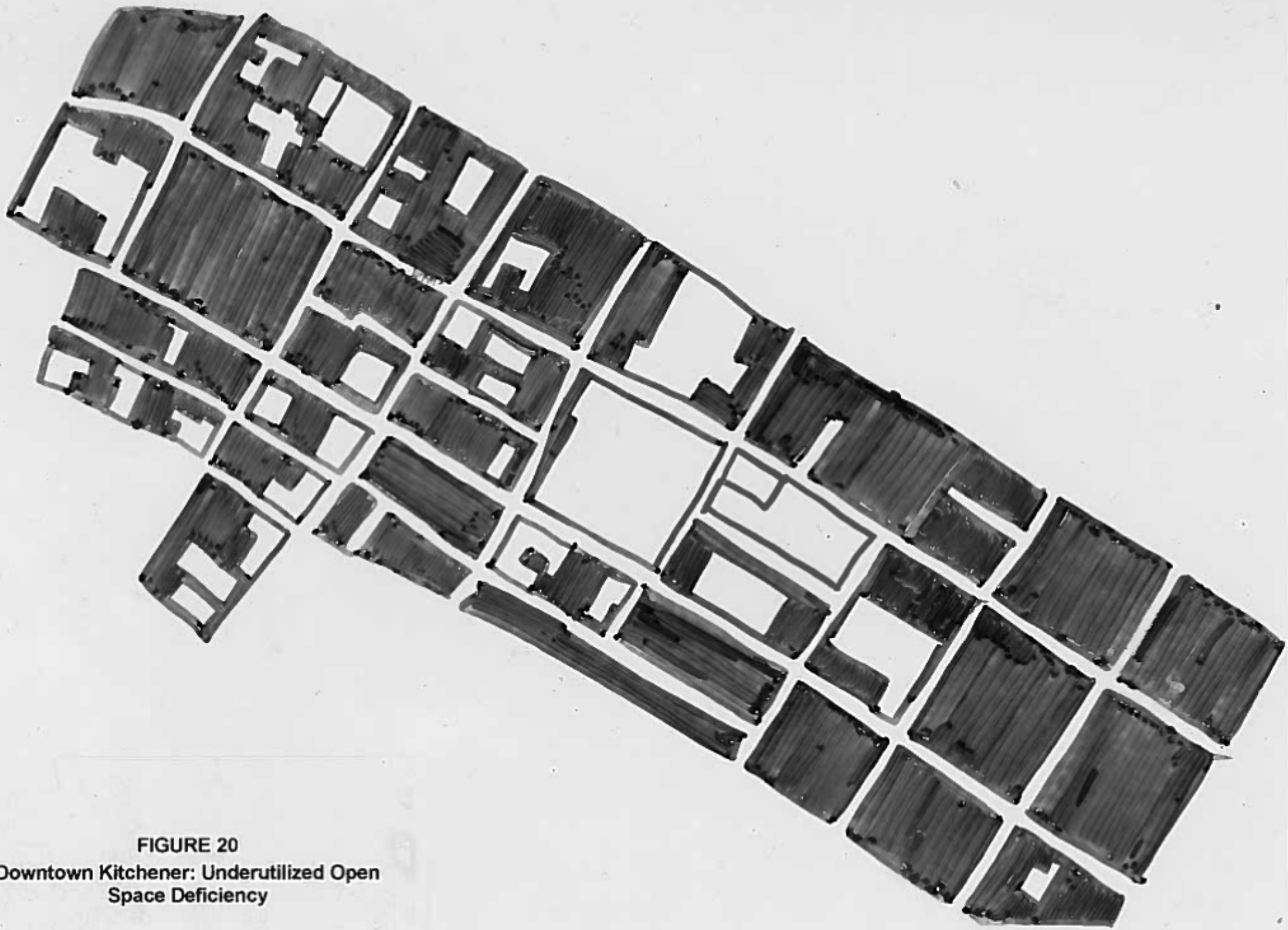


FIGURE 20
Downtown Kitchener: Underutilized Open
Space Deficiency

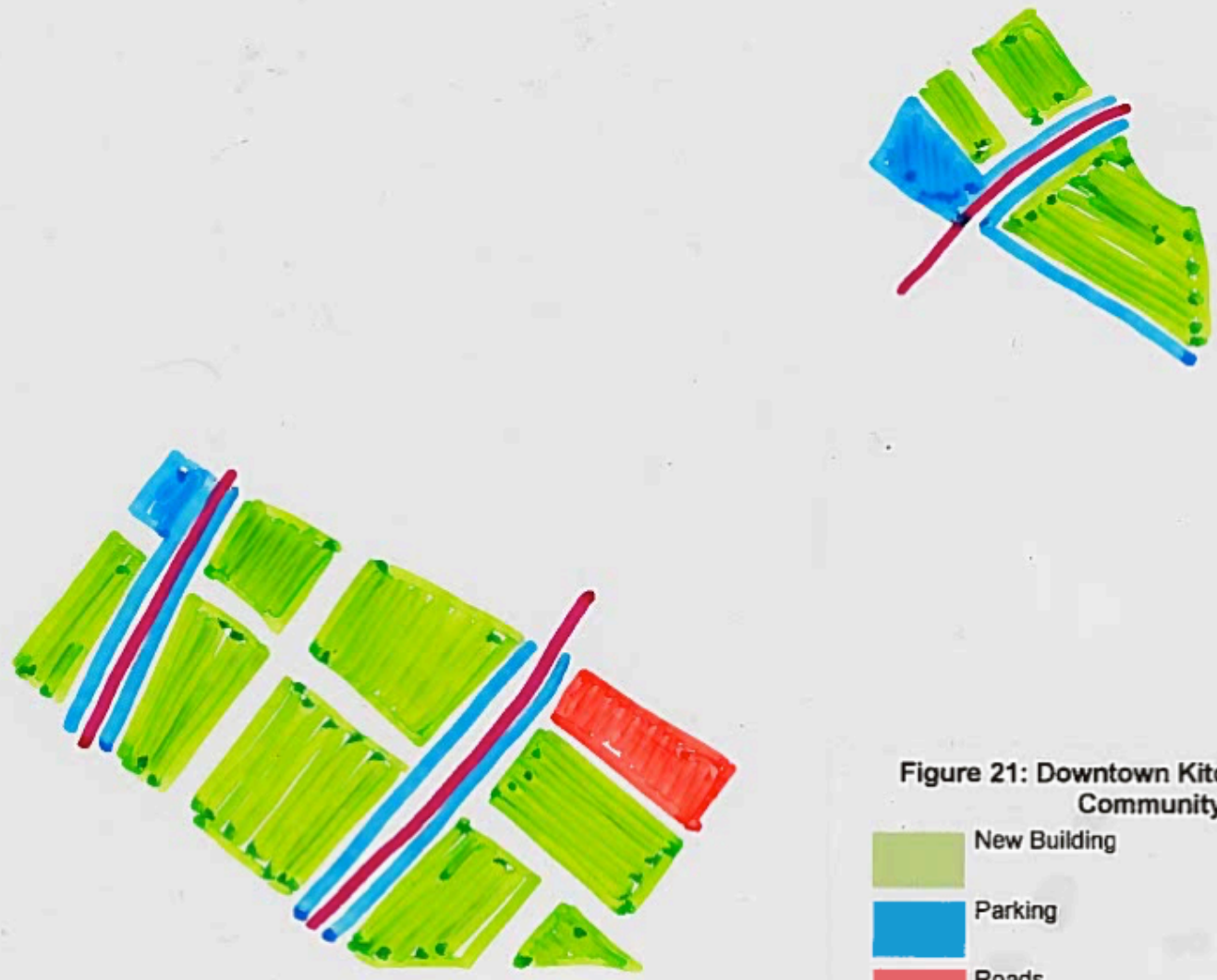


Figure 21: Downtown Kitchener- Repair at the Community Scale

-  New Building
-  Parking
-  Roads
-  Civic Space

Business Park:

Generally, business parks are single zoned on large open plots of land. The David Johnson Research and Technology Park is a good example of this. Multinational Corporations like Open Text and the University of Waterloo have buildings here that are architecturally interesting, but they are not connected other than a minimally used sidewalk. There are no open spaces for use other than parking lots. As in the case of malls, here too Tachieva recommends introducing new building types and mixed uses, connecting and repairing thoroughfares, rationalizing parking and defining open and civic space (129-139). The single zoning and large open spaces do not encourage a walkable community, and this needs to be changed if the iON is to be utilized in this area, thus meeting the goal of moving people. The implementation of all four of Tachieva's steps will help create a community that is walkable, easily accessible and has mixed uses. This will result in an area in which people will want to live and work and will hopefully use the iON as their main form of transportation, since it is easily accessible and connects to other important areas throughout the Region.

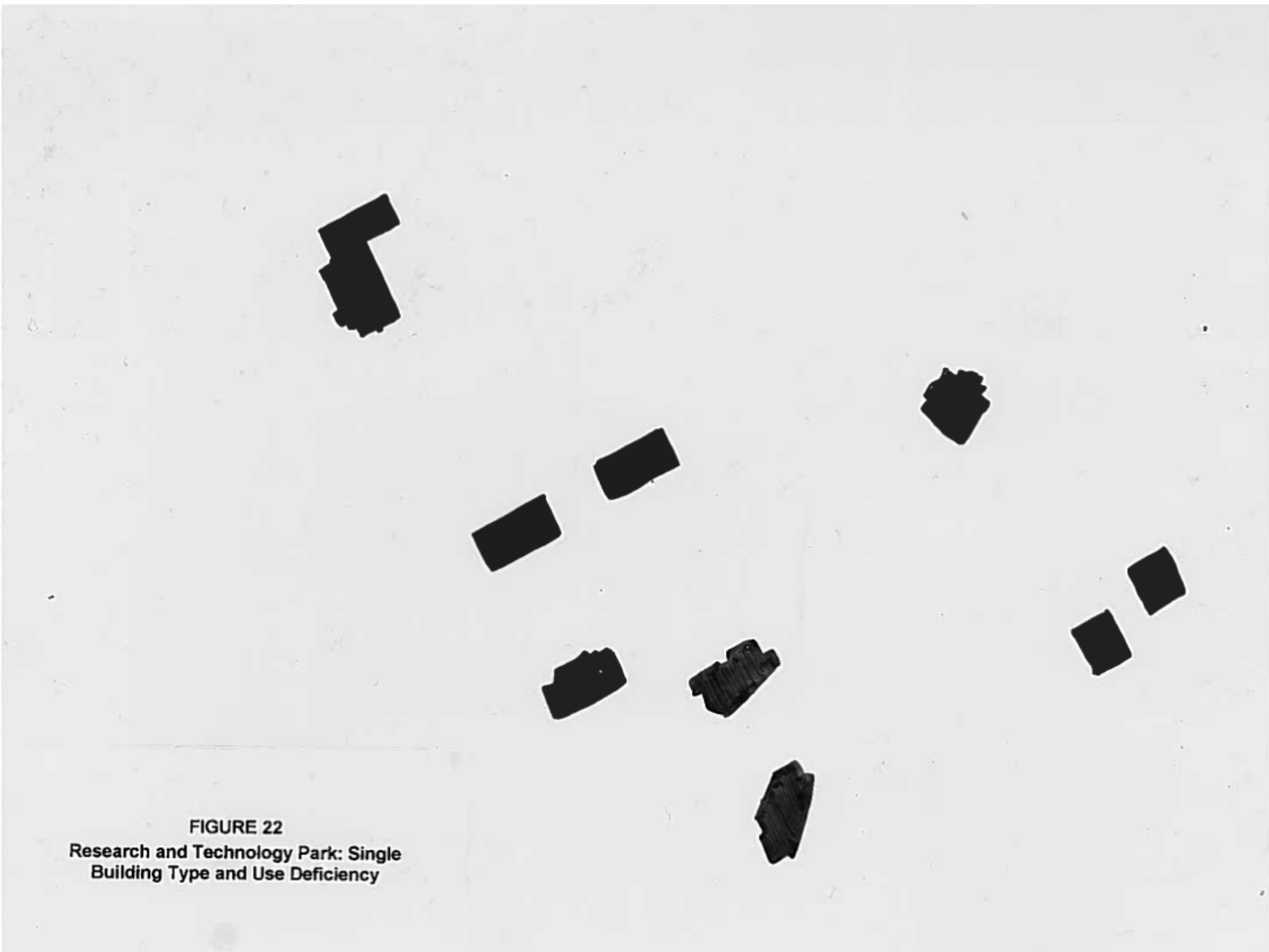


FIGURE 22
Research and Technology Park: Single
Building Type and Use Deficiency

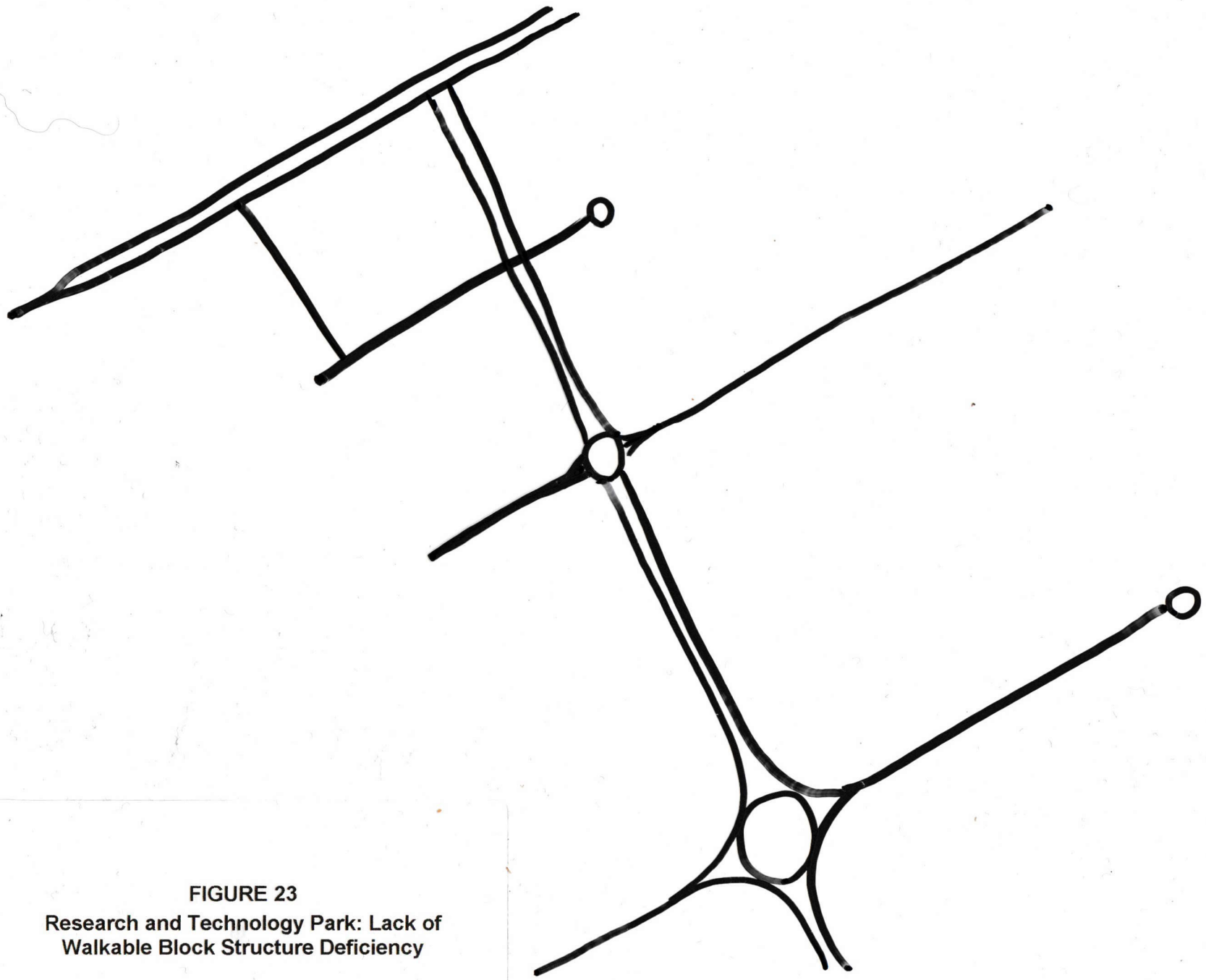


FIGURE 23
Research and Technology Park: Lack of
Walkable Block Structure Deficiency

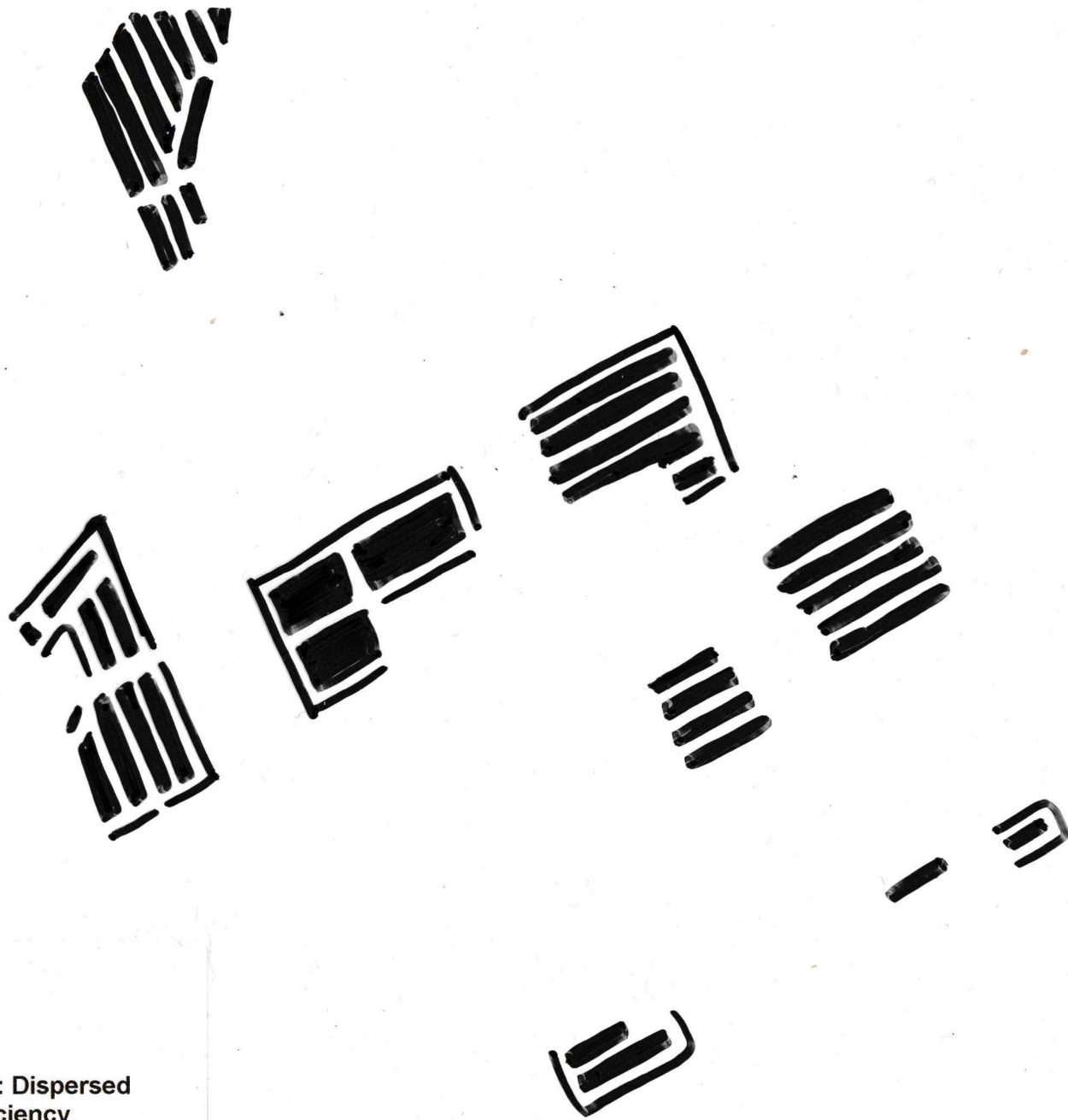
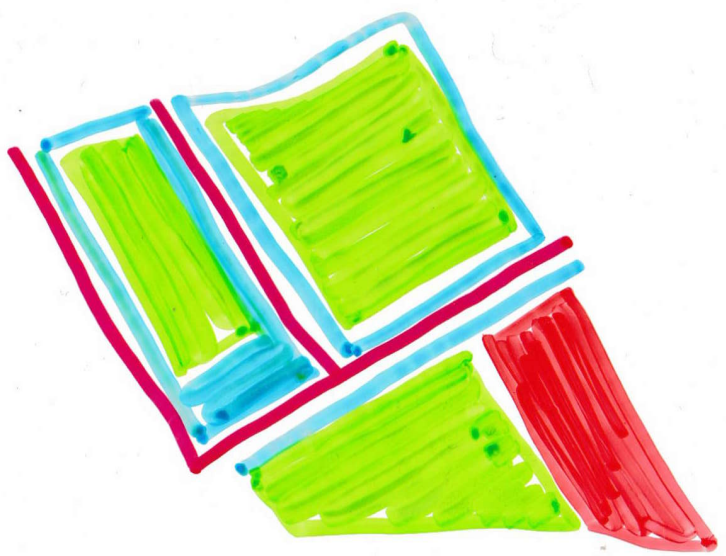


FIGURE 24
Research and Technology Park: Dispersed
and Exposed Parking Deficiency



FIGURE 25
Research and Technology Park: Lack of Civic
Space Deficiency



**Figure 26: Research and Technology Park-
Repair at the Community Scale**

-  New Building
-  Parking
-  Roads
-  Civic Space

Route Selection:

The goal of this major project is to determine if there were any missed opportunities in improving the Waterloo Region iON in regards to overall rider experience and station locations. Were these two categories compromised due to financial, political or existing infrastructure constraints? To make any form of public transit successful, the rider must experience a variety of emotions and feelings but most importantly, they need to feel safe and comfortable. If they are a choice rider, public transit needs to be more appealing than their personal automobile (El-Geneidy & Krizek, 2007). In order to make the rider experience comfortable, four key aspects must be taken into account: flexibility and integration with Grand River Transit, efficiency, accuracy and cost of fare. The less “hassle” a rider has with the iON, or really any form of transit, the more likely they are to use it.

With any project as large as the Waterloo Region iON Light Rail Transit, there will be compromises. Projects have financial and existing infrastructure restrictions that will impact the design of the route. Politics will impact decisions made even though politicians have four-year tenures. Not everyone can get everything they think is important in a transportation system and there will be compromises. However, the question still needs to be asked whether these compromises were made to make the system better or whether they were driven by political or financial pressure? Using the sector mapping and the cataloging of each location, it can clearly be seen that the iON can be improved. Combining this analysis with points from the interview performed, the focus of the iON is not people, but economics. If the iON's focus was people, the route would have included stops at both Universities and the Colleges within the Region. However, only the University of Waterloo has a station location. This is not acceptable given the fact that university students will be using the iON as their main form of transportation, since they cannot afford vehicles and their student cards are also transit passes.

Without politics would the iON even been considered? The answer is probably no. Light Rail transit was part of the 1972 Regional Official Plan, but only became a serious discussion once Kitchener- Waterloo was identified as a Place to Grow by the Provincial Liberal Government. It is important to note that it is the city of Kitchener-Waterloo which has been identified as a Place to Grow, not the region as a whole. This means that the city of Cambridge is not expected to meet the same targets as the other two cities. Does this help to explain why the City of Cambridge is only getting bus rapid transit during the first phase? During his July 14th

interview at Cambridge City Hall, Mayor Doug Craig clearly stated that the Region of Waterloo was not a Region of three cities, but a Region of Kitchener-Waterloo, with Cambridge to the side. He freely admits politics impacted decisions about the LRT route.

The question of the monies allocated to the iON is a sensitive topic throughout the Region, as discussed in the first chapter. Initially, the Region was under the impression that they would receive more combined funding from the Provincial and Federal Governments than they did. In the end, they only received two-thirds of the \$818 million capital cost (Desmond & Outhit, 2015). During his interview on July 8th at the Regional Headquarters, Regional Chair Ken Seiling described how the iON was first designed, then priced. If pricing was the second stage, why was the route not changed in order to ensure a better rider experience? If maximum ridership and positive rider experience was indeed the goal, stops would presumably have been located at both Universities and at the local Colleges. This mindset would have changed a portion of the route significantly, but the Region had an economic development mindset rather than a focus on their riders. There is nothing wrong with having an economic mindset, but it limits the route. The Region should have been mindful of economics, but without compromising the needs of their riders by limiting potential routes.

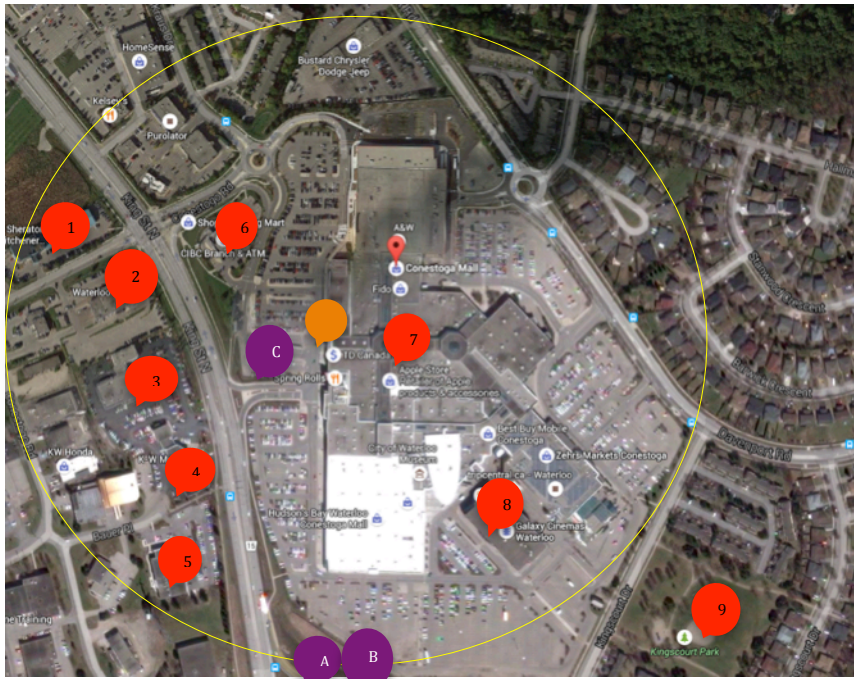
As described in detail in chapter two, the Region had a Multiple Account Evaluation Performed and it was determined that the best route would be utilize the existing railroad tracks and then join King Street since the Region already owned the railroad tracks. Was this route, in fact, the best choice for maximizing access to all interested riders? This route does hit major commercial areas like Conestoga and Fairview Park mall, uptown Waterloo and downtown Kitchener. However, it does not include a stop at Wilfrid Laurier University or any of the adjacent suburban areas. When asked in a July 8, 2015 interview why there was no stop near Wilfrid Laurier University, Regional Chair Ken Seiling responded as follows: "Well, it was a choice. Either use the rail line or coming up King Street. Part of this was employment opportunities, jobs, and to move people, and we already owned the rail line. We got the rail line years before, in order to do that. Laurier didn't get into the debate until very late and to go to Laurier, we would have missed U of W, which is four times bigger."

How will the Region measure the success of the iON? Will it be through ridership metrics, like those used in the Multiple Account Evaluation, development along the Central Transit Corridor or a combination? When discussing this idea with Regional Chair Ken Seiling, Cambridge Mayor Doug Craig and MPP Dianne Vernille, two answers were received from them. Seiling and Vernille's answers were that a combination of ridership and the different types of investment will be the measures of success. Mayor Craig's answer was very different and interesting. When asked the same question as the other two, he said "Any political way they wish.... They'll tell you anything. They won't come out and say we made a mistake, that's for sure. They're going to come out and tell you all about the development along the line." The drastic difference in answers should be highlighted. Perhaps Mayor Craig is upset that Cambridge is not getting an LRT until Phase Two and is acting accordingly. Or, should his statement be taken more seriously; was the LRT a mistake and will the Region say whatever needs to be said to make the iON seem like a success?

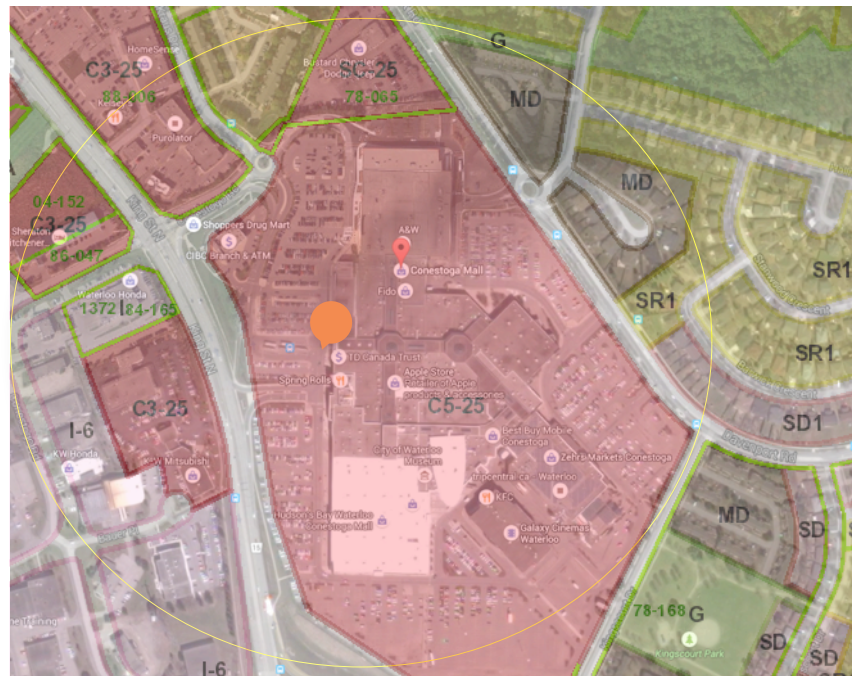
Conestoga Mall Transit Terminal

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Northfield Drive and King Street E	<ul style="list-style-type: none"> • C25 – Commercial I 5 • M25 – Multiple Residence • MD – Medium Density • SR – Single Residence • G – Green Zone • I6 – Light Industrial 	<ol style="list-style-type: none"> 1. Four Points by Sheraton 2. Waterloo Honda 3. LCBO 4. Jaguar of Waterloo 5. Volvo of Waterloo 6. CIBC 7. Conestoga Mall 8. Galaxy Cinemas 9. Kings Court Park 	<ol style="list-style-type: none"> A. Exit and on ramps to expressway B. Storm water management pond C. Grand River Transit Waterloo End Terminal 	<ul style="list-style-type: none"> • Schedule B <ul style="list-style-type: none"> ○ Major Corridor ○ Major Corridor ○ Major Node • Schedule B1 <ul style="list-style-type: none"> ○ High Density 81m ○ Medium Density ○ Employment 27m 	<ul style="list-style-type: none"> • 6 - Bridge • 7 – Mainline • 9 - Lakeshore • 12 – Conestoga/Fairview • 14 – Waterloo Industrial • 21 - Elmira • 31 - Columbia 	High

Table 27: Conestoga Mall iON Stop Information



Nodes



Zoning

Legend:

- C5 - Commercial
- SR - Single Residence
- G - Green Space
- MD - Medium Density
- I-6 - Light Industrial
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



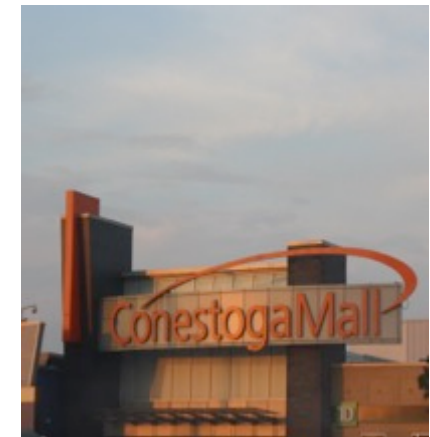
1. Four Points by Sheraton



2. Waterloo Honda



3. LCBO

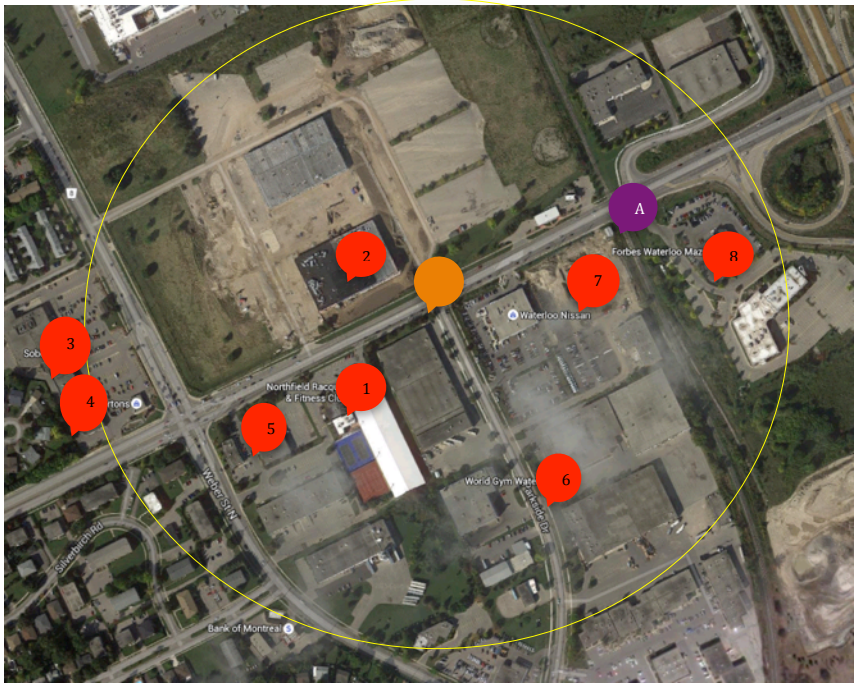


7. Conestoga Mall

Northfield

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Northfield and Weber	<ul style="list-style-type: none"> • I6 – Light Industrial • SD – Semi Detached • C2 – Commercial Two • MR – Multiple 	<ol style="list-style-type: none"> 1. Northfield Racquet Club 2. Sunlife Financial 3. Sobeys 4. RBC 5. TD Bank 6. World Gym 7. Federal Office of Southern Development 8. Forbes Mazda 	A. Train tracks	<ul style="list-style-type: none"> • Schedule B <ul style="list-style-type: none"> ○ Minor Corridor ○ Major Node • Schedule B1 <ul style="list-style-type: none"> ○ Medium Density, 40m ○ Medium Density, 20m ○ Low Density, 10m ○ High Density Employment 81m ○ Medium Density Employment, 27m 	<ul style="list-style-type: none"> • 9 - Lakeshore • 14 – Waterloo Industrial • 9983 – Late Night 	Low

Table 38: Northfield iON Stop Information



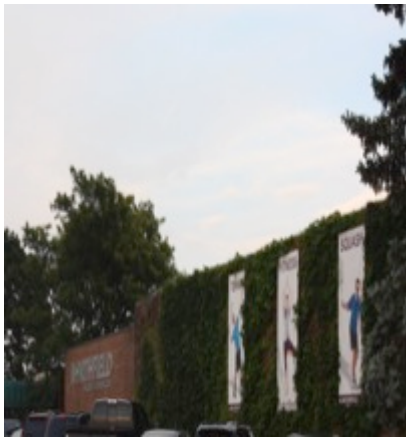
Nodes



Zoning

Legend:

-  MR – Multiple Residence
-  C5 - Commercial
-  SR – Single Residence
-  G – Green Space
-  MD – Medium Density
-  I6 – Light Industrial
-  Landmark
-  Major Infrastructure
-  Another LRT stop
-  LRT Stop Location



1. Northfield Racquet Club



3. Sobeys



6. World Gym



7. Federal Office for Southern Development

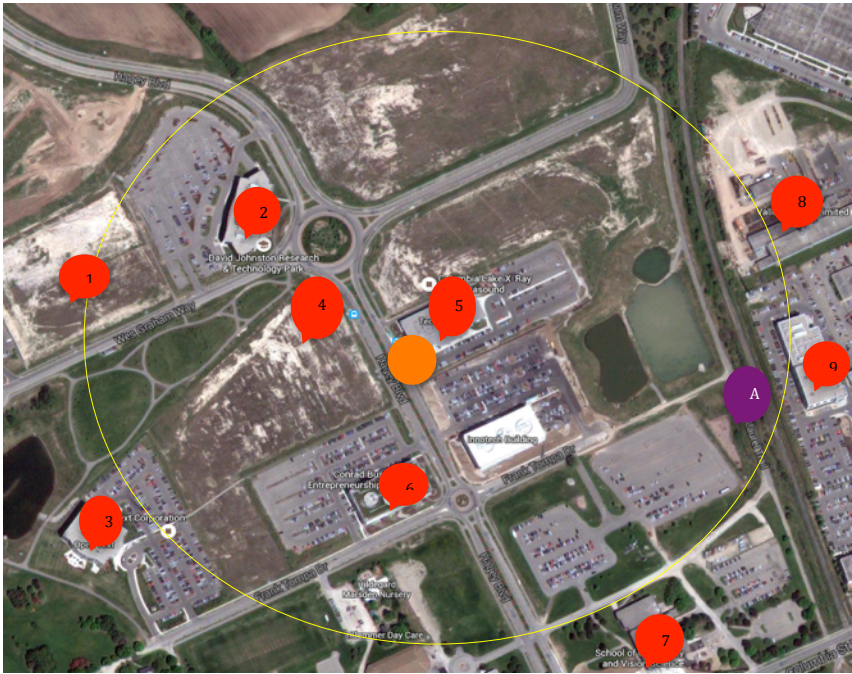
R&T Park

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Hagey Blvd and Wes Graham Way	<ul style="list-style-type: none"> • B1 – University • I25 – Light Industrial 	<ol style="list-style-type: none"> 1. Institute for Quantum Computing 2. Research Advancement Center 3. Open Text 4. Sybase 5. AGFA Health Care 6. Conrad Business, Entrepreneurship and Technology Center 7. School of Optometry and Vision Science 8. Blackberry 9. Raytheon Canada 	A. Laurel Trail	<ul style="list-style-type: none"> • Schedule B <ul style="list-style-type: none"> ○ Major Node ○ Minor Corridor • Schedule B1 <ul style="list-style-type: none"> ○ Low Density, 10m ○ High Density Employment 81m ○ Medium-High Density Employment, 40m 	<ul style="list-style-type: none"> • 31 - Columbia • 200 – iXpress • 201 - iXpress 	Medium

Table 29: R&T Park iON Stop Information

Legend:

- I25 - Light Industrial
- B1 - University
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



1. University of Waterloo Institute for Quantum Computing



4. Sybase



5. AGFA Health Care

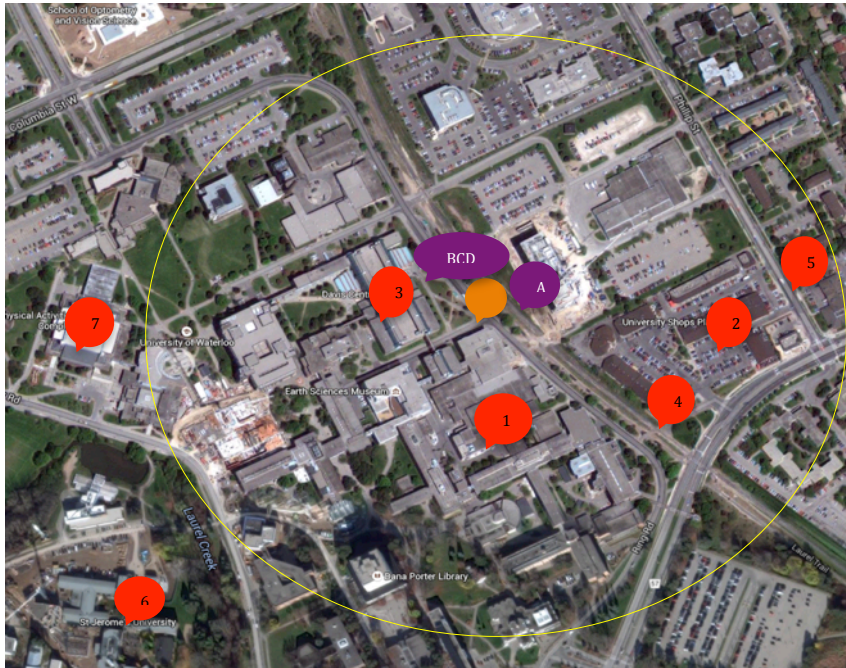


7. University of Waterloo School of Optometry

University of Waterloo

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Rind Road and DC Library	<ul style="list-style-type: none"> • B - University • I - Industrial • C4 - Commercial • (H) NMU – Mixed Residence • MR – Multi Residence 	<ol style="list-style-type: none"> 1. University of Waterloo Main Campus 2. University Plaza Shops 3. Davis Center Library 4. East Side Mario's 5. Mel's Dinner 6. St. Jerome's University 7. Athletic Center 	<ol style="list-style-type: none"> A. Engineering 5 Bridge B. Grand River Transit Terminal C. Go Bus Terminal D. Greyhound Bus Terminal 	<ul style="list-style-type: none"> • Schedule B <ul style="list-style-type: none"> ○ Major Node ○ Minor Corridor • Schedule B1 <ul style="list-style-type: none"> ○ High Density Employment, 81m ○ Medium-High Density Employment, 40m ○ High Density, 81m ○ Medium-High Density, 40m 	<ul style="list-style-type: none"> • 7 - Mainline • 9 - Lakeshore • 13 - Laurelwood • 25 – Queen South • 31 – Columbia • 200 - iXpress 	Medium

Table 30: University of Waterloo iON Stop Information



Nodes



Zoning

Legend:

- MR – Multiple Residence
- C5 - Commercial
- SR – Single Residence
- B1 - University
- NMU – Mixed Residence
- I25 – Light Industrial
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



1. University of Waterloo Main Campus



1. University of Waterloo Main Campus



3. University of Waterloo Davis Center Library













2. University Plaza Shops

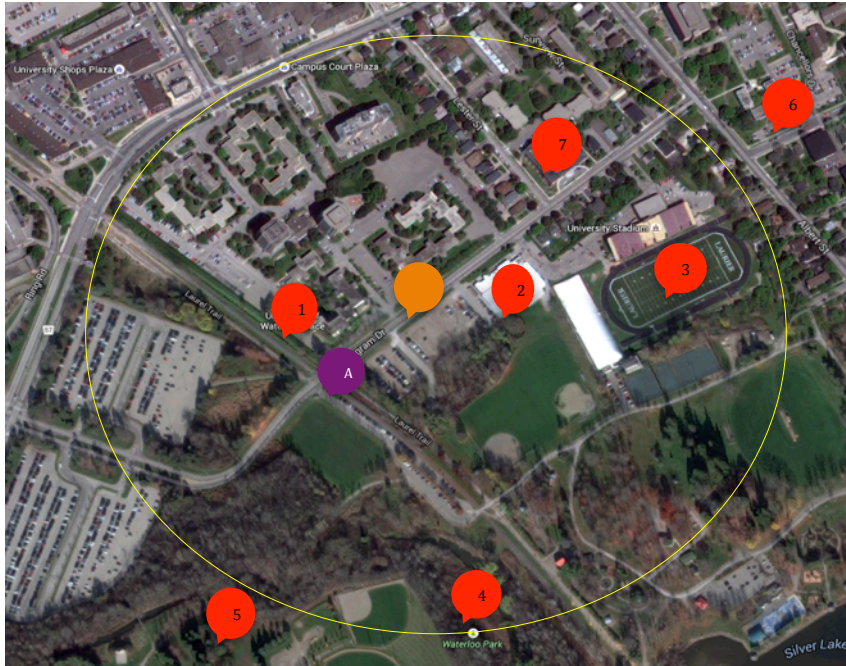
Seagram

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Seagram Drive and University Ave	<ul style="list-style-type: none"> • C4 - Commercial • MR – Multi Residence • B1 – University Wilfred Laurier University • GR2A • G – Green Space 	<ol style="list-style-type: none"> 1. University of Waterloo Place 2. Granite in the Park 3. University Stadium 4. Waterloo Park 5. Waterloo Tennis Club 6. Wilfred Laurier University 7. Waterloo College Hall 	A. Laurel Trail	<ul style="list-style-type: none"> • Schedule B <ul style="list-style-type: none"> ○ Major Node ○ Major Corridor • Schedule B1 <ul style="list-style-type: none"> ○ High Density Employment, 81m ○ High Density, 81m ○ Medium-High Density, 40m ○ Medium Density, 20m 	<ul style="list-style-type: none"> • 7 - Mainline • 8 – University/ Fairview Park Mall • 12 – Conestoga/ Fairview Park Mall • 9 - Lakeshore • 29 – Keats Way • 202 - iXpress 	Low

Table 31: Seagram iON Stop Information

Legend:

-  MR – Multiple Residence
-  C5 - Commercial
-  SR – Single Residence
-  G – Green Space
-  GR2A – General Residence
-  B1 – University
-  Landmark
-  Major Infrastructure
-  Another LRT stop
-  LRT Stop Location



Nodes



Zoning



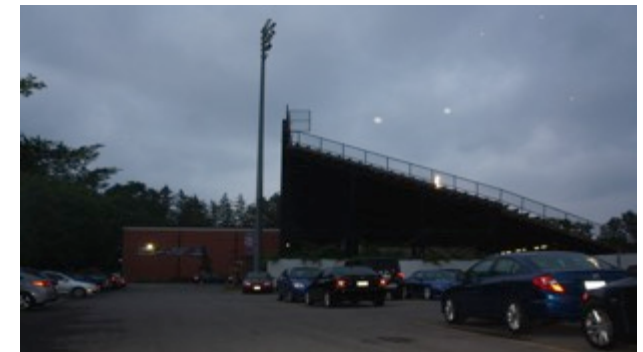
1. University of Waterloo Place Residence



2. Granite in the Park



4. Waterloo Park Soccer Fields







3. University Stadium

Willis Way

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Willis Way and King Street E	<ul style="list-style-type: none"> • G – Green Space • C – Commercial • I – Industrial • MD – Medium Density • MR – Multi Residence • GR – General Residence 	<ol style="list-style-type: none"> 1. Uptown Waterloo Plaza 2. David's Tea 3. Starbucks 4. LCBO 5. St. John's Lutheran Church 6. Knox Presbyterian Church 7. Beertown 8. City Hall 9. Waterloo BIA Board of Management 10. Waterloo Park 11. Perimeter Institute 12. Clay and Glass Museum 13. Waterloo Public Library 14. Marsland Center 	<ol style="list-style-type: none"> A. Laurel Trail B. Waterloo Train Station 	<ul style="list-style-type: none"> • Section 3.7 <ul style="list-style-type: none"> ○ Uptown Waterloo Urban Growth Center ○ Cities Primary Node ○ Serve as a major focal point and destination for multiple forms of investment; residential, commercial, institutional • Schedule B1 <ul style="list-style-type: none"> ○ High Density, 81m ○ Medium-High Density, 40m ○ Medium Density, 20m ○ Main Street, 6m – 16m • Schedule B2 Uptown Commercial Core 	<ul style="list-style-type: none"> • 5 - Erb • 7 - Mainline • 200 – iXpress • 9983 – Late Night 	Medium

Table 32: Willis Way iON Stop Information

Legend:

-  MR – Multiple Residence
-  C5 - Commercial
-  I25 – Light Industrial
-  G – Green Space
-  GR2A – General Residence
-  Landmark
-  Major Infrastructure
-  Another LRT stop
-  LRT Stop Location



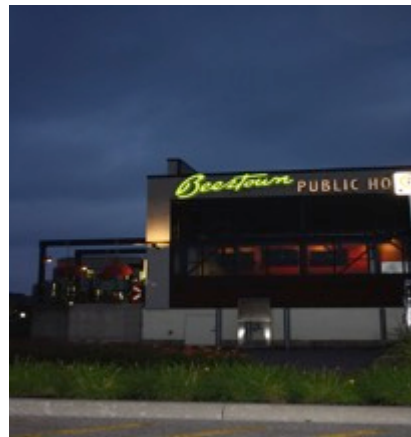
Nodes



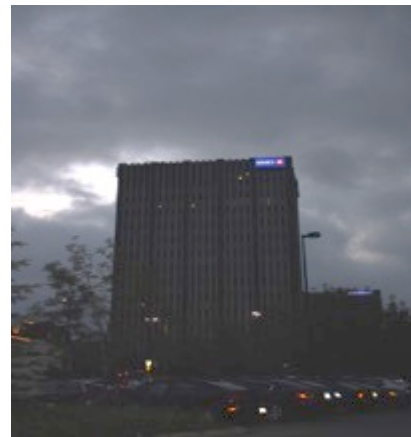
Zoning



5. St. Johns Lutheran Church



7. Beertown



13. Marsland Center



13. Waterloo Public Library

Waterloo Town Square

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	William Street and King Street E	<ul style="list-style-type: none"> • G – Green Space • C – Commercial • I – Industrial • MD – Medium Density • MR – Multi Residence • GR – General Residence 	<ol style="list-style-type: none"> 1. Uptown Waterloo Plaza 2. David's Tea 3. Starbucks 4. LCBO 5. St. John's Lutheran Church 6. Knox Presbyterian Church 7. Beertown 8. City Hall 9. Waterloo BIA Board of Management 10. Waterloo Park 11. Perimeter Institute 12. Clay and Glass Museum 13. Waterloo Public Library 14. Marsland Center 15. St. John's Lutheran Church 	<ol style="list-style-type: none"> A. Laurel Trail B. Waterloo Train Station 	<ul style="list-style-type: none"> • Section 3.7 <ul style="list-style-type: none"> ○ Uptown Waterloo Urban Growth Center ○ Cities Primary Node ○ Serve as a major focal point and destination for multiple forms of investment; residential, commercial, institutional • Schedule B1 <ul style="list-style-type: none"> ○ High Density, 81m ○ Medium-High Density, 40m ○ Medium Density, 20m ○ Main Street, 6m – 16m • Schedule B2 <ul style="list-style-type: none"> ○ Uptown Commercial Core 	<ul style="list-style-type: none"> • 5 - Erb • 7 - Mainline • 200 – iXpress • 9983 – Late Night 	Medium

Table 33: Waterloo Town Square iON Stop Information



Nodes



Zoning

Legend:

- MR – Multiple Residence
- C5 - Commercial
- I25 – Light Industrial
- G – Green Space
- GR2A – General Residence
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



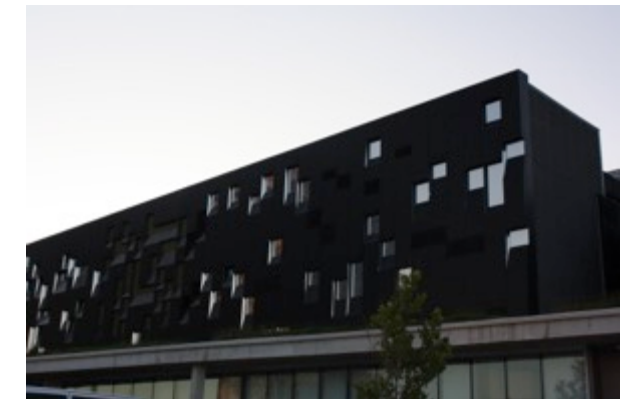
2. David's Tea



4. LCBO



8. City Hall

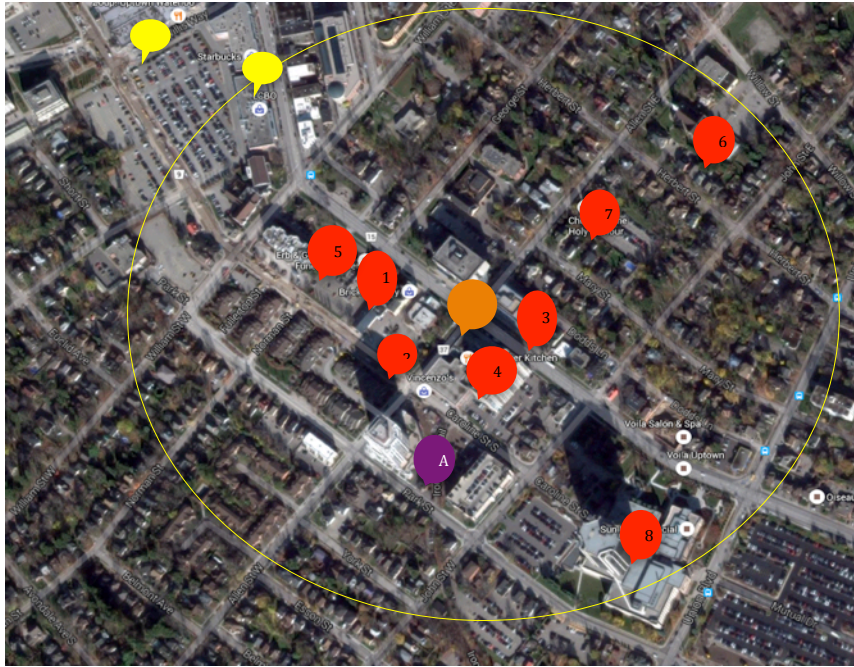


11. Perimeter Institute

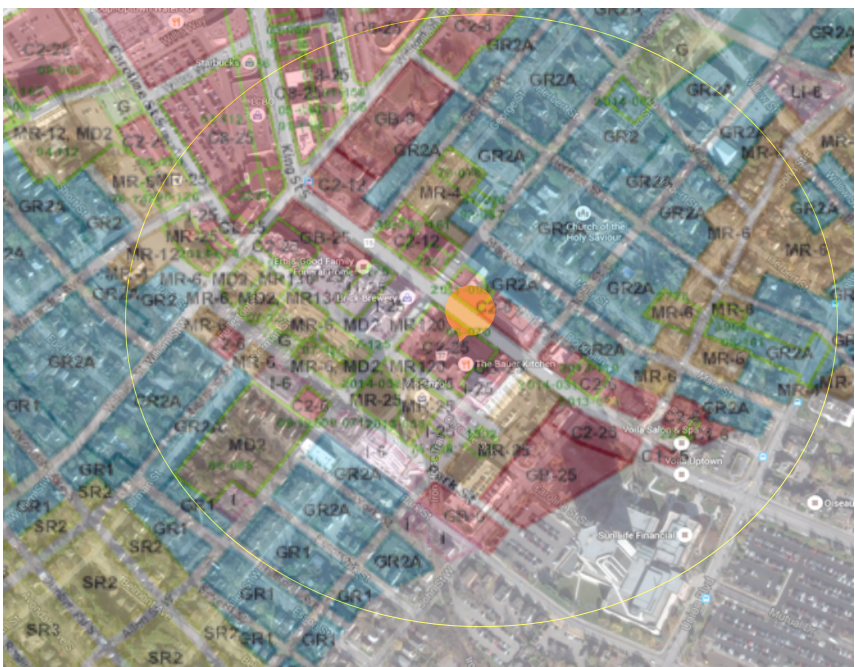
Allen

Stop Location	Major Intersection	Zoning	Landmarks	Major Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Waterloo	Allen Street and Caroline	<ul style="list-style-type: none"> • C – Commercial • GR • G – Green Space • GB – General Business • MR – Mixed Residential • Li – Light Industrial • I – Industrial • SR – Single Residence 	<ol style="list-style-type: none"> 1. Brick Brewery 2. Adult Recreation Center 3. Canadian National Institute for the Blind 4. The Bauer Kitchen 5. Erb and Good Funeral Home 6. Mennonite United Church 7. Church of the Holy Saviour 8. Sunlife Financial 	A. Iron Horse Trail	<ul style="list-style-type: none"> • Section 3.7 <ul style="list-style-type: none"> ○ Uptown Waterloo Urban Growth Center ○ Cities Primary Node ○ Serve as a major focal point and destination for multiple forms of investment; residential, commercial, institutional • Schedule B1 <ul style="list-style-type: none"> ○ High Density, 81m ○ Medium-High Density, 40m ○ Medium Density, 20m ○ Main Street, 6m – 16m • Schedule B2 <ul style="list-style-type: none"> ○ Uptown Complementary Transition Area 	<ul style="list-style-type: none"> • 5 - Erb • 7 - Mainline • 200 – iXpress • 9983 – Late Night 	Medium

Table 34: Allen iON Stop Information



Nodes



Zoning

Legend.

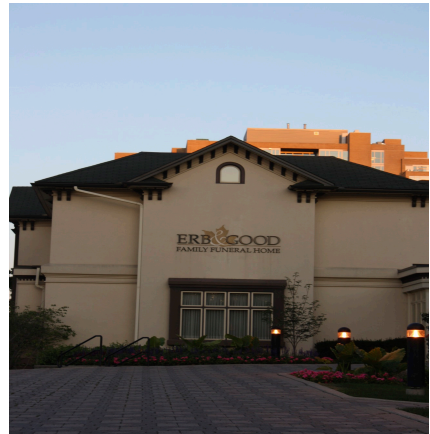
-  MR – Multiple Residence
-  C5 - Commercial
-  I25 – Light Industrial
-  G – Green Space
-  GR2A – General Residence
-  Waterloo – Kitchener Boundary
-  MD – Medium Density
-  Landmark
-  Major Infrastructure
-  Another LRT stop
-  LRT Stop Location



1. Brick Brewery



4. The Bauer Kitchen



5. Erb and Good Funeral Home

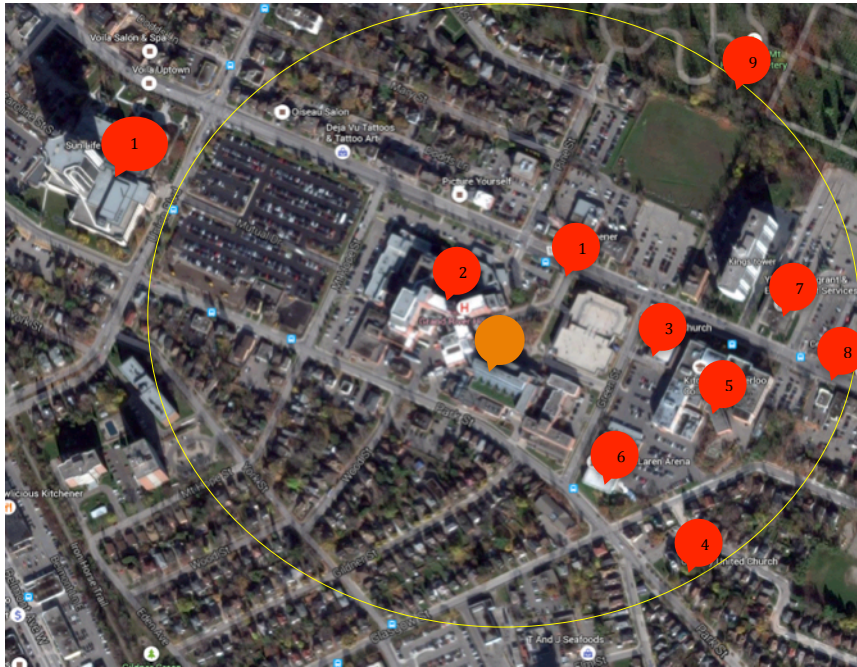


8. Sunlife Financial

Grand River Hospital

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street W and Mt Hope Street	<ul style="list-style-type: none"> • M – General Industrial • MU – Medium Intensity Mixed Use Corridor • I - Institutional Zone • R – Residential • P – Public Park Zone 	<ol style="list-style-type: none"> 1. CTV Kitchener 2. Grand River Hospital 3. St. Mark's Lutheran Church 4. Calvary United Church 5. Kitchener Collegiate Institute 6. Don McLaren Arena 7. YMCA 8. Central Fresh Market 9. Waterloo Mount Hope Cemetery 10. Sun Life Financial 		<ul style="list-style-type: none"> • Secondary Plan – Map 18 <ul style="list-style-type: none"> ○ Mixed Use Corridor ○ Low Rise Conservation ○ Community Institutional ○ Low Rise Multiple Residential 	<ul style="list-style-type: none"> • 4 - Glasgow • 7 - Mainline • 200 – iXpress • 9983 – Late Night 	Medium

Table 35: Grand River Hospital iON Stop Information



Nodes



Zoning

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- P - Public Park Zone
- Waterloo - Kitchener Boundary
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



1. Grand River Hospital



3. St. Mark's Lutheran Church



3. Don McLaren Arena

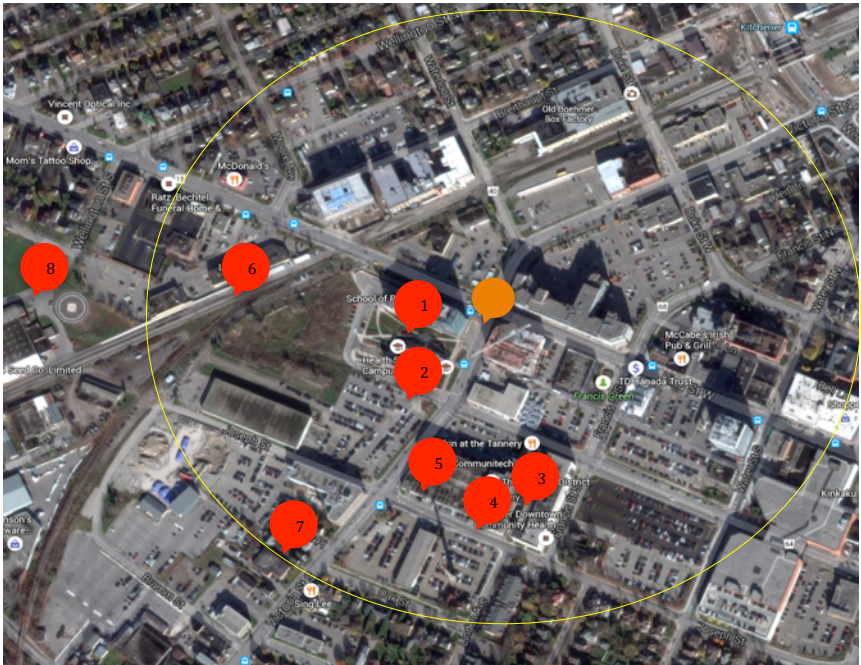
King/ Victoria Transit Hub

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street W and Victoria Street	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial 	<ol style="list-style-type: none"> 1. University of Waterloo School of Pharmacy 2. University of Waterloo and McMaster University Health Sciences Campus 3. The Tannery 4. Google 5. Desire2Learn 6. LCBO 7. KW Badminton Club 8. Francis Green Park 		<ul style="list-style-type: none"> • Urban Growth Center <ul style="list-style-type: none"> ○ Innovation District ○ Warehouse District • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 6 - Bridge • 7 - Mainline • 20 – Victoria Hills • 200 – iXpress • 9983 – Late night 	High

Table 36: King and Victoria Transit Hub iON Stop Information

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



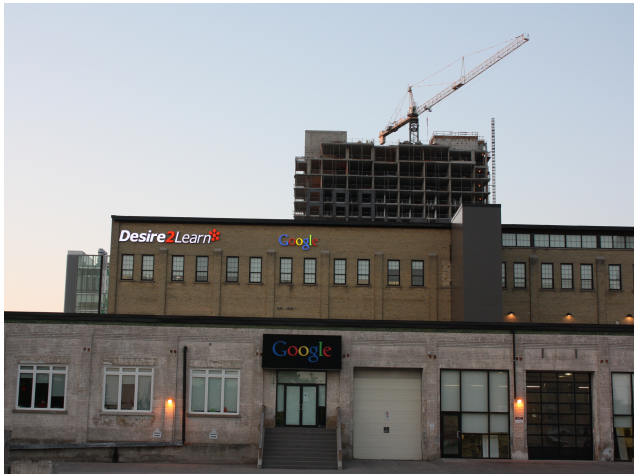
Zoning



1. University of Waterloo School of Pharmacy



2. University of Waterloo and McMaster University Health Sciences Campus



3. The Tannery
4. Google
5. Desire 2 Learn

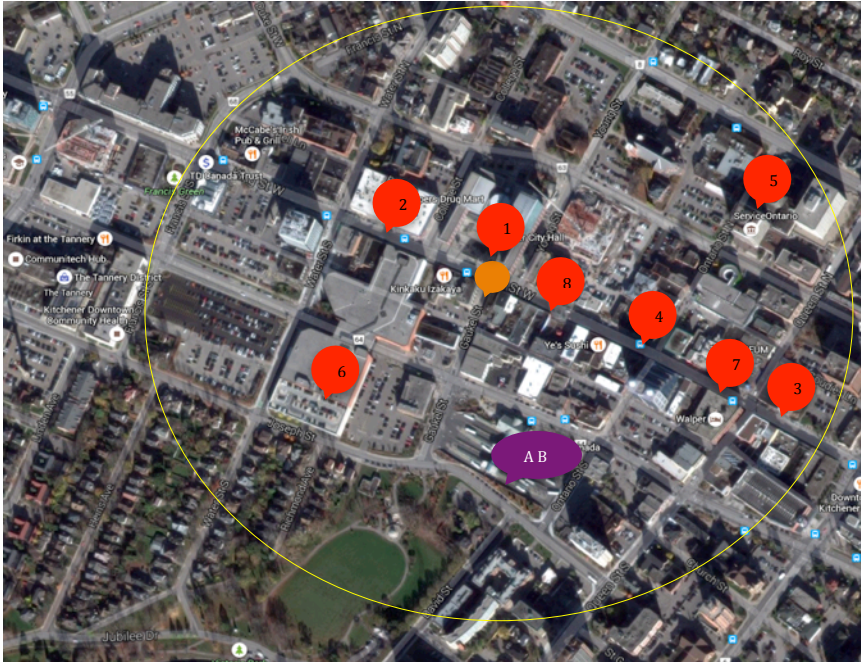
Gaukel

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street W and Gaukel St	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial 	<ol style="list-style-type: none"> 1. Kitchener City Hall 2. Manulife 3. Voila Institute 4. Elements Night Club 5. Apollo Cinema 6. Waterloo Catholic District School Board 7. The Museum 8. KW Symphony 	<ol style="list-style-type: none"> A. Grand River Transit B. Greyhound Bus C. Go Bus 	<ul style="list-style-type: none"> • Urban Growth Center <ul style="list-style-type: none"> ○ City Center District • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 1 – Stanley Park • 3 – Ottawa South • 4 - Glasgow • 6 - Bridge • 7 - Mainline • 8 – University/ Fairview Park Mall • 11 – Country Hills • 15 - Frederick • 20 – Victoria Hills • 22 – Laurentian West • 23 - Idlewood • 24 - Highland • 25 – Queen South • 200 – iXpress • 9983 – Late night 	Medium

Table 37: Gaukel Street iON Stop Information

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- P - Public Park Zone
- D - Retail
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



1. Kitchener City Hall



4. Elements Night Club



8. KW Symphony

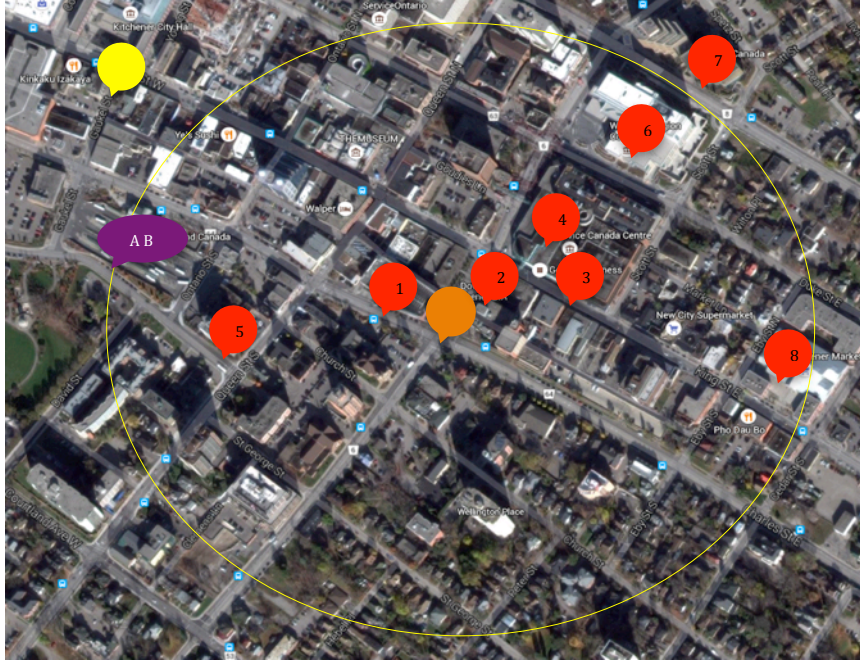
Benton

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street E and Benton Street	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential 	<ol style="list-style-type: none"> 1. Region of Waterloo Headquarters 2. Downtown Kitchener BIA 3. Goodlife Fitness 4. Service Canada 5. Oktoberfest Headquarters 6. Waterloo Region Court House 7. Ontario Court of Justice 8. Kitchener Market 	<ol style="list-style-type: none"> A. Grand River Transit B. Greyhound Bus C. Go Bus 	<ul style="list-style-type: none"> • Urban Growth Center <ul style="list-style-type: none"> ○ City Center District • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 1 – Stanley Park • 4 - Glasgow • 7 - Mainline • 8 – University/ Fairview Park Mall • 15 – Frederick • 23 - Idlewood 	Medium

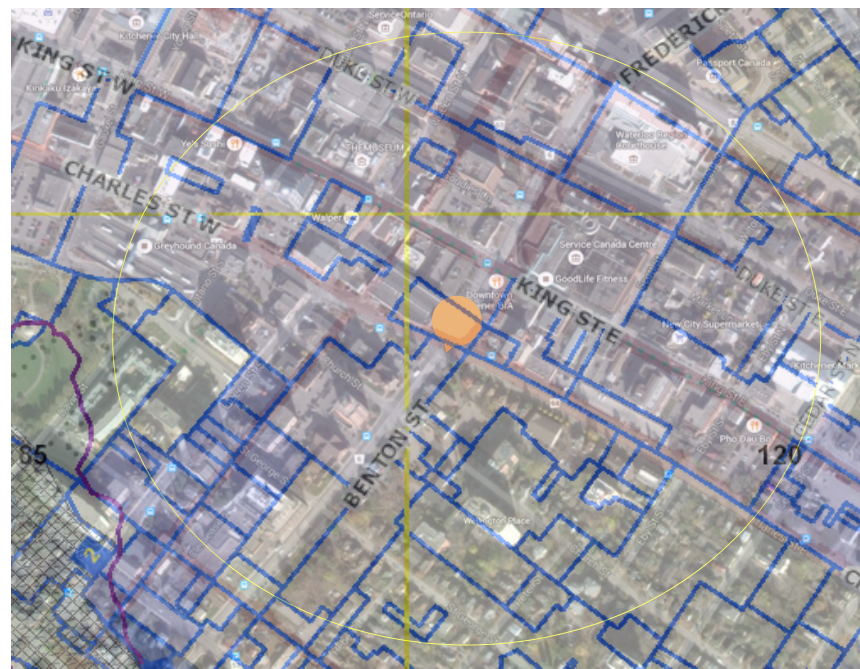
Table 38: Benton Street iON Stop Information

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- P - Public Park Zone
- CR - Commercial Residential
- D - Retail
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



3. Goodlife Fitness



6. Waterloo Region Courthouse

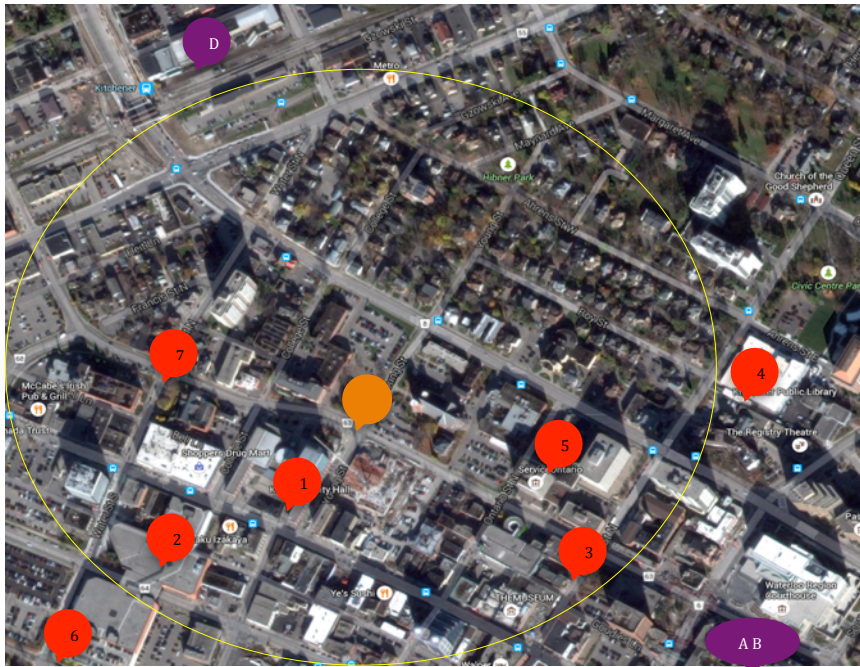


8. Kitchener Market

Young

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street W and Young Street	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential 	<ol style="list-style-type: none"> 1. Kitchener City Hall 2. Sun Life Financil 3. Voila Institute 4. Kitchener Public Library 5. Apollo Cinema 6. Waterloo Catholic District School Board 7. Speakers Corner 	<ol style="list-style-type: none"> A. Grand River Transit B. Greyhound Bus C. Go Bus D. Kitchener VIA Rail Train Station 	<ul style="list-style-type: none"> • Urban Growth Center <ul style="list-style-type: none"> ○ City Center District • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 1 – Stanley Park • 3 – Ottawa South • 4 - Glasgow • 6 - Bridge • 7 - Mainline • 8 – University/ Fairview Park Mall • 11 – Country Hills • 15 - Frederick • 20 – Victoria Hills • 22 – Laurentian West • 23 - Idlewood • 24 - Highland • 25 – Queen South • 200 – iXpress • 9983 – Late night 	Medium

Table 39: Young Street iON Stop Information



Nodes



Zoning

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- P - Public Park Zone
- CR - Commercial Residential
- D - Retail
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



1. Kitchener City Hall



2. Sun Life Financial



7. Speakers Corner

Frederick

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street E and Frederick Street	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential 	<ol style="list-style-type: none"> 1. Region of Waterloo Headquarters 2. Downtown Kitchener BIA 3. Goodlife Fitness 4. Service Canada 5. Oktoberfest Headquarters 6. Waterloo Region Court House 7. Ontario Court of Justice 	<ol style="list-style-type: none"> A. Grand River Transit B. Greyhound Bus C. Go Bus 	<ul style="list-style-type: none"> • Urban Growth Center <ul style="list-style-type: none"> ○ City Center District • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 1 – Stanley Park • 3 – Ottawa South • 4 - Glasgow • 6 - Bridge • 7 - Mainline • 8 – University/ Fairview Park Mall • 11 – Country Hills • 15 - Frederick • 22 – Laurentian West • 23 - Idlewood • 24 - Highland • 25 – Queen South • 200 - iXpress 	Medium

Table 40: Frederick Street iON Stop Information



Nodes



Zoning

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed User Corridor
- P - Public Park Zone
- CR - Commercial Residential
- D - Retail
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



3. Goodlife Fitness



5. Oktoberfest



6. Waterloo Region Courthouse

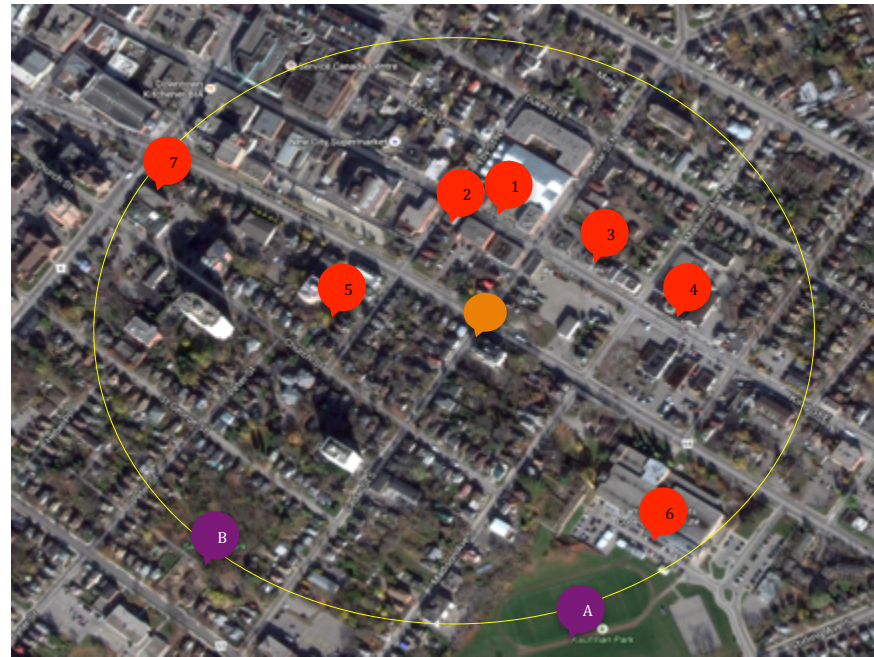
Cedar

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street E and Cedar Street N	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential 	<ol style="list-style-type: none"> 1. Kitchener Market 2. Community Car Share 3. Pilgrim Lutheran Church 4. KW Open Bible Pentecostal Church 5. House of Friendship 6. Cameron Heights Institute 7. City Café Bakery 	<ul style="list-style-type: none"> A. Kaufman Park B. Sandhills Park 	<ul style="list-style-type: none"> • Urban Growth District <ul style="list-style-type: none"> ○ Market District • Secondary Plan – Map 10 <ul style="list-style-type: none"> ○ Medium Density Multiple Residential ○ Mixed Use Corridor • Section 3-9 <ul style="list-style-type: none"> ○ By 2031, minimum density of 225 residents and jobs per hectare ○ Planned to be a Regional and City-wide focal point ○ Residential intensification as well as investment; institutional, public services, commercial, office, recreational, cultural 	<ul style="list-style-type: none"> • 7 – Mainline • 8 – University/ Fairview Park Mall 	Medium

Table 41: Cedar Street iON Stop Information

LEGEND:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed Use Corridor
- P - Public Park Zone
- CR - Commercial Residential
- D - Retail
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



1. Kitchener Market



6. Cameron Heights Pool and High school



7. City Café Bakery

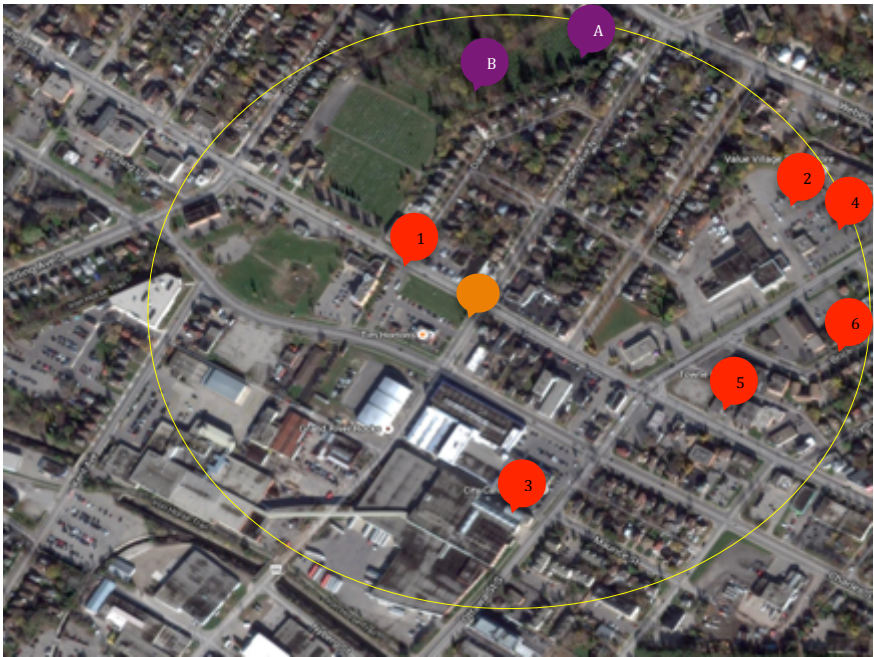
Borden

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	King Street E and Borden Ave N	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential 	<ol style="list-style-type: none"> 1. First Mennonite Church 2. Value Village 3. City Cafe Bakery 4. Dairy Queen 5. Towne Bowl 6. Kitchener Church of God 	<ol style="list-style-type: none"> A. Iron Horse Trail B. Luther Green 	<ul style="list-style-type: none"> • Secondary Plan – Map 10 <ul style="list-style-type: none"> ○ Low Rise Conservation ○ Mixed Use Corridor 	<ul style="list-style-type: none"> • 7 - Mainline 	Low

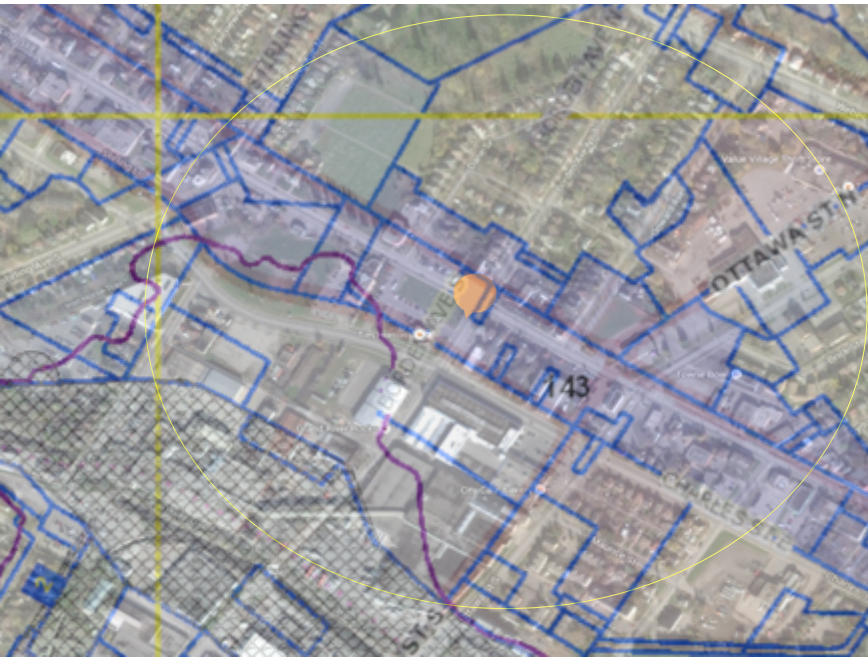
Table 42: Borden Street iON Stop Information

Legend:

- R - Residential
- M - General Industrial
- MU - Medium Intensity Mixed Use Corridor
- P - Public Park Zone
- CR - Commercial Residential
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



3. City Café Bakery



4. Dairy Queen




5. Towne Bowl

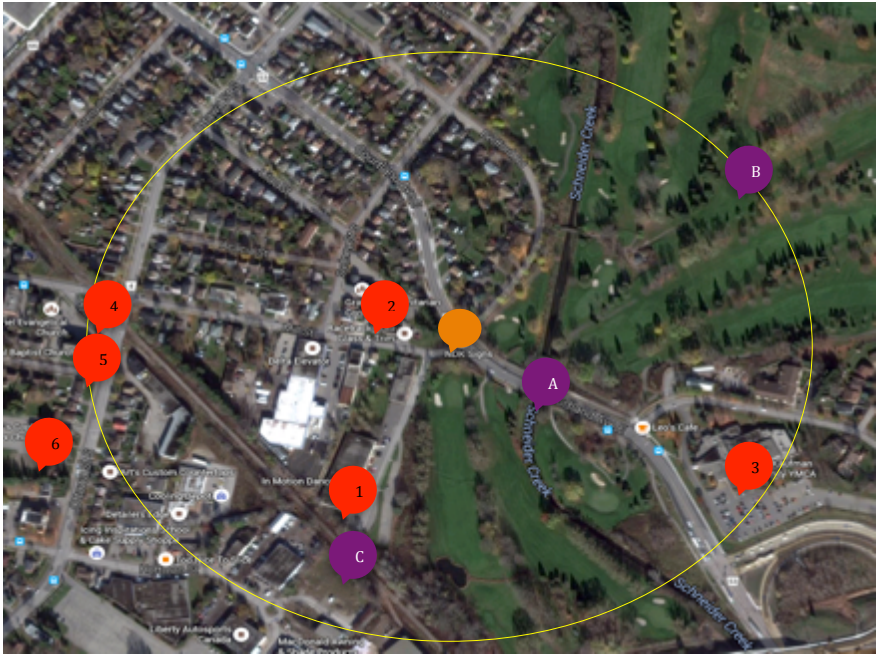
Mill

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	Mill Street and Courtland Ave E	<ul style="list-style-type: none"> • MU - Medium Intensity Mixed Use Corridor • R- Residential • D - Retail • P – Public Park Zone • M – General Industrial • CR – Commercial Residential • E – Existing Use Zone 	<ol style="list-style-type: none"> 1. In motion dance school 2. Grand River Unitarian Congregation 3. YMCA 4. Bethel Evangelical Church 5. Central Baptist Church 6. St. Mary's Orthodox Church 7. Concordia Club 	<ol style="list-style-type: none"> A. Schneider Creek B. Rockway Golf Course C. Train Tracks 	<ul style="list-style-type: none"> • Open Space • Medium Rise Residential • Business Park Employment • Mixed Use 	<ul style="list-style-type: none"> • 8 – University/Fairview Park Mall 	Low

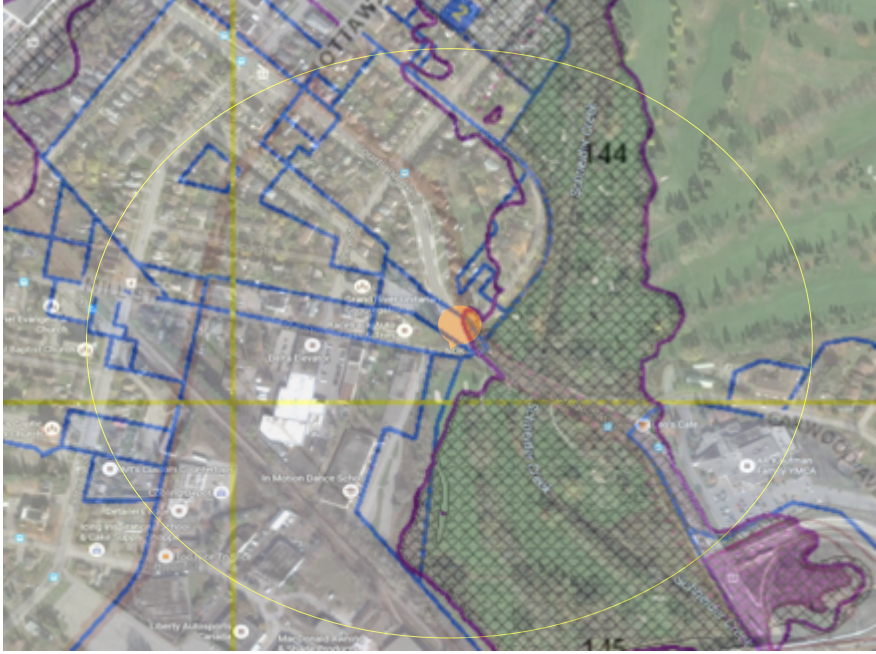
Table 43: Mill Street iON Stop Information

Legend:

-  R - Residential
-  M - General Industrial
-  E - Existing Use
-  P - Public Park Zone
-  MU - Medium Intensity Mixed Use Corridor
-  Landmark
-  Major Infrastructure
-  Another LRT stop
-  LRT Stop Location



Nodes



Zoning



5. Central Baptist Church



6. St. Mary's Orthodox Church



7. Concordia Club

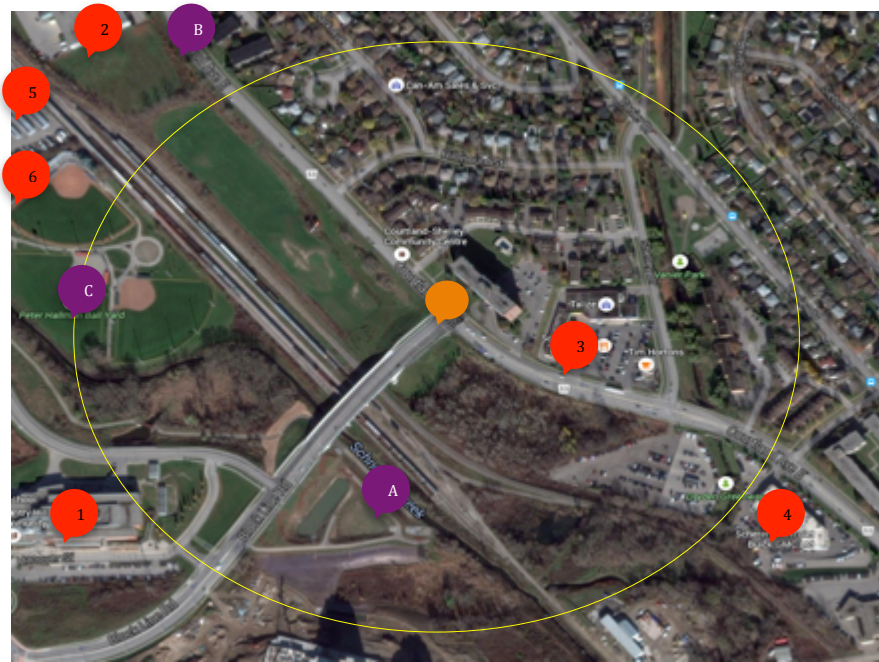
Block Line

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	Courtland Ave E and Block Line Road	<ul style="list-style-type: none"> • R - Residential • P – Public Parking • M - Industrial • C – Commercial • B – Business Zone 	<ol style="list-style-type: none"> 1. St. Mary's High school 2. Grand River Hobbies 3. Scotia Bank 4. Scheer Chevrolet Buick Dealership 5. The Family Center 6. Activia Sport Center 	<ol style="list-style-type: none"> A. Schneider Creek B. Courtland on and off ramp to expressway C. Peter Hallman Ball yard 	<ul style="list-style-type: none"> • Institutional • Open Space • Medium Rise Residential • Business Park Employment • Mixed Use 	<ul style="list-style-type: none"> • 8 – University/Fairview Park Mall 	Medium

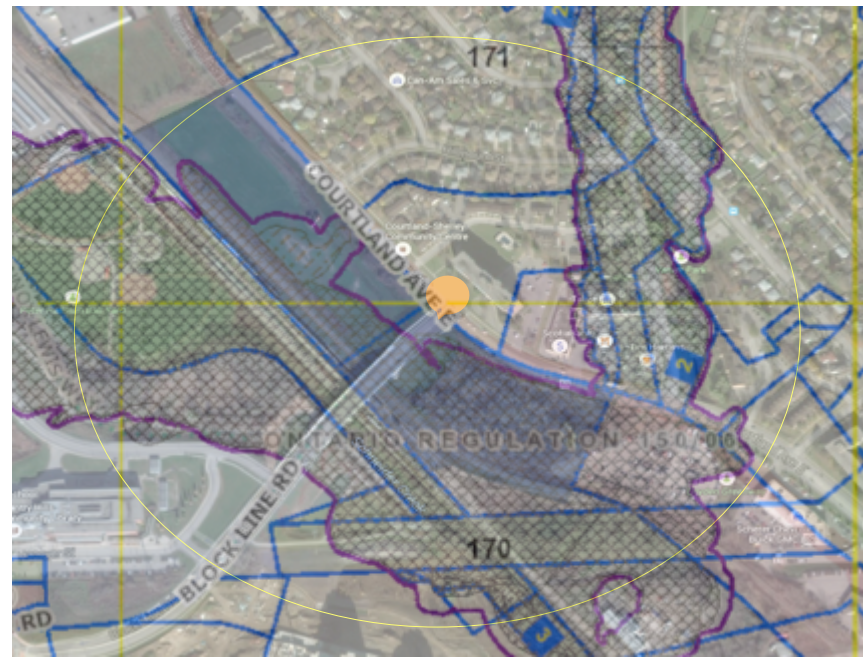
Table 44: Block Line iON Stop Information

Legend:

- R - Residential
- M - General Industrial
- P - Public Park Zone
- B - Business Zone
- Landmark
- Major Infrastructure
- Another LRT stop
- LRT Stop Location



Nodes



Zoning



1. St. Mary's High School



5. The Family Center



6. Activa Sports Complex



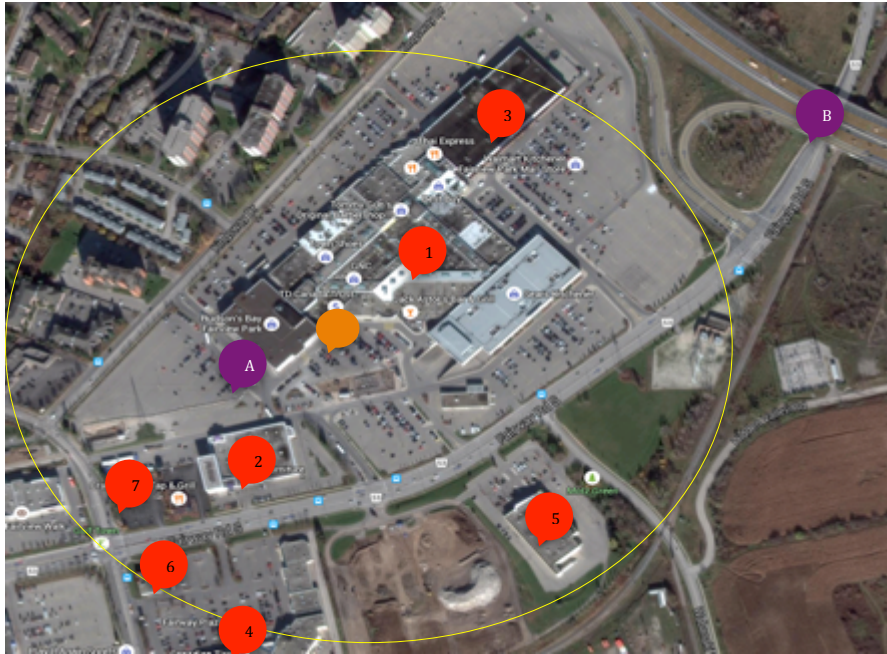
C. Peter Hallman Ball Yard

Fairview Park Mall

Stop Location	Major Intersection	Zoning	Landmarks	Infrastructure Present	City Official Plan	GRT Routes Present	Redevelopment Potential
Kitchener	Fairway Road S and Wilson Ave	<ul style="list-style-type: none"> • C - Commercial • P – Public Parking • R - Residential • M – Industrial • B – Business Zone 	<ol style="list-style-type: none"> 1. Fairview Park Mall 2. Leon's Furniture 3. Walmart 4. Canadian Tire 5. Best Buy 6. Moxie's Bar and Grill 7. Kelsey's 	<ol style="list-style-type: none"> A. Grand River Transit Terminal B. Fairway on and off ramps to expressway and 401 	<ul style="list-style-type: none"> • Commercial • Medium Rise Residential • Open Space 	<ul style="list-style-type: none"> • 7 - Mainline • 8 – University/ Fairview Park Mall • 10 – Conestoga College • 12 – Conestoga/ Fairview Park Mall • 17 – Heritage Park • 23 - Idlewood • 27 - Chicipee • 52 – Fairview Park Mall/ Ainslie Street • 200 - iXpress 	High

Table 45: Fairview Park Mall iON Stop Information

- LEGEND:
- R - Residential
 - M - General Industrial
 - MU - Medium Intensity Mixed Use Corridor
 - P - Public Park Zone
 - B - Business Zone
 - Landmark
 - Major Infrastructure
 - Another LRT stop
 - LRT Stop Location



Nodes



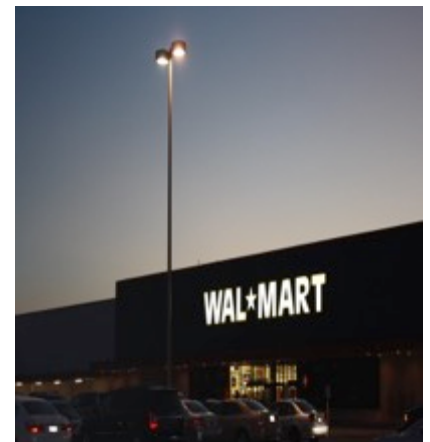
Zoning



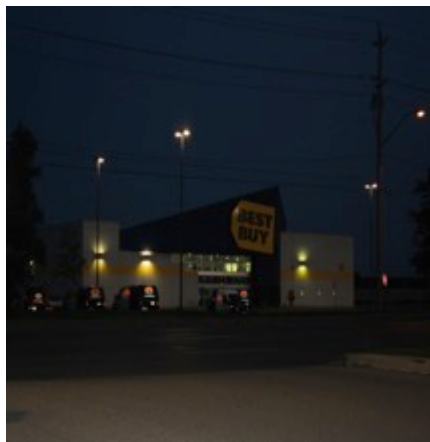
1. Fairview Park Mall



2. Leon's Furniture Store



3. Walmart



5. Best Buy

Chapter 4: Analysis and Conclusions

The underlying theme of this major project has been that the iON is good for the Region, but there were missed opportunities in improving station locations and ridership experience. These missed opportunities occurred because the Waterloo Region LRT was impacted by financial, political and existing infrastructure constraints. These constraints impacted the route, and therefore limited the potential of the iON. Without a doubt, the iON will benefit the Region economically, specifically within the Central Transit Corridor and the nineteen stations within Waterloo and Kitchener. An economic perspective is important to have, but the Region needed to also keep in mind who will be using the iON, while having a strong-minded economic focus. It needs to serve different demographics — students, families and the elderly—all of which have different needs and wants. The beauty of public transit is that it is a meeting place of different people that encourages understanding and tolerance. In his study *The Shape of the Suburbs: Understanding Toronto's Sprawl* (2009), Sewell notes that “transit promotes a sense of community: people are not competing with one another, but they are all on the same bus, sharing a common experience, reinforcing the idea of community... (pg.179).” Economics is important, but the experiences of the rider and station locations are equally as important.

Analysis:

This major project has four key sections; Why The Sprawl Repair Manual and Waterloo Region, The Proposed LRT, Cataloguing and Mapping and My Recommendations. Each section built upon knowledge from the previous section to determine if the Region of Waterloo is meeting the three goals of the iON they set out —to move people, protect farmland and to reduce sprawl. Individually, the goals are complex but they are also reliant on the other goals. All three goals support each other, but they also need to be viewed individually. Did the iON successfully achieve its three goals? Will the Region deem the iON successful? Were there missed opportunities in improving the iON in regards to station locations and rider experience, or if there were project compromises were they a result of financial, political or existing infrastructure constraints? This major project set out to answer those questions and to see where there were missed opportunities.

To do this, it was important to understand why the Region felt the need for a higher level of transit in conjunction with the already existing Grand River Transit Bus service, and why an LRT was determined to be the right choice rather than an adapted bus route or another alternative. The first section titled “Why the Sprawl

Repair Manual and Waterloo Region" was essentially the contextual information behind the iON and this major project. In this section, the theoretical perspective used to analyze the iON was introduced along with why the Region felt a higher level of transit was needed. Essentially, they feel that a higher level of transit was needed in addition to the existing Grand River Transit because the Region has been designated by the Provincial Government as a Place to Grow. They used this designation as the rationale for starting among other processes the Multiple Account Evaluation performed by the IBI Group, which reviewed Bus Rapid Transit and Light Rail Transit along with different staging options. The Region firmly believes that without the LRT, huge investments in new road infrastructure would be necessary to accommodate the expected 10,000 new residents each year (*The Story of Rapid Transit in Waterloo Region*, 2014).

Through the second section of this major project "The Proposed LRT", the three goals of the iON were further analyzed along with proposed station locations. I raised the questions of whether the Region exhausted all alternatives in making their decision, and explored the controversy surrounding the iON. In this section, the controversy around the project began to be fully understood. It was determined that the Region needed to do a better job of explaining to their citizens what their three goals were, how the iON will impact them and how they could benefit. After attending open houses, information sessions and discussing the LRT with citizens, it became apparent that the public did not understand why more busses would not address the problem, how the region could justify \$818 million dollar price tag, which only included capital costs, why the Region was tasked with paying a third of the total costs and more simply, why is it needed at all. The Region needed to get the citizens on their side as the iON is going ahead regardless of how they feel. It is already under construction with operation expected in 2017. Citizens need to see the benefits of this project, as it is intended for the future. Without citizens getting on board, mentally and physically, the iON will not capture the ridership they need, and therefore will not successfully achieve their three goals.

The third section, "Cataloguing and Mapping" was particularly significant as it built upon the knowledge of the previous two, but it was also where the *Sprawl Repair Manual* (2010) theoretical perspective was applied. Each of the nineteen station locations were catalogued, mapped and reviewed using the 500m pedestrian walking shed. This is where it became clear that the iON was impacted by financial, political and existing infrastructure constraints, and as a result there were missed opportunities in station locations and ridership experience. In this section, information was visually presented in a variety of methods to show

how Galina Tachieva's methods could have been applied to improve the iON's station locations and the rider experience. These methods ranged in complexity from connecting thoroughfares to completely changing the urban form of shopping malls. This range demonstrated that there are a variety of ways the iON and the stations can be improved to enhance the riders experience.

The Fourth Goal of the iON:

Yes, the Region of Waterloo should use the iON as a reason for economic development around the Central Transit Corridor, but economics should not be the only contributing factor, especially, since one of the three goals the Region presented was the LRT's ability to move people. To make the iON as successful as possible, there should be stations in areas where people rely on transit, for example Universities. At the moment, the only university stop is located at the University of Waterloo as seen in Figure 30, and there is no stop located at Wilfred Laurier University. The closest is on Seagram Drive as seen in Figure 31, but even then it is still outside of the pedestrian walking shed of 500m. When asked during his July interview, Regional Chair Ken Seiling cited three reasons for this: that the University of Waterloo is four times larger than Laurier, that WLU had entered the discussion late, and third that in order to have a stop located at Laurier, the route would have had to change from the existing route to run down King Street. Clearly, politics impacted this decision. This demonstrates what Aaron Moore has been describing in his book *Planning Politics in Toronto* (2013), namely that politicians are making long-term decisions with major consequences outside of their tenure which have impact at all of the different scales (the region, the community, the local block and the individual location). Experts should be making decisions with respect to political opinions, but it should not be as much of a consideration as it currently is. Knowing that one of the goals of the iON is to move people, it should have been obvious that at a minimum the two Universities would have stops and potentially the Colleges as well, since students will most likely make up a large portion of those using the iON.

Additionally, the Region needed to emphasize the redevelopment potential of all of the stations, but most notably the transit hubs. These hubs have great potential to become intensified mixed-use locations that would attract many people. These hubs (Conestoga Mall, Fairview Park Mall, Kitchener Downtown and Uptown Waterloo) will be "feeding" the iON as this is where the suburban bus routes meet the higher level of transit. To make transit appealing, it needs to offer more than simply being cost effective. Using Tachieva's theories from the *Sprawl Repair Manual* (2010), the Region would have been able to completely

transform these hubs to make them extremely appealing, not only for different demographics but for economic investment. If the goals of the iON were to transform neighbourhoods within the cities and to encourage economic growth, why did the Region not utilize the approaches in Tachieva's manual, which include a checklist on urban design, and regulatory and implementation techniques. The iON needs to successfully support the daily lives of its riders and promote the station areas, and this is where the iON has missed its opportunity. As seen in Figure 46, four stations out of the nineteen have low redevelopment potential, partly due to the actual location, but partly due to the already existing infrastructure. Northfield Station is the only station in north Waterloo and its development potential is limited. It is severely restricted by the already existing four lanes of Northfield Drive and Highway 7/8. While this station is located near some business like Sunlife, Northfield Racquet Club and the Federal Office for Southern Development, the proximity to the highway makes commuting more appealing. The Region needs to encourage the car dealerships using large spans of land in close proximity to the station to sell. This will allow the Region and Developers to fully achieve the redevelopment potential in this area, which will help to make transit more appealing than driving. Additionally, the Seagram Station is located in an area that was convenient for the route design as there were already existing rail tracks, but not for the intended Wilfred Laurier University users. This station should have been located much closer to Wilfred Laurier University or even, moved further up Seagram Drive. Similar to Northfield Drive, the Borden and Mill Street iON stations are severely restricted by Ottawa Street and Highway 7/8. Although they have low redevelopment potential, these stations will be heavily used as they are the only stations located in this section of Kitchener where residents are of lower incomes and do not have as many options as others areas.

Conclusions:

The introduction of Light Rapid Transit will be good for Waterloo Region, and specifically for the Cities of Kitchener and Waterloo. The three goals identified by the Region for the iON project were to move people, limit sprawl and to protect farmland as seen in *The Story of Rapid Transit in Waterloo Region (2014)*. These goals are admirable, but the Region's main goal was to stimulate economic growth along the iON route. An economic goal is essential to have especially since transit runs on a subsidy (pg. 55, Litman, 2008), but they either should have tried to fulfill their three goals, or adopted a fourth goal to better reflect their economic focus. Transit hubs like Conestoga Mall, Fairview Park Mall, Uptown Waterloo or Downtown Kitchener could be redeveloped to meet the needs of their riders. These areas have high development potential that needs to be captured. The Official Plans needed to be stricter and have stronger connections between the goals of

the Official Plan and how transit, and more specifically the iON could benefit. If the Official Plans were bolder and even more ambitious, they could have helped the iON meet the limit sprawl and protect farmland goals. Along with stronger policy documents, the Region needed to better explain why they felt an LRT was necessary for the future and how it would benefit citizens. Specifically, sections 2-9 of the City of Kitchener's 2011 Official Plan, and schedule B in the City of Waterloo's Official Plan, should have better emphasized the redevelopment potential at the stations. They have rating systems for corridors and nodes, but through this system they should have redevelopment categories. For example, in Schedule B and Schedule B1 they describe how the intersection of Northfield and Weber (which is an iON station) is a minor corridor and a major node with a mix of medium and low residential density and medium to high employment density. Using these designations, there should be another system developed to describe what development should be present. For example, using the high-density employment designation, people should be able to reference another section and see that within the high employment category, there should be offices, retail, and restaurants as these uses generate significant transit use. Additionally, residential designations near stations should be of medium to high density, as this will also generate transit riders.

Were opportunities missed for improving the iON in regards to station locations and the rider experience? Were these missed opportunities a result of political, financial or existing infrastructure constraints? This major project tried to answer this fundamental question by addressing each component separately. Each of the nineteen station locations were catalogued and analyzed to see what is currently present, what the Official Plan calls for and assess the redevelopment potential. The rider experience component was reviewed to determine what features different rider demographics would need and how the route could be improved to better serve their needs. Project constraints were addressed through interviews with politicians at different levels (municipal and provincial) and with civil servants. In combination with research, these interviews demonstrated the specific ways in which politics impacted financial concerns and their implications, the daunting infrastructure constraints, and the route that was eventually chosen. Through research, interviews, analysis and writing it has become clear that the Waterloo Region missed opportunities in improving station locations and rider experience during Phase 1 of the Light Rail Transit project. These missed opportunities were the result of financial, political and existing infrastructure constraints. Station locations could have been improved by including a station at Wilfred Laurier University. Additionally, the lands surrounding stations could have been improved if the Region had considered redevelopment potential and had

reflected these considerations in its Official Plans. The riders' experience could have been improved if stations had been better located and redeveloped into mixed-use areas. Additionally, transit hubs needed to be better emphasized as hubs, with suburban bus routes connecting more frequently and at more locations. This could mean having Grand River introduce more express routes or streamlining already existing routes.

Politics impacted the route as only the cities of Waterloo and Kitchener are receiving LRTs in Phase One, and, as Regional Chair Ken Seiling noted in his interview, Wilfred Laurier entered the discussions too late. Additionally, when Regional Council was voting on the iON, the townships within the Region received voting privileges even though they would not be paying for the iON. Only the three cities, and not the townships will be paying for the project by the way of a property tax increase, along with the Province and the Federal Government (Desmond, 2015). This relates to the financial restrictions the iON had to work with. Seiling said in his July 2015 interview that the route was designed and then priced. If this was the method utilized, why was Laurier not included as a station? Also, the former Provincial Liberal Government of Dalton McGuinty promised that they would fund two-thirds of the project. However, now they are only funding one-third of the cost, with the Federal Government and local taxpayers each contributing one-third (Lynn, 2015).

The iON was impacted by existing infrastructure constraints because Highway 7/8 crosses through the cities and many of the stations are located near the highway or on/off ramps. The Region also wanted to utilize the existing railroad tracks they owned, which impacted the route design. I do not believe the iON successfully met their three original goals. Only the future will tell if I'm right but this remains to be seen. The iON is a project intended for the future, rather than for now, as 2031 is the year the Region is expected to meet the requirements set out by the Places to Grow Act. Mayor Craig of Cambridge described in his July 2015 interview how the Region will say whatever they need to make the iON seem successful. To the degree that the region has not yet successfully fulfilled their goals, Craig is correct. However, if the Region begins implementing the ideas from *The Sprawl Repair Manual*, they may still be able to achieve the original goals.

Even if the iON did not meet their three goals, the project will still benefit the Region. Students graduating from world-class universities might make the Region their home and start families and careers here. Policy Planner Adam Lauder discussed this idea in his March 2015 interview. As the Region welcomes 10,000 new

residents each year (*The Story of Rapid Transit in Waterloo Region, 2014*), traffic congestion will only become worse which will further strain the road network. The iON will be able to capture some choice riders along with those who are dependent on transit to meet their needs. Since the iON is a permanent investment, economic investments will continue to be introduced along the iON route, and more specifically the Central Transit Corridor, creating jobs and a vibrant Region.

Chapter 5: My Recommendations

My recommendations will fall under the following four categories: route alignment, station potential, redevelopment potential and amendments to the Official Plan. The question this project raises and attempts to answer, is whether this impact is predominantly positive. Thus, the goal of this major project was to assess whether the three stated goals were achieved. The previous chapters were intended to introduce the theoretical perspective of the *Sprawl Repair Manual (2010)* by Galina Tachieva, why Waterloo Region believed they needed a more advanced level of public transit, the Proposed LRT itself and finally, an in depth review of the station locations. This section is important, as it will bring information from previous sections together. Specifically, I will make recommendations on the stations locations and policy recommendations in regards to the Official Plan Amendments.

Route Alignment:

The route itself is one of the most important aspects to making the iON successful. As discussed previously, the iON must meet the needs of many people of different demographics, all of which have different requirements. Although this major project's focus was limited to Phase One of the Waterloo Region iON, there were ways it could have been improved. Generally, students are going to be a large portion of transit riders (Jacobucci, 2002). Therefore, the University of Waterloo and Wilfred Laurier University should have each received an iON stop as illustrated on Figure 47, the Recommended Route Alignment map. However, at the moment only the University of Waterloo has an immediate stop, within the 500m pedestrian walking shed. To further support the iON, Grand River Transit could increase the frequency of busses on routes that connect to the iON at key points like Conestoga Mall, Fairview Park Mall, Uptown Waterloo and Kitchener.

Accessibility to transit is important for post-secondary school students, and transit schedules to a certain degree, dictate their school and work schedules. It should have been a straightforward decision for the iON route to be easily accessible at both universities. However it is not. The closest stop to Wilfred Laurier is Seagram Drive and it falls outside of the 500m pedestrian shed as seen on Figure 31. Wilfred Laurier is a major institutional node within the City and the Region, so why is there no station? Both universities should have been treated the same, and should have received stations. This can be partially attributed to the location of Laurier, but also to politics. If Laurier were to receive a station, there would need to be changes to the route alignment of the iON, which could be challenging but possible. Additionally, Regional Chair Ken Seiling described in his interview how Laurier entered the discussions late, plus the University of Waterloo is four times larger (Seiling, 2015). Again, there are compromises being made to the iON because of politics. Within the City of Waterloo's Official Plan, they refer to Protecting

Waterloo's knowledge economy and both Universities are listed. Section 7.7.1 describes how the City will assist educational institutes with their long-term goals. Easy access to an LRT would greatly benefit Wilfred Laurier University and their long-term goals. The three goals of the iON are to move people, limit sprawl and to protect farmland, but in order to better fulfill these goals; the physical route of the iON needs to be changed. The most obvious example is Wilfred Laurier University. Students make up a significant portion of transit riders (Jacobucci, 2002), and transit needs to service their needs.

In addition to adding a station at Wilfred Laurier University, the iON route should have included stations within the 500m pedestrian shed with stations being one kilometer apart that way all adjacent users have access within 500m. Ideally, the Region would be able to transform the immediate area around the station into a mixed-use transit hub with business and services that would attract those who are dependent on transit, but also the choice riders the Region of Waterloo needs to convert. Transforming the immediate area around a station with mixed uses would have helped to create the demand for the LRT. Grand River Transit has seen an increase in ridership each year (Blair, 2015) as discussed in the Region of Waterloo's Transportation Master Plan and the Region should use that information as motivation to improve transit. They should designate major roads like Homer Watson Boulevard, Northfield Drive, Highland Road and Weber Street as minor transit corridors served by very frequent bus service, like they did with Uptown Waterloo and Downtown Kitchener's King Street and implement similar principles. These additional transit corridors should have the same height and density requirements as the properties along the iON, as they can further support the Region's commitment to the iON and achieving the population and employment targets in the Provincial Growth Plan. Additionally, these corridors should have increased frequent bus service and the Region should examine the redevelopment potential along these routes. The additional recommended station location at University and King, instead of Seagram Drive can be seen on Figure 47, Recommended Station Alignment, as well as the additional designation of major roads as minor transit corridors.

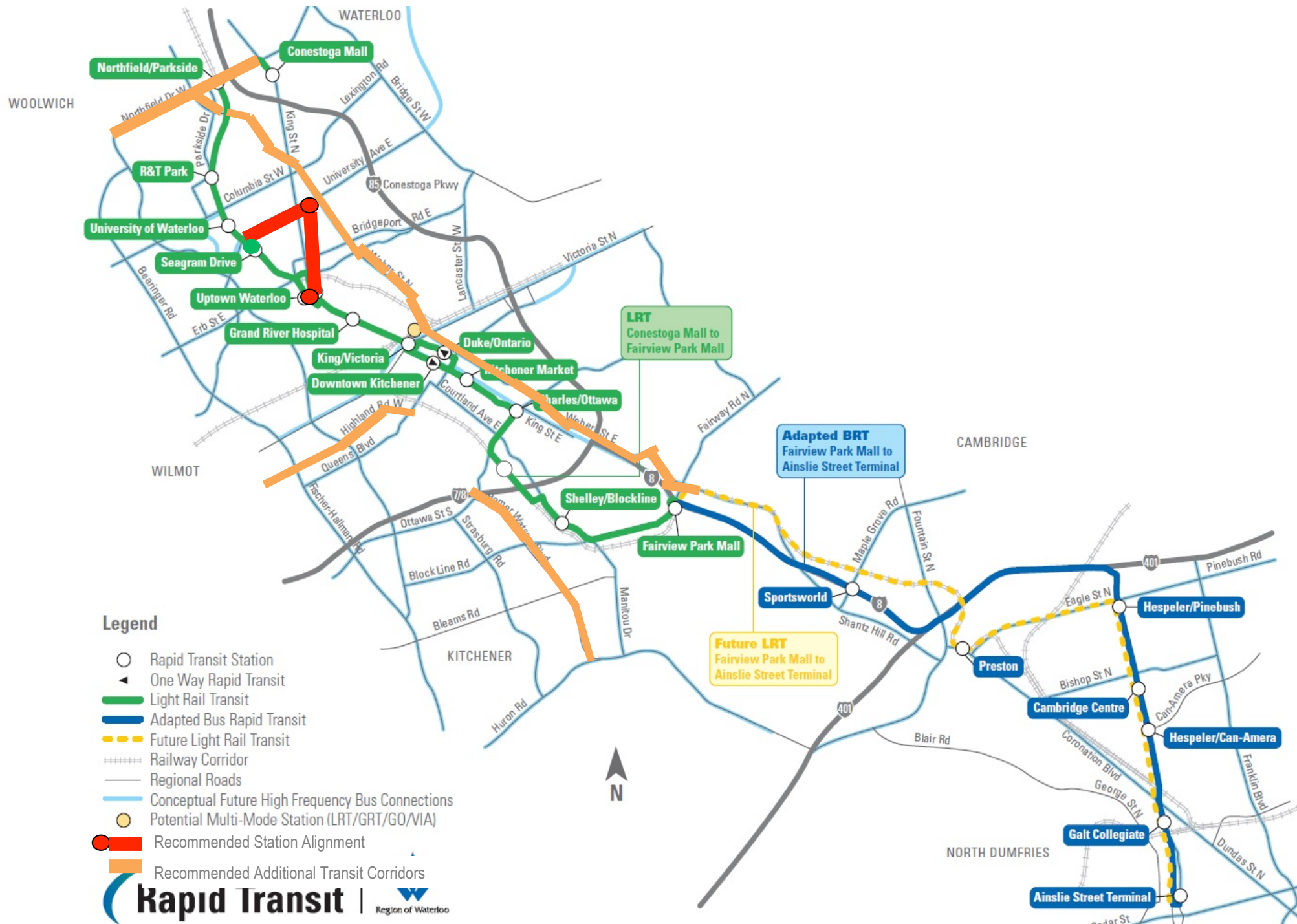


Figure 47: Recommended Station Alignment and Minor Transit Corridors

Station Potential:

Unfortunately, there are three stops with low development potential, including Seagram, Borden and Mill. These three stops each present their own issues with location, proximity to major infrastructure or simply being a poor choice of location. Northfield Drive, the second station on the iON is located in an area with a lot of business that are dependent on automobiles, this area has medium redevelopment potential, but it is restricted by its location. There are large amounts of land sitting empty surrounding the station, but they are used as storage lots for the nearby by car dealerships. Additionally, the Highway 8 on and off ramps are located within 500m of the station and, along with the four plus lanes of traffic, present major obstacles for development. I understand why this location was chosen because it is near companies like Sunlife Financial, Northfield Racquet Club and the Federal Office for Southern Development. This station will be used by a variety of demographics, but there is restricted redevelopment potential due to existing infrastructure. It should be noted that this is the only station on the North end of Waterloo. The large parcels of land being used by the car dealerships for storage have massive amounts of development potential and should be treated as such by the Region. The Region needs to encourage the dealerships to sell these large parcels of land to developers. With the purchase of these lots, developers will be able to support the Region's three goals with the LRT by creating mixed-use developments that house a variety of services and businesses.

In my opinion, the Seagram station was a poor choice and should be relocated to University and Albert Street to better serve Wilfred Laurier University. Through my interview with Ken Seiling, I began to understand that this is the closest station to Wilfred Laurier University but it is outside of the 500m pedestrian shed. This station is located near both Universities and attractions like Granite in the Park, Waterloo Park and University Stadium but there are many other locations that would have been a better choice. This spot was chosen because the Region could use the already existing tracks and they did not have to buy massive amounts of property like they did with other locations. This is an example of the iON being compromised by existing infrastructure constraints. This station should have been moved either directly onto the Wilfred Laurier campus, or at least within the 500m pedestrian walking shed. Moving this station further up Seagram Drive toward Albert Street would have been much more acceptable as it would be within the 500m of the Laurier Campus, but it would also be near an elementary school, retirement homes and residential. Moving this location would impact the next station, Willis Way that has medium development potential, but that station is located less than 200m from another LRT station. To me, the Seagram station is a poor choice of location and last minute thought to appease Wilfred Laurier

University. The Region can tell citizens that both Universities are located near iON stations, but realistically this is not the case. The Borden and Mill stations present the same problem. They have low development potential, but without these two stations an entire section of Kitchener would not have easy access to the iON. I do believe the two stations will be used heavily as there are lots of commercial plazas but also residential areas for lower income families that are dependent on transit. It is good the Region put stations in these locations, but they cannot expect massive amounts of development surrounding the stations since it would only raise the cost of living for those who are already struggling. The Region needs to be aware of gentrification in the Borden and Mill Street area with the iON being present. To protect these areas from gentrification, when the Region and City of Kitchener are updating their Official Plans, they need to include policies that protect these locations from massive redevelopment, which would force current residents out due to the increased high cost of living. The area residents are reliant on transit and have just as much of a right to transit as other citizens (Garrett & Taylor, 1999).

Redevelopment Potential:

After reviewing multiple documents from the Region (*Multiple Account Evaluation, City and Regional Official Plans, Transit Project Assessment Public Consultation Process, The Story of Rapid Transit in Waterloo Region, What is the Project About?* and *Transportation Assessment Plans*), and interviewing Cambridge Mayor Doug Craig, it became clear that the main focus of the iON was economic development. Having an economic focus is a good idea, but in conjunction with this, people should have been more of a focus. An economic focus is important to have, but it should not have been the only mindset the Region used. Previously, in the third chapter of this major project titled *Cataloguing and Mapping*, each of the nineteen station locations were catalogued and analyzed based on a set of criteria. One of the criteria was redevelopment potential for the area; i.e. whether the presence of an iON station location will allow for intensification and mixed uses, and whether it has the physical capacity for changes to the surrounding area (500m pedestrian shed). The stations were rated using a low, medium or high rating system with the stations ranking as follows in Figure 46;

Station Name	Redevelopment Potential
Conestoga Mall	High
Northfield Drive	High
Research and Technology Park	Medium
University of Waterloo	Medium
Seagram	Low
Willis Way	Medium
Uptown Waterloo	Medium
Allen	Medium
Grand River Hospital	Medium
King/ Victoria Transit Hub	High
Gaukel	Medium
Benton	Medium
Young	Medium
Frederick	Medium
Cedar	Medium
Borden	Low
Mill	Low
Block Line	Medium
Fairview Park Mall	High
Low Total: 3	
Medium Total: 12	
High Total: 4	

Figure 46: Redevelopment Potential

Both malls were given a high redevelopment potential label because of the potential discussed previously using Galiana Tachieva's ideas from the *Sprawl Repair Manual* (2010). The large amount of land currently dedicated to parking can be completely redesigned to allow for parking structures, which then in turn can intensify the current mall structure. This means building smaller buildings in old parking sections with mixed uses which can support other services in that location like offices, government services, retail or residential. Similarly, the King and Victoria Transit Hub was given a high redevelopment potential label because of the

current investments taking place and the future development potential. Originally, the immediate area of King and Victoria consisted of abandoned factories and apartments. Then, the University of Waterloo bought the land to build two campuses; the School of Pharmacy and the Health Sciences Campus with McMaster University. This announcement sparked massive amounts of development that allowed for world renowned companies like Google and Desire2Learn to build architecturally interesting offices through renovating buildings like the Tannery. Along with the development of the University campuses and office parks, old factory warehouses have been converted to the very desirable loft condo style that is popular with the younger demographic. This includes students attending the two campuses and professionals working at Google and the other tech companies in the Tannery. According to the City of Kitchener's 2011 Official Plan in section 2-9, the King and Victoria Location will have a minimum of 225 residents and jobs per hectare, it will be planned as a regional and city wide focal point and finally, it will serve as a residential intensification project as well as investment; institutional, public services, commercial, office, recreational and culture center.

The majority of stations were given a medium redevelopment potential label because they are located in the Central Transit Corridor and must meet intensification targets set out by the Region. These locations serve a variety of purposes like community health services, residential, institutional, commercial and recreational but are somewhat restricted by their locations. They are in fairly established areas with redevelopment potential, but not to the same extent as Conestoga and Fairview Park Malls. Ideas from the *Sprawl Repair Manual* (2010), such as connecting thoroughfares, can still be applied to thoroughfares, but already existing area specific goals should be kept in mind. Figures 17, 21 and 26 demonstrate some of the potential of Tachieva's concepts.

Amendments to the Official Plan:

In all Official Plans, there needs to be a better connection between the stated goals and how transit, more specifically the iON, can be enhanced. Transit is a significant focus of discussion in the 2011 City of Waterloo Official Plan, especially in Chapter 6, which is dedicated to transportation. However, neither the iON, nor Light Rail Transit are specifically mentioned. This is concerning as the iON is set to be in service in 2017 and development has to follow the 2011 Official Plan. The opportunity exists as the Region is updating their Official Plan for 2016 to make the stronger connections between the iON's three goals, the Region and how

transit can be enhanced. Strict guidelines are needed that clearly describe what is allowed and what is not allowed. The iON will have an enormous impact on the Region, and the Region needs to be in control. Proven strategies from *The Sprawl Repair Manual* (2010) can be incorporated into the updated plans to further reinforce the Regions, and the three Cities commitment to transit, and specifically the iON. They should have policies dedicated to each of the three goals, reduce sprawl, protect farmland and move people, as well as policies for economics as it could be considered a fourth goal of the iON.

Specifically, in Section 2-9 of the City of Kitchener's Official Plan, and schedules B and B1 of the City of Waterloo Official Plan, the residential and employment densities need to be increased to further develop station locations. These designations are useful because they can be used to create a system that is specific and clearly lays out what should be included in each designation. For example, when a location is designated as being a major corridor/ major node with high residential and employment designations like the Conestoga Mall station, there should be another schedule that says these mixed uses are recommended as they generate high transit use and will ensure this location meets its designations and development potential. If high employment stations were to require a mixture of offices, retail and restaurants among other uses, it would attract more people, and stimulate economic investment, which the Region wants. When The Region of Waterloo and its cities are updating their Official Plans for 2016, they need to integrate this Recommended Mixed Use Schedule as the iON will become extremely important to the area and the massive investment in transit needs to be supported. This schedule will help to ensure that the Regions three goals with the iON are being achieved, which will result in further economic development along the route. This idea is supported Tachieva's research. She notes on page 34 that: "the repair at the regional scale identifies redevelopment of existing commercial nodes based on efficient spacing for transit. After their transformation, these nodes will become mixed-use neighbourhood centers, town centers, and regional urban cores, ideally in proximity to transit stops". In addition, if a high residential designation required a mixture of townhouses, apartments, duplexes and semi detached houses this would allow for people to live near a station that would be required to have mixed uses. These ideas are supported in *The Sprawl Repair Manual*, where Tachieva states on page 55: "Sprawl repair will have wide socio-economic benefits for the failing developments. The transformations of these single-use enclaves into vibrant, walkable, mixed-use communities will make them attractive for the upcoming market segments (Baby Boomers and Millennials), which may stop and even reverse the declining real estate values. Adding density will support the existing businesses, create the basis for new ones and support mass transit." The proliferation of large low density lots that are currently being used by car dealerships along the iON need to be converted into high density mixed use developments. This will further show the Region's commitment to the iON and

the lots have great potential. Under the Official Plans, there should be policies encouraging the sale of these lands to developers who will then follow guidelines set out by the Region. These guidelines should incorporate Tachieva's methods from *The Sprawl Repair Manual* (2010), to create mixed use spaces that are pedestrian friendly and will attract more riders to the iON.

The Region of Waterloo is trying to position itself as an area where young working professionals would like to raise their families. As City of Waterloo Planner Adam Lauder notes in a March 2015 interview, Waterloo trains students at their world-class universities, but once they graduate they leave for bigger cities like Toronto. He thinks part of the reason for this is the access to different levels of transit, but also the urban form and the "feel of the city". He thinks with the iON, some of the students will be willing to stay in the Region. As stated many times, while the iON project has three valid goals, I believe the Region should have looked at other cities of different sizes to see what made them successful and what they learned from their mistakes. They may have used other cities as examples, but this is not made clear in any of their policy documents or promotional materials.

Although Waterloo Region only has a population of 507,096 according to the 2011 Census (Region of Waterloo, 2012), the population is expected to increase significantly, with an expected 200,000 new residents by 2031, which is the equivalent of 10,000 per year partly because of the Places to Grow Act and the lower cost of living than other cities like Toronto or Hamilton (*The Story of Rapid Transit in Waterloo Region*, 2014). The Region is correct in recognizing that now is the time to implement better transit to reduce stress on infrastructure and support continued growth in the future. The Region could have looked at their policies to see what their goals are and translate them to their own policies. They could have looked at similar sized cities like Denver, Colorado and St. Paul, Minnesota's light rail systems to see what worked for them, what they learned and how it can be applied to the iON.

Phase One of the iON will be beneficial to the Region of Waterloo, and specifically the cities of Waterloo and Kitchener. Without a doubt, the iON will become an economic lever for the Region and will help with the expected population growth. Without the Region introducing a higher level of transit, they would have needed to build another 500km of new road while the demand on the already aging road infrastructure increases (*The Story of Rapid Transit in Waterloo Region*, 2014). The Region needs to be applauded for being ambitious enough to introduce an LRT as they will be one of the smallest areas with such a high level of

transit. To further improve the iON, the Region should consider adopting the seven recommendations I have discussed. The clearest recommendation is moving the Seagram station further up University to University and Albert Street that way it is directly across from Wilfred Laurier University and therefore within the 500m pedestrian walking shed. This brings up the second recommendation; stations should have been approximately one kilometer apart to maximize the ridership base. Thirdly, the Region and cities needs to further develop their policies within their respective Official Plans to transform the immediate area around stations to incorporate concepts from the *Sprawl Repair Manual* (2010). This will benefit the economy, but also the rider's experience. In a similar sense, the Region should have considered the redevelopment potential at stations, like the large lots being used for storage by car dealerships, and developed policies for these areas that meet specific height and density requirements. Also, the Region needs to designate major traffic routes as minor transit corridors and use their already existing policies to require specific height and density requirements along with mixed-use developments. The Region must also address the potential gentrification the iON will cause at station locations and develop policies that will insure the existing affordable housing is protected. In their Official Plan update in 2016, there needs to be policies that will protect those who are vulnerable. And finally, in the Official Plans of the Region and of the cities, there needs to be a stronger emphasis on the iON. They need to clearly explain the four goals (reduce sprawl, protect farmland, move people and promote economic development) and how they plan on achieving these goals, how the iON will benefit the Region and how the iON will benefit their citizens in their daily lives. Some of these recommendations require a lot more effort, time and resources than others, but thankfully the majority of my recommendations are policy recommendations. The opportunity presents itself with the updating of the Official Plan in 2016. The Region of Waterloo, its cities and households, both existing and future, will greatly benefit from the iON. To realize the full potential of iON and fulfill the Region's stated goals for this major infrastructure project, the Region and the cities of Kitchener and Waterloo, and Cambridge in phase two, must adopt the recommendations I have presented in my project. Proper implementation will insure a successful transit project that is fully integrated into the daily lives of its citizens.

Chapter 6: References

References:

Allen, Blair. (2015, March 4). [Personal interview].

Archived Maps (2009, June 1). Retrieved October 31, 2015, from <http://rapidtransit.regionofwaterloo.ca/en/projectinformation/archivedmaps.asp>

Bascaramurty, D. (2015, April 10). Places to Grow: Ten years later, is this progressive act a success or failure? Retrieved June 13, 2015, from <http://www.theglobeandmail.com/news/toronto/places-to-grow-ten-years-later-is-this-progressive-act-a-success-or-failure/article23886492/>

Berkovich, K. (2015, June 1). Ontario coming up short on Ion funding for Waterloo Region. Retrieved June 26, 2015, from <http://www.therecord.com/opinion-story/5652289-ontario-coming-up-short-on-ion-funding-for-waterloo-region/>

Brennan, R. (2014, July 25). MPPs in commuter towns spending thousands on Toronto pads. Retrieved May 23, 2015, from <http://www.therecord.com/news-story/4690113-mpps-in-commuter-towns-spending-thousands-on-toronto-pads/>

Central Transit Corridor Community Building Strategy. (2013). Retrieved May 23, 2015, from http://issuu.com/urbanstrategiesinc/docs/cbs_open_house_panels_for_web_c

Craig, D. (2015, July 10). [Personal interview].

Desmond, P. (2015, January 21). LRT Spending a Challenge for Waterloo Region Budget. *The Record*. Retrieved November 17, 2015, from <http://www.therecord.com/news-story/5269135-lrt-spending-a-challenge-for-waterloo-region-budget/>

Desmond, P., & Outhit, J. (2015, May 27). Province's LRT funding in Hamilton 'injustice,' councillor says. *The Record*. Retrieved July 18, 2015, from <http://www.therecord.com/news-story/5645839-province-s-lrt-funding-in-hamilton-injustice-councillor-says/>

Fillion, P. (2013). Automobiles, highways and suburban dispersion. In R. Keil (Ed.), *Suburban Constellations: Governance, Land and Infrastructure in the 21st Century* (p. 82).

Garrett, M., & Taylor, B. (1999). Reconsidering Social Equity in Public Transit. *Berkeley Planning Journal*, 13, 6-27. Retrieved January 19, 2015, from <http://www.uctc.net/papers/701.pdf>

Guerra, E., Cervero, R., & Tischler, D. (2011). The Half-Mile Circle: Does it Best Represent Transit Station Catchment. Retrieved October 2, 2015, from <https://escholarship.org/uc/item/9jd6r1t9>

Harris, R. (2004). *Creeping conformity: How Canada became suburban, 1900-1960* (p. 68). Toronto: University of Toronto Press.

Jacobucci, C. (2002). *Impact of Discounted University Student Transit Fares on Winnipeg's Public Transit System*. Winnipeg, Manitoba: Institute of Urban Studies.

Krizek, K., & El-Geneidy, A. (2007). Segmenting Preferences and Habits of Transit Users and Non-Users. *Journal of Public Transportation*, 10(3), 71-94. Retrieved August 13, 2015, from <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1247&context=jpt>

Lauder, A. (2015, March 5). [Personal interview].

Litman, T. (2008). Valuing Transit Service Quality Improvements. *Journal of Public Transportation*, 11(2), 55-55. Retrieved September 2, 2015, from <http://www.nctr.usf.edu/jpt/pdf/JPT11-2Litman.pdf>

Lynn, F. (2015, May 29). Waterloo Region shortchanged on transit funding, opposition MPPs allege. Retrieved June 26, 2015, from <http://kitchener.ctvnews.ca/waterloo-region-shortchanged-on-transit-funding-opposition-mpps-allege-1.2398020>

Moore, A. (2013). *Planning politics in Toronto the Ontario Municipal Board and urban development*. Toronto, Ontario: University of Toronto Press.

Multiple Account Evaluation. (2009, June 1). Retrieved May 5, 2015, from <http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/resources/maereportjune32009.pdf>

N.A. (2014, January 10). Dave MacDonald first to register candidacy for mayor of Waterloo. Retrieved June 20, 2015. <http://kitchener.ctvnews.ca/dave-macdonald-first-to-register-candidacy-for-mayor-of-waterloo-1.1633499>

Ontario, P. (2005). Places to Grow Act. Retrieved May 13, 2015, from <http://www.ontario.ca/laws/statute/05p13>

Orman, S. (2015, April 20). ION LRT: Providing the Region of Waterloo with a Vital Transit Corridor. Retrieved May 30, 2015, from <http://www.businessreviewcanada.ca/Region-of-Waterloo-Rapid-Transit-System/profiles/126/ION-LRT:-Providing-the-Region-of-Waterloo-with-a-Vital-Transit-Corridor>

Population of census metropolitan areas. (n.d.). Retrieved May 29, 2015, from <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo05a-eng.html>

Region of Waterloo. (2015, May). ION LRT Stop Anchor Wall Designs. Retrieved June 16, 2015, from http://rapidtransit.regionofwaterloo.ca/en/resources/ION_anchor_wall_design_boards_for_PCC.pdf

Region of Waterloo. (2014, February). Waterloo Region's New Community Building Strategy. Retrieved August 13, 2015, from http://www.regionofwaterloo.ca/en/aboutTheEnvironment/resources/2014_CBS_Region_News_Insert_accessible.pdf

Region of Waterloo. (2012). Transit Project Assessment Process Public Consultation. Retrieved June 23, 2015, from http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/resources/2012_rt_tpdisplayboards.pdf

Schaffer, D. (1991). After the Suburbs. *Built Environment*, 17 (3), 242-256.

Seiling, K. (2015, July 8). [Personal interview].

Sewell, J. (2009). *The shape of the suburbs understanding Toronto's sprawl* (p. 179). Toronto [Ont.: University of Toronto Press.

Tachieva, G. (2010). *Sprawl repair manual*. Washington: Island Press.

Tachieva, G. (2010). Sprawl Repair Manual. Retrieved May 20, 2015, from <http://www.sprawlrepair.com/GalinaDPZ.html>

The Story of Rapid Transit in Waterloo Region. (2014, January 25). Retrieved May 13, 2015, from http://rapidtransit.regionofwaterloo.ca/en/resourcesGeneral/IONStory_final.pdf

Vernille, D. (2015, July 29). [E-mail interview].

Appendix:

Lead Researcher:

Amanda Wyszynski
York MES Student

Interviewee:

Geoffrey Keyworth, P.Eng, MCIP, RPP
Senior Transportation Planning Engineer

Location:

Regional Municipality of Waterloo
150 Frederick Street
Kitchener, Ontario N2G 4J3

Date:

Tuesday March 3rd, 2015
10am – 10:40am

Amanda: Do you think people want improved transit in the suburbs?

Geoffrey: I think the answer to whether or not people want improved transit in the suburbs is generally yes, or as far we know. So what we typically do with the Transportation Master Plan is public opinion surveys, ask people about how they get around, what they value and things like that. There was a public opinion survey done about attitudes, and things like that back in 2007, which was our last Master Plan. So they asked people a variety of things, do they want better transit, do they use transit. In general, we may not know if that respondent is in the suburbs but in general, people say that they do want better transit and that they would be willing to use transit. So in the suburbs, I would think that it still holds true.

Amanda: Okay, excellent. Do you think it is possible to integrate better public transit into the suburbs?

Geoffrey: Well, I'm not a public transit planner so whether it is possible to integrate it better, I would say the answer in general again is yes. Can public transit be integrated into the suburbs, what they really mean is does transit serve the needs of the people in the suburbs, for them to get around. So is it convenient to get to, does

it go where they want to go, does it have frequent service. So its always possible to do those things. There's a variety of ways to do that so I don't know if you want me to get into these, but some of them are harder then others.

Amanda: Well, the center of my thesis is whether or not public transit should be run as a public service or run as a business? Because you can't do both. Like you can in theory but it doesn't serve the current needs if it is, so that's kind of what I'm trying to answer. Just to give you an idea.

Geoffrey: Okay. I'm mean the short answer is it possible to integrate better transit into the suburbs.

Amanda: Okay, alright.

Geoffrey: There is a variety of ways of doing it, we can get into it but yeah.

Amanda: Alright, that's good enough for now. What do you think are the main barriers or opposition to improving transit in the suburbs?

Geoffrey: So, I think in terms of the main barrier, like lets say a physical reality, or a taking the people out of it for a minute, it would be the lack of density.

Amanda: Yes, for sure.

Geoffrey: So this is pretty incontrovertible evidence to support transit, is better when there is higher density. More people, more activities, proximity to one another. They need to be able to walk to and from things because it will not drop you off at your door right, so you have to be able to walk. They call it the last mile. That's the suburbs. They didn't really use a defined term of the suburbs so I'm going to go with the standard type.

Amanda: Yeah, just the general standard definition.

Geoffrey: That's the main issue with them, they tend not to have a very high density. So that is certainly a barrier to transit service for sure. Another one would be typically street pattern. Which is really related to density anyways. But the street patterns do have an issue. Suburbs also, especially the really planned ones. This is getting a bit different but those with the monolithic land use. Right. Everything is a house or right.

Amanda: Everything is industrial.

Geoffrey: Exactly. Everything is an industrial business park. So that kind of thing. So in that sense, transit thrives on mixes of uses or at least it facilitates that. So that also can be an issue. In terms of opposition, looking at that in regards to public attitudes, historically, I think this is changing, but sometimes people who use transit are perceived less well, either they were poor or they were losers, and things like that but the suburbs, well this is stereotypically frankly, but you have your house and your two car garage, or whatever, if you are using transit, there still might be some lingering stigma.

Amanda: That's actually my next question.

Geoffrey: That may pay apart, but the physical barriers. So going on with your next question about stigma, I don't think it is very strong, anymore, but certainly there was. It's a known thing. And the stigma is still there, but I'm not going to say it's gone entirely, so the simple answer is yes, there probably is still a stigma, but I don't think it is a very strong one.

Amanda: Okay.

Geoffrey: You're focus is on the suburbs so there might be a stronger stigma in the suburbs than in the bigger cities like Toronto for example.

Amanda: Yeah, I actually lived in Toronto so.

Geoffrey: So there's almost no stigma with transit or at all, especially with the subway or something.

Amanda: That's the thing about subways, you'll see someone of lets say a lower income, they'll get off and the next person will get on will be someone in a \$2,000 suit. So it's a really interesting juxtaposition.

Geoffrey: So that's they way it goes with higher order transit. Higher order transit typically has less stigma associated with it than busses.

Amanda: Yup. Diffidently, that's a good point. How do you think transit will benefit those living in the suburbs?

Geoffrey: Okay so that's specifically for the suburbs?

Amanda: Yes.

Geoffrey: So getting back to the barriers, we mentioned earlier, density being the major one, and also. So how can we improve transit in the suburbs?

Amanda: So this is going back to the question, should transit be run as a business or a service.

Geoffrey: Yeah, I guess I disagree with the premise.

Amanda: Okay.

Geoffrey: So, I'm not going to engage on that one particularly. I'm an engineer so you're probably talking more about methods and things like that. So the Region has shown that if you throw more transit service out there, people will generally use it. Generally. So that would be to improve transit in the suburbs, one way to improve it would be to provide more service. And that's a very simple, but it's expensive. But it's fairly simple. We find that people tend to think the main issue is the schedule. Not so much what the schedule is but the fact that there is one. So because your competition is the car and for cars you can get in whenever you like, there's very little schedule. You just get in your car and go. So where as with transit you have to think, you have to plan your day to the minute of the schedule. So the less of a schedule there is, the more easier it is to use transit. So from that point of view you can. I live in an old suburb close to uptown Waterloo, so I live 200m from the main transit line so there's enough buses on that line, buses every 5 minutes or less, so basically there is no schedule. I just go out and something will come very soon and I'll take that. But someone who has a bus coming every half hour or so, they have to literally plan or else they'll miss the bus and wait another half an hour. So from that point of view, providing more service, frequency, you would reduce the power of that schedule over people's lives. So that's certainly one way of improving it, not a cheap way.

Amanda: No diffidently not. So that kind of answers question six as well.

Geoffrey: Oh, actually that was sort of what I was answering. How else can you improve transit? Well in the suburbs often times the rider amenity, in particularly the stop, tends to be under developed. So it might just be like a sign on a steel post in some grass.

Amanda: That's exactly what the bus stops are in my subdivision.

Geoffrey: Yeah so the amenity there is very poor so you're waiting experience is poor. Providing shelters, hard surfaces, maintaining those services and clearing the snow. All those do contribute to people's experience and improving transit. There's a study I saw recently that compared the experience of waiting for the bus at a stop with no amenity what so ever, to a basic shelter or an elaborate shelter.

Amanda: That would be an interesting study to read.

Geoffrey: So it turned out that with no amenity, the wait was perceived to be longer than it actually was. Where as if there was, even a basic amenity, or the improvement of an elaborate shelter, was essentially none. The basic shelter made it so the waiting was much more pleasant, or at least it wasn't as bad.

Amanda: Oh cool. Do you know where this study took place?

Geoffrey: I think it was Minneapolis. Yeah so that's another way to improve transit in the suburbs for sure. Technologies is always something we're pursuing, so real time information. I'm always thinking of way to push that out to people who don't have a smart phone because there's lots of older people who don't want to carry a smart phone, but real time information will still benefit them. The short answer is, yeah technology can always improve that. Some process can also help. Some transit agencies in the evening, late at night will stop the bus at any request stop, which they can realistically do on a busy corridor, which essentially drops you off almost at your door. So that's a small benefit. And also integration of modes. SO bike racks on busses for example. Another one that isn't thought about in the suburbs is more interconnected pedestrian trails so that you can use. If you have a curvilinear street, it's a really long walk to the bus stop. Being able to cut through two houses your pedestrian distance is shorter than your car distance.

Amanda: I actually read something about that they don't like doing it because if you have a path, the property on both sides is perceived to be lower. So something along those lines.

Geoffrey: That's probably true, but that's one way to improve it. Essentially, what you're doing you're reducing the competitive disadvantage of transit. So going back to number five, how do I think it will benefit those living in the suburbs? There's lots of people that get around by car everywhere, so essentially its just more choice. If someone has more choice to get around, it benefits their life. That's the short answer for it.

Amanda: That works, so question seven.

Geoffrey: Will there be improved transit equity through a physical/ social connection for those who are dependent on transit?

Amanda: What I was thinking with this question is the elderly. For example, my Grandpa would not have been able to go to his social clubs without transit. Without the transit, he wouldn't have been able to socialize with his friends or his community.

Geoffrey: I'm still not sure of the question, what are you trying to get at?

Amanda: This question was intended more for the policy planner anyways so we can skip this one if you want.

Geoffrey: I'm just trying to understand it. I think the answer is yes. Essentially getting back to what I was saying in question five, not everyone can drive either their car is in the shop, they're too old or someone has their car, too expensive or they don't want to drive anymore, or whatever the reason. Increased mobility is a benefit to them.

Amanda: So it just goes back to more choices.

Geoffrey: Yeah.

Amanda: Okay. Alright, so what is your general impression on the Waterloo LRT? Will it benefit the City and Region? Was there enough public consultation?

Geoffrey: Absolutely.

Amanda: Okay good. I was assuming that would be your response.

Geoffrey: Absolutely. And yes there was enough consultation. Public consultation is a bit challenging because there is never enough. If someone feels they weren't consulted, then no there wasn't enough. That's kind of the principle of it, you have to consult as widely as you can. But there was certainly extensive public consultation, even unprecedented public consultation. It was heavily consulted on. It is disingenuous for people to say there wasn't, its ridiculous. There was any number of events, methods, it was widely consulted. I mean, you can always do more but it would say diffidently it was well consulted.

Amanda: Because we're kind of taught, at least from some of my professors in planning school that the problem with some public consultation is the time of meetings, as that they will do them either during the workday or after when people are working or taking care of children or family. But again, there's sort of no other time to schedule it. Just things like that.

Geoffrey: Well I don't think we did many consultations during work hours, although there were some.

Amanda: I went to a couple meetings on the weekend held at the library, and they had the full model and information.

Geoffrey: Yeah, we experimented with all sorts of things. Like there was online consultation, phone, twitter chat, a Facebook page, so that's all non-scheduled consultation and comment whenever you want. They had a storefront in the transit corridor so you could go whenever you liked, they had multiple public consultation centers. So it was pretty significant.

Amanda: Yes, diffidently agree. Alright, so do you think transit has become more dominant in the City discussions? If so why?

Geoffrey: It certainly has, especially in the last five or so years. Locally here, and I think in general. So why has it become more dominant, probably because there's a variety of things, but I think its becoming more clear that the old adage of building your way out of congestion is not really reasonable, or workable. So that message is finally starting to sink in. Gas prices were high, and sufficiently high for sufficiently long enough for people to realize there's a real cost to it. And the equity argument is certainly holding some.

Amanda: Do you think its more of our generation has been pushing for it and the baby boomers are being phased out so our perspective is coming in?

Geoffrey: I think it's probably the conversation. The baby boomers are not being phased out; they are the ones who are in power. To have that conversation they have to be engaged in it, so young people are certainly working on that conversation but baby boomers are engaged in it as well.

Amanda: Cool, alright. So why do you think some cities have been more successful in implementing better transit strategies more than others?

Geoffrey: This one is a very interesting question. Why have they been more successful?

Amanda: Because I was thinking about doing a comparison of the City of Waterloo and the City of Barrie. They're both somewhat similar, they're both designated as Places to Grow, similar populations, similar geographies to a certain degree they have a lot of similar characteristics but yet Barrie has barely any public transit. Whereas Waterloo now has the LRT and Grand River Transit, bike shares and car shares.

Geoffrey: Alright, so the problem is that they are comparable but there also not. In the sense that the City of Waterloo, you're almost better to compare the city of Cambridge as it's the same size, because of where it is, south of the 401. It's more isolated. In term of size, Barrie was about 130,000 and Waterloo is about the same. Saying that they're comparable, sometimes they are and sometimes they're not. So can we say that, it's difficult. More generally, why have some cities been more successful is probably, I guess that answer to your question is it citizen involvement, economic reasons, environmental, I would argue its less environmental. The public is engaged in the environment, but really, wealthy nations in North America the environment is not really a concern in the sense that its not like Beijing where we have horrendous air quality, which is recommended that people should take transit. A physical reality in front of our face, its more of a social construct, its something that we

should be doing, not that it's a matter of life and death. From that point of view, I would say that the environment is not much of a consideration. It's more of an economic. Do high gas prices play into it? Some of it is programmatic, was that city successful in implementing a UPass program? That's a lot of the success of our transit, because of the universities. So other cities don't have that opportunity that Waterloo had. We have two universities and a college, and the college wants the UPass program but we're saying thank you for your interest but it's really expensive to serve you. So that's a problem. But anyway, part of it is just opportunities.

Amanda: Okay, awesome. Why do you think our culture is so dominant on cars? Is it because of our urban form, the economy or convenience?

Geoffrey: Wow that's a very big question. I would say, my personal take on it is that a lot has been said on the North American love of the car, but certainly there is that cultural component of it, but the real issue is that why has the car culture come about in the first place? There's two bits to that, one is that the North American freedom, the value of freedom, so the car is the ultimate transportation mode that provides personal freedom. You can go wherever you like, wherever you like, by yourself, it's an expression of that. The other part is that, this is probably getting to the route of it, is that the car is an amazing piece of technology, they are so transformative. Especially modern car, they are extremely reliable, they are safe, fast, carry heavy loads, and there are a number of huge advantages of having a car. It's kind of natural we've built our society around that because in a way, we are in a way leveraging that advantage. In a sense, it's not really a surprise. But there are also downsides, but inevitably there are down sides to everything, and we're experiencing those right now. The car is not evil, it's an amazing invention.

Amanda: Okay, that's a pretty interesting answer, most people are like the car is awful, it has a strain on us but that's an interesting answer. Alright, so finally, do you think it is possible to change the mindset of citizens of the suburbs? Is it too engrained/ have to wait for the next generation or is it possible at all?

Geoffrey: The research I've seen suggests it's difficult to change people's behaviour. So modifying behaviour is possible, but it's a challenging long-term endeavour, and it's kind of like smoking, or the use of seatbelts. There are people out there that you will never reach them, you may eventually reach them through the messaging or through their kids, or social pressure. Is it possible? Sure, it's possible. Is it easy? No, definitely not. Typically, for government actors, we try not to be so heavy handed about it, you can imagine changing behaviour by imposing a tax, that's one way of doing things, we typically try not to because it's pretty hard on people, and it tends to make you unpopular. But yes, it is possible and there are examples of places that have done that, so it is certainly possible but it is not easy.

Amanda: Alright, so that's actually all the questions that I have, so I don't know if you have any general comments of any questions for me.

Geoffrey: Well like I said it is definitely interesting research, but I would question the comparison of Waterloo and Barrie. You may want to be careful of the size of the community, and obviously you're doing that but it's an interesting comparison and one thing that I didn't mention in any of this, is that there's transit but there's also interregional transit, like GO trains and Greyhound busses that another animal entirely. So Waterloo has suburbs, is Waterloo an exurb of Toronto, we would say no. The Region prides itself on being self-contained, and about 90% of our transportation needs is local, and the 10% is Toronto or externally so, from that point of view we are

largely self contained, but not to cherry pick anyone, but Mississauga or the Region of Peel for example, they are much more tightly integrated with the whole GTA so they are less internally focused, they have, we call it interregional trips. So what does that mean? So that kind of gets back to the question of this? Are we doing long distance heavy rail or are we doing local inner city stuff. That has different behaviours.

End of interview.

Lead Researcher:

Amanda Wyszynski
York MES Student

Interviewee:

Blair Allen
Acting Manager – Transit Development

Location:

Regional Municipality of Waterloo
150 Frederick Street
Kitchener, Ontario N2G 4J3

Date:

Wednesday March 4th, 2015
10am – 11:10am

Amanda: Do you think people want improved transit in the suburbs?

Blair: Yup I think so, and I know there's been several recent polls that show people values transportation choices, one car, two car, that kind of thing, and I don't think downtown you're going to get more of that no car type of thing, and our goal isn't to say to people that you need to live with no car, so you don't need multiple cars to make standard trips to and from work, to school, or wherever you should be, and that's even in the suburbs. The other day a co-worker got on the bus, and was on it in more of a suburban area and said that she likes taking it when it snows out. They're quite happy to have that alternative, even as an insurance. The insurance value of when a car is not working, or its broke down, how do I get to work? Well I can take the bus. And I think it's demographics over time shifting a bit.

Amanda: That's interesting. I should probably tell you this that the crux of my thesis is whether or not transit should be run as a service or as a business. In theory, you cant really do both, but they're trying to both, I'm trying to determine if it should be a business or a service. I'm leaning towards the service side.

Blair: Yeah, it's a constant challenge. You read so much stuff especially financial stuff, and you'll read the cynical comments from the anti transit forces out there that say if you ride the bus you should cover all of your costs and stuff like that. Well I can point out that you're not covering all of your costs when you drive your car either. You

don't and say that well buses are running around empty, but I can say the same about the street here, half the time it's empty too. So what do we do with a street during the off peak times?

Amanda: Or when there's only one person in a car.

Blair: Yeah so it's a business we run, to me its balances is the effect and efficiency and we've had that as part of our statement for many years. Your effectiveness, almost the service side is a side and it's a balance as to what do you want to do.

Amanda: Exactly. Alright, so I guess we'll go to the second question. Do you think it's possible to better integrate better public transit into the suburbs?

Blair: I think it is, and I don't think its easy in some places. Some of that is going to take time, to get more transit support, uses and densities into some of these places as things happen on the main roads. How do you change things to do that? One of the challenges is design of our suburban subdivisions from the late 50's through the 70's, and even today it's improved but it is still a challenge. We've got maps here and one of our examples is Forrest Heights West, on the west side of Kitchener, on the south side other than the roads that come out there is no access. So how do we serve those people? There is some places that have actually ended up buying a property and ended up tearing it down to build a walkway to connect through. That's extreme, and we've actually looked at doing that out there, and it didn't work out in that case but that's the big challenge that you have the design. So I think you need to look at the main roads and start to change traditional plazas to different uses and one of the challenges becomes, and this is where the business versus the service thing comes in because of the low densities, its hard to justify the higher levels of service. But the only way you're going to get people to use it as a good alternative, is to get out there and to know that the bus is coming, and that I don't have to wait a long time. So there's frequency and I know that another bus is coming in five to eight minutes. But if I'm out on Highland road, and suddenly I miss that bus its going to be another half our or an hours sometimes in some places, and unless you have no other choice, you're using the bus. So that's where the big challenge is and I think its going to be land use design is going to take awhile to do it. Our network redesign is trying to make it more competitive by recognizing that key corridors, and straightened out routes, where you don't necessarily circumnavigate all of the subdivision streets, but you maybe make people walk people a little bit further to a higher level service. And that means that you don't need to worry so much, and you just go out and catch the bus.

Amanda: So number three, what do you think the main barriers or opposition are to improving transit in the suburbs?

Blair: That comes back to a couple of things, one being as we move forward is street design. Its your "spaghetti" street designs without a lot of connections between them. So that means that you might have to walk a lot further to get to a bus route then somewhere else. You see these cul-de-sacs where you have to walk a lot further, and people will generally not walk a lot further then 450m or 5 minutes to a bus stop. On the corner of Fisher-Hallman and Victoria, as they redeveloped it, the original design just had these houses with no connection to the street and I was able to catch it in time and asked for a walkway out there. Which cut it down from hundreds of

meters to a very reasonable distance. I think that another barrier is high vehicle ownership rates, and a lot of people have already two, or three cars. One of the things we had in the east side of Waterloo, back in the early days of the 2000's we were making changes to a lot of services, and trying to introduce a service out there to one area, east of Bridge street and the problem is the street design. The streets weren't bad, as there were some straight through, although it would be nicer to connect to Bridge Street, what happened is that we originally wrote in the plans for 1978, that there was to be a bus on the street, with plans for potential stops. It wasn't until 2000 - 2001 that we actually came and said we were going to put a bus there. So now all of these houses that have been built, and the people were never told by their realtor that there might be a bus, because they might not have known, and it had been lost in the planning and they said that they don't need a bus because our kids all drive, and we don't need one. And even if it's not fully true, and as things change over, there's that perception that we don't need one because we have lots of cars as you basically waited too long. To me, another barrier is that we wait too long to get into the subdivisions. We actually found that in the Laurel Wood area, with Route 13, while some of the streets were still being built in some cases, again, there's some proximity to the Universities that affected it, we were in there sooner so I think we've had more success over there because we were in while the roads were still being built. Same in the Actavia area, we were actually in there while some of the streets were still being built. It meant that people saw, that there's a bus there and that they didn't need to go buy another car, and use the bus. Again, high cost to serve those areas because its low density, spread out, so what it does mean that even if we do have bus service there, we might not have it at all times. Then it's much harder to convince people to use a bus when there isn't service all of the time. One of my staff pointed out that, historically more conservative political leanings won't support investment in transit, and suburban areas tend to be more conservative. So you do get politically different opinions, and the perception that it's just for the people who only need it and not for anyone else.

Amanda: So that leads into my next question, do you think there is a stigma about taking transit?

Blair: My answer is sort of yes and no. I think there is in some circles and place, but again if you go back, Margaret Thatcher made a comment, that if you're twenty-six and still on the bus you are a loser. I'm not sure of the exact quote, but its basically the same type of thing now. And in Toronto there was an infamous Mayor who thought transit was in the way of his drive to work in his Escalade, and he's playing to a certain people, who believe that. So that type of thing can be a stigma. ON the other hand, the Millennial generation, or whatever they're called now, what they're finding is that people are less likely to get their drivers license when they are sixteen, but they are waiting till later to get their licence because they have other priorities like playing on their smart phone and texting, which you can do when you're driving. So sitting on a bus is more convenient in that sense. People are realizing that cars are expensive, and unfortunately the gas price drop allowed for more gas guzzling cars to be on the road and being sold. While, gas prices are low which is not the reality, its also a short term thing since we've seen the price of gas increase by twenty five cents since it bottomed out. And gas prices is only part of your cost of owning a car. This answer was a bit rambling, but I think there's some elements of both, and part of our thing is that it's a constant battle with car manufacturers who insult transit users in their ads.

Amanda: That's interesting. How do you think improved transit will benefit those living in the suburbs?

Blair: I think there's a number of things. Again, more transportation choices. You've got flexibility, even if you have two cars in the family, not everyone can drive. It does give kids some independence. They're able to take the buses to soccer practices in the suburbs instead of having parents drive them to and from. Even the people who are driving their cars, they benefit from more people taking transit. Social equity, which I know you later talk about. No matter what income of people who are using the bus, it takes away from the stigma. Like the mayor of New York City used to occasionally take the bus, and he's a billionaire. Some of it was publicity, it some of it was more than that. And its also financial gain. A car costs \$10,000 a year and these aren't our numbers, its CAA's. And they are car supporters.

Amanda: Yeah, they were probably being conservative as well.

Blair: If you only need one car a year, that \$10,000 a year can be used for a lot, like mortgages and vacations.

Amanda: There's actually a study I was reading a few months ago, I can't think of the name of the city but its in Spain, and they actually removed part of their highway to reduce congestion and it actually worked. It encouraged people to take transit, and they only had rapid buses not higher order.

Blair: What the problem becomes is that the suburban then complain that they do not have an easy way to access downtown from their houses.

Amanda: How do you think transit can be improved? For example through technologies, processes, schedules, etc...

Blair: I think increased transit frequencies and reliabilities is one of the biggest things. Its more than the speed, speed will come if we can do the other stuff but if they know the bus will be there at this time and it will always be there, then I'm comfortable to use it. This goes back to the technology thing, like us releasing our real time information. If I can get a certainty that this bus will always get there at the same time, then I'm comfortable with it. The more data we can use, helps us gain technologies like our real-time, and our trackers, which helps us improve our schedules. Redesigning our existing routes to become straighter and faster, it means that you might have to walk a bit further, but on the main streets with more frequencies. That redesign is based on a model where we looked at where people are flowing and where they are coming from and where they want to go.

Amanda: Will there be improved transit equity through a physical/ social connection for those who are dependent on transit? Or is this not a concern?

Blair: I think by improving the network over all, is beneficial. I think what we want to do by creating the network, it will help those who are dependent on transit. One of the big balancing acts, is that as we straighten out routes we have to be aware of who lives in that area, like retirement homes and the alike. It becomes a balancing act, but I think by improving it overall, peoples patterns might have to change, but its going to benefit overall, and all of the various peoples. Sorry, one point I forgot to make with the previous question is by having the appropriate level of transit, and matching the type of vehicle to the demand. Our whole LRT debate has elements of

this. By having the wrong level of transit, it sucks resources from areas where transit could be introduced. You want to be able to adapt your modes of transit to where it is going, and what the needs are, you can build it up down the road if you need to.

Amanda: Alright, so what is your impression on Waterloo's LRT?

Blair: When we were first looking at it, I wasn't totally solid on it. It's been in the plans since the late 70's and it's basically where we planned it. If we were planning for yesterday or today, we don't need it, but we're planning for tomorrow where it will be necessary and worth it. Over the years, the population growth has been pretty constant which will only increase demands.

Amanda: Especially now since we have been designated as a place to grow.

Blair: I think it's a benefit in the long run, as long as it is done right. I know you asked about public consultation and I think there was more than enough. We had more than 150 public outreach meetings and many consultations in public spaces. In 2011, just before the approval we did 25 public consultations, information centers, consultations with businesses and business associations, web casts and so on. If you look at the different proposals, you can see that the significantly changed it from comments and feedback from the meetings.

Amanda: I find it kind of funny how on King Street where they used to have the old tracks for the street car and they removed them and now its basically back in the same area.

Blair: Yeah and in fact when they start digging further south, they will probably find the old tracks sitting under there. You could argue that they might have screwed up back then and they shouldn't have taken them out.

Amanda: Do you think transit has become more dominant in the cities discussions and if so why?

Blair: Diffidently it has been more dominant here, partially because of the LRT. But look at the articles and columns in the paper, they are talking about transportation which is impacted by transit. It's out there with a lot of people discussing it. Look at Toronto in the election, most of the debates talked about transit. One of it is the cost of things, transit is expensive but so is the cost of a car and building and maintaining roads. The transit argument is that you will be saving in the long run. The whole issue of land use and transportation is very connected, even if people don't talk about that connection, but if you listen closely that is what they mean. If people can get on other modes and free up some of that space, it benefits everyone. Everyone thinks they are an expert because they either take transit or the drive.

Amanda: Alright so ten, why do you think some cities have been more successful in implementing transit more than others?

Blair: This one was a hard one to figure out. I think some of it is locally driven, our former CAO and our Regional Chair has been very supportive of this all along. Without them, it would be hard to pass it without some of the political support, but they're just one element of it. Our Regional Transportation Master Plan, the one in the nineties, there was a shift when people asked where all of the transit and active transportation was, and that was mainly public engagement.

Amanda: So why do you think our culture is so dominant on cars? Is it because of the economy or convenience?

Blair: I think some of it has been, again its pretty general, the whole suburban post war growth that happened when the automobile became economical and needed a lot of land. People went out and said, it want always a big conspiracy to support the car, it wouldn't have worked without a need to happened. People needed relatively cheap accommodations. Suburban land is cheaper upfront, but has longer term costs. At first it was easy to get downtown, until all of your friends got there and created the congestion and the marginal cost of taking a single car trip. Which isn't bad, but it is misleading. You forget about the cost of getting the car and that it still in your driveway or in a parking lot at work for nearly eighty percent of the day. Where as the car, has a certain element, and the ads clearly express this, you never see them stuck in traffic, but there's a free and a comfort provided by cars. A buddy of mine after a lot of car expenses said the car is a necessary evil. As seen last night in the snow storm, driving home was not pleasant. But we have created a land use form that requires you to drive.

Amanda: Alright so last question, Do you think its possible to change the mindset of citizen of the suburbs? Is it too engrained/ have to wait for the next generation/ or is it possible at all?

Blair: I think it can be for some, its not going to be easy and I think some of the next generation is already looking at alternative modes. People of your own generation, and of those behind you, are starting to recognize that its not as key to freedom. They see different things to freedom than my generation. I think for some of the older people, they will resist until they get older and it forces them to give up their license and reconsider. Or when they think about their grandkids, I think that's when the mindset change will happen, just like the blue box program. It look a lot of years for people, and now its just natural. In fact, a lot of people almost feel if there isn't a blue box, they don't know what to do. They feel they need it. I think that transportation will take while, but it will come. Again, as gas prices go up, it will have an impact people, again these are long term impacts. If gas prices go up, you still have to drive to and from work, and you cant do anything about it and just swallow the cost. However, when that car people being to look at their options and make decisions. Do I get a smaller car or do I need this car? Can I get away without it? But these decision points happen a lot less frequently than the price of gas going up and down. Those type of things start to change peoples minds. Others are still stubborn and you'll have to pry the keys out of them. It is not easy to change peoples minds.

Amanda: Yeah, change is very hard and takes a lot.

Blair: You get into some public meetings an you'll present them with all of the information and eventually you'll just have to let them go and make their own mind up. But we provide them with the resources to do it.

END OF INTERVIEW.

Lead Researcher:

Amanda Wyszynski
York MES Student

Interviewee:

Adam Lauder
Policy Planner – Growth Management

Location:

Regional Municipality of Waterloo
150 Frederick Street
Kitchener, Ontario N2G 4J3

Date:

Thursday March 5th, 2015
2pm – 3pm

Amanda: Do you think people want improved transit in the suburbs?

Adam: I think that there are some people that want improved transit in the suburbs, I think with any group there's people who are for and against something and for transit use, you're going to get people who want transit in their neighbourhood and the closer the service gets to their street, some people might not want the service or bus stops on their street. I've heard of that. I think that it depends on what you're defining as suburbs, I think in Waterloo there will be a percentage of people who would like transit closer to their homes, a segment of the population. There's another segment of the population that is fine with the set up that they are using today. Which is driving to their workplace. What I always hear about transit planning, so if there's a 30% of the population you will not reach, what you need to do is appeal to the squishy middle who aren't using it today, but if you make some enhancements, will consider using it tomorrow. SO I think some people, do and some people don't.

Amanda: Do you think it is possible to better integrate public transit into the suburbs?

Adam: Sure it is. Yeah, the thing about the suburbs for me, people chose to live in areas that are not easily transit supported. It is something to make that choice, it's a personal choice, it's just a choice that people make, but to expect or to call for transit to come to your neighbourhood where you have chosen to live in a neighbourhood that is not easily servable, it's hard for municipalities to provide it for them. Essentially what that does, is if the service provider ends up extending that service, what happens is that the tax base has to pay for that service, because that service is going to lose money. Contrast that with the fact that people want municipalities to generally control tax increases, it's a rub. In terms of design, we can design suburbs better, we can have transit routes, so main lines, where transit might run in neighbourhoods, with more density, and so what you can do is clusters more people around those future lines. Is it possible to integrate better transit into existing suburbs, sure it is, it just takes taxpayer money.

Amanda: Okay, the center of my argument is whether or not public transit is a service, or should it be run as a business. Because right now they are trying to do both, but you really can't. It should only be one or the other and I'm leaning more towards the service side for a variety of reasons. Just to give you some background on everything. So question three, what do you think are the main barriers or opposition to improving transit in the suburbs?

Adam: Well I think the biggest barrier is cost. Like I said, it requires subsidies to extend routes into low-density neighbourhoods. Like today, the GRT, provides the tax base at the regional level, provides a subsidy of 50%, to operate GRT. There are transfers from the province and the fares themselves that are not included in that. The remaining half, comes from the tax base support. So that's the biggest barriers. And I think if you talk to the transit providers, is that we can extend transit lines but there has to be transit lines to extend ridership. But to get ridership, the layout of the suburban neighbourhoods, but if your goal was to build a neighbourhood with transit, it would have to have more density around the transit routes to achieve that. So cost, and the layout of suburbs.

Amanda: Yeah those are the general, answer's so far which are pretty obvious answers too. Do you think there is a stigma about taking transit?

Adam: I've heard about that, not in Waterloo Region, but in L.A and other large cities. Diverse US cities, here, honestly, I'm someone who has taken transit, I don't take it a lot, I cycle to work in good weather, I took transit when I was a student, I don't know if there is a stigma, I'm just not close enough to it. But I haven't heard about it in this region.

Amanda: Do you think there's no stigma here because we have the UPasses and it's just kind of built into everything. It's just kind of natural once you reach university you take the bus in Waterloo Region.

Adam: Yeah, I'm not sure. Feels to me from where I sit, that there's no stigma. But if I go and talk to my neighbours, they might feel there is. I haven't thought about it too much.

Amanda: Fair enough. How do you think improved transit will benefit those living in the suburbs? So think goes back to the business versus service aspect of it.

Adam: So on that aspect, transit as a service, as a public service, provides benefits to people anywhere in allowing them no matter their income, allowing them to move around the city at a fairly reduced cost. Have it run as a service, allows that service provider to provide service in hours that are not convenient and will not make money, or not going to generate enough revenue to recoup costs. The way it benefits people living in the suburbs, or lower income people living in the suburbs, allows them to move around the city. That's the biggest thing in terms of priority. Another one, if you step away from that lens, it would allow suburban areas to be healthier communities. People are pedestrians, before and after transit rides, they are also before and after driving their car, but not as much. You're taking transit, you're actually walking more because you are being forced to walk to the stop. You're experiencing your neighbourhood because you're walking further, in a more intense way, because you're outside longer. So in the long run it makes for healthier communities.

Amanda: How do you think transit can be improved? For example through processes, schedule's, etc...

Adam: So I don't know a lot about the technical details of service, but I know technologies have helped. I recall when I was a student here, it always floored me that it was hard to understand when the bus was coming. I had to know the phone number, I had to know the stop number, the route number and so on. It was cumbersome. Now there are signs, real time information, so that's a great piece of technology. Service needs to be reliable, or if it's not going to be on time you have to understand when it will come. So that speaks to technologies and schedules. I'm not so sure about processes.

Amanda: That's fine, what I've been getting from my readings and other interviews is that the fact that there is a schedule is a barrier, it's not so bad on King Street because there is a bus that comes every 5-8 minutes but in the suburbs its every half hour, or on Sundays every hour. So if you miss that one you are waiting another hours. So it's a barrier in itself.

Adam: One way to improve service, or transit better, is to increase service levels. I'm a stereotypical cyclist, the first snow came I stopped biking and bought a car instead of taking the bus. The schedule just didn't work.

Amanda: That's pretty extreme.

Adam: Yeah, no doubt. I needed to do that. I needed a car, for me that's where I was.

Amanda: Number seven, will there be improved equity through a physical/ social connection for those who are dependent on transit? Or is this not a concern?

Adam: So for our aging public, we are only getting older in terms of our demographics. Often seniors want to age in place, and transit can allow them to do that. I think that's valid. I think the scariest thing for seniors is losing their license. It can be very isolating. I think the trick then is to make transit appealing and easy to use. If we want to connect and to make sure they aren't feeling isolated. We have to take them out of their comfort zone and make them try it a few times to see how it easy it is. And the other part, is when they are on the bus, they need to be seated before the bus takes off. Bus drivers are really good at it, but it only takes one incident. It has to be easy for seniors, and safe.

Amanda: Okay, what is your general impression on the Waterloo LRT? Do you think it will benefit the city? Was there enough consultation?

Adam: I think what we're hearing about in terms of negative press on the LRT, is a small blip. I think when we look back as a community, twenty years from now, the LRT is going to be viewed as so successful that we were silly for the two years before and during construction that we were silly for getting mad. I think what's going to happen is, it will be looked at as a generational project, just like in the 60's the expressway was a generational project.

Amanda: Yeah, people didn't even want that in the first place.

Adam: Exactly. It was a really big deal, but now if we didn't have that, we would be lost out on our own. And I think the same thing for the LRT, although it will be a different dimension. I think without it, we will lose the ability to retain talent and retain young people. Millennial's, more and more don't want to drive and want to take things like the LRT, and I think the LRT will be one of the key ways to retain that talent.

Amanda: Yeah, I actually lived overseas for a while, and the town I lived in had an LRT, I actually lived just outside of Amsterdam so a huge cycling population, and coming back home to Waterloo Region, it was just such a shock to the system. Even just to get groceries you have to take a car, and not walk or bike. I completely understand what you're saying. Do you think there was enough public consultation with the LRT?

Adam: I work in the municipal world so I can understand and grasp, and look for public consultation events. I think that the Region has been consulting in various ways for a few years leading up to this. Which is the Growth Management Strategy for ten years. You know it doesn't surprise me, I remember in 2006 them talking about this, and that was nine years ago. Did it hit everyone no? And you cant. In the planning world, we often hear about groups you weren't able to reach, and I think that's going to be the case with this and others.

Amanda: Do you think transit has been more dominant in the cities discussions?

Adam: Well, yeah it has. In terms of priorities, ten years ago if the community was consulted, public transit, I would be shocked if it came up. Whereas now, because there's so much awareness, managing that, and responding to that is a priority for people. What it means for this city, internally transit and LRT comes up more frequently because its going to change the way the city grows. Its going to change the way the city ahs to provide infrastructure, where it is going to place infrastructure, like underground is going to have to be bigger in core areas, and there's going to be intensification. In terms of the cost of living, for sure it will make us a more sustainable community, at a really high level, with our carbon foot print and green house emissions, either to reduce them or don't go up as fast. I don't hear it about, in waterloo about LRT and equity, and for sure the negative press around the LRT related to the cost of living, could actually increase the cost of living as it increases property taxes.

Amanda: Okay, why do you think some cities have been more successful in implementing public transit more than others?

Adam: Okay, so citizen involvement for sure drives successful implementation. Where you have stakeholders that are willing to pull the project through, that only helps. What I would say is, some cities are more transit ready than others. LRT is a form of higher order transit, and you can't introduce higher order transit anywhere. Waterloo Region is a dispersed city for sure, a mid sized dispersed city, a lot of intensification trends that will help the LRT. IN other cities, they actually started to lay the framework for station area planning, before the project was underway. There was a lot of citizen involvement, there were economic reasons for them, they put a focus on figuring out how to best bring the project forward before bringing the project forward. The best indicator of success is how transit ready your city is in terms of the layout.

Amanda: Okay. Why do you think our culture is so dominant on cars? Do you think it is because of our urban form or convenience?

Adam: I think it's all of them. The way our society is structured, lens itself to individual families or people making decision that are rational for themselves, and we have a tax system that takes money and gives it for the common good. The way our society is set up, the most rational decisions for you as an individual living in mid sized cities, is to have a car and to drive to work. There's not in terms of time and cost, there's not a compelling reason, the way we structured our cities for someone to take the bus. Unless someone is motivated, the rational decision for people is to drive.

Amanda: So last question, do you think it is possible to change the mindset of suburban citizens? Do we have to wait for the next generation?

Adam: I think its possible, I think there are a lot of barriers. There will be market signals over time, that make current decisions less rational. As the price of oil goes up, as resources goes up, there will be people who will actually have to think about what makes the most sense for them. It might take more time to take transit but can I afford to only drive? Suburbs will only get more transit supported, not less. I think that bodes well. In terms of the next generation, city building and change only happens over a longer time frame, I think of, we're North America, is kind of the frontier for Europe. That's how I think of it. Where European's came here, and Europe

has a completely different fabric as it has 2,000 years of history, where as ours is only 200. In 1800 years from now, will North America look like the fabric of Europe? Probably not. I'm using that as an example to say we are pretty young in our history, and because we had large expanses of land, over time we are only going to change that for the better. It just won't happen in five years, it will take time.

END OF INTERVIEW.

Lead Researcher:

Amanda Wyszynski
York MES Student

Interviewee:

Ken Seiling
Regional Chair – Region of Waterloo

Location:

Regional Municipality of Waterloo
150 Frederick Street
Kitchener, Ontario N2G 4J3

Date:

Wednesday July 8th, 2015
1pm – 2pm

Ken: I will say, I was a little taken aback by your title. To say it is a missed planning opportunity, this is one of the most extensive planning exercises gone on for ten years in regards to public participation and everything else. There was broad consultation, far more than what is required by the Environmental Act, so I was kind of taken aback by your title. Maybe there's a meaning to it that I'm missing or something.

Amanda: Well, my supervisor and I came up with the title and we both agreed on it because, I think the LRT is a good idea, but there is more that could have been done. Whether that is through improving rider experience.

Ken: Based on what?

Amanda: It's one of those questions were like, when I get to the end of my thesis, I might just agree with my title or I might actually disagree with it. It's one of those I haven't actually answered yet. I'm kind of working with that. In regards to consultation, one of the documents published, it said that there was over 230 consultations I think.

Ken: Yes, open houses, consultations, and it wasn't just design meetings. Community planning exercises and all sorts like that.

Amanda: I'll give you that, there was a lot. I guess we will just start with the first question; who is the iON intended for?

Ken: The iON started as a project, in how to stop urban sprawl. So we really took a look at our, we'll go back to 2000 when I wrote a report to Council that basically says we were the first Region to have a Regional Plan in 1976, and in the Regional Plan it talked about urban renewal and had restraints on development and that sort of thing. So by 2000, we started hitting up against our restraints, so the question was where do we go? So I wrote a report that basically said we need to stop the sprawl, and hold the lines and take a look to the future. So out of that we had the planning policy, which is part of the growth management strategy that passed in about three years, where we had public consultation again. It basically said we want to stop the sprawl, and the only way to do that is to plan for transit. Transit is your key to shaping your urban form, and so we took a look back at the 1976 Official Plan, even though the Region didn't have public transit mandated, there actually was a Central Transit Plan and so we took a look at that and said let's take a look at how other people are creating densification, and so the transit became the tool used initially, to give shape to our Growth Management Strategy, where densification and that sort of thing. So that's how it started. Then, the secondary effect of actually helping us deal with all this population growth we were expecting, and ¼ million people, how were we going to deal with cars, and population growth. So it became a two edge sword, one was to stimulate the intensification and to become the tool, secondly to take pressure off the road system because at the end of the day, we did find that we dropped our road building program by about 40 percent.

Amanda: Oh really?

Ken: We did that. It was hundreds of millions of dollars in savings. The reality is with this Region, the way the roads are laid out, to practically widen a lot of our streets, if you take Westmount for example, so it developed very quickly as a secondary, and that was to create a greater modal shift in time so that we wouldn't have to have a car, or two or three cars in the driveway. That was the original start of the project, was to decide how we were going to manage the growth, manage sprawl, how we were going to intensify, relieve pressure on the roads, how can we create a greater modal shift, with the population growth that was taking place.

Amanda: Okay. So the second question what policies have influenced the LRT?

Ken: So basically, the Growth Management Policy, sorry I originally answered the second question.

Amanda: No worries.

Ken: The Growth Management Policy that we passed in 2003, in fact our growth management policy in 2003, the Province liked so much, our people did the mapping for the Places to Grow Legislation, our Growth Management Strategy in 2003 and created the Places to Grow off of our Growth Management Strategy, we sent staff to Toronto to work on it.

Amanda: I didn't know that.

Ken: So the Minister, when they had their first meeting on Places to Grow they had it here in the Region and said it all started with Waterloo.

Amanda: That's interesting, I didn't know that.

Ken: Yeah.

Amanda: So the third question, what do you say to those who are against the LRT or say "just add more buses"?

Ken: Well that's all part of the studies, and you've read the studies. We didn't want to be in the same boat, a BRT system would have worked for about 10-15 years, and by that time, it wouldn't have worked anymore. Look at Ottawa, their busses are backing up, the BRT system, we couldn't see putting that kind of investment in a system that would break down within 10- 15 years. Which all of the studies indicated, it didn't attract the ridership. People will ride iron rails but they won't ride rubber tires. So the ability to attract, also in terms of our intensification policy, the LRT was seen as being a permanent feature, in terms of attracting people for the investment in intensification. People want to make sure that the routes would not change. There's a fair bit of evidence that there's greater intensification with LRT as opposed to BRT. All of the initial capital cost are higher and the operating cost are higher with the BRT system. There's an evaluation of all of the materials available.

Amanda: Yeah, I read that one. It was actually pretty interesting. The fourth question, if alternative transit was initially discussed in the 1976 Regional Official Plan, why did it only become a serious discussion in early 2000?

Ken: Because when the Region was created, transit was not given to the Region. Transit only came to the Region in early 2000. That was during the Harris years when all of the government reforms were going on, and the government started issuing ultimatums about reform themselves, and quite frankly what happened, here, we had been trying to get linkage between Cambridge and KW, so when this came along, the municipalities were anxious to avoid amalgamation, so they threw up a few things that would go to the Region, transit was one of them.

Amanda: Okay cool. So fifth question, do you think the Region did enough in explaining the three goals of the LRT?

Ken: I'm not sure that three you are referring to, but one was to create a modal shift to reduce reliance on automobiles. Well, I thought we did and anybody opposed can make their arguments and the always accuse you of not doing enough, but if you take a look through the media coverage, public meetings we had, I don't think we could have held anymore public meetings thought his whole process. In fact, we did it under the old Environmental Assessment Act before they made the changes which meant that we did an extra two years of work because we had to do more and more steps. So my own view is there's nothing more could have done. If they're opposed, they're going to be opposed to it. When people are opposed, they always fall back on process arguments.

Amanda: Okay. So six, if money was no object, do you think the 19 LRT stops would have been relocated?

Ken: The stops were not planned based off of the budget. The system was designed, than it was priced. That's my understanding. Basically, part of LRT is that you can't have a lot of stops. You need to move people quickly. So if you had multiple stops within the whole system, you wouldn't have a rapid transit system. The stops were designed to move it efficiently, while providing enough stops.

Amanda: Yeah, the rule of thumb is 500m between stops, which I think you guys are averaging, so that works.

Ken: Yeah.

Amanda: Seventh question, were there missed opportunities in improving station locations, ridership and ridership experience? So an example of station location, is there's no stop, there's stops close to Laurier but there is not stops directly in front. Versus the University of Waterloo.

Ken: Well, it was a choice. Either use the rail line or coming up King Street. Part of this was employment opportunities, jobs, and to move people, and we already owned the rail line. We got the rail line years before, in order to do that. Laurier didn't get into the debate until very late and to go to Laurier, we would have missed U of W, which is four times bigger.

Amanda: That's just one of the criticisms.

Ken: We couldn't have done both.

Amanda: I understand that.

Ken: When you weigh the two of them, the passage you're carrying, the potential of the passengers at the U of W campus, has a large number of passengers of the system.

Amanda: Okay. So second last question, how did project restraints like politics, finance and existing infrastructure impact the route?

Ken: Not really. So for example, if Kitchener decided they didn't want to give up the main streets, where it is already down to two lanes, so the decision was to put the line between Charles and Duke Street. Initially in Waterloo, it was going to go both out to King Street, I think through discussions with the City, it was decided to split the line, although they are pretty close together. I don't think the route was impacted that much, the system was designed from an engineering point of view and priced off that.

Amanda: Okay. That's an interesting way of doing it.

Ken: Well that's the right way to do it.

Amanda: Yeah, that is the right way to do it but sometimes; it's not done that way. So finally, how will you measure the success of the iON?

Ken: I think we'll measure it different ways. Ridership obviously will be a big measure. I think the amount of investment along the line will be another measure. The types of investment, things like the development of the Schneider's Factory Meat Packing Plant will be hugely impacted by the presence of the LRT. It sure will look quite a bit different with the iON there. And uh, I think our ability to generate urban, see the iON isn't standing by itself. We are rigging the whole system so that we are putting express routes in. We're rearranging bus routes to get more frequent service, then tying them into the central corridor. So I think at the end of the day, whether there is urbanization, intensification, takes place. So I think the measure of intensification will be a major thing. I think the modal split. The numbers will be interesting to see if we were successful in attracting people to use transit as opposed to cars. How much building, if our road widening programs are reduced over the next 15-20 years, to see if that materializes. There will be a lot of measures, I think ridership will be the key one. The kind of development that takes place along the corridor and the iXpress routes coming into it will be a good measure of success.

Amanda: Okay perfect. That's kind of the answer I was hoping for. I don't have any more questions, I don't know if you have any questions for me, or any comments in general?

Ken: That's all you need?

Amanda: Yup, that's all I need.

Lead Researcher:

Amanda Wyszynski
York MES Student

Interviewee:

Doug Craig
Mayor of Cambridge

Location:

Cambridge City Hall
50 Dickson Street
Cambridge, Ontario N1R 8S1

Date:

Tuesday July 14th, 2015
1pm – 2pm

Doug: I've read your set of questions, but the thing is that there are many layers of politics here. So as an example, the Region of Waterloo really isn't the Region, it's the Region of KW. Although we are the second largest city, we are somewhat left out of everything. A perfect example is yesterday. I had Minister Chen, Minister of Immigration, Citizenship and Trade and that is the first thing he mentioned to me. "It always seems like a KW area." And well yeah, that is how they promote it here, they don't do it purposely, but that is how they do it. And that's the way Queen's Park see's it and Toronto see's is. So what is this place? So you wonder why there is not an LRT here? So you wonder why would they run GO train into KW when it is 40 min faster to run it into Cambridge? So it's all politics. My whole thing I said to Regional Council years ago, you should run the Go train into Cambridge and the LRT from Cambridge to Kitchener-Waterloo and start from the bottom up. I said for sure, we would get an LRT. If you do it the other way, we will never get one. I'm not sure if you want me to get into that?

Amanda: Yeah, if you want to get into that.

Doug: It's up to you, it's your paper.

Amanda: I think that would actually be a good discussion because last week I interviewed Regional Chair Ken Seiling.

Doug: Oh yeah?

Amanda: So he's very, from my perspective, he's very pro Waterloo.

Doug: He's very pro KW.

Amanda: Yes.

Doug: He doesn't initiate anything for Cambridge.

Amanda: You're one of the top people I wanted to interview because you're like the other side of the argument.

Doug: Let me just ramble for a little bit, before your questions. The whole thing is I was totally in favour a rapid transit system for the Region, they just put the wrong one in.

Amanda: You were in favour of bus rapid transit?

Doug: Yeah. I have a document here, I'll give to you, we got the initial review, it suggested the routes we're doing right now, and I didn't like it. Not from the point of view that Cambridge isn't getting anything, but from the point of view that there just seemed to be a lot of holes in it. So I phoned my planning commissioner one day, and I said to her find somebody who or some company who is an expert on rapid transit systems in North America, Delcan out of Toronto she picked, and ask them to do a review of the EA report that came out of the Region. So after about 2-3 months and I was stunned by what I read. What they're saying is that we should be using rapid bus, okay from Cambridge to Waterloo. For half the price of what we're doing in Kitchener and Waterloo. It is because there isn't the ridership for LRT in KW. There isn't. So if you look at Toronto as an example, I read the report, and I'll give you a copy because I think you should have a look at it, its an easy read, and if you look at it, there arguments about bus is that they do all the same things as LRT's do. That argument is back and forth between the various proponents of the different systems but the main reason they wanted to do a train system is for economic development along the line in KW. What happens down here for the next 30 years? They never really thought about it. So uh, I did alot of reading, I had the Delcan report and no one listened to it. The Kitchener Record wouldn't listen to it but I became more convinced that they are doing the wrong thing. That there was a professor, I can find it for you, whose retired.

Amanda: Is he from the University of Waterloo?

Doug: Yes.

Amanda: Is it Pierre Fillion?

Doug: No its, uh what's his name, he's an expert on transit system around the world and he came out and he said this is nonsense.

Amanda: Oh really?

Doug: He said this is not what we should be doing. LRT are to bring you in from the suburbs to downtown, and they were comparing KW to Calgary and other places, but he made it very clear that there was no comparison. He gave examples of why KW, he sees it as a complete disaster in terms of ridership. I agree with him, the ridership isn't there. In Toronto, I asked the Toronto planners, when you change over from bus routes to LRT, what is the criteria they use? How many passengers, how do you look at it? And they suggested that one of the rough criteria they use is 11,000 passengers per hour past a certain point. KW right now is at 900. This thing is not half, at minimal 2031 will be at the bottom end at the necessary ridership for the LRT. So I'm giving you the background, but whatever you want to do. I went through this for years, and so what did we get? We got this bologna adapted bus rapid, but what does that mean? It's just a bus that gets a couple of advanced greens at a couple of lights. It's more window dressing to make people feel less guilty. Anyway, we'll make the best of it. I haven't said anything in the last election about it, it was a done deal and we can't go on and on about it. So for Cambridge, what do we need? A GO train in and that's what we're working on right now.

Amanda: Oh perfect.

Doug: In two weeks, to pitch the case for an extension.

Amanda: That would be fantastic.

Doug: Anyways, your questions. Ask me some questions.

Amanda: Okay, who do you think the iON is intended for?

Doug: Its intended for KW, it's pretty clear. I'm supposed to wait for it to come here, but probably not even in your lifetime. By then, all the transit system have changed to something else.

Amanda: If alternative transit was in the 1976 Regional Official Plan, why did it only become a serious discussion in the early 2000's?

Doug: It only become a serious discussion once you have the population to support it. WE don't even warrant it now. That's the reason I would suggest. It's like if we were to say we needed our airport expanded four times right now but there's no requirement for that.

Amanda: Do you think, because KW is labelled as a place to grow, do you think they've been using as like and excuse?

Doug: Everything is done by perception initially. This is what the consultants did at the Region, they throw up a picture of downtown Ottawa, and say look "see it's overcrowded, it's not working very well." I said to them, you don't throw up an LRT in Buffalo, and people overdose on perception. Trains are sexy in comparison to busses. Visually. Believe it or not, they got sold on what it would look like. They looked at Portland, they don't pay, but it's not the same as KW. They don't have the same population.

Amanda: Do you think the Region did enough in promoting the three goals of the LRT? Protect farmland, reduce sprawl and move people?

Doug: The main, I'll give them credit for reducing sprawl. There is a hard country line in the Official Plan and we've been very adamant about that since I've been on council, going on 25 years, that's always been policy. Did they explain it in terms of, you can still drive faster mall to mall than taking the iON. Although in a transit scenario, that's not a bad idea. I'm not objecting to that. What's the third one sorry?

Amanda: Move people, save sprawl, uh I don't even remember right now. I've been reading too much.

Doug: That's one of those things, that's the background of what happened.

Amanda: The reason why I ask that question, like my parents, they like the idea of the LRT but they don't really understand why we need it versus buses. They don't know why we need it.

Doug: There's a tremendous uproar. The news media, in my opinion, the vision wasn't big enough. The vision of the Region is three cities, then for gods sake include the third city. We'll there's always going to be phase two, yeah right. That's great, you're not in phase two, I am and I don't like it. Then we got that kind of attitude all the

time. The LRT has consumed so much time, staff time and staff money, all of that. They don't talk about the townships or Cambridge. There's two entities here, the Townships and Cambridge, then there is KW.

Amanda: Are the townships on the hook for paying for some of the LRT?

Doug: No but they get a vote for it. If they were on the hook like a lot of other Regions, where they are on the hook and they came out publicly and said we could benefit from this and in other regions around Ontario, the townships pay. Well if you want four easy votes, you say you don't have pay for. If the townships had to pay, there would have been four negative votes and then it would have been a very close vote and probably might have been defeated. Politics came into play there.

Amanda: Interesting. You're the only person I've interviewed so far that mentioned the politics. When I've asked...

Doug: It's all politics. Everything is politics. Why do you think they got a GO train, its not a GO train, it is a commuter train. Its just a train. It doesn't take people to work in time. Why would you go, why would you in Waterloo take a bus, 10 minutes on a bus, two hours on a train then another subway in Toronto to go to work? You wouldn't do that. Everything in life is politics. Believe me, I'm serious about it.

Amanda: No I believe you, you're just the only one who has actually acknowledged it.

Doug: Well that's what it was all about.

Amanda: Interesting.

Doug: Of course you had the downtown people, in the downtown cores, the BIA's in Kitchener and Waterloo wanted it, the tech companies saw it as part of the vision, part of the appearance of how things look. Hey look we have an LRT, come live here.

Amanda: No, I diffidently get it. My parents live between the Northfield stop and the R&T Park, and I can easily walk to either and we've gotten that vision. At each stop they have the placard signs.

Doug: Did you see the stops here? They're just bus stops.

Amanda: I actually didn't see the bus stops to be honest.

Doug: And I think the other thing is, Jeff who writes in the record all of the time, he writes article after article on the LRT, he's employed by the record, he wrote an article about the commercial development that supposed to come with the LRT, it's not materializing. That was the whole thing. It wasn't just a people mover, it was to encourage development along the corridor. That was the main emphasis. It was never about people. I don't like to say that, but it is true. Their whole thing was to have development along the corridor and my comment was, what about Cambridge? What are we supposed to do for the next 30 years while you enjoy development? Because people coming to the Region are going to think about that first before coming here.

Amanda: Yeah, I never really thought about it like that. Interesting.

Doug: Hope I'm not destroying your thesis.

Amanda: No, no no. You're actually helping me. So what policies do you think have influenced the LRT? So the Places to Grow, the Economic Plan.

Doug: Of course all of them do. Smart planning, right? That was the big thing. Having high density along your corridors, so the policies that have influenced the development of the LRT, no questions about that. So that was the smart thing to do.

Amanda: Just a quick question, I remember the voting, did you have to excuse yourself from the voting?

Doug: Along with 13 others.

Amanda: I was trying to remember if you had to.

Doug: What happened was, my son owns a house over here. He lives in a town house across from the Ainslie Street Station and even though I was not getting an LRT, it still was an indirect conflict of interest. So myself, Ken Seiling had a couple of kids who lived close to the LRT line, and a lot of councillors of the lower tiers. So all the way down the line, there were 14 councillors who had to step out of the debate. Couldn't say anything. Here I was the Mayor of Cambridge, and I couldn't say anything. I was pretty frustrated about that. I got a legal opinion on it in Toronto, from Ayrd and Brailis, who is the top municipal law firm.

Amanda: My professor, John Mascarin is a partner there I believe.

Doug: I didn't have him. Anyways, she came back and said you have a conflict, and I would suggest to you that a judge would find you in conflict and if they do, you're out of office. Those kind of thing. I couldn't say anything in the media, and I couldn't debate it. Then finally after a year and a half, two years, during this whole long

debate, I went to a lawyer in Kitchener, who worked for a friend of mine who was the Mayor of North Dumphries at the time. And he went through the whole thing and said I think we can challenge this. So I took my self to court. We filed against the Ontario Government as the respondents, who didn't want to come to the trail. At the trial they said they weren't the respondents etcetera and the judge took a 30 min break and said yes you are. He said to them do you wish to say anything, and they said nothing. So my lawyer made a pitch that for a number of these reasons, it was an indirect conflict, but they were so small that in fact it should be dismissed. I mean, what was I really going to get out of it? It was my sons house. Anyways, the judge came back and dismissed in terms of having a conflict, and that ruling effected everyone else down the line. Because they could all use that ruling. The Conflict of Interest Act is so out dated, it catches politicians all over Ontario who are just trying to do their job. It really is badly written, and they're reviewing it right now. Part of that was the case I took before the courts. So I got back into the debate.

Amanda: So for that entire time, when you couldn't say anything, was there anyone else representing Cambridge?

Doug: We had two Cambridge Regional Councillors.

Amanda: Right, but they're not the same as the Mayor.

Doug: Its been an interesting time period I'll tell ya.

Amanda: Do you think project restraints like financial, existing infrastructure or politics, diffidently politics impacted the route design?

Doug: I think they looked, to some extent, they always looked for the cheapest way to do things. I do agree, in fact we do have to pay a third of the cost, I think that was part of it. The Provincial and Federal governments didn't come through with full funding like the did for Hamilton, Mississauga so we asked the question why? I really believe they knew damn well the project didn't have the ridership to begin with. So they wouldn't fund it fully. That's just me.

Amanda: What I've been told before is that they engineered the system, then they went out for prices so they didn't necessarily go with the cheapest route.

Doug: They had, in order to get grant money from the Feds and the Province, it had to run through the best possible route the felt. I may be wrong, but just a thought.

Amanda: One of the problems I have with the route design is that it hits the University of Waterloo and the tech park, but it doesn't really come close to Laurier. Yes Waterloo is a lot bigger than Laurier, but Laurier is still a pretty significant footprint of the city.

Doug: Depends who you are in the city. It's politics. Its like we have GO buses to Milton. They start at the University of Waterloo, go through KW then touch our power center up at the 401, then head down. They don't care about here. I've raised that issue with them before.

Amanda: I think we've actually covered most of the questions I had. What I wanted to get across from them. Do you have any general comments, concerns or anything?

Doug: It goes back to 2003, it's a ten year process of looking at things and deciding where to go. I think it's a very bad decision. It's not because only KW, its because quite frankly the ridership isn't there. We're never going to get LRT down here. We have nowhere near the ridership needed, even in 30, 40, 50 years. Don't tell me we are phase 2, we are phase zero. And I know that and I'm paying for it. I brought that argument up. The townships don't pay and they're not getting LRT. I'm not getting an LRT and they ganged up on me. Shut up and sit in the corner type of thing.

Amanda: Because you're getting adapted bus route?

Doug: It's nonsense. Ask them what the difference is between adapted bus routes and iXpress. Nothing. I think it's a little bit longer actually. It's not more efficient then what we already had. I don't want to slam them, I'm not going to win the issue, the issue is dead. I think it is a terrible mistake and I think we just move on. So I do the best I can for Cambridge, get a GO train, bypass around the city, stuff like that.

Amanda: Okay.

Doug: They can have their LRT. I think in ten year, it will tell the story?

Amanda: So how do you think they are going to measure the success of the iON?

Doug: Any political way they wish.

Amanda: Yeah?

Doug: Yeah. They'll tell you anything. They won't come out and say we made a mistake, that's for sure. They're going to come out and tell you all about the development along the line. They're not going to talk about Cambridge and I think the trains come in two sections? Anyways, I think what Delcan says is that there is not enough ridership. It's a very easy read. You can use that as part if you wish.

Amanda: Okay perfect. I will transcribe the interview, and if I decide to use any quotes from you I will send them to you first.

Doug: I appreciate that. What I have said to you, is what I have said publicly. I just want to tone it down now to some extent. We're off trying to win some other battles and I need the Region.

Dianne Vernille – MPP (Email response)

1) Who is the ION intended for?

The light rail transit system in Waterloo Region, named the “ION,” is intended for residents who need ride to work, school, shopping, etc., on an efficient public transit system.

2) What policies have influenced the LRT?

Managing traffic congestion, curbing greenhouse emissions, and building our community were the main issues which influenced building the ION in Waterloo Region. The Region’s Growth Management Strategy aligns with the Province’s Growth Plan for the Greater Golden Horseshoe as we advance more efficient, cleaner transit options.

3) What would you say to those who are against the LRT? Or say “just add more buses?”

Many long-time local residents will recall the opposition in the 60s to building the Conestoga Expressway. “Why do we need to spend taxpayers’ dollars on a highway in a community this size?” people asked 50 years ago. Can you imagine moving around our Region today without the expressway? At the same time, municipal leaders in London, Ontario also debated building a city expressway, but rejected the idea. Today, London drivers grapple daily with vehicle traffic, and regret not having invested in a city-wide expressway. With Waterloo Region quickly developing into Silicon Valley north, with our population expected to climb to 750,000 by 2025, we need to invest in a rapid form of transit to move people. Our Region has a well-earned reputation for being forward thinking and planning for the future. The ION will provide us with a rapid, clean, and efficient mode of transportation today and in the years to come.

4) If alternative transit was initially mentioned in the 1976 Regional Official Plan, why did it only become a serious discussion in early 2000?

A question best put to municipal leaders who made that decision.

5) Do you think the Region did enough in explaining the goals of the ION?

The ION was discussed and debated for well over a decade, with public hearings, open council meetings, and welcomed public input.

6) If money was no object, do you think the 19 LRT stops would have been relocated? Relocated to where?

Again, a question best put to municipal leaders.

7) Were there missed opportunities in improving station locations, ridership and ridership experience?

What do you mean by “missed opportunities?”

8) Did project restraints like financial, existing infrastructure or politics impact the route?

From the provincial perspective, our role was a commitment of \$300 million in the construction of the LRT in Waterloo Region. We came to the table quickly with that funding. In terms of the route, that’s a question best put to local municipal planners.

9) How will you measure the success of the ION?

Ridership. We’re looking forward to seeing the ION run smoothly and be well-utilized by local commuters. We also anticipate development along the corridor, helping to shape the community. Already, there are two new major condominium developments in downtown Kitchener, when just a few years ago, no one ever imagined this to be possible. Without the ION, the Region would have to construct 500 new kilometres of roads over the next 20 years to deal with growth. And, we’ll also measure success by reducing greenhouse gas emissions by more than 13,730 tonnes annually by 2031.