The “Manhattanization” of Midtown Toronto:

A Case Study on the effects on Livability in an Intensifying Neighbourhood

by

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A thesis

presented to the University Of Waterloo

in fulfilment of the

thesis requirement for the degree of

Master of Arts

in

Planning

Waterloo, Ontario, Canada, 2021

AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any final revisions, as accepted by my examiners.

I understand that this thesis may be made electronically available to the public.

ABSTRACT

In order to become more sustainable, cities around the world have increasingly adopted smart growth policies to combat urban sprawl and produce more sustainable environments. These principles, when properly implemented, are meant to facilitate a modal shift from automobile use to public transit and active transportation, provide a diverse range of housing forms, mix land uses so individuals can live, work and play in one neighbourhood, and provide a greater sense of livability.

The Midtown neighbourhood (centered around Yonge Street and Eglinton Avenue) is already the most densely populated Urban Growth Center in the Greater Golden Horseshoe region. With the introduction of new transit infrastructure, there has been a frenzy of new developments and development proposals that will add tens of thousands of new residents to the area.

Using Midtown Toronto as a case study, this research examines how the pursuit of ‘smart growth; and the implementation of its key principles has affected resident’s perceived sense of livability in Midtown Toronto. This research employs a mixed method approach, including questionnaires, policy and report review and development submission package analysis, to assess development in Midtown Toronto and the effect on residents’ perceived livability. This study used a convenience-based sampling method and included responses from twenty-three residents in the neighbourhood.

The findings of this study indicate that development proposals could add almost 40,000 new residents to the Midtown Toronto neighbourhood in the near future and that the sectors involved in providing the community services and facilities necessary to support this growth are severely strained and threaten to become more so as the pace of

growth continues. Further, many residents expressed that the level of development within the Midtown Toronto neighbourhood is negatively impacting their livability. These findings suggest that while smart growth principles are meant to produce an enhanced sense of livability for residents, without proper implementation, the opposite may occur. The findings from this study of Midtown Toronto demonstrate that smart growth must be implemented in a well-planned, stepped manner in order for changes to be absorbed into a neighbourhood and in order to allow for the corresponding growth in infrastructure and amenities to ensure residents' livability is not negatively impacted.

ACKNOWLEDGEMENTS

Throughout the preparation, research and writing of this thesis I have received immeasurable support and assistance.

I would first like to thank my supervisor, Joe Qian, for his support, wisdom and guidance throughout this process. Your feedback has proved invaluable. I would also like to thank the rest of my thesis committee: Leia Minaker for the many comments that guided me in improving my work, and Mark Seasons for taking on the role of Second Reader.

Special thanks to my good friend Becky and her family for opening the door to my first professional planning position through which I discovered the depth of my passion to pursue a career in the planning field.

To Terry Korsiak and the team at Korsiak Urban Planning, my deepest thanks for giving me the opportunity to work at your firm. The experience and knowledge I gained is deeply appreciated. I would also like to give special thanks to Terry, for giving me the guidance and encouragement to pursue a master's degree in urban planning, without which I am doubtful I would be where I am today.

Thank you to Paul Scargall for connecting me with your colleagues in the planning profession and for your guidance on where to pursue my master's degree.

I would also like to thank my York University professors, Teresa Abbruzzese and Douglas Young. Your guidance throughout my time at York was invaluable and solidified my desire to purse a degree in the urban planning field. In addition, your feedback and guidance during my final projects inspired the focus of this thesis.

Finally, thank you to my parents for their unwavering support during my undergraduate and graduate degrees. While it may not have been the smoothest path, I

am truly thankful you were there to help me navigate it. Thank you for supporting me during my studies, for reviewing my work and helping me refine my writing skills, and simply for being there when I needed someone to talk to. I love you both.

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INTRODUCTION

Background

The Midtown neighbourhood (for the purpose of this study, I have defined the Midtown Toronto study area as Duplex Avenue along the western border, Lawrence Avenue along the northern border, Mount Pleasant Road along the eastern border and Manor Road along the southern border (*Figure One*)) is already the most densely populated Urban Growth Center in the Greater Golden Horseshoe region (City of Toronto, 2008). However, with the construction of the Crosstown LRT, which intersects with the TTC Line 1 subway, growth and intensification have become the new norm, as high-rise buildings continue to fill the surrounding skyline. With the neighbourhood's designation as an Urban Growth Center, in the *Growth Plan for the Greater Golden Horseshoe*, and the introduction of new transit infrastructure, there has been a frenzy of new developments and development proposals that will add tens of thousands of new residents to the area in the coming years.

Adherence to smart growth principles is a necessary step in modern planning policy to contain urban sprawl and curb automobile use while accommodating the continuing increases in population within an urban area (Miller & Soberman, 2003). However, implementation of these principles cannot be uniformly applied across all neighbourhoods. It is important to ensure sustainable living and urban environments for the future, and also ensure the livability and vitality of neighbourhoods are maintained and improved. However, at a certain point, development can cease to be 'smart' and simply become 'over-developed', leading to the 'manhattanization' of a neighbourhood.

Manhattanization, is defined as the "*congestion of an urban area by tall buildings*" (Merriam Webster, 2021). The term has been used to describe many cities but is now commonly used to describe neighbourhoods which have experienced a transformative boom of dense and tall buildings (Warzecha, 2014) (Yelaja, 2012). The term aptly describes the Midtown Toronto neighbourhood, where the skyline has begun to resemble that of Manhattan as high-rise towers continue to fill the area.

For many decades, development patterns produced relatively low density, socially segregated, automobile-oriented communities, which led to deteriorating air quality, inefficient use of energy, costly infrastructure maintenance, and traffic congestion (Filion & Mcspurren, 2007). In order to become more sustainable, cities around the world have increasingly adopted smart growth policies and compact city building to combat urban sprawl and produce more sustainable environments (American Planning Association, 2012).

The adoption of smart growth policies and compact city building is instrumental in combating urban sprawl and producing more sustainable environments (Bibri et al., 2020). A compact city is thought of as the opposite of urban sprawl, an intensified urban form (Kenworthy, 2006). Compact cities employ a mix of land uses promoting different activities varied both horizontally and vertically, thereby placing daily needs, such as space for living, shopping and working, all within short distances (Vorontsova et al., 2016). A counterpart to compact city development is smart growth, which builds on the compact city movement with more defined guidelines on how to achieve better urban development and life.

Smart growth consists of ten principles that aim to protect the natural environment and promote development that is both sustainable and provides a high sense of livability for residents. When properly applied, the principles conserve resources by reinvesting in existing infrastructure, designing and building neighbourhoods that provide a mix of land uses within close proximity, promoting the use of active transportation and public transportation over automobile use, providing different housing types for individuals at all stages of their lives, and producing healthy neighbourhoods where residents can live, work and play (Smart Growth America, 2019).

Implementation of these policies must be carried out in a staged and well-planned manner to ensure that the livability and vitality in the area is not negatively impacted. Worldwide, there is a push towards fighting climate change, which includes producing more compact and ‘smart’ neighbourhoods (Brown et al., 2008). In Toronto, this is being achieved through an emphasis on nodal development, creating focal points within the City with mixed uses, relatively high density and a focus on walkable, transit supported urban form (Fillion, 2007). In Midtown Toronto, the intersection of Yonge and Eglinton has been identified as a location to attract office development and high-density housing since the 1969 City of Toronto Official Plan (City of Toronto, 1969). Over time, the intersection, and surrounding neighbourhood, has seen exponential growth in development, largely in the form of intense high-rise development. This has achieved the goals set out in the 1969 Official Plan, however, as the area has continued to increase in density, there has been increased pressure on local services, infrastructure and public spaces. It is possible that at a certain level, when development pressure becomes too great, a neighbourhood and its residents may begin to experience a reduced sense of livability and the neighbourhood

may become less ‘livable’. Therefore, if we continue to intensify urban environments, we must maintain the areas’ livability and make sure that the character of these neighbourhoods is not threatened or compromised, to ensure residents’ lives will not be adversely impacted.

Research Objectives and Question

The objective of this study is to examine how the implementation of smart growth principles in the Midtown Toronto area has affected resident’s perceived sense of livability. There is no formal definition of the Midtown Toronto area, as different sources outline the area with different streets and roads representing the boundaries. As there is no formal definition, for the purpose of this study, I have defined the Midtown Toronto study area as Duplex Avenue along the western border, Lawrence Avenue along the northern border, Mount Pleasant Road along the eastern border and Manor Road along the southern border (*Figure One*). I selected these boundaries as they encompass the intersection of Yonge Street and Eglinton Avenue, which has experienced the highest level of intensification in the Midtown area, but also includes surrounding area to include a broader range of development levels, housing types and neighbourhood amenities.

It is important to understand how an areas’ livability is affected as we continue to intensify urban environments. We must ensure a neighbourhoods’ character is not lost and that residents’ lives are not being adversely affected. In order to investigate this, the research question I will address is: ‘how does the pursuit of “smart growth” and the implementation of its key principles affect resident’s livability in Midtown Toronto’.

Thesis Structure

This thesis has been divided into six chapters. The first chapter, Introduction, outlines the purpose of this thesis and the research question that will be addressed. It also provides a description of the Midtown Toronto area and the current situation within the neighbourhood as it pertains to this study. The second chapter outlines the literature explored for this study, which is broken down according to key themes and discussed in further detail. The third chapter, Research Methods, explains the methodology I employed to gather and analyze data. This chapter is broken down into separate sections, which further detail how each research approach was used to complete this study. In the fourth chapter, Results, I explain and outline the policy that has led to the current state of the Midtown Toronto area, summarize the number of units and residents expected to reside within Midtown Toronto in the future and outline the analysis. In the fifth chapter, Discussion, I present the results from the analysis of the contents of chapters three, four and five, which are broken down into key areas pertaining to the Midtown Toronto area. Finally, I present the findings of this study and the future directions in the final chapter, Conclusion.

LITERATURE REVIEW

There is a large amount of literature that exists on smart growth and compact city principles. This literature discusses how the implementation of these principles is vital to ensuring efficient and sustainable urban growth for the future. However, there is a lack of literature that focuses on whether the intensity of the implementation of these principles can lead to negative effects on resident's livability. It is important to understand what will happen if we continue to intensify urban environments in ways that may impact the areas' livability, and lead to neighbourhoods' character being threatened and residents' lives being negatively impacted. For these reasons, the intent of this literature review was to develop a better understanding of livability as a concept, and the factors that influence a resident's experienced livability. The analysis of these findings is broken down according to key themes in the following sections, each of which is discussed in further detail respectively.

Defining Livability & Quality of Life

Literature suggests there is little consensus on the definitions of livability and quality of life. Some academic literature suggests that livability is a sub segment of quality of life, while other literature defines livability as separate from quality of life. Haarhoff et al. (2016) completed a review of municipal policy from multiple sources, which revealed that the use and description of livability and quality of life is not uniform in government literature either. Through their study, Haarhoff et al. described livability as an urban condition derived from a resident's interactions with their environment and concluded that livability is an element within quality of life that is experienced and perceived by residents.

Baig et al. (2019) described livability as separate from quality of life given that it includes accessibility to public services, neighbourhood design, public transit and urban green space. However, Baig et al. do state that livability is strongly connected to the fields of sustainable development and quality of life.

Throughout the literature, there is also no unified definition of livability employed due to the complexity of the concept and because it has a multi-dimensional nature. Selected literature describes livability in terms of the environmental conditions of an area, such as health, safety and affordability (Namazi-Rad et al., 2016), while other literature describes livability in terms of the natural amenities in an area, the level of development and services and through socio-economic factors (Wang et al., 2020). Zhan et al. (2018) discuss the lack of a unified definition for livability and list three examples as definitions: livability as sustainability for human living; livability as a quality of life experienced by residents of a neighbourhood, area or region; and livability as a standard of living or general well-being of residents within a neighbourhood, area or region.

Factors of Livability & Factors of Quality of Life

Throughout the existing literature, there are different factors analyzed to measure and describe livability and quality of life. Through a study of 503 residents of Sydney, Australia,, of which 44% were male and 56% were female, Namazi-Rad et al (2016) found that subjective perspectives led to six prevailing factors residents used to describe their sense of livability: their home, the neighbourhood as a whole, local transportation options, forms of entertainment, services available, and work availability. As well, quality of life is described using eight major features; a nuisance free environment, a healthy

environment, access to proper housing, education opportunities, employment opportunities, health services quality, recreational opportunities and amenities. Their findings indicated that the most important factor for residents in both livability and quality of life was their home, followed by local transportation options and job availability. Zhan et al. (2018), through a literature review, instead found that evaluation criteria of urban livability typically focus on the physical environment and the socio-cultural environment, specifically economic development, urban security, public facilities, traffic conditions and urban green spaces. Their research found that economic development is commonly used to measure quality of life; however economically developed cities experience high costs of housing and living, both of which degrade the level of livability. Satu and Chiu (2019) completed a study of livability in Dhaka and focused on livability through seven factors; accessible facilities in close proximity, urban green spaces, a pedestrian supportive environment, enhanced mobility and transit options, strong social interaction, a sense of public safety for residents and overall health. Pukeliene and Starkauskiene (2011) also completed a study on quality of life and affirmed that measurements require a systemic approach based on identified factors of quality of life and their interrelationships. Their study of quality of life highlighted health conditions, security, education, family, income, housing, the environment, and accessibility as common factors used to describe and understand quality of life.

As the factors used to describe and measure livability and quality of life vary from study to study, this imposes limitations on the ability to accurately compare measured livability and quality of life across different neighbourhoods and areas. Satu & Chiu (2019) found that the study of density and livability are context specific, making it challenging to

universally apply factors to studies in different areas. While the factors utilized to describe and measure livability and quality of life varied, they could be typically broken down into three realms; natural environmental factors, social factors and built environment factors. However, through the literature review, it is evident that without a universal benchmark measurement system, both livability and quality of life can encompass different things as well as different aspects of each other, creating difficulties in comparing and measuring results across different geographic areas.

Focusing on Livability

For this thesis, I have chosen to focus on livability over quality of life. As previously stated, existing literature does not provide a communally shared definition for livability or quality of life. While some literature suggests they are separate concepts, others suggest quality of life is a subsection of livability and vice versa. The results of my literature review found the concept of livability encompasses quality of life. This is supported by Baig et al. (2019) where livability is described as going beyond quality of life, and including aspects such as accessibility to facilities, neighbourhood design, safety, security and satisfaction within its measurement. The National Research Council (2002) also describes livability as including the concepts of sustainability, quality of life, the character of a place and the health of communities. They describe livability as an “ensemble concept” which includes many different factors and characteristics (National Research Council, 2002).

Although there is no single widely accepted definition of livability, the definition from the 1987 Brundtland Report commendably describes livability as “t*he ability for a community to meet the needs of the present without compromising the ability of future*

generations to meet their own needs" (U.N. Secretary General & World Commission on Environment and Development, 1987). This is a fitting definition of livability that highlights why it is a concept that is important for us to better explore and understand. As described by the National Research Council (2002) "*it is the very generality of the term that allows diverse groups of stakeholders to come together and make livability a public policy goal*".

A literature review in 2002 by Leidelmeijer, Marsman and Van Kamp found that there is no widely accepted framework to study well-being, which both quality of life and livability are meant to describe (Van Kamp et al., 2003). Both academic literature and government documents use the terms interchangeably as well-being is a central issue in research, policy making, and urban development, however, the context and definitions in both research and public policy are not constant. This was confirmed by research completed by Psatha et al. (2011), who found that differences in spatial areas and cultural groups raised different factors as pertinent to quality of life and livability, with many factors included in both definitions.

Given the many sources that use different factors to study and analyze livability, I chose seven factors to focus on in this thesis and describe livability. These factors were chosen after completing a review of literature on factors used to describe and understand residents' perceived sense of livability. These seven factors are; the neighbourhood as a whole, transportation options and availability, entertainment options, service and amenities options and accessibility, access to green space, access to and options for housing and education opportunities. These factors were chosen as a combination of the factors researched and utilized by the authors in the following table. Many of the factors in each of the respective studies overlapped with other research completed in the field of

livability, therefore the factors that were commonly used were selected to be the focus of this thesis.

Authors	Year of Study	Location of Study	Study Group	Factors Included
Badland et al.	2013	Melbourne, Australia	N/A – Literature Review	(1) Crime and Safety, (2) Education, (3) Employment and Income, (4) Health and Social Services, (5) Housing, (6) Leisure and Culture, (7)
Baig et al.	2019	Hyderabad, Pakistan	Low, Middle- and High-Income Residents, 290 Households, 81% Male Respondents	(1) Accessibility to Facilities, (2) Neighbourhood Design, (3) Safety and Security, (4) Satisfaction, (5) Provision and Access to Schools, (6) Availability of Parks, (7) Availability of public amenities (cinemas, clubs, restaurants, etc.), (8) Availability of Public Transport
Bramley & Power	2007	Edinburgh, Scotland	N/A – Literature Review	(1) Leisure and Cultural Opportunities, (2) Crime, (3) Health Services, (4) Education Services, (5) Social Care, (6) Safety of Spaces, (7) Transportation Options, (8) Affordable Housing
Namazi-Rad et al.	2015	Randwick, Sydney and City of Sydney, Australia	503 Respondents, 44% Male Respondents	(1) Available Entertainment Services, (2) Available Services, (3) Neighbourhood as a Whole, (4) Education Access, (5) Local Transportation, (6) The Home
National Research Council	2002	United States	N/A – Literature Review	(1) Education, (2) Health, (3) Poverty, (4) Crime, (5) Jobs, (6) Water Quality, (7) Air Quality, (8) Natural Capital, (9) Transportation
Psatha et al.	2011	Europe	N/A – Literature Review	(1) Health Services, (2) Urban Green Spaces (3) Quality of Urban Environment, (4) Employment Opportunities, (5) Family and Marital Statues Indices (6) Social Networks, (7) Income, (8) Unemployment, (9) Education, (10) Leisure Resources, (11) Crime, (12) Social Inequalities

Pukeliene & Starkauskiene	2011	Kaunas, Lithuania	N/A – Literature Review	(1) Quality of Natural Environment, (2) Political Stability, (3) Healthcare System, (4) Accessibility of Education, (5) Economic Growth, (6) Personal Security, (7) Leisure Opportunities, (8) Income, (9) Availability of Housing
Satu & Chiu	2017	Dhaka, Bangladesh	421 Respondents, 62% Male Respondents	(1) Public Transport, (2) Community Facilities, (3) Open Space and Public Space, (4) Sense of Community, (5) Sense of Safety, (6) Dwelling Space
Zhan et al.	2018	China	9,325 Respondents, 51.7% Male Respondents	(1) Urban Security, (2) Convenience of Public Facilitates, (3) Environmental Amenity, (4) Convenient Transportation, (5) Sociocultural Environment, (6) Individual Socioeconomic Attributes

Measurement of Livability

Existing literature is in accord that measurements of livability are often unable to fully comprehend and describe the livability experienced by residents of an area. Much of the literature concludes that indices intended for measurement of livability do not effectively or accurately measure it, as they do not account for subjective views based on local environmental conditions experienced by residents (Zhan et al., 2018). Current livability indices are based on objective measurement and only account for set factors and characteristics. However, in order to fully comprehend the livability of an area, the subjective dimensions need to be taken into account (Walton et al., 2008). Studies also found that as the subjective dimension of livability is based on personal thoughts and opinions, it is challenging to create an index that accounts for all perspectives. Namazi-Rad et al. (2016) also found that livability measurements can be interpreted differently depending on the type of measurement used. For example, safety is considered a key

aspect of livability within a neighbourhood but can be measured based on crime rates or can be measured based on local residents' perceptions. Both methods would provide a measure that could be used to describe the livability of an area, but each represents a different meaning of safety in the neighbourhood. Studies have also shown that a resident's satisfaction with the urban environment and their sense of livability can be heavily influenced by a resident's socioeconomic attributes, further complicating the ability to create a standardized measurement of livability (Zhan et al., 2018).

Livability & Amenities and Services

McCrea and Walters' (2012) research, completed in Brisbane, Australia through qualitative interviews and 400 responses to surveys, suggests residents are not opposed to urban densification because of a fear of intensification, but rather out of fear that urban livability will be compromised. As neighbourhoods intensify and residential density increases, public spaces, amenities and services play an increasingly important role in the livability of a neighbourhood (Mouratidis, 2018). Haarhoff et al. (2016) completed research on residents' acceptance of increased residential density and found residents were willing to accept intensification, but only if it was accompanied by the appropriate increase in the level of amenities and services required to serve the new population. Other studies supported these findings, suggesting housing choices and a resident's home neighbourhood selection is more complex than choosing between different densities (Lahoti et al., 2019). A study of fifty-seven residents, of which 60% were female, in Australia and New Zealand found that residents who choose to live in compact residences

and high-rise towers replace the amenity of a backyard with the shared amenity space available through local urban green spaces (Allen at al., 2018).

Livability & Housing

Studies on livability in dense neighbourhoods suggest livability is the result of both the quality of housing for residents as well as the quality and quantity of amenities available within a neighbourhood (Fassio et al., 2013). In neighbourhoods experiencing intensification, the common proposed built form is high-rise residences. However, through a literature review of studies on livability associated with specific housing forms, Gifford found that residents are less satisfied in high-rise buildings, development of children is poorer due to restricted outdoor activity and a lack of space, residents have fewer friendships in their buildings and reduced meaningful interactions, and fear of crime is greater (Gifford, 2007). As a neighbourhood's value increases, housing prices increase at a much faster rate than incomes, placing residents in financial hardship, which degrades livability (Johnston et al., 2016). The study, completed in London, also found gentrification and densification commonly occurs in neighbourhoods where ethnic minority groups are concentrated, pricing out residents who are typically in lower paid occupations and further reducing their sense of livability. This supports the research completed by Zhan et al., reinforcing the concept that a resident's socioeconomic attributes can heavily impact experienced livability.

Livability & Health

Studies also report that many of the factors that influence livability in urban environments are also closely tied with human health (Sallis et al., 2016). Structured implementation of mixed used, compact urban form, can not only contribute to a high level of livability but can also promote healthier lifestyles (Giles-Corti et al., 2016). These benefits occur when intensification and a mixed use-built form are implemented in a well-planned manner, which typically leads to a transport modal shift away from personal automobiles to walking, bicycle and public transportation use. Ngom et al. (2016) studied disparity in access to green spaces and found that restricted access is a factor that can lead to lower levels of livability. Urban green spaces are recognized as a key piece of infrastructure that promotes well being and improves both physical and mental health, in addition to providing space for active recreation (Arivaningsih et al., 2019). In many cities, poor planning has led to a lack of urban green space, which has been connected to elevated levels of obesity and a higher prevalence of mental health issues.

Intensification

Urban intensification, which focuses new development away from peripheral landscapes into existing urban environments, has become a common growth management strategy in the planning profession (Neptis Foundation, 2010). It is considered to be a combination of two processes, the intensification of built form and the intensification of population activity (Bunce, 2004). Both ‘smart growth’ and ‘the compact city’ generally include policies about urban intensification, among other policies (Melia et al., 2011). In existing literature, intensification is commonly promoted to create a modal shift from private automobile use to active transportation and public transportation use

(Litman, 2011). It is also frequently described as a means to deliver a form of sustainable development (Janssen – Jansen, 2013).

However, a study completed by Melia et al. (2011) found that while there is significant research on urban intensification, specifically the relationship between urban form and transportation mode use, there is little direct evidence on the effects of urban intensification implementation. A study out of England determined that there are a number of contradictions in intensification policies that have led to doubts over whether intensification can be used to achieve sustainable development (Williams, 1999). Additional review of intensification policies in Europe, the United States, Asia and Africa found that in terms of density and land uses, urban intensification alone was not necessarily a useful route to achieve sustainability (Williams, 2004). The study found that multiple policies needed to be implemented, as prescribed by both the smart growth and the compact city concepts, in order to achieve sustainability.

The Compact City

As previously stated, the compact city is a counterpart to smart growth. Both smart growth principles and compact city principles have become commonly used as a means to halt sprawl and improve urban livability (Nallathiga, 2007). Urban sprawl is seen as an unsustainable form of development, as it consumes vast quantities of land, promotes the use of private automobiles due to the segregation of land uses and places added fiscal pressures on local government due to the extent of infrastructure required to service the lands (Terzi & Bölen, 2012). To combat urban sprawl, governments have implemented policies to produce more compact cities which have dense development patterns with

mixed land uses that are supported by public transportation, promote accessibility, and provide access to necessary local services and jobs in a close vicinity (Lardier, 2020).

Typically, the definition of a compact city is centered around population density, however, studies have found that there is no uniform definition that defines the characteristics of an example compact city (Neuman, 2005). Neuman completed a review of multiple literary sources and summarized the features commonly used to describe a compact city into fourteen characteristics, however, he found these fourteen characteristics could easily be used to describe almost any city. This was reiterated by other sources who found "*the research results inconsistent*" (Hall, 1999). According to the Organization for Economic Co-Operation and Development (OECD), there are three characteristics that define a compact city; "*dense and proximate development patterns, urban areas linked by public transportation systems, and accessibility to local services and jobs*" (OECD, 2012). However, these three characteristics are general in their description and are open to broad interpretation, making it challenging to achieve a consensus between multiple parties.

One of the key benefits of compact cities that is commonly cited is that they promote the use of public transportation over personal automobiles, reducing greenhouse gas emissions (Bibri et al., 2020). However, studies have also found that the relationship between these two factors, compact cities and sustainability, are limited. One study determined that while short trips to local destinations by private automobile may decrease, specialized destinations still typically required the use of a private automobile (Van Diepen et al., 2002). Employment opportunities, specialized stores and unique leisure locations were all cited as reasons for individuals to continue to use a private

automobile over utilizing public transit, due to the added ease, comfort and travel time savings. Other studies reached the same result, and outlined the need for a change in personal, household and business mentalities across the public in order to facilitate greater benefits to sustainability (Neuman, 2005). The promotion of public transit can result in a reduction in automobile use; however, a study of forty-one cities found that a ten percent extension of a rapid transit network only resulted in a three percent increase in ridership and two percent reduction in automobile use (de Grange et al., 2012). This coincides with the findings of Neuman and further highlights the mentality and preference of automobile use over public transit use in many cultures.

Smart Growth

Smart growth consists of ten principles; (1) mixed land uses placing residential, commercial, office and institutional developments near one another and within the same structure, (2) compact design by building up rather than out and increasing density, (3) creating a range of housing options to fit residents of all ages and incomes, (4) building walkable neighbourhoods to reduce automobile use and encourage active transportation, (5) building attractive distinct communities with unique public art, architectural design and inclusion of historic heritage structures, (6) preservation of open space and unique natural features to promote biodiversity and ecological conservation, (7) encouraging development in established communities as opposed to greenfield development, (8) providing a variety of options for transportation such as public transportation, biking infrastructure and plentiful space for walking, (9) ensuring public regulations are

conducive with smart growth development, and (10) encouraging community and stakeholder collaboration in development (Smart Growth America, 2019).

Smart Growth principles are designed to combat sprawl and produce more sustainable environments (Bibri et al., 2020). The Smart Growth policy framework promotes an urban development pattern defined by high population density, walkable and bikeable neighbourhoods, preserved green spaces, mixed-use development and available mass transit (Resnik, 2010). The goal of Smart Growth principles is to accommodate ongoing population growth in a way that protects air quality, provides mobility options and housing choice, protects open space, promotes economic vibrancy and produces a high sense of livability for residents (Marlow, 2018). This is the opposite of urban sprawl, which has resulted in low density, socially segregated and automobile dependent communities for decades (Wiewel et al., 1999). Urban sprawl has also led to mass land consumption for development and, subsequently, the loss of open space. This development form was thought to be cheaper, however, the costs have become apparent over time. Urban sprawl has led to high levels of traffic congestion and the requirement for sprawling infrastructure to serve the development spread over larger areas. As a result of increased automobile dependency in suburban neighbourhoods, there has been increased smog and greenhouse gas emissions (GHG) (Mehaffy, 2015).

In recent decades, a large amount of urban development in Canada has been in the form of urban sprawl, typically located at the edges or city centers (Sustainable Property, 2012). However, today, more compact and sustainable forms of development have become a priority for Canadians as we recognize the costs associated with ongoing development in the form or urban sprawl (Central Ontario Smart Growth Panel, 2003).

The push towards sustainable development, in part due to climate change, and the fiscal pressures being felt my municipalities, has led to the promotion and implementation of smart growth principles across municipalities and Provinces. The Province of Ontario also considers it to be a necessary step to ensure the competitiveness of the Greater Golden Horseshoe area and to accommodate the projected future growth in the area (Ministry of Municipal Affairs and Housing, 2020).

In 1990, the Greater Toronto Area adopted a 'multi-nodal' vision for development, in which a number of nodes were identified for dense mixed-use development (IBI, 1990). These nodes were intended to be developed as multi use centers that promoted walking and use of public transit, in comparison to those promoting automobile use. Today, these nodes, which are now termed 'Urban Growth Centers' in the Growth Plan for the Greater Golden Horseshoe (Growth Plan), are still identified. The Growth Plan, under Section 2.2.3, describes Urban Growth Centers as "*areas for investments in regional public service facilities, as well as commercial recreational, cultural and entertainment uses*", areas to "*accommodate and support the transit network at the regional scale and provide connection points for inter- and intra-regional transit*", areas "*to serve as high-density major employment centers that will attract provincially, nationally and internationally significant employment uses*", and as areas to "*accommodate significant population and employment growth*" (Ministry of Municipal Affairs and Housing, 2020).

In Ontario, another key focus of the Growth Plan has been the implementation of policies to create vibrant and complete communities. Smart growth principles align with these policies by supporting a balance of housing and jobs, reducing transportation issues and providing more employment opportunities. Under the Growth Plan, four key factors

are identified to promote the development of complete communities "*where people can live, work, shop and access services in close proximity*" (Ministry of Municipal Affairs and Housing, 2020). These key factors are; (1) a mix of housing types, (2) a diversity of land uses, (3) providing community amenities, and (4) street connectivity. A mix of housing types, which aligns with Principle 3 of smart growth, is intended to ensure that people's changing housing needs continue to be met, in the same neighbourhood, throughout their lifetime. By providing a range of different housing types, a neighbourhood is able to provide housing for senior citizens when they can longer manage a semi-detached house, provide housing for young individuals working to afford their first home, and provide families with housing options that will work throughout their lifetime (Strathcona County, 2020). A diversity of land uses, which aligns with Principle 1 and Principle 4 of smart growth, is meant to provide local residents with access to all of their daily needs within a short distance. By putting residential, commercial, institutional and recreational needs within a short distance from an individuals' home, they are able to walk, bike, or take public transit instead of using a private automobile (Nabil et al., 2015). Providing community amenities, which aligns with Principle 1 of smart growth, is also intended to ensure local residents have access to all of their daily needs within a short distance. Community amenities include community centers, parks, libraries and schools. Providing easy access to these amenities not only promotes active transportation over automobile use, but also reduces the municipal costs of these amenities by providing access to more residents, thereby reducing the cost associated with maintenance by spreading that cost among more individuals (Onyschuk et al., 2001). Finally, street connectivity, which aligns with Principles 4 and 8 of smart growth, is meant to provide greater connectivity, which

reduces travel distances and provides more route options for mobility. By providing street networks that are highly interconnected, travel time and distance can be reduced, promoting active transportation methods over automobile use (Frank et al., 2007).

Criticisms of Smart Growth

Although there is a significant amount of literature that outlines the benefits of smart growth, there is also literature that is critical of it. Among the criticisms are that smart growth ignores consumer desires, increases traffic congestion and air pollution, reduces housing affordability, and increases public service costs (Litman, 2018). A key criticism of smart growth is that it ignores consumer desires. Smart growth promotes the redevelopment of nodes, corridors, highlighted re-urbanization sites, and areas deemed of significant importance by the Province (Blais, 2003). In these sites, the primary form of development is high-rise to save space and accommodate a larger portion of the population growth, which is more affordable for municipalities through building up rather than out. However, it is often claimed that most households prefer single family homes over apartments and condominiums. A study completed by Sotheby's International Realty Canada in 2018, found that over 83% of families in Canada's key metropolitan areas would prefer to live in a detached single-family home, but only if budget was not an issue. A separate study, completed by Price Waterhouse Cooper and the Urban Land Institute in 2019, found that while most households preferred single family homes, these households were willing to accept smaller lots and/or multi-family housing forms if there were travel time or financial savings associated with them (Urban Land Institute & Pricewaterhouse Cooper, 2019). Research has shown that while some families do still

prefer single detached homes, many others are willing to choose smart growth neighbourhoods if they provide incentives, such as nicer urban neighbourhoods, better commuting options, financial benefits and easier access to amenities (Blais, 2011).

One of the key principles of smart growth is to achieve high population density. Typically, urban density is thought to be achieved through high-rise buildings, which can be appropriate for certain locations, but are not necessary in all neighbourhoods (Bass, 2004). For example, a 2003 study completed by the Neptis Foundation found many older neighbourhoods were able to achieve densities that that were comparable to higher density newer neighbourhoods, while still maintaining a low-rise form (Blais, 2003). This was achieved because the older areas had smaller residential lots, which resulted in more density because there was less distance between semi-detached, row houses and low-rise apartment buildings. The study also found that some neighbourhoods with more high-rise buildings did not achieve high densities because the towers sat on large lots with large amounts of the lot dedicated to surface parking.

A further criticism of smart growth is that it leads to more traffic congestion and air pollution. Smart growth promotes placing a large population around transit options to support transit viability and provide easy access to transit for said population. A review of policy and automobile use found that under normal circumstances, when population densities increase, overall private automobile use decreases (Melissa et al., 2011). However, the study also concluded that while the overall automobile use decreased, within the area of concentration, automobile use increased, leading to further congestion and local environmental and social problems. The study concluded that while smart

growth reduced overall traffic congestion, within the concentrated area automobile traffic intensified due to the higher population density (Melissa et al., 2011).

The importance of understanding different mindsets in different countries is also important when implementing smart growth principles, especially in terms of automobile use. In Canada, a study completed in 2010 by Statistics Canada found that commutes are longer by public transit than they are by car. The study stated that public transit users spent roughly forty-four minutes travelling to work, while private automobile users spent roughly twenty-four minutes travelling (Statistics Canada, 2016). The study also found that of the 10.6 million individuals who commuted by private automobile to work, roughly 7 million of them thought public transit was somewhat or very inconvenient. So, although smart growth policies place more individuals in close proximity to public transit, this does not mean residents will choose to use public transit over private automobile use (Houston et al., 2015). This was the case in Portland, Oregon, where a review of public policy found that although the municipality aggressively pursued smart growth policies in the 1990's to increase urban population densities, boost transit ridership and decrease automobile use, findings indicated that these policies were not effective and predicted that Portland area residents would spend four times the length of time sitting in traffic by 2020 and that subsequently, smog would be increased in the area by ten percent (O'Toole, 2001). A study, completed by INRIX in 2020, of global traffic congestion ranked Portland as the 14th worst traffic congestion in the United States. The study cited that Portland ranked 8th worst in 2017, 10th worst in 2018 and 8th worst in 2019, indicating that the City continues to experience some of the worst congestion in the United States (INRIX, 2021).

So, although cities may desire to have Hong Kong levels of public transit use, these levels would be physically impossible in most American cities due to differences in density (Melissa et al., 2011). Without the necessary density to utilize public transit infrastructure, the costs of implementation and operation of new projects are too great to fund and subsidize through transit revenues and taxes.

Another criticism of smart growth is that it reduces housing affordability. Many individuals have claimed that by reducing urban land supply, the cost of housing increases (Green et al., 2016). There is also general consensus that more regulations increase development costs (Cheshire and Vermeulen, 2009). However, some have claimed that these increased costs contribute to inequality by excluding lower-income households from economically productive urban regions (Utt and Cox, 2004). Smart growth is typically implemented in areas that have good access to transit, which tends to increase housing prices, especially single-family homes, due to a combination of proximity to the transit and high demand for land supply. Given that these neighbourhoods already provide access to rapid transit, the costs associated with living in that neighbourhood are typically higher to begin with. So, when smart growth principles are implemented and the neighbourhood begins redevelopment and subsequent gentrification, the costs are further increased making it more challenging for lower-income households to afford the area (Addison et al., 2013).

Another criticism of smart growth is that it increases public service costs. It is commonly stated that implementation of smart growth principles leads to reduced sprawl, which means shorter roads, less distance for major infrastructure, and the need for less parking requirements (Marlow, 2008). However, many critics are in opposition and claim

that smart growth results in increased public service costs. While this may be true in the short-term, the long-term effect has shown otherwise. The initial costs to clean up sites and install necessary infrastructure within existing urban areas are high, but these costs are reduced in the long-term as the maintenance costs associated are less dispersed (Litman, 2018). In addition, the environmental costs associated with reduced greenhouse gas emissions are reduced in the long term. A study completed in 2013 found that in the long term, CO2 emission reductions from the implementation of smart growth principles can be substantial (Wang et al., 2013).

Key Findings

Through this literature review, it is evident there is no consensus on the definitions of livability and quality of life. To better understand both concepts, I reviewed relevant literature sources and subsequently chose to focus on livability over quality of life, as I believe the concept of livability encompasses quality of life. Reviewing relevant literature on livability and its many facets highlighted seven common themes/factors used to describe and understand residents perceived sense of livability. These seven factors are: the neighbourhood as a whole, transportation options and availability, entertainment options, service and amenities options and accessibility, access to green space, access to and options for housing and education opportunities.

Additionally, this review revealed that smart growth principles and compact city principles coincide in their aim to accommodate population growth in a way that is sustainable while providing a strong sense of livability for residents. In Ontario, these principles have been applied in a nodal manner to create vibrant and complete

communities, which is in accordance with both smart growth and compact city building principles. However, while research indicates that these principles can provide significant benefits, there are numerous commentaries that highlight the importance of how these principles are implemented and the differing outcomes that can result from improper implementation.

RESEARCH METHODS

In order to gather information on the effects of intensification on a resident's sense of livability, I employed a mixed method research approach. The qualitative methods I used are a semi-structured questionnaire, a literature review, and City of Toronto policy and report review. The quantitative methods I used include questionnaire response data analysis and development submission package analysis. Using a mixed-methods approach was appropriate as the effect on livability can be assessed by the quantitative data, but given that the study is based around livability, which is primarily a qualitative concept, I felt it was crucial to include individual perspectives and experience to fully describe and understand the impact experienced in day-to-day life.

Questionnaire

In order to design the questionnaire, I completed a review of literature on designing a questionnaire. Research indicated that minor details in the formulation of questions could lead to major effects on the answers received from respondents (Lietz, 2010). Some studies found that longer questions lead to more accurate responses, as they stressed the importance of the questions (Oksenberg et al., 1991). However, research completed by Oppenheim (1992) found that the maximum number of words per question should be twenty. Given these findings, I attempted to keep questions under twenty words, but some are lengthier in order to better frame the questions. This also coincided with research by Foddy (1993), that questions should be kept as simple as possible to avoid what he described as a 'question threat', questions that are poorly worded and become off-putting to respondents. Foddy also stated that respondents could feel stupid or uneducated if

difficult vocabulary was used in questions, leading to ‘don’t know’ responses (Foddy, 1993). In order to counter the ‘question threat’ and avoid responses such as ‘don’t know’, I employed simple language and kept the questions as straightforward as possible. Foddy also found that using certain words, such as ‘frequently, usually, regularly’ and other adverbs, led to inaccuracy among responses given respondents had different interpretations of each word (Foddy, 1993). To offset this issue, I did not include any of these terms in order to keep the questions as straightforward and unambiguous as possible.

I also completed a review of literature to guide me in the formatting of the questionnaire. Research on questionnaire formats found that general questions should be placed before specific questions (Lietz, 2010). The reason behind this ordering is that research has shown that specific questions have been shown to influence general questions, but not vice versa (Bradburn & Miles, 1979). For this reason, the general questions, or written questions in this questionnaire, preceded the specific questions, and the ordinal rankings. Research completed by Foddy found that longer ordinal scales were more appropriate in situations when abstract judgements are desired from respondents, while shorter scales, such as a five-point scale, were more appropriate for absolute judgements (Foddy, 1993). I chose to use a ten-point scale to allow respondents to think of the questions on a larger scale, or in a more abstract form. In order to provide respondents on the direction of the scale, from low to high, I included verbal labels as anchors at both ends of the scale (Wildt & Mazis, 1978) (O’Muircheartaigh, 2000).

The questionnaire was split into two parts with a total of forty-two questions. It took respondents roughly thirty minutes to complete. In the first section, respondents were

asked to provide written answers to questions. These questions, of which there were twenty-six, allowed respondents to answer yes or no and then provide a narrative elaborating on their answer. In the second section, respondents were asked to provide a numeric value from one to ten on an ordinal scale rating each question, with one described as strongly agree to ten, described as strongly disagree.

As previously stated in the Literature Review chapter, many sources use different factors to study and analyze livability. Given these findings, I chose seven factors to focus on in the questionnaire to describe and assess livability for respondents. These seven factors include; the neighbourhood as a whole, transportation options and availability, entertainment options, service and amenities options and accessibility, access to green space, access to and options for housing and education opportunities. These factors were chosen based on the literature review and included factors from the research completed by Badland et al., Baig et al., Bramley & Power, Namazi-Rad et al., the National Research Council, Psatha et al., Pukeliene and Starkauskiene, Satu and Chiu, and Zhan et al.

Based on the guiding principles in the literature review, the questions, as designed, focused on topics such as Midtown Toronto as an area, transit capacity and experience with transit service, shops and entertainment venues within the neighbourhood, green space availability, the construction of the Crosstown LRT, the level of infrastructure in the area, traffic congestion within the area, housing options and affordability and livability. The intention of the two sections was to have a section which could allow respondents to include qualitative information they believed was important, including personal experience and their own perspective, and to have a section that provided quantitative

data to provide a consensus on how individuals felt about specific topics pertaining to the Midtown Toronto area.

Sampling Design & Selection

To obtain different perspectives, I employed a convenience-based sampling method. Potential participants were then categorized based on their age and housing form, to create subgroups, which allowed me to categorize the study population and to obtain roughly equal sample sizes from each subgroup. The factors considered to ensure the diversification of the sample group were as follows;

- Including individuals who range in age, from their mid-twenties to those in their sixties;
- Including individuals who live in different housing types, such as high-rise apartments, mid-rise apartments, low-rise detached homes, townhouses and semi-detached homes;
- Including individuals who are currently living in the area as well as individuals who have purchased and plan to live in the area; and
- Including individuals who are property owners and other individuals who rent their accommodations.

Given livability is a subjective concept, it is important to include many different perspectives, but also to ensure that no single subgroup plays a more significant weight in the discussion or responses than any other subgroup.

As a resident of the area, I have a number of personal connections, family, friends, colleagues and neighbours who live throughout the Midtown Toronto area. Due to

COVID-19, I experienced challenges finding additional individuals I could ask to take part in the questionnaire. To ensure I was able to include a diverse and encompassing group in this study, I employed the connections of my family, friends and colleagues to increase the number of individuals I was able to connect with about completing the questionnaire. This ensured I was able to gain access to the diverse perspectives of different residents within the area. This study sample provided a balance of perspectives which was representative of the area's population and which provided diversity in the responses received.

The study was reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE# 43080). Following the guidance of the University of Waterloo Research Ethics Office, I first contacted potential participants with an information letter outlining why I was contacting them, describing my thesis topic and the questionnaire, how their information would be collected and stored and providing my contact information should they have any further questions. Once I received confirmation from the potential participant that they were willing to participate in the study, I provided a consent form they could fill out to confirm they were willing to participate. Once I had the consent form, I provided the respondent with the questionnaire for their completion. Of the twenty-six original participants I contacted about completing the questionnaire, I received twenty-three responses in total.

Research Design

In order to address this study's research question, I employed a mixed-method approach. A mixed-method approach involves the collection of both qualitative and

quantitative data in response to a research question (Creswell J.W. & Creswell J.D, 2018). Qualitative questions provide an open-ended question to respondents, while quantitative questions are close-ended in nature. While qualitative methods and quantitative methods each have their own merits, employing a mixed-method approach incorporates both methodologies and strengthens the results of the responses received.

As previously stated, the questionnaire employed for this study was split into two sections. The first section, qualitative in nature, allowed respondents to provide written answers to questions, while the second, quantitative in nature, asked respondent to provide a numeric ranking value on an ordinal scale.

The mixed method design I employed was an Explanatory Sequential Mixed Methods Design (Ivankova et al., 2006). By employing two different forms of data collection, one quantitative and one qualitative in nature, I was able to use the responses provided by respondents in the qualitative section to build on the results from the quantitative section. This allowed for a general consensus to be analyzed based on an ordinal scale and then compared with respondents individual responses to elaborate on the average ranking and highlight descriptions of why residents responded the way they did. As livability is largely subjective and based on personal views, this allowed the qualitative data to explain and expand upon the quantitative results to provide a better understanding.

Policy and Report Review

To complete a review of City of Toronto policy and reports I used the City of Toronto's online database. I also reached out to City staff for copies of the "Midtown in

Focus" study and "Eglinton Connects" study. I was put in contact with Paul Farish, a Senior Planner with City Planning, who shared digital copies of the "Midtown in Focus Master Plan" and four appendices via the City's FTP site. In addition, I was put in contact with Edmond Wu, a Transportation Planner with the Transit Design and Development department, who provided me with a disk containing all of the "Eglinton Connects" documents.

Development Package Submission Analysis

Finally, to obtain data on the developments within the study area, I utilized the City of Toronto Active Development Projects application (City of Toronto, 2021). In order to search for active developments within the study area, I first searched for the City Ward outlines to identify which wards were within the Midtown Toronto study area. By searching by Ward, I was able to identify all active development sites within the study area.

Once I identified the wards overlaying the Midtown Toronto Study area, I then selected each development site, indicated with a small circular marker superimposed on the map, within the Midtown study area. This brought up a separate pop-up which listed information about each specific development site and its respective application. This pop-up window provided information about each site including the application number, type of application, and status of the application. Within the pop-up, I then selected the 'Application Details' link, located at the bottom of the window, which brought up a more detailed description of the application. Through this window, I was able to access 'Supporting Documentation' through a drop-down tab.

Once the list of Supporting Documentation came up, I downloaded the most recent Architectural Plans which provided the total number of storeys, number of units, breakdown of unit types within the development and amount of retail or office square footage. When information was not included within the Architectural Plans, I proceeded to download the Application Form submitted with the application and the Planning Justification/Planning Rationale Report. These documents contained any information missing from the Architectural Plans.

Following review of the supporting documentation for each development, I entered the relevant information into an Excel spreadsheet to determine the total number of developments and units currently proposed for construction. This figure was then used to estimate the total increase in population that the study area will house on completion of the projects. I then utilized the total number of units to be built within the study area to generate both a high and low estimate of the total number of residents projected to move into the study area. This process involved making estimates of the number of individuals forecast to live in each unit type being constructed.

RESULTS

Policy and Development

In 2002, the City of Toronto adopted its first post amalgamation Official Plan (the "Plan") (City of Toronto, 2002). Unlike its predecessors, the Plan focused on reducing private automobile use and developing a denser, environmentally sustainable and more transit-oriented urban landscape. The Plan was a stark difference from the previous separate borough's Official Plans, as it marked a change in planning that aimed to end the age of widespread suburban sprawl and focus on building up, instead of out. The Plan outlined specific areas where new development growth would be encouraged to produce dense, transit-oriented neighbourhoods, one of which was the Yonge and Eglinton area (Boudreau et al., 2009). Both the City and Province have identified the Yonge and Eglinton area as a Strategic Growth Area and Urban Growth Centre in the Growth Plan for the Greater Golden Horseshoe and Toronto Official Plan, highlighting it as a "*focus for accommodating intensification and higher-density mixed uses in a more compact built form*", promoting development in the area (Ontario Ministry of Municipal Affairs and Housing, 2020) (City of Toronto, 2016).

Following this significant shift in policy, the first major high-rise development was built in the Midtown Toronto area. Minto Midtown, a set of thirty-seven and fifty-two storey towers located just south of Eglinton on the east side of Yonge, is considered the first major condo development that brought intensification to the area (Urban Toronto, 2018). Completed in 2007 and 2008, the project was particularly controversial for the neighbourhood. The original proposal greatly exceeded the existing height and density limits in the neighbourhood. Following rejection from the City, Minto appealed the decision

to the Ontario Municipal Board (OMB) where the development was approved with restricted height and a requirement for capital for community benefits, paving the way for greater density and development in the neighbourhood. The Minto Midtown development was the first major transit-oriented development in the Midtown area, and served as a precedent for future development, laying the groundwork for the revitalization, gentrification and intensification of Midtown Toronto seen today.

Since the development of Minto Midtown, Yonge and Eglinton, and the surrounding Midtown Toronto area, has seen exponential growth in development. This rapid intensification has further increased since the announcement and commencement of construction of the Crosstown LRT.

Analysis

Midtown in Focus Study

One of the key pieces of City literature I reviewed was the “Midtown in Focus” study (hereinafter referred to as the Midtown study). The Midtown study was completed to provide a vision and direction on how improvements to parks, open spaces and streetscapes should coincide with growth in Midtown to ensure the vitality and sense of livability for residents. The Midtown study area generally has the same boundaries as the Yonge-Eglinton Secondary Plan, with a few additional streets and open spaces included in the study area. The boundaries of the Yonge-Eglinton Secondary Plan are bordered by Blythwood Road, Briar Hill Road and Broadway Avenue to the north, Mount Pleasant Road and Bayview Avenue to the east, Moore Avenue, Chaplin Crescent and Eglinton Avenue to the south, and Latimer Avenue to the west. The Midtown study states that “*it offers a vision able to articulate a clear direction on how growth can coincide with*

fundamental improvements to the area's parks, squares, open space and streetscapes to ensure Midtown's continued vitality and quality of life for its residents, workers and visitors".

The Midtown study lists a number of features that make the Yonge and Eglinton area uniquely attractive to residents. Two of these features are the abundance of greenery in Midtown and the large apartment towers built in the post-World War II years. The Midtown study states, "*the presence of 'green' is one of the most notable characteristics of Midtown's atmosphere and a quality that has attracted many residents to the area*", however the Midtown study shows the alarming lack of greenery and tree canopy remaining in the Yonge and Eglinton area (*Figure Two*). The Midtown study also states that "*the large apartment towers built in the area in the 1950s and 1960s define an important aspect of the area's character*" and that "*beyond providing rental housing these apartment towers with their large setbacks and landscaped areas are a special part of the public realm*". The Midtown study continues, stating, "*these open spaces were not just intended as a setting for buildings, but also to provide spatial relief for the streets and to facilitate access through midblock connections*" as well as "*this urban form defines part of the unique Midtown character where public streets and parks work together with private open space to form the public realm*".

The Midtown study highlights that the greenery and open spaces provided by large setbacks and sizeable open spaces on existing properties helps define Midtown's character, however, it also notes that both the greenery and the open space within the area continue to disappear. As many properties are redeveloped for new condominium high-rise towers, developers aim to build the maximum amount of floor space available

on a property. So, many of the existing properties "*with their large setbacks and landscaped areas*" are being redeveloped through infill development, replacing the large setbacks and open space with new towers containing additional units, while removing green space for residents in the area.

Although public urban parks play an important role as recreational spaces, all green spaces, whether small or large, play an important role in providing space for recreation (Wolff and Hasse, 2019). Nueman (2005) outlined that if residential density is higher, there is greater pressure on urban green space, while when residential density is lower, there is less pressure on them. This is confirmed by a study by Allen et al. (2018) which found that residents were willing to accept the loss of backyard private spaces if they were replaced by adequate shared amenity spaces in higher density neighbourhoods. Given the green spaces around these large apartment towers continues to decrease with new infill development, residents will have to go to larger public parks for recreation and access to green space, which can ultimately lead to an overcrowding of these green spaces, a decline in the level of service they provide to residents, and a reduced sense of livability for residents (Villamagna et al., 2013).

Another distinguishing feature the Midtown study highlights as making Yonge and Eglinton unique is the existing parkland. The Midtown study states that parkland currently makes up 7% of the Midtown study area, with 94% of that space provided by Eglinton Park (*Figure Three*). The Midtown study also states that "*Eglinton Park sports fields serve important active and passive recreational needs of both the Yonge-Eglinton community and the wider district*" as one of the limited City-owned sports fields in North Toronto. This highlights that the park is not only serving the Yonge and Eglinton community, but also

much of North Toronto as a public park. During community consultation for the Midtown study, there was a general consensus that there is a need for more park space.

To deal with the need for park space, the Midtown study addresses a number of ways to supplement the existing parkland. The first is that several new developments do have plans for small parkettes, however they have limited space and only simple amenities such as small plantings, basic seating, and simple features such as a fountain. A study completed in Canada found that green space amenities such as paved trails, water areas or playgrounds were preferred by residents and considered more important for physical activity than amenities such as fountains or picnic areas (Kaczynski & Henderson, 2007).

Another suggestion in the Midtown study is to open up "*publicly owned or institutional open spaces such as school yards and church greens*" throughout the area to the public. While this would relieve some of the parkland pressure in the area, opening these spaces during the week remains a challenge, as the spaces are required for school activities both during the day and after hours. Opening these spaces during the day would also ultimately place children at risk, if the public were able to mix with the children in a largely unsupervised manner.

The Midtown study also conducted a review of nearby park space to highlight those within 5, 10, and 15-minute walking distances from the study area (*Figure Four*). While these parks do offer additional green space, as a resident of the area, these time-distance projections under-represent the actual travel time due, in part to having to stop at lights, wait for cars to pass and general foot traffic on the sidewalks. If the area is to house an approximate additional 40,000 residents, then adults, seniors, children and their pets will

all need additional green space in closer proximity, for recreation and relaxation. Having to travel twenty minutes to reach a park is an inconvenience for anyone, but especially for seniors and those with mobility challenges. Recent studies have shown that access to urban green spaces can improve mood, provide stress relief, reduce symptoms of depression and lower the risk for several diseases, including depression, cardiovascular diseases and asthma (Van Den Bosch, 2018). If we wish to ensure a high level of livability in urban environments, it is critical to promote physical activity, psychological well-being and overall physical health, all of which can be provided through convenient access to green spaces (Wolch et al., 2014).

It is also unlikely that a parent would be willing to send their children to a park that is 20 minutes away, and as the children are unable to play in the street in such a densely populated area, having no access to nearby parks or open spaces curtails many outdoor activities. Many studies have determined that children tend to fare better academically if they have access to open space and natural surroundings (Jacobs, 2018). A recent study found that children in greener neighbourhoods have better working memory and that access to green space has a positive cognitive impact (Flouri et al., 2018). According to the World Health Organization, having access to green space improves overall well being, aids in the treatment of mental illness, helps combat mild depression and helps reduce physiological stress (Black, 2016). Given these findings, it is imperative that not just children, but all urban residents have easy and convenient access to green space. If livability is to be maintained, the limited green spaces around Yonge and Eglinton must be protected to provide residents with spaces for active recreation and phycological well-being. However, it is apparent, that with the influx of new residents, those people living in

Midtown Toronto will be hard pressed to gain access to local green spaces if infill development continues to replace urban green space.

Eglinton Connects Study

Another key piece of City literature I reviewed was the “Eglinton Connects” study (hereinafter referred to as the Eglinton study). The City of Toronto completed the Eglinton study, as a comprehensive planning study, to provide a vision and direction for the future of Eglinton from Jane Street to Kennedy Road, given the shifts of its role within the City because of the establishment of the Crosstown LRT. For the purpose of the Eglinton study, Eglinton Avenue was broken up into twelve segments to facilitate analysis of the land. Midtown Toronto falls within Segment 5, from Bathurst Street to Yonge Street, and Segment 6, from Yonge Street to Bayview Avenue (*Figure Five*). Although only a small portion of Segment 5 falls within the study area being analyzed for this paper, under the “Land Use” section, one of the opportunities highlighted in Eglinton Connects is to “*consider a transition of height and/or built form to Yonge Eglinton Centre*”. Currently, the built form drastically changes from low-rise buildings on the west side of Duplex Avenue to high-rise buildings on the east side of Duplex Avenue. This same opportunity is highlighted in Segment 6, however the section of Eglinton Avenue from Yonge Street to Mount Pleasant Road is mostly lined with high-rise developments, providing no transition to the lower buildings in the surrounding residential neighbourhoods. This stark difference in built form has created a harsh divide between the distinct zones, which does not promote a sense of human-scale and is poorly transitioned (Niewenhuijsen et al., 2019). According to Jan Gehl (2020), the human scale is one of the most important concepts in

urban planning, as a focus on cycling and walking improves the livability in any city. Gehl's approach of urban design focuses on creating walkable environments and vibrant city life, by creating a strong interaction between public space and public life (Gehl & Svarre, 2013). Providing a human scale and well-planned transition provides a better function and experience of the public realm for people, thereby contributing to a positive experience in the public realm and sense of livability (Gehl, 2010) (Bertlin, 2014).

Under the "Greening Eglinton" section of the Eglinton study, the portions of Segments 5 and 6 within the study area are highlighted as having little to no canopy coverage. The study states there is a "*lack of substantial tree planting, except where front yard gardens or a residential block setback allows for better tree growth adjacent to the right of way*". This lack of tree canopy is also emphasized in the "Midtown in Focus" study (in the section titled the "Eglinton Green Line"), which is touted as a "*generous park-like promenade that addresses the community's need for open space*". Several studies have found that recreational walking and increased physical activity were associated with access to green spaces for local residents (World Health Organization, 2016). A review of these studies completed by the World Health Organization found loss and degradation of urban green spaces can contribute to 'the burden of disease' among the population due to a lack of positive benefits from green space access. The research showed that green spaces provide a number of health benefits, but particularly for children, pregnant women and senior citizens. These benefits included psychological relaxation, stress reduction, enhanced physical activity, mitigation of air pollution, excessive heat and of noise (World Health Organization, 2017). The World Health Organization also stressed the importance of providing green connections between larger green spaces such as

parks to provide continuous green spaces for stress recovery, recreation and social contact, all of which could contribute to a better sense of livability. Given the findings by the World Health Organization (2016 & 2017), greening the streets needs to be a priority to encourage walking, biking and foot traffic along Eglinton Avenue and provide a better sense of livability for residents; however, it should not be considered as a means to supplement local parkland.

Under the “Travelling Eglinton” section of the Eglinton study, the Yonge and Eglinton intersection is highlighted as the busiest intersection along Eglinton Avenue “*with over 80,000 crossings per day*” (*Figure Six*). As such a high volume intersection, additional consideration and planning should be given - such as including a Pedestrian Priority Phase (or pedestrian scramble phase) - to facilitate pedestrian crossings in all directions (such as those included at the intersections at Yonge and Dundas, Yonge and Bloor and Bay and Bloor) (City of Toronto, 2019). The Eglinton study does not address the inclusion of a Pedestrian Priority Phase at Yonge and Eglinton. As a livable city promotes access and linkages within a neighbourhood and given the increased foot traffic that will accompany the opening of the Crosstown LRT; it should be considered a priority measure (Lennard & Crowhurst Lennard, 2004). Walkability is the capacity at which walking is safe, connected, accessible and pleasant (Shamsuddin et al, 2012). Therefore, planners need to create spaces that are convenient and encourage walking, thereby making the neighbourhoods more livable. This can be achieved by implementing measures, such as a pedestrian scramble at the intersection of Yonge and Eglinton, promoting walkability and improving the sense of livability by focusing on one of the key intersections in the area.

As well, the Eglinton study identifies both Segment 5 and Segment 6 as having "*no existing cycling infrastructure*". While the study highlights the "*opportunity to accommodate cycling infrastructure*", the stretch of Eglinton Avenue contained in Segments 5 and 6, is only designated as a location with "*potential bike infrastructure*" rather than being designated as a location for "*proposed bike lanes*". As accessibility and mobility are key factors in livability, ensuring local residents have the necessary infrastructure to facilitate all forms of movement, including biking, is crucial (Onderwater, 2017). Currently there is widespread recognition that Toronto has too many traffic related fatalities and serious injuries (O'Neil, 2020). This is the reason the City of Toronto has implemented the Vision Zero Road Safety Plan. The Plan states that 14% of road related deaths or serious injuries occur for individuals on bikes, of which an average of 99 have occurred each year since 2007 (City of Toronto Transportation Services, 2017) (Spurr, 2020). Given the high number of fatalities and serious injuries that occur to bike riders in the City of Toronto, it is not surprising many residents are not willing to use cycling as means of transportation around the City. Therefore, if the City and the Province wish to promote active transportation (ie. walking, biking, or by any means of using your own power to get from one place to another), protected bike lanes should be built along Eglinton Avenue (Public Health Agency of Canada, 2014). This will encourage alternative forms of transportation and will improve the accessibility, mobility and livability for residents in the area.

As a result of the construction of the Crosstown LRT, both the Yonge and Eglinton intersection as well as significant portions of Eglinton Avenue will need to be rebuilt. Given that the LRT will replace the Toronto Transit Commission buses operating along Eglinton

Avenue, the additional space should be dedicated to active transportation. Providing more space for walking and biking and creating easier connections for pedestrians will contribute to improving accessibility and mobility, both of which can improve the livability for residents of the area (Lennard & Crowhurst Lennard, 2004) (Onderwater, 2017). This opportunity would allow the City to make fundamental changes to the streets, however the Eglinton study currently does not confirm any plans to prioritize pedestrian traffic through the implementation of a Pedestrian Priority Phase at Yonge and Eglinton or bike lanes along Eglinton Avenue.

Number of Units and People

As of February 2021, a total of forty-nine developments are listed on the City of Toronto Active Development Projects application site (*Figure Seven*). Eight of those active developments are located in Ward 8, thirteen are in Ward 15, and twenty-eight are in Ward 12 (*Figure Eight*). Of those forty-nine developments, two are low-rise buildings each four storeys in height, seven are mid-rise buildings ranging from seven to eleven storeys in height (City of Toronto, 2018), and forty are high-rise buildings ranging from twelve to sixty-five storeys in height (City of Toronto, 2013). The average height of all of the proposed developments within the study area is thirty-two storeys. In Ward 8 the average building height is twenty-four storeys, in Ward 15 the average height is twenty-one storeys and in Ward 12, where the majority of the developments are located, the average height is thirty-eight storeys.

A total of 19,638 residential units will be contained within those forty-nine developments. Of those, 1,708 will be studio units, 10,514 will be one-bedroom units,

6,302 will be two-bedroom units and 1,351 will be three-bedroom units. In addition, 43,269 square meters of commercial space are proposed, (the majority of which are located in Ward 8 and Ward 12), along with 117,535 square meters of office space, (the majority of which is located in Ward 12).

In order to build a projected population, I varied the number of individuals that could be staying in each unit type to arrive at a high and low estimate of future population figures (*Figure Nine*). My methodology generated a range of between 36,350 and 42,156 additional residents to the study area (for the purpose of this study, I adopted a mid-range number of 39,000 additional residents). According to the Midtown in Focus: Final Report, "*today, the YEC (Yonge-Eglinton Growth Centre) accommodates approximately 19,000 people and 18,000 workers resulting in over 600 residents and jobs combined per hectare*" (City of Toronto, 2018). The report continues, stating, "*approved and proposed developments would add approximately 20,000 to 25,000 additional residents in the YEC and over 36,000 additional residents in the overall Secondary Plan area*". Given these numbers published by the City, my estimates are reasonable, as many of the developments in the area will likely evolve and change as they progress through the planning process.

Questionnaire Responses

The questionnaires yielded a number of interesting results. Overall, the majority of the group expressed that they were concerned with the neighbourhood becoming overpopulated with the levels of development currently underway (*Figure Ten*). In addition, the respondents were also largely in agreement that the neighbourhood is experiencing too much development. However, the group was not in consensus about

whether the neighbourhood was currently overpopulated, with roughly half of the group answering they felt the neighbourhood was overcrowded today, while the other half felt the opposite. Further details from the examination of different factors extracted from the questionnaires are broken down and explained in the following sub-sections.

Transit

An analysis of the responses from the quantitative section of the questionnaire, related to public transit yielded that over 80% of the respondents agreed they felt the neighbourhood provides good access to public transit. Similarly, just under 80% of the respondents stated they felt the neighbourhood had adequate available public transit. While these numbers suggest residents are content with the availability and access to public transit in the neighbourhood, many qualitative responses provided a different perspective. A number of respondents stated that while there is easy access to the subway, they avoid Line 1 during peak hours due to overcrowding. One respondent stated she "*only used the subway during off hours*", however she is retired and recognized that many individuals do not have the luxury to choose when they use transit. Another respondent stated that since she is retired, "*she does not take public transit during rush hours, but that she is aware that the experience for travelers during those times is markedly different*". Another respondent stated he "*dreads taking the subway because of the inconsistency and lack of reliability of the service*". He also believes he has experienced more delayed trips than regular 'trouble free' trips using the subway and stated he has gradually had to leave earlier in the morning over the years to ensure he experiences fewer delays when getting on the subway.

This experience was shared by another respondent who explained that prior to COVID-19, he took the subway downtown daily for work and found that the majority of the time he "*ended up waiting several trains to find a space onboard, at which time I was crammed in with no space*". One respondent who previously drove to work in the downtown core daily, but who is now retired, stated "*even if I was still working, from a sense of livability perspective it's better for me to drive rather than take the subway, even with the cost associated with parking downtown everyday*". Another respondent stated she uses "*transit to travel all over the City for work*" and that while "*north/south connections are pretty good, east/west transit is pretty poor*". Although the Crosstown LRT will provide better east/west transit connections once completed in 2022, the current system of buses "*really needs to step up*", as one respondent put it. Another respondent stated that she believes "*the LRT will exacerbate congestion greatly by feeding more commuters onto Line 1*" making it more challenging to access transit.

Schools

In assessing school capacity, many of the respondents believe there is, or will soon be, a shortfall in school capacity. When asked about whether the number of schools in the neighbourhood is meeting (or will meet) the population's needs, over 75% of the responses, from the quantitative section of the questionnaire, were in the mid-rank of the numeric scale, indicating that many respondents are unsure of the number of schools in the area and felt there is currently not enough school capacity.

Qualitative responses from the first section of the questionnaire coincided with the numeric data. One respondent stated "*the schools are full and the TDSB (Toronto District*

School Board) will probably try to redevelop more of them" and that "*schools in condos are not good schools*". When asked about possible challenges the area may experience in the future, one of the respondents stated "*I can't think of a new school or new library that has been built since this flurry of development began*", highlighting that educational services are not developing at the same pace as the residential development sector in the neighbourhood.

Another respondent stated, "*the schools are crowded*" and "*the fact that the high school (Lawrence Park Collegiate Institute) is the only one in Toronto with no air conditioning is disappointing*". She went on to say, "*there are so many private schools, but not all of us have the money or inclination to spend on that*". This comment indicates that many of the respondents who ranked the level of available schools as high, may not have differentiated between private and public schools. Given the neighbourhood does have quite a few private education institutions (Crescent School, Toronto French School and St. Clements School to name a few), affluent individuals are provided more options and better access to education in the Midtown Toronto Area.

Affordability

When asked about the affordability of the area, many of the respondents stated they felt the area has always been expensive, but that in recent years it has become even costlier. Many also expressed concerns about the lack of local affordable options. When asked about the demographics of the neighbourhood, in the qualitative section of the questionnaire, one of the respondents stated that "*as the affordability of the neighbourhood continues to decline, I think lower income earners (and even middle-class*

wage earners) are finding it increasingly difficult to afford to live in the area". Another respondent simply stated "*it is ridiculously high and I feel sorry for any young people trying to move into the area*", while another stated "*the neighbourhood is largely affordable only to higher income professionals*". These comments showed that many of the respondents felt that the area was only affordable to more affluent individuals, shutting out many lower income individuals. Given the neighbourhood has close proximity to the subway and will soon have access to the Crosstown LRT, opportunities should be sought to provide reasonably priced housing so lower income individuals can reside within the neighbourhood as well.

Many respondents also communicated concerns, in the qualitative section of the questionnaire, about the real estate prices in the neighbourhood even though there are a number of new residences, ones under construction, and ones proposed. One respondent expressed that "*real estate prices have increased, and rents have increased tied to a shortage of rental buildings and the availability of higher priced rental condos*". Another conveyed that there are "*not enough condos yet in the neighbourhood and the condos proposed don't meet the needs of people in big houses wanting to downsize (those who are house rich, but not wealthy)*". She went on to explain that she "*has several friends who can't afford their parent's house*" and "*that many older friends don't want to leave the neighbourhood, but all of the condos are one-bedrooms*".

These comments revealed two issues with the current development in the neighbourhood. The first, that the majority of the new developments completed, under construction or proposed are touted as "luxury" condos. One respondent, who lives in a new development just north of Yonge and Eglinton, noted she pays close to $4,000 a

month for her 900 square foot two-bedroom unit. Given the high costs, it is apparent that many individuals are unable to afford rents in the neighbourhood. The second issue is that the majority of new units in developments are not large in size. Out of the total 19,638 new units calculated in the neighbourhood, over half of those units are one-bedroom units. These units are not only unsuitable to raise a family, but also limit the offerings for individuals looking to downsize from a single detached home, semi-detached home or townhouse. As expressed by one of the respondents, individuals who desire to stay in the neighbourhood and downsize are challenged to find a new home given the lack of two and three-bedroom units being constructed.

At the same time, many of the residents also expressed concern, in the qualitative section of the questionnaire, for local businesses due to the affordability of the area. When asked about the turnover of small businesses in the neighbourhood and the replacement of small stores with chains and big stores, one respondent said "*I'm very concerned and disheartened*" and that "*many of the small mom and pop shops in the area have closed or are struggling, which is a shame because I've actually been able to build relationships with the owners*". Another respondent stated that "*sections of Yonge Street are falling apart*" and that "*the quality of the retail shops is poor*". She went on to say, "*there are sections of fast food, vape and weed stores and nothing else*", highlighting that chains occupy large stretches of the neighbourhood's prime retail strips due to the high rent costs. Another respondent pointed out that "*we are not getting chain stores too much, but rather more upscale boutique type stores*". One respondent expressed that turnover "*is inevitable*" and that "*rental rates are too high for small businesses*". Another believed that "*the turnover isn't bad, it is just sad*" and that "*some businesses have been very*

successful in small footprints", however she went on to say, "*the small buildings get taxed at 'potential value' which is not appropriate*".

Many of the respondents stated they would prefer to shop and support local, which one of the respondents stated she is "*still able to do for the most part*". Another respondent expressed that she "*does not support the big box stores, but rather small retailers on Yonge, Bayview and Mount Pleasant*". However, one respondent stated she has found it increasingly difficult to support local businesses due to the high turnover, giving the example that "*there are only two small produce shops that are just north of the Yonge and Eglinton intersection, otherwise you're stuck with the expensive supermarkets*".

These comments also revealed a number of interesting points. As many of the small shops in the neighbourhood continue to struggle and as business turnover is so high, the character of the Midtown Toronto neighbourhood continues to be degraded. As one respondent expressed, individuals are able to build relationships with small business owners in comparison to big box stores where there are many employees.

Another point highlighted by the responses was the stretches of retail strips occupied by fast food businesses and cannabis dispensaries. Many of the respondents noted that since the beginning of the pandemic, this issue has been further exacerbated with many small shops closing while fast food and cannabis shops continue to thrive. While it is important to have businesses occupying retail space, fast food and cannabis shops do not contribute to the overall character of the neighbourhood and will likely not contribute to foot traffic on the retail strips where individuals may go for a walk and to shop. As many respondents stated, they want to support local businesses, but chains that open in these spaces are not 'local businesses' in the typical sense.

Green Space

An analysis of the responses, from the quantitative section of the questionnaire, related to green space yielded that the majority of the respondents felt the neighbourhood provides good access to green space. While most residents indicated that they felt the neighbourhood provides good access to parks, responses were relatively spread out in the upper half of the scale. This likely means individuals felt differently about access because of where they were situated in the neighbourhood as a whole. However, in the qualitative section of the questionnaire, many of the respondents expressed a concern with the level of green space in Midtown Toronto, stating they were primarily concerned with the amount of green space around the Yonge and Eglinton intersection. A number of respondents expressed that they appreciated the ravines and larger parks near Yonge and Lawrence, however they were concerned with the lack of street level green space closer to the heart of Yonge and Eglinton. As expressed by one respondent who lives near the Yonge and Lawrence intersection, "*I feel like in my area there is sufficient green space, but maybe towards Yonge and Eglinton there isn't*". Another respondent who lives near the north end of Midtown Toronto also expressed that "*because of the ravine network there is still adequate green space*" and that because "*that cannot be developed, the importance of that space to the neighbourhood will continue to increase*".

When asked about the number of green spaces in the neighbourhood, in the quantitative section of the questionnaire, the numeric ranking responses became more spread out along the scale, with the majority of the responses ranked between three (lower) and eight (higher). Responses in the qualitative section of the of the questionnaire

expressed similar sentiments, such as, "*there will need to be more and better maintained space*", "*there should be more being developed to accommodate more people moving into the neighbourhood*", and "*there should be a lot more and what's there needs improvement*". A number of respondents also commented on the importance of protecting the green space that exists, with comments such as "*I don't think the ability to replicate the amount of green space that existed previously can be achieved*" and "*the City must make sure current green space is protected and more is added whenever possible*". One respondent stated the neighbourhood does have a number of green spaces available, however "*there are not benches to sit on and no green spaces to enjoy and talk privately*", signaling the volume of individuals using the green spaces within Midtown Toronto is high. One respondent stated she is concerned that in the future "*we will just become used to more crowding in the spaces that exist*", while another stated "*I worry that as people continue to want to develop, the importance of the green space will diminish*". One respondent also pointed out that "*more green space and parks are needed, especially with all the research going on as to how important getting outside is*". This corresponds with the literature review completed, which expressed the importance of the relationship between maintaining physical and mental health and park and green space availability (Douglas et al., 2017).

Development Pace

When asked about the pace of development, in the quantitative section of the questionnaire, over 50% of the respondents answered that they felt the neighbourhood is experiencing too much development. As succinctly stated by one of the interviewees, in

the qualitative section of the questionnaire, "*the ongoing development is too much, too close together*" and "*we need more time to absorb developments into the community*". She went on to say, "*I think the rate of development has been excessive and the neighbourhood has not had an opportunity to absorb development as it happens*". This was echoed by another respondent who stated that there needs to be "*limits on development at one time*". Another respondent agreed, stating "*I don't believe that the infrastructure can support the number of people*", while another said "*there are buildings going up on every street, every corner*" and that "*schools will become crowded and traffic will increase*" subsequently.

When asked if they believed whether the build out of infrastructure and community services would catch up to meet the increased demand, most were concerned about the well-being of the neighbourhood in the long run. As one respondent put it, "*every viable location has been developed, is being developed or is planned for future development*" and that "*the implications of this don't bode well for the neighbourhood*". Another respondent also agreed saying "*it would be almost impossible for services and infrastructure to meet the pace of residential development*", describing the neighbourhood as becoming over developed. Another respondent expressed concern that the neighbourhood "*is being setup for exponential growth because it is effectively a transit hub*" and said she was worried that infrastructure and service might never have a chance to catch up.

Overall, both the quantitative and qualitative responses revealed that the majority of the respondents are concerned with the level of development, pace of development and ability for services to catch up. As one respondent voiced "*there aren't enough*

schools, green space, or single-family homes", and that "*the feeling of community is diminished and the changing retail landscape is not what is was prior to the development with the closure of small independent retail*". Clearly stated by another respondent "*accommodation for green space and services will be a careful balancing act*" as the neighbourhood continues to experience development pressures for years to come.

Key Findings

The results from the review of public policy indicate that the substantial change in policy from the first post amalgamation Official Plan in 2002 has "*focused on accommodating intensification and higher-density mixed uses in a more compact form*" in the Midtown Toronto area (City of Toronto, 2016). The decision of the Ontario Municipal Board (OMB) on Minto Midtown served as the precedent for the high-density residential development growth that followed and paved the way for the significant level of development in the Midtown Toronto area today.

In addition, while the City has studied the Midtown neighbourhood through the "Midtown in Focus" and "Eglinton Connects Study", both pieces of City literature highlight key issues the neighbourhood is facing, and will continue to face, as the pace of development increases. The Midtown in Focus study identifies the large apartment towers built in the post-World War II years and the open green spaces located throughout the area as unique features that make the area attractive to residents. However, the study also highlights that these features continue to disappear as redevelopment and infill takes place, removing the unique and attractive characteristics of the Midtown Toronto area. The Eglinton Connects Study identifies "*a transition of height and/or built form to the Yonge Eglinton Centre*" as a key opportunity, however the current and planned built form

drastically changes from low-rise to high-rise buildings to the east and west of the Midtown Toronto neighbourhood. The study also recognizes the need for cycling infrastructure along Eglinton Avenue to promote active transportation. However, the study designates the location with "*potential bike infrastructure*" rather than "*proposed bike lanes*". The study also highlights the Yonge and Eglinton intersection as the busiest intersection along Eglinton Avenue, however no consideration is given to ensuring better walkability or mobility at this key intersection. These pieces of literature provide strong aspirations for how the neighbourhood should develop, however the policies and actions required to achieve these objectives have not been fully applied.

A review of current development applications listed on the City of Toronto Active Development Projects application site, indicates that over 19,000 residential units will be introduced to the neighbourhood in the near future. Based on these unit values, an estimated 39,000 additional residents are expected to reside in the study area. Given the significant population increase and the added pressure the area will face, it is key to ensure the sense of livability for residents in the area is not diminished.

The responses provided by the questionnaires indicate that the majority of the respondents were concerned that the current levels of development would result in an overpopulated neighbourhood. In some instances, responses in the quantitative section differed from the qualitative section of the questionnaire. For example, a respondent may have noted that there is adequate transportation in the quantitative section, but detailed issues with transit during peak periods in the qualitative section.

DISCUSSION

Population & Policy

Midtown Toronto is being over-developed. According to the Growth Plan for the Greater Golden Horseshoe, Yonge and Eglinton is identified as an Urban Growth Centre. The Growth Plan states "*urban growth centres will be planned to achieve, by 2031 or earlier, a minimum density target of 400 residents and jobs combined per hectare for each of the urban growth centres in the City of Toronto*" (Ontario Ministry of Municipal Affairs and Housing, 2017). As stated previously, the Midtown in Focus: Final Report states, "*today, the YEC (Yonge-Eglinton Growth Centre) accommodates approximately 19,000 people and 18,000 workers resulting in over 600 residents and jobs combined per hectare*" (City of Toronto, 2018). Given that the residential population and workforce in the area is currently over 600 residents and jobs combined per hectare, Yonge and Eglinton has already well surpassed the minimum density target stipulated by the Province. The Midtown in Focus: Final Report furthermore states that "*the YEC exceeded the minimum density target prior to the Growth Plan coming into effect in 2006*". If the developments currently active in the City planning process are built and 39,000 new residents move into the area, along with additional retail and office jobs, it is likely that Midtown Toronto will reach or even surpass double the Province's minimum density target.

School & Childcare Services Capacity

According to a "Midtown – Community Services and Facilities Strategy" report published in 2018, the Toronto District School Board (TDSB) has projected a "*shortage*

of 800 elementary pupil spaces over the long term and has advised that a new elementary school, or schools will be required to accommodate the estimated growth in Midtown" (City of Toronto, 2018). In a letter sent to the City during the Yonge-Eglinton Secondary Plan revision process an Executive Officer of the TDSB stated, "*there is a critical shortage of capacity in local elementary schools to accommodate an increased enrollment of students*" and "*elementary schools in the area are already operating at or over capacity*" (Toronto District School Board, 2018). In fact, Toronto District School Board signs have already been put up to warn incoming condo residents that they may not be able to accommodate their children due to "residential growth" (Mok, 2018).

At the same time, Toronto Children's Services (TCS) also completed an assessment of Midtown's capacity and stated "*there is existing capacity to serve approximately 50% of the population from 0-4 years but ongoing intensification and demographic trends will require additional spaces to be provided, particularly for infants and toddlers, to keep pace with growth*". Based on future projects TCS stated "*it is estimated that between 930 and 1,390 new licensed child care spaces will be required to meet growth demands through to 2041*" and that "*based on a 62-space model, an additional 16 to 23 new facilities will be required over the next 25 years*", however there are only "*two new child care facilities planned for Midtown*" which will only "*add 98 new licensed spaces to Midtown*". As residential units continue to be smaller due to increased land costs in desirable neighbourhoods, of which Midtown Toronto is one, space for children's development is crucial. Given that the majority of funds for these facilities typically comes from funding as prescribed by Section 37 of the Planning Act and many of the developments in Midtown Toronto have increased height or density, the City must

allocate community benefit funds to schools and child care services to support the future population of Midtown Toronto.

Today, the Toronto District School Board is experiencing significant accommodation pressures in the Midtown Toronto area. To control overcrowding at these schools, the TDSB has approved the redirection of students from new developments in the Eglinton Junior Public School attendance boundary to Whitney Junior Public School, almost four kilometers away (Toronto Lands Corporation, 2020). In addition, given the levels of growth projected within the Midtown Toronto area, it is already anticipated that students from new developments will need to be bussed to schools outside the area. To deal with these pressures, the Toronto District School Board has been completing 'The Yonge-Eglinton Phase 2 Program Area Review Team (PART)' since 2019, to find potential solutions. However, this review was paused in 2019 due to the changes announced by the Province about school class sizes and funding. To date, no new information has been posted addressing the concerns surrounding development pressures (Toronto District School Board, 2019). As stated in the 2020 Long-Term Program and Accommodation Study, a site for a future elementary school in the Yonge and Eglinton area is being sought (Toronto District School Board, 2020). However, given the rapid development in the Midtown Toronto area, the TDSB will face challenges finding a suitable standalone site and will likely have to find space in a proposed development or continue to bus students out of the neighbourhood.

Infrastructure Capacity

The City has also acknowledged a shortage in the infrastructure in Midtown Toronto. For decades, Toronto was able to use water and waste infrastructure built to support an industrial city, however over the years deindustrialization and the subsequent high-rise development boom downtown have used up the remaining excess infrastructure capacity. The City is aware that capital upgrades to sewers, watermains and associated infrastructure are required both in the near and longer terms. A 2018 Toronto Water review of water/waste-water networks in Midtown Toronto identified roughly "*$110 million in needed upgrades over the next decade*" (Lorinc, 2018). Given Toronto already has an accumulated state of good repair backlog estimated at $1.473 billion as of 2020, it will be a challenge for the City to divert the necessary capital for these upgrades (City of Toronto, 2020).

Parkland Capacity

During the consultation period for the "Midtown in Focus" study, residents of Midtown Toronto expressed their desire for more parkland. As Midtown Toronto is a well-established neighbourhood, the ability to locate new park space in the area is extremely limited. Given this challenge, the City has proposed only one new park in the area, Redpath Park South, which is located at the intersection of Manor Road and Redpath Avenue. The Church of Transfiguration currently occupies the property; however, the City is in the process of partnering with the Church to absorb this open space into the park network. All other financial efforts are being put into park improvement, which will make

the parks more appealing, but will not help provide additional parkland for the increased population in Midtown Toronto (Peksa, 2018).

One key site that had great potential was the TTC bus terminal located at the intersection of Yonge Street and Duplex Avenue (Metrolinx, 2018). The site sat vacant until 2017, when the site became a staging ground for the ongoing construction of the Crosstown LRT. In 2022, upon completion of the LRT, the site was going to be vacant again, apart from a new entrance to the LRT. The City gave Build Toronto the opportunity to decide the future of the remainder of the site. The site, which is large and centrally located, had the potential to be a community centerpiece.

However, as of 2021, the land appears to have been sold to Oxford Properties as they have proposed the development of the site, along with the redevelopment of the block from Eglinton Avenue to Berwick Avenue, as a 9.2-acre mixed-use development dubbed ‘Canada Square’. Upon completion, Canada Square will contain 2 hectares of open space, however, this space will be built over top of a TTC bus and subway terminal. This would mean the open space is *“not so much a park as it is a roof which would mean thin soil and small trees*” (Bozikovic, 2021). Given the space is also on private property, the open space would be privately controlled and managed, meaning the property management could decide how the space is used. To date, the proposed development has not been approved as the design essentially constitutes a superblock and will reshape the Yonge and Eglinton intersection and the Midtown Toronto neighbourhood as a whole. In my opinion, the City should advocate for a better designed open space that would allow for public programs in the same way Eglinton Park is used. Given the close proximity to the subway and LRT, the open space would allow residents of both Midtown

Toronto and other parts of the City convenient access, providing desired green space for not only local residents, but the City as a whole.

Transit Capacity

According to the Toronto Transit Commission (TTC) Board, the Yonge-University Line 1 Subway ("Line 1") is already operating over capacity during peak hours (Toronto Transit Commission, 2018). In 2016, all subway stations from Eglinton to Bloor-Yonge were operating between 85% to 100% full capacity during the morning rush hour and Bloor-Yonge, Wellesley and College station were operating at 100% full capacity. To adjust to overcrowding, "*much of the growth in demand generated along Yonge corridor has been accommodated on the shoulders of the peak hour and the "peak within the AM peak period" has spread*". The 2018 report states that "ATC (Automatic Train Control) will be fully implemented along the entire Line in late 2019. Once ATC has been fully implemented, it is anticipated that Automatic Train Control (ATC) will be fully implemented, "*providing an additional hourly capacity of about 33,000 passengers per hour*". However, as of 2021, the ATC has not yet been fully completed and is now anticipated to be completed by September of 2022 (Spurr, 2019). In a 2020 TTC report, the TTC stated that "*as a result of the COVID-19 pandemic, subway ridership decreased significantly, which offered a unique opportunity to revise and review the closure schedule*", allowing more time for "*significant work to be carried out on Line 1 to advance the SOGR (State of Good Repair) and the ATC project*" (Toronto Transit Commission, 2020). By September 2022, according to an "Eglinton Crosstown Demand Forecasting Report", published in 2013 by Metrolinx, the Yonge and Eglinton LRT station will see an

additional 2,770 passengers per hour during peak periods transfer from the Crosstown LRT to the Line 1 subway southbound.

The implementation of ATC on Line 1 will alleviate pressure on Line 1 in the short term. However, passengers from the Crosstown LRT (the 2,770 passenger estimate has likely increased greatly given the estimate was produced in 2013 and the number of developments along Eglinton Avenue has greatly increased) and the estimated 39,000 new residents in Midtown Toronto will exceed the Line 1 capacity increase from ATC installation in the longer term. In addition, a portion of the 33,000 additional hourly passenger capacity will immediately be used by current Line 1 passengers and the completion of the Crosstown LRT in September of 2022 (Bingley, 2020). Given these numbers, travel to the downtown core via rapid transit will become less accessible and lead to further capacity issues on the subway, not only hurting Midtown Toronto residents, but all passengers who rely on the Line 1 subway.

Changes in Midtown Toronto Policy

As a reaction to the rapid change in Midtown Toronto, the City began studying the Midtown Toronto's public realm in 2013 (City of Toronto Planning Division, 2014), under the Midtown in Focus study. The goal of the study was to address improvements to the public realm for the Yonge and Eglinton Urban Growth Center and the surrounding neighbourhood. At the end of 2015, the first phase of the Midtown in Focus study was released, the 'Open Space and Streetscape Master Plan' (Toronto Lands Corporation, 2019).

Following the release of the Open Space and Streetscape Master Plan, in 2015, City Council directed staff to continue the study to assess the appropriate intensity of growth for Midtown Toronto through an integrated planning framework and infrastructure growth strategy. This process was coordinated to include the City Planning, Toronto Water, Transportation Services, Parks, Forestry and Recreation, Economic Development, Social Development and Culture, Finance and Administration and Children's Services departments (City of Toronto Planning Division, 2015). The study was also meant to address the need to update the City's Official Plan and to establish policy direction for re-zonings to the City's Zoning By-Law (Toronto Lands Corporation, 2019).

In December of 2017, City staff presented the results of the Midtown in Focus study and a proposed Secondary Plan to City Council. The Secondary Plan addressed scale, form and locations for future growth, appropriate land uses, direction for parks and public realm and community services and facilities, the requirements regarding housing in the area, transportation and municipal servicing levels and needs and implementation directions for the study findings (City of Toronto Planning Division, 2017). City Council then directed staff to complete further community consultation and present a final Official Plan Amendment to City Council in 2018.

As requested, City staff presented City Council with an Official Plan Amendment, OPA 405. In July of 2018, City Council approved the Official Plan Amendment, which included the Yonge and Eglinton Secondary Plan and further amendments to the City Official Plan (City of Toronto Planning Division, 2018). OPA 405 addressed the policy framework for Midtown Toronto, which had not been updated since 2002, and the rapid growth and intensification underway in the area. The goal of OPA 405 was to "*ensure that*

growth positively contributes to the vitality and quality of life in one of Toronto's most dynamic neighbourhoods" (Toronto Lands Corporation, 2019). In August of 2018, OPA 405 was submitted to the Minister for approval, as required under the Planning Act.

In June of 2019, the Province of Ontario amended the City's Midtown in Focus study to increase the supply and mix of housing near transit (Pagliaro, 2019). The decision to modify the Midtown in Focus study was stated as a requirement to bring the study and OPA 405 into alignment with Bill 108, the More Homes, More Choice Act, which was introduced in May of 2019 (City of Toronto Planning Division, 2019). In total, the Minister made 194 modifications to the OPA 405. The main changes stripped the study of strongly worded language setting out that development should not outpace infrastructure, while subsequently allowing taller and denser development than outlined in the study. The Midtown in Focus study stated, "*development will not be permitted to outpace the provision of infrastructure, and will not proceed until such a time as the necessary infrastructure to support development is provided*", however, the Official Plan Amendment (OPA 405), states that "*planning for infrastructure will occur in an integrated manner*", removing the requirement for necessary infrastructure to be available at the time (City of Toronto, 2014). Additional changes between the Midtown in Focus study and OPA 405 loosened requirements around sunlight, shadowing, and building setbacks, all of which had been consulted on during the review process for the Midtown in Focus study. Many of the building heights within the Midtown in Focus study area were also greatly increased, with some permitted heights now double what was permitted under the original study (Ministry of Municipal Affairs and Housing, 2019).

During the Midtown in Focus study process, the Midtown Toronto area was found to be lacking necessary park capacity, the Yonge line one subway was found to be over capacity, in consultation with the Toronto District School Board it was recognized that schools were already at capacity, and the infrastructure levels in the area were identified to be insufficient to support the projected growth (City of Toronto Planning Division, 2019). The process for Midtown in Focus included multiple studies, extensive consultation and cost millions of dollars. (Johnson, 2019).

While it is important to accommodate growth within the urban boundaries, it appears that these changes were implemented without due consideration for the research and analysis that went into the Midtown in Focus study. These drastic changes to guidelines that were implemented after extensive community consultation may cause serious issues for the Midtown Toronto neighbourhood now and in the future. As determined under the Analysis section, Midtown Toronto is estimated to grow by approximately 39,000 residents in the coming years, based on current development proposals. Given the provincial changes to the Midtown in Focus study, it is highly possible that these numbers are an underestimation and that they will grow in the future as developers revise their proposals.

Livability

As urban density increases, maintaining a good sense of livability becomes a greater challenge. Increased density can reduce city sprawl, make transit more viable, and help create vibrant, walkable communities, all of which contribute to a better sense of livability for urban residents. However, when neighbourhoods become too dense, social

spaces, health services, transit services, schools, green spaces and parkland become overtaxed, leading to a reduced sense of livability for local residents. As previously stated, the 1987 Brundtland Report describes livability as "*the ability for a community to meet the needs of the present without compromising the ability of future generations to meet their own needs*", a description that is fitting when describing livability in Midtown Toronto. Based off the literature reviewed, I adopted seven factors on which to focus in assessing the sense of livability for individuals in the area; the neighbourhood as a whole, transportation options and availability, entertainment options, service and amenities options and accessibility, access to green space, access to and options for housing and education opportunities.

In assessing these seven criteria, it is apparent that there is a general consensus among the Midtown Toronto residents included within this study that the area is being overdeveloped and that the sense of livability is being negatively impacted. As more residents continue to move into Midtown Toronto, the increased density and population will lead to a further reduction in livability as the area becomes increasingly crowded and services bear a greater burden. At this time, significant consideration must be given to the future plans for the neighbourhood and its infrastructure to ensure Midtown Toronto is able to serve as a neighbourhood capable of providing a high sense of livability for its residents.

Smart Growth in Midtown Toronto

The principle of "*accommodating intensification and higher-density mixed uses in a more compact built form*" is the correct one for the Midtown Area, but implementation

requires a staged, well-thought through plan to ensure the growth is in conformity with smart growth doctrines. Currently, Midtown Toronto's development is not in conformity with all of smart growth's principles - specifically principles (3), (5), (6) and (8). As described in the Literature Review chapter, these principles are; (3) creating a range of housing options to fit residents of all ages and incomes, (5) building attractive distinct communities with unique public art, architectural design and inclusion of historic heritage structures, (6) preservation of open space and unique natural features to promote biodiversity and ecological conservation, (8) providing a variety of options for transportation such as public transportation, biking infrastructure and plentiful space for walking, At this time, the predominate development form is high-rise condos, as opposed to a "*broad range of housing options*" as espoused by smart growth principles. In addition, many of the heritage features and unique structures of the area have been destroyed to make room for new development and the area is losing many of its "distinct" characteristics as the move to 'modern' dominates the new developments. In order to accommodate the new growth in the area, many of the developments are infill developments that are replacing large green open spaces on condo properties, removing crucial green space needed to support the population. Finally, the area does not have the necessary public transportation infrastructure or biking infrastructure to allow residents to travel without using a personal automobile.

Key Findings

The review of services in the Midtown Toronto area indicates that the level of development is outpacing the implementation of services. The Midtown in Focus study

states that that the residential population and workforce in the area has well surpassed the minimum density target stipulated by the Province in the Growth Plan (City of Toronto, 2018). Given the estimated population increase of an estimated 39,000 new residents, it is likely the population will reach or even surpass double the Province's minimum density target.

The Toronto District School Board has highlighted a critical shortage in school capacity and has begun warning incoming condo residents they may be unable to accommodate new children due to the residential growth. This issue is echoed by Toronto Children's Services, who stated that an additional 16 to 23 new facilities will be required to meet the population growth demands through to 2041 (City of Toronto, 2018).

The City has also recognized a shortage in the physical infrastructure in Midtown Toronto. Roughly $110 million in needed upgrades are required over the next decade to support the projected population (Lorinc, 2018). The City also identified that residents of Midtown Toronto desire more parkland. However, current plans only identify one new park in the area while all other financial efforts will be put into park improvements (Peksa, 2018).

The Toronto Transit Commission (TTC) has found the Line 1 Subway is already operating over capacity during peak hours. While Automatic Train Control on Line 1 is scheduled to be completed in September of 2022, the additional hourly capacity will largely be filled by the projected population for the Midtown Toronto area and the introduction of roughly 3,000 passengers per hour transferring from the Crosstown LRT, leaving little of the additional capacity for riders in other areas along Line 1 (Toronto Transit Commission, 2020) (Metrolinx, 2013).

Changes in policy from the studies completed by the City of Toronto from 2013 to-date, and the then-modified policies introduced by the Province under Bill 108, will see significant growth in the Midtown Toronto area. Under OPA 405, the City explicitly stated, "*development will not be permitted to outpace the provision of infrastructure*", however the Province removed this strongly worded language, permitting development at an expedited pace.

If the goal for livability is to "*meet the needs of the present without compromising the ability of future generations to meet their own needs*" (Brundtland Report, 1987), the responses to the questionnaire indicate that residents believe the sense of livability is being negatively impacted. Additionally, Midtown Toronto's development is not in conformity with all of the principles of smart growth, suggesting that implementation of these principles needs to be reviewed in the neighbourhood.

CONCLUSION

Summary of Research

Midtown Toronto will continue to be in a state of flux for years to come as new proposals and developments arise in the area. As the most densely populated Urban Growth Centre in the Greater Golden Horseshoe region, currently approved and proposed developments threaten to more than double the residential population.

This study has identified that the sectors involved in providing the community services and facilities necessary to support the growth in Midtown Toronto are severely strained and threaten to become more so as the pace of growth continues. Indications are that schools, childcare facilities and community centres will be unable to accommodate the forecast growth in the area. The ability to develop additional green space and parkland in the neighbourhood is extremely limited. Many transit services in the area are currently at capacity, and while the Crosstown LRT will bring additional transit capacity, its completion is not scheduled until September 2022. As well, the Crosstown LRT will bring additional passenger usage to Line 1, which already faces crowding and capacity issues. The Midtown area is also faced with ageing municipal services, including sewers and watermains, which require substantial upgrades in the near and longer terms.

The character and livability of Midtown Toronto is currently under threat. Residents in the area expressed concern about the long-term well-being of the neighbourhood and about the deteriorating sense of livability they are experiencing. While the Midtown in Focus Plan is intended to guide intensification and prioritize infrastructure improvements in the area, such as "*a connected network of parks and open spaces, improved attractive transportation options, expanding school and child care capacity and vibrant local*

employment and retail sectors", there are considerable hurdles that must be overcome to achieve those goals (City of Toronto, 2018).

As stated in the Discussion Chapter, residents expressed that they perceive that the level of development within the Midtown neighbourhood is negatively impacting their livability. This was ascertained by focusing on seven factors intended to capture the varied prevailing factors that contribute to livability as discussed in the Literature Review: the neighbourhood as a whole, transportation options and availability, entertainment options, service and amenities options and accessibility, access to green space, access to and options for housing and education opportunities. By splitting the questionnaire into two sections, the ordinal ranking section allowed me to quantitatively analyze residents' responses to each topic and, through the written section, I was able to gain further insight on respondents' personal experiences and viewpoints on each topic.

The stated vision of the City is for Midtown Toronto to function as a complete, livable, mixed-use community. This vision is consistent with the principles of smart growth and Midtown Toronto and the surrounding region would thrive if that vision were achieved. While the Midtown in Focus Plan articulates many positive directives to realize that goal, the rate of development must be decelerated in order for planning and infrastructure initiatives to catch up. At this time, it is uncertain whether the City will curtail the number of approvals it grants for new projects in the area, but with so much development already in progress, it may already be too little too late for the neighbourhood.

Smart growth's objective is to accommodate ongoing population growth in a way that protects the environment, provides more options to residents and produces a high sense of livability for residents (Marlow, 2018). However, if smart growth principles are

implemented without the adequate growth in infrastructure, amenities and green space, the character of a neighbourhood can be compromised, and residents can experience a reduced sense of livability. It is important to ensure sustainable urban environments for the future, but not at the cost of livability for residents. The Midtown Toronto area has experienced immense growth and will continue to experience changes for years to come as new development continues. As this study demonstrates, it is important for smart growth to be implemented in a well-planned, orderly manner in order for changes to be absorbed by a neighbourhood. For residents of Midtown Toronto, the development pace has reached a level that threatens experienced livability and the character of the neighbourhood. If the goal is "*to meet needs of the community in the present without compromising the ability of future generations to meet their own needs*", Midtown Toronto is failing to ensure a high sense of livability for its current and future residents. The experience of the Midtown neighbourhood has applicability to all neighbourhoods across Canada where smart growth policies are being adopted.

While it is impossible to quantify the level at which growth stops being 'smart' and instead leads to negative effects on residents' livability, it is clear from this study that growth can no longer be considered smart when development is allowed to run unfettered without ensuring the commensurate growth in local services, infrastructure and public spaces. Without adherence to all ten of the smart growth principles, densification and intensification cease to be smart and can lead to a deterioration of livability for residents.

Recommendations

There are some key initiatives that could be implemented in the area to mitigate some of negatives that have resulted from development. A focus on fostering a more walkable neighbourhood, which encourages active transportation, could be facilitated by such means as a Pedestrian Priority Phase crossing at Yonge and Eglinton and the inclusion of designated bike lanes (especially as Eglinton Avenue will require extensive roadwork following completion of the Crosstown LRT). As well, requiring greater setbacks and sizeable open spaces on new developments would make walking more attractive and add to the area's green space. The City should also push for new development that will fill the missing gap in the current housing market, such as including additional affordable rental housing in new developments, requiring a larger percentage of new units be two and three-bedroom units for families and those looking to downsize from a detached, semi-detached or townhouse home, and diversifying the built form to include new developments that are not all high-rise towers. These initiatives should all help move the neighbourhood in a better direction and ensure livability is not negatively affected.

Limitations

My plan for this study was to connect with more residents in the Midtown Toronto neighbourhood, however, due to COVID-19 I was challenged to find potential participants. As a resident of the area, I employed personal connections to try to reach a broader group however, a greater number of participants would have strengthened the findings of this study. As many of the individuals who participated in this study were personal connections, it is also important to note that many of these individuals may have shared

similar perspectives. As well, given the small number of respondents for this study, these views may not be representative of the views of the Midtown Toronto neighbourhood as a whole.

In addition, I had originally planned to complete interviews with questionnaire participants to gain further information. Due to COVID-19, these interviews would have been completed virtually. From initial discussions with participants, I received feedback that the participants would rather complete a questionnaire in order to have time to reflect on each question and complete the questionnaire at their own convenience. People expressed that they were inundated by phone and Zoom calls and would prefer to proceed via questionnaires.

COVID-19 influenced how I was able to communicate with individuals, and also affected how many individuals I was able to approach for the study. In the absence of COVID-19, I would have reached out to more residents of the Midtown Toronto area, which would have strengthened the findings of this study. I would have contacted Resident Associations, Community Groups and Neighbourhood Groups in order to recruit more participants, thereby ensuring a larger representation sample and stronger support for the findings. As well, I would have conducted interviews with participants and key members of each group/association. These efforts would have strengthened the reliability of the findings regarding the subjective livability research goal of this study.

Finally, it is important to note that certain factors of livability can't always be scaled up as some indicators are not applicable beyond the community level. For example, 'walkability' can only be measured on a local scale, not at a regional scale. Further studies can be completed to assess livability throughout Toronto and different Canadian cities,

but consideration must be given to the size of the study area and how the factors are applicable to livability for local residents.

FIGURE ONE: STUDY AREA BOUNDARIES

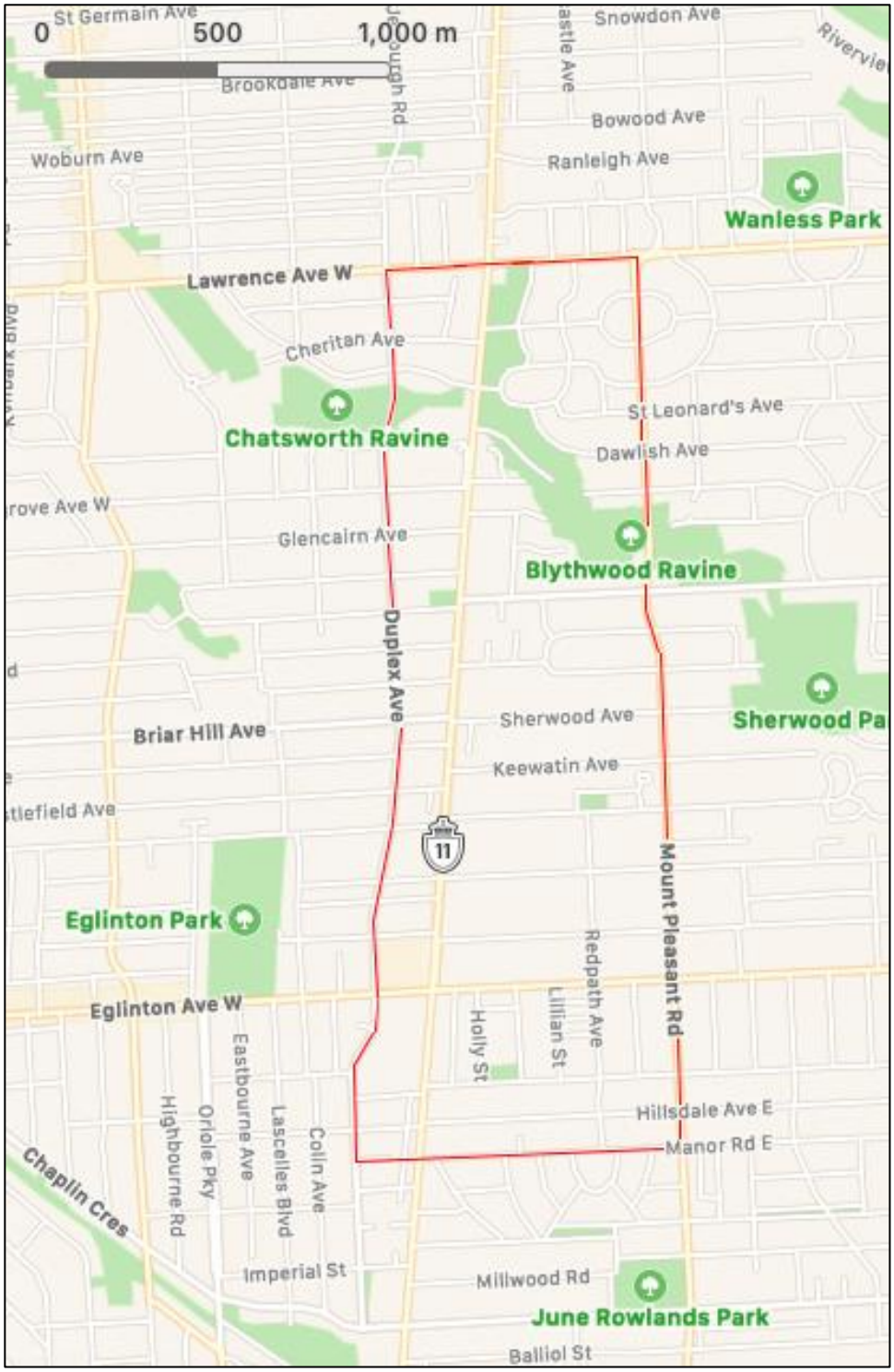


FIGURE TWO: TREE CANOPY AROUND YONGE & EGLINTON

Figure 2.3: Existing Tree Canopy of Midtown in Focus Study

FIGURE THREE: PARK SPACE AROUND YONGE & EGLINTON

Figure 2.7: Existing Public Parks of Midtown in Focus Study

FIGURE FOUR: PARK SPACE DISTANCE AROUND YONGE & EGLINTON

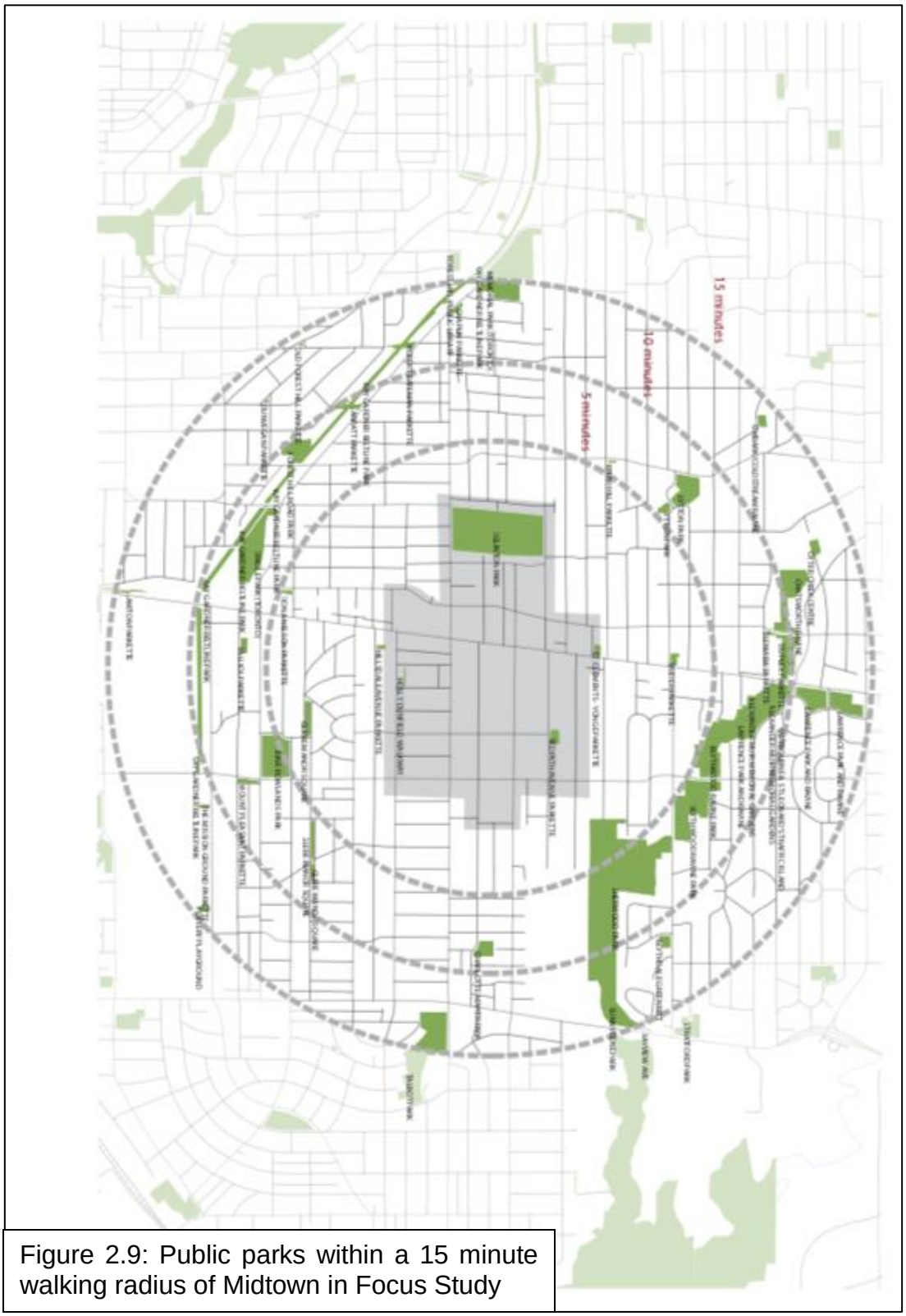
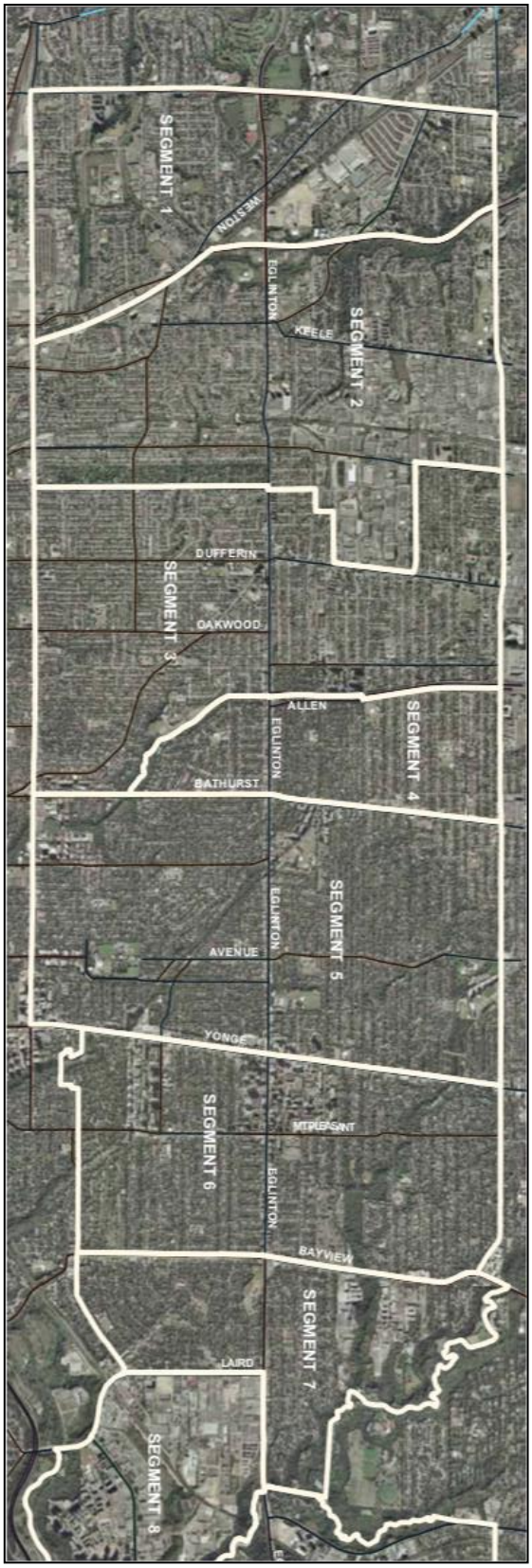


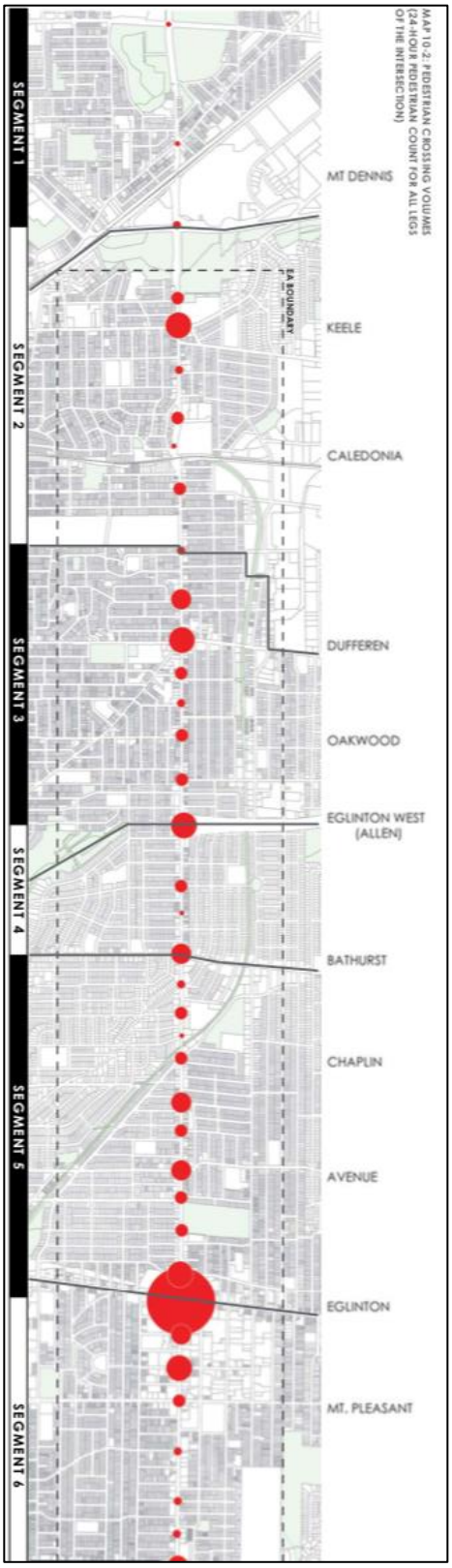
Figure 2.9: Public parks within a 15 minute walking radius of Midtown in Focus Study

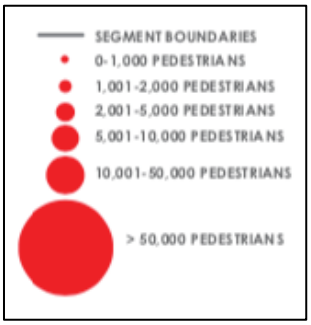
FIGURE FIVE: EGLINTON CONNECTS SEGMENTS



Map 5-1: Segments Used for Analysis of Eglinton Connects

FIGURE SIX: EGLINTON CONNECTS PEDESTRIAN CROSSINGS





Map 10-2: Pedestrian Crossing Volumes of Eglinton Connects

FIGURE SEVEN: MAPPED DEVELOPMENTS

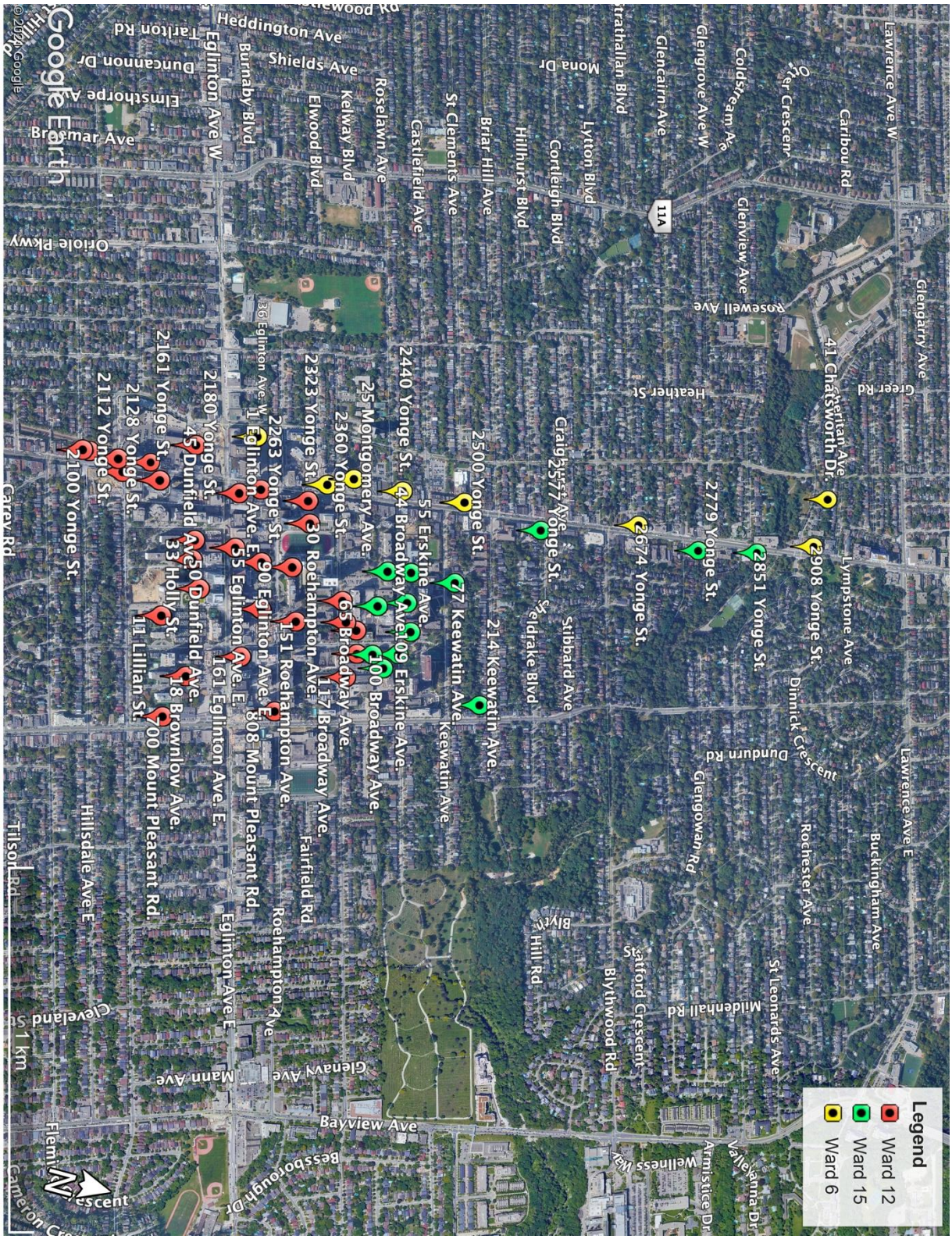


FIGURE EIGHT: MIDTOWN TORONTO DEVELOPMENT NUMBERS

Midtown Toronto Development Numbers - City of Toronto Active Development Projects										
Number	Ward #	Address	Storeys	Total # of Units	# of Studio Units	# of 1 Bedrooms	# of 2 Bedrooms	# of 3 Bedrooms	Retail Space (m2)	Office Space (m2)
1	8	2360 Yonge Street	31	384		218	160	6	5,883	
2	8	2440 Yonge Street	27 & 23	637	113	312	139	73	7,902	
3	8	2500 Yonge Street	14	172		34	119	19	1,132	
4	8	2908 Yonge Street	13	85		9	67	9	421	
5	8	41 Chatsworth Drive	4	51		14	31	6		
6	8	25 Montgomery Avenue	27	233	4	129	92	8	1,441	
7	8	36 Eglinton Avenue West	65	663		376	166	121	550	
8	8	2674 Yonge Street	9	127		63	48	16	566	
1	15	2851 Yonge Street	8	49	4	14	28	3		
2	15	2779 Yonge Street	9	90		16	72	2	804	
3	15	214 Keewatin Avenue	4	36		1	17	18		
4	15	77 Keewatin Avenue	8	80	14	49	17			
5	15	55 Erskine Avenue	11	102	8	41	41	12		
6	15	99 Erskine Avenue	32	432	56	204	162	10		
7	15	66 Broadway Avenue	22	375	78	162	131	4		
8	15	110 Broadway Avenue	33 & 21	751	118	418	140	75		606
9	15	2577 Yonge Street	9				13	11	188	
10	15	109 Erskine Avenue	22		21	117	52	23		
11	15	241 Redpath Avenue	35	387	48	210	94	35		
12	15	100 Broadway Avenue	36	412	85	107	188	32		
13	15	44 Broadway Avenue	44	398		170	187	41		
1	12	65 Broadway Avenue	39 & 39	778	38	472	202	66		
2	12	75 Broadway Avenue	40	336		235	101			
3	12	85 Broadway Avenue	38	361		221	140			
4	12	95 Broadway Avenue	38 & 38	919	69	552	297	1		
5	12	117 Broadway Avenue	33 & 36	947	257	429	184	77		
6	12	89 Roehampton Avenue	38	255		144	89	22		
7	12	151 Roehampton Avenue	38	562	55	396	111		717	
8	12	90 Eglinton Avenue East	52	456		251	152	53	3,622	14,029
9	12	150 Eglinton Avenue East	46	429		230	156	43	2,875	8,541
10	12	808 Mt. Pleasant Road	44	457		248	161	48	472	
11	12	161 Eglinton Avenue East	35	437	39	338	59	1	2,355	
12	12	55 Eglinton Avenue East	47	455	48	283	124		254	6,410
13	12	1 Eglinton Avenue East	65	660		440	220		695	10,997
14	12	33 Holly Street	27	236		88	90	58		
15	12	50 Dunfield Avenue	34	309		118	123	68		
16	12	45 Dunfield Avenue	25 & 26	564	24	398	142			
17	12	11 Lillian Street	19	160		86	68	6		
18	12	18 Brownlow Avenue	21	180	15	86	74	5		
19	12	700 Mount Pleasant Road	20	205		205				
20	12	2161 Yonge Street	36	288		108	141	39	603	8,267
21	12	2131 Yonge Street	28	624	148	235	238	3	7,767	
22	12	2128 Yonge Street	14	79	5	37	28	9	279	
23	12	2112 Yonge Street	11	80		49	31		387	
24	12	2100 Yonge Street	11	78		25	34	19	311	
25	12	30 Roehampton Avenue	33	384	6	259	119			
26	12	2263 Yonge Street	61 & 38	854	117	520	217		1,194	3,327
27	12	2323 Yonge Street	37	380	56	203	83	38	910	6,596
28	12	2180 Yonge Street	60, 70, 60, 55 & 45	2701	282	1194	954	271	1,941	58,762
TOTALS		**41 Developments**		**19,638**	**1,708**	**10,514**	**6,302**	**1,351**	**43,269**	**117,535**

Average Ward 8 # of Storeys	24 storeys
Average Ward 15 # of Storeys	21 storeys
Average Ward 12 # of Storeys	38 storeys
Total Average # of Storeys	32 storeys

FIGURE NINE: MIDTOWN TORONTO POPULATION PROJECTIONS

POPULATION PROJECTIONS - City of Toronto Active Development Projects

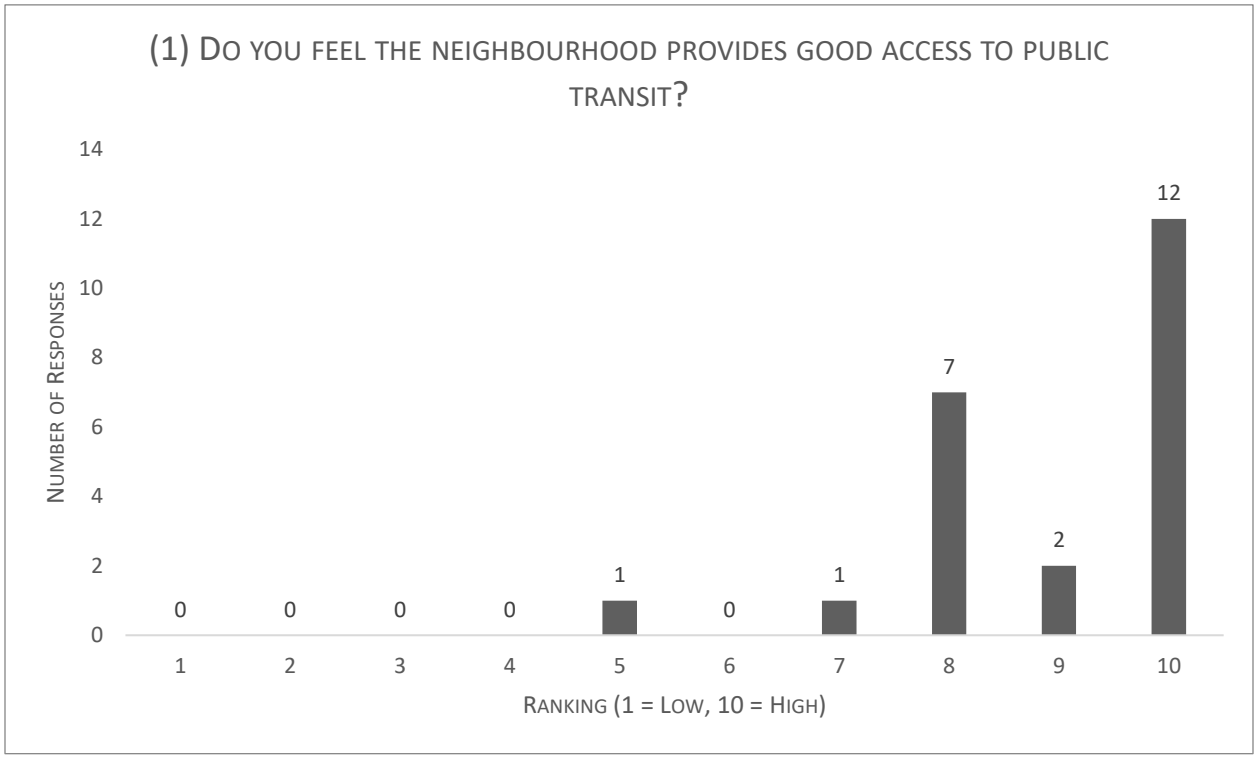
Low Projections

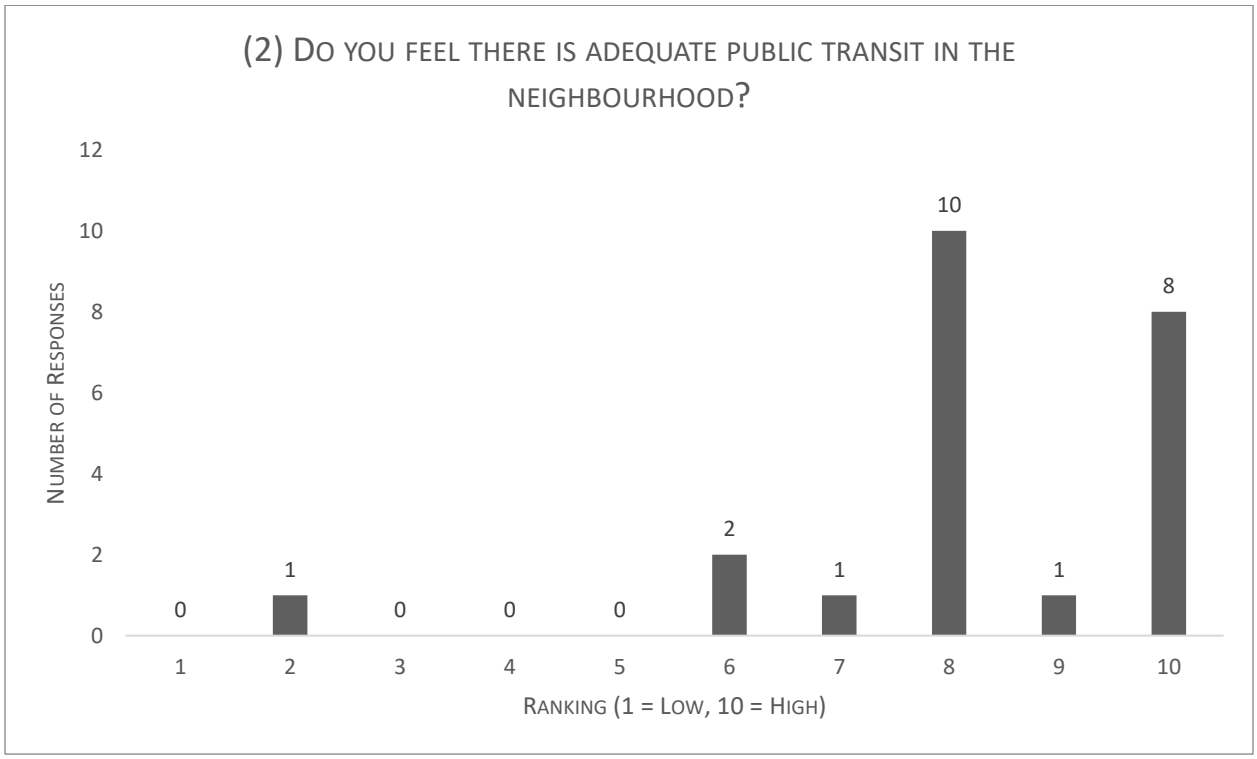
Type of Unit	# of Units	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	
Studio	1,708	25%	2	854	75%	1	1,281							
1 Bedroom	10,514	50%	2	10,514	50%	1	5,257							
2 Bedroom	6,302	40%	3	7,562	40%	2	5,042	20%	1	1,260.40				
3 Bedroom	1,351	50%	4	2,702	40%	3	1,621	9%	2	243.18	1%	1	14	
TOTAL	19,875			21,632			13,201			1,503.58			14	**TOTAL 36,350**

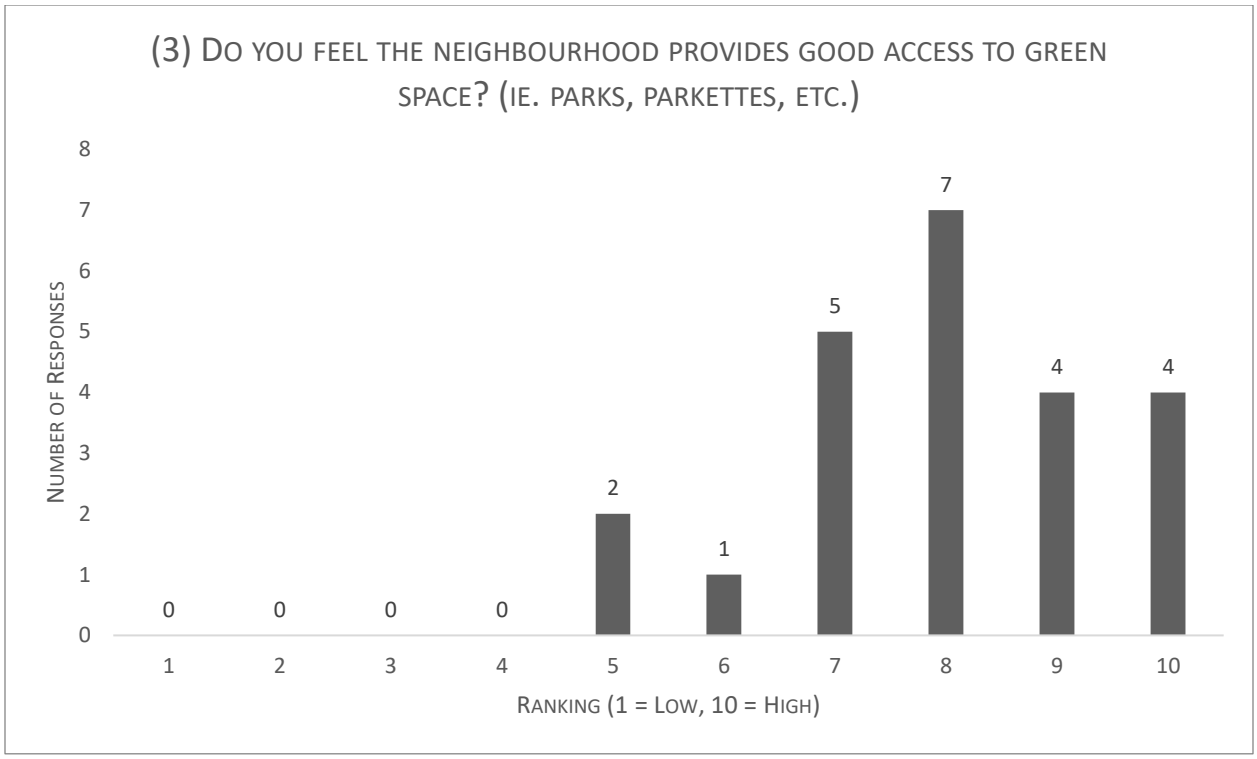
High Projections

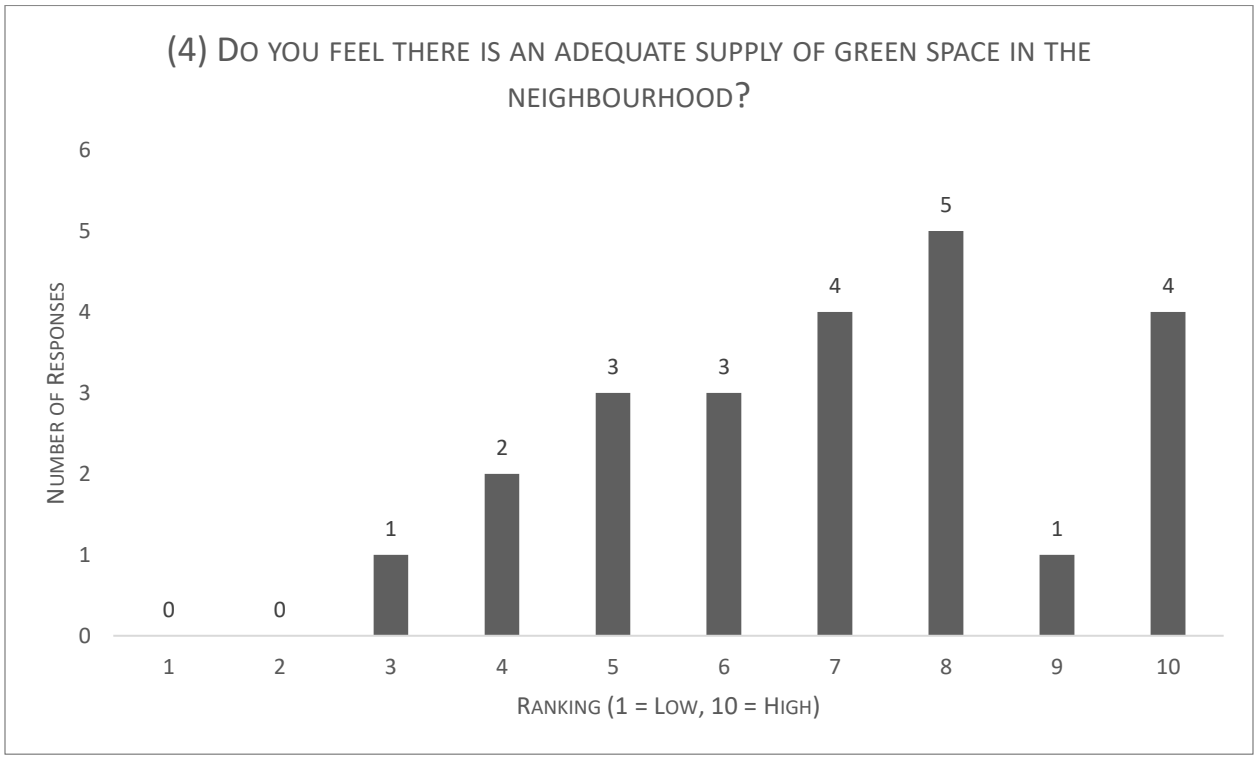
Type of Unit	# of Units	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	% of occupants	Occupants per unit	Total number of occupants	
Studio	1,708	50%	2	1,708	50%	1	854							
1 Bedroom	10,514	75%	2	15,771	25%	1	2,629							
2 Bedroom	6,302	65%	3	12,289	30%	2	3,781	5%	1	315				
3 Bedroom	1,351	65%	4	3,513	28%	3	1,135	5%	2	135	2%	1	27	
TOTAL	19,875			33,281			8,399			450			27	**TOTAL 42,156**

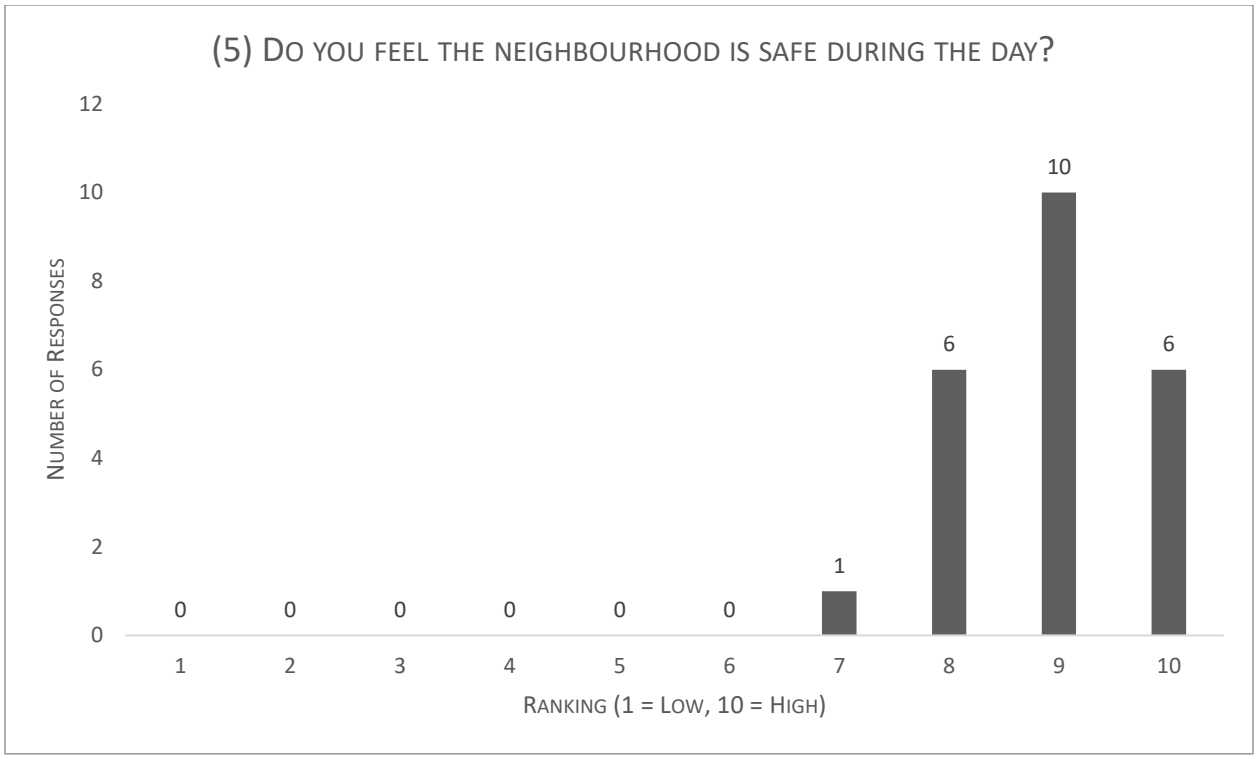
FIGURE TEN: QUESTIONNAIRE RESPONSE CHARTS

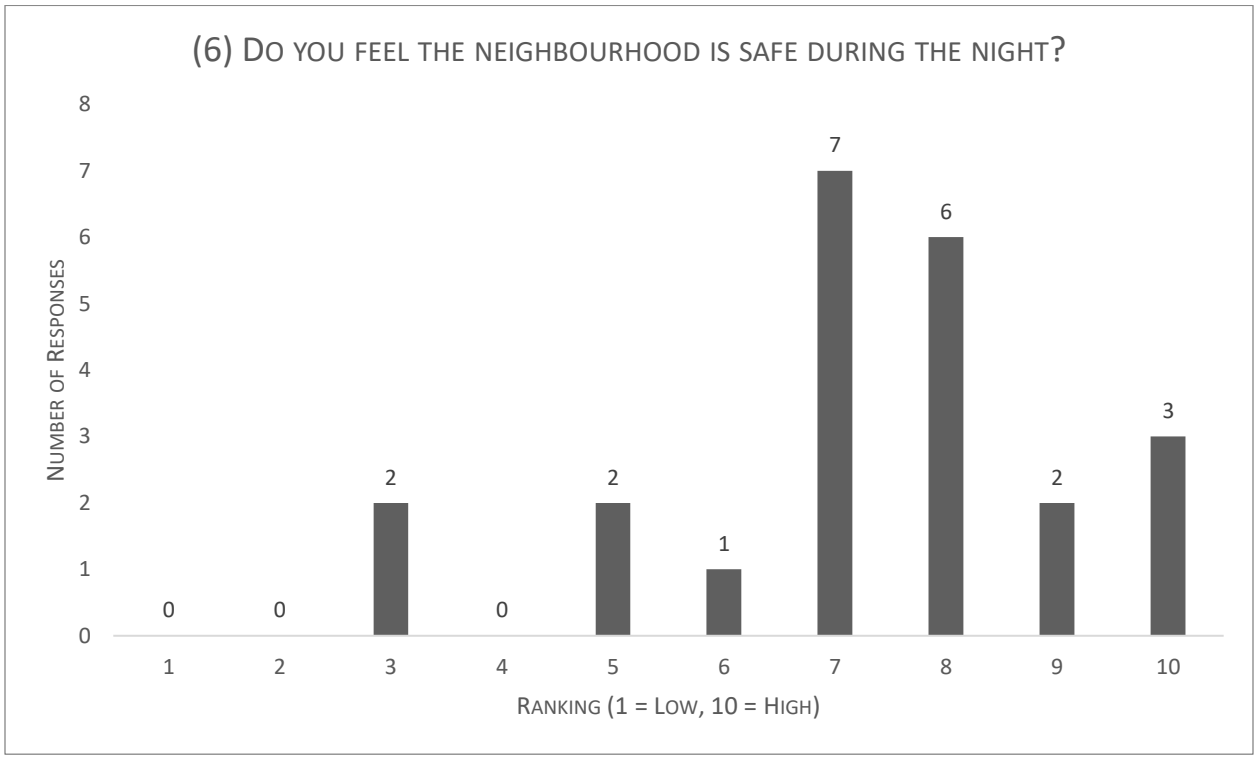


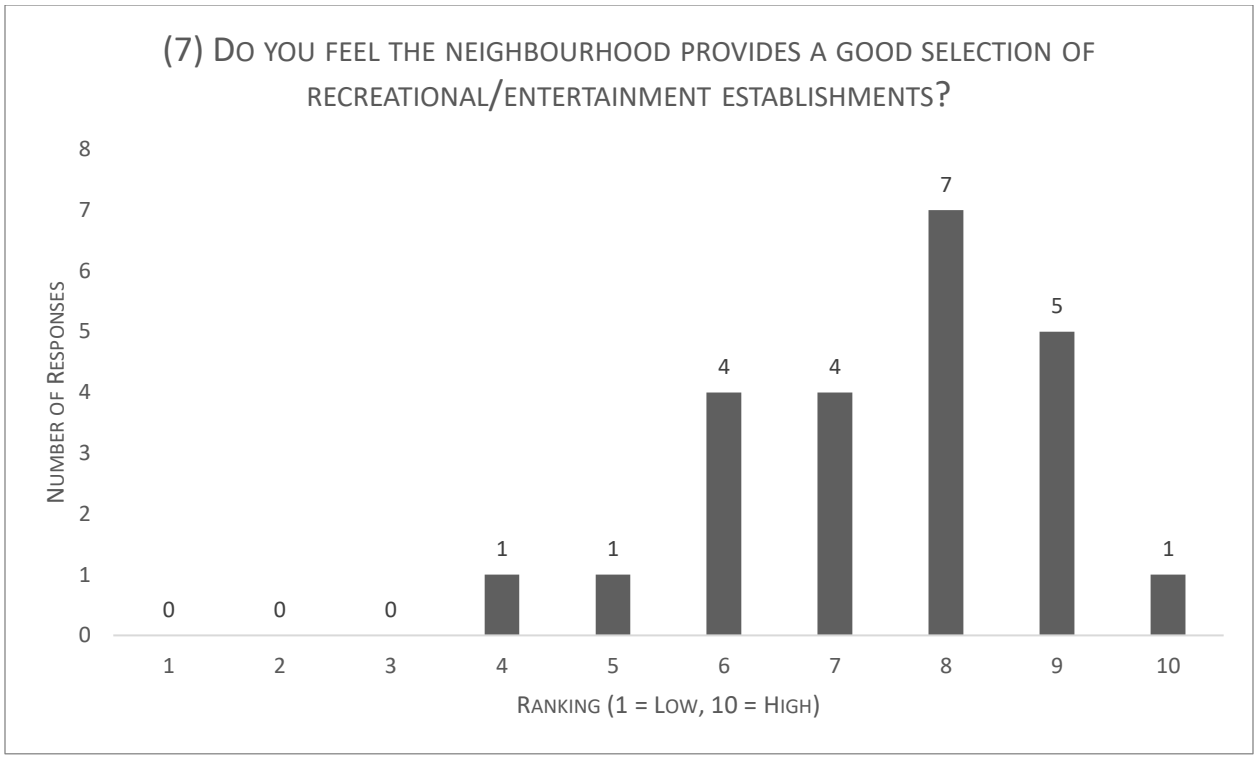


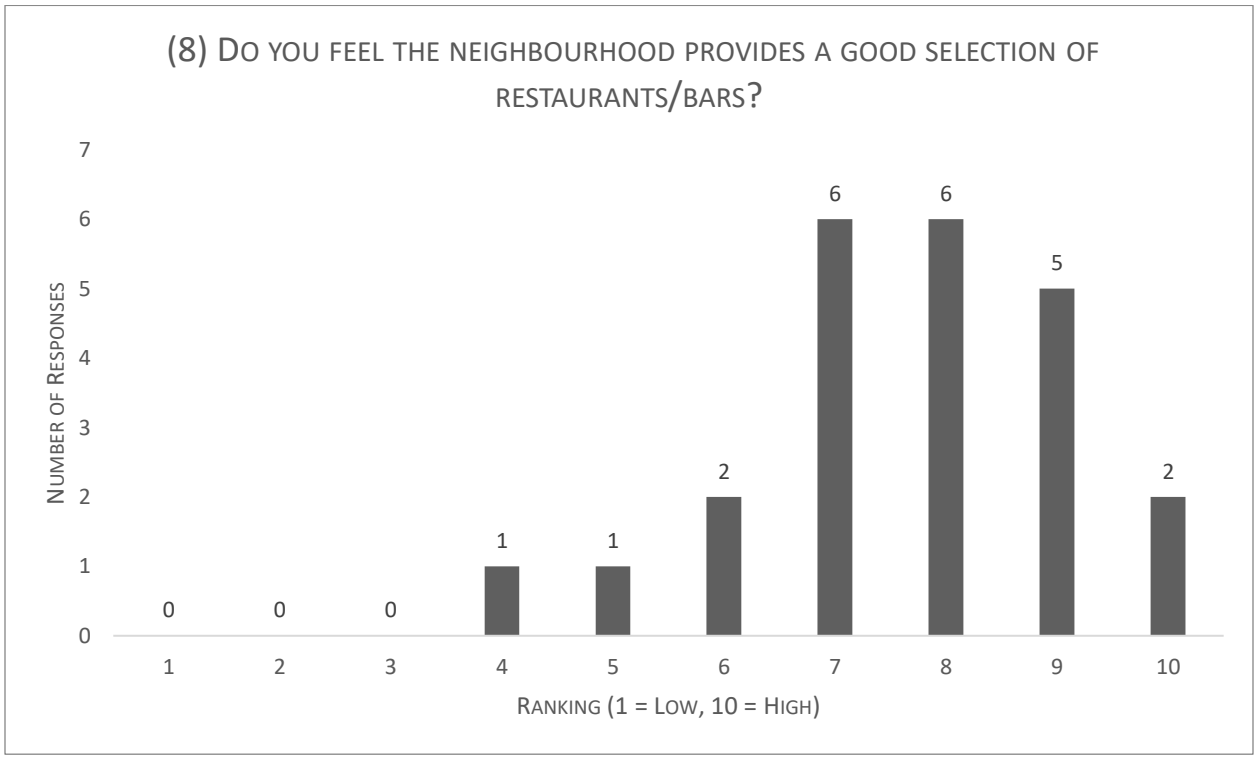

(3) Do you feel the neighbourhood provides good access to green space? (ie. parks, parkettes, etc.)
Number of Responses
0
1
2
3
4
5
6
7
8
0
0
0
0
2
1
5
7
4
4
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

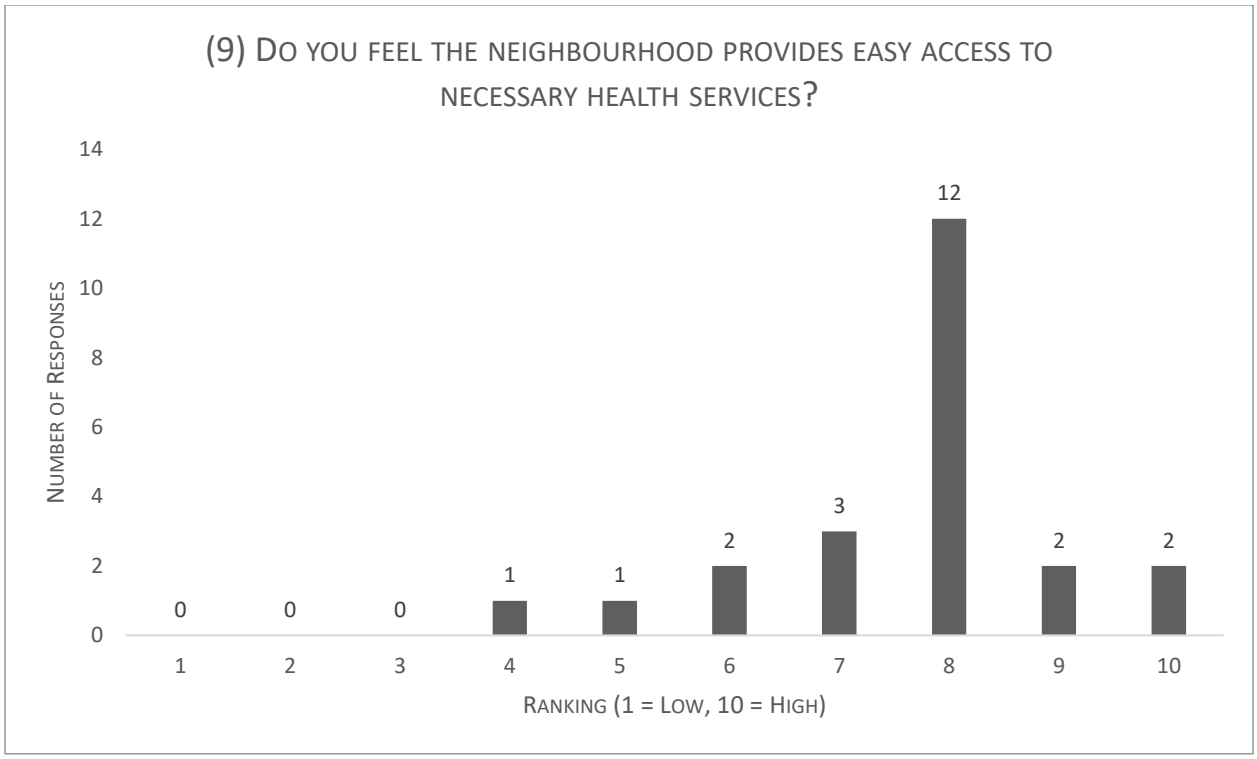

(4) Do you feel there is an adequate supply of green space in the neighbourhood?
Number of Responses
0
1
2
3
4
5
6
0
0
1
2
3
3
4
5
1
4
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

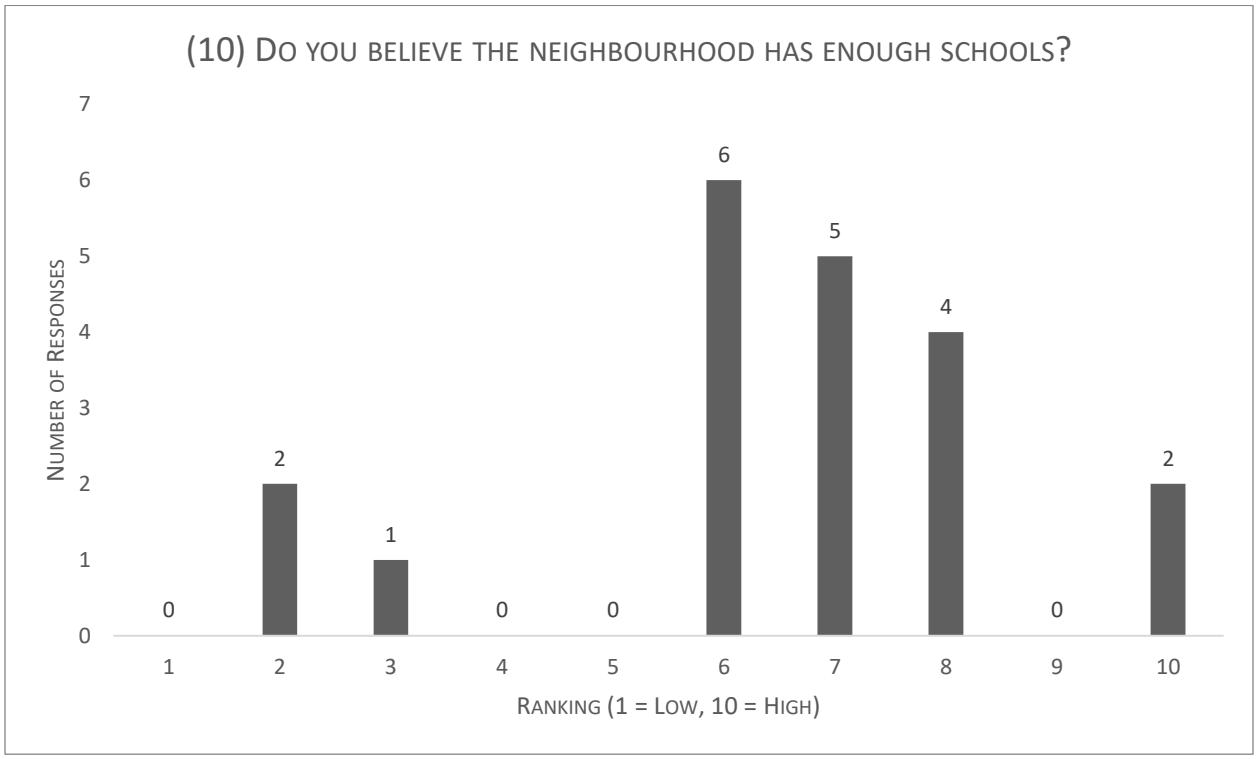

(5) Do you feel the neighbourhood is safe during the day?
Number of Responses
12
10
8
6
4
2
0
0 0 0 0 0 0 1 6 10 6
1 2 3 4 5 6 7 8 9 10
Ranking (1 = Low, 10 = High)

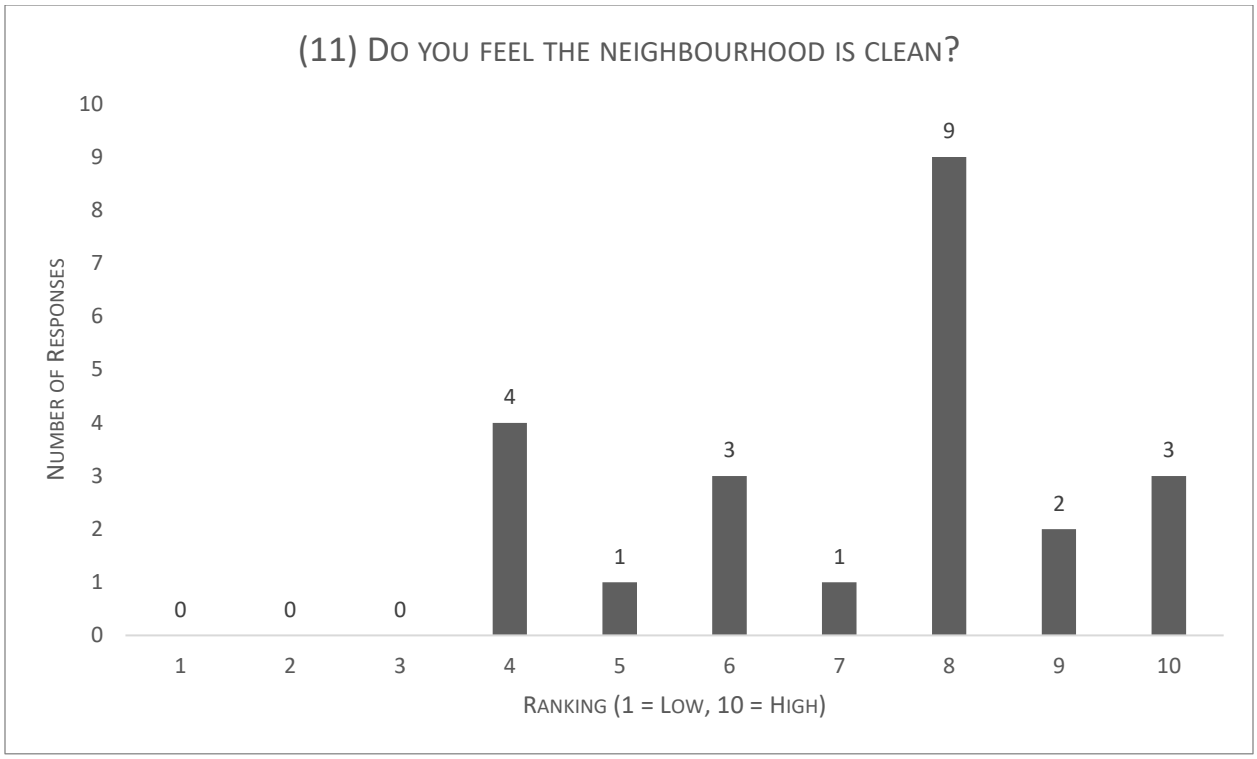

(6) Do you feel the neighbourhood is safe during the night?
Number of Responses
8
7
6
5
4
3
2
1
0
0 0 2 0 2 1 7 6 2 3
1 2 3 4 5 6 7 8 9 10
Ranking (1 = Low, 10 = High)

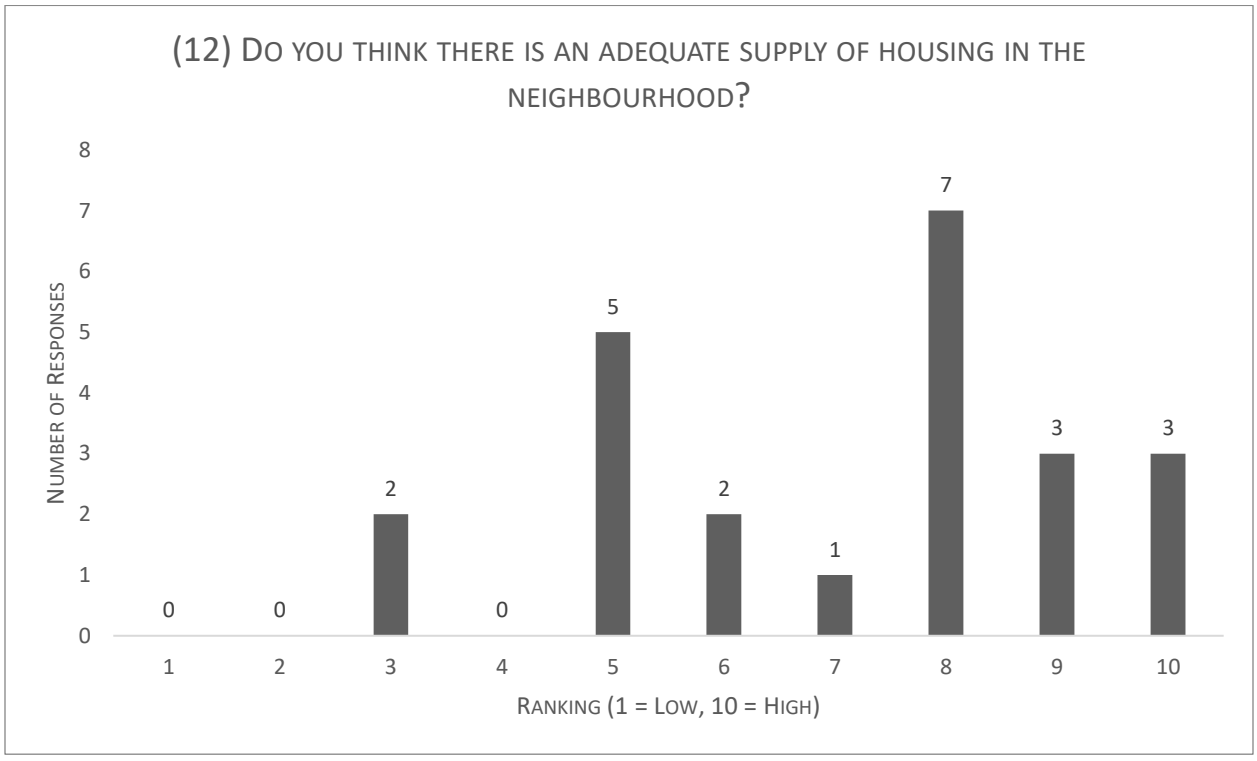

(7) Do you feel the neighbourhood provides a good selection of recreational/entertainment establishments?
Number of Responses
0
1
2
3
4
5
6
7
8
0
0
0
1
1
4
4
7
5
1
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

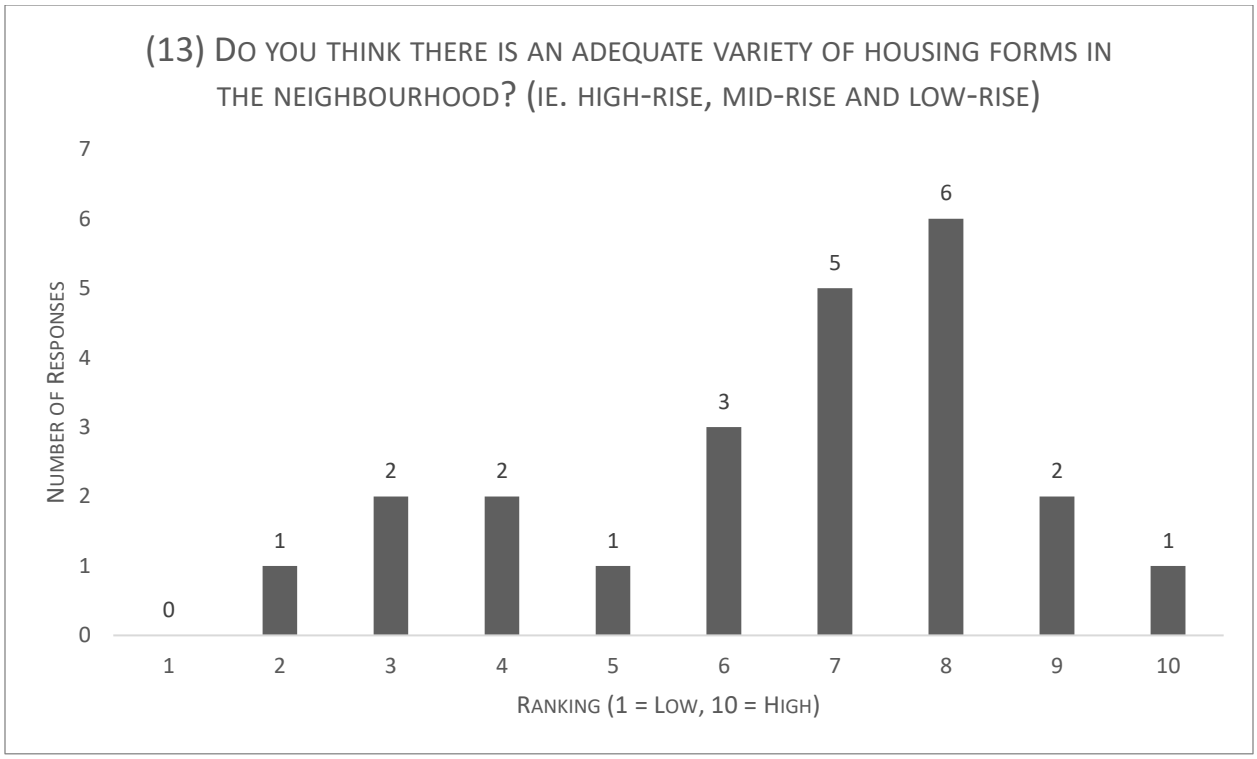

(8) Do you feel the neighbourhood provides a good selection of restaurants/bars?
Number of Responses
0
1
2
3
4
5
6
7
0
0
0
1
1
2
6
6
5
2
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

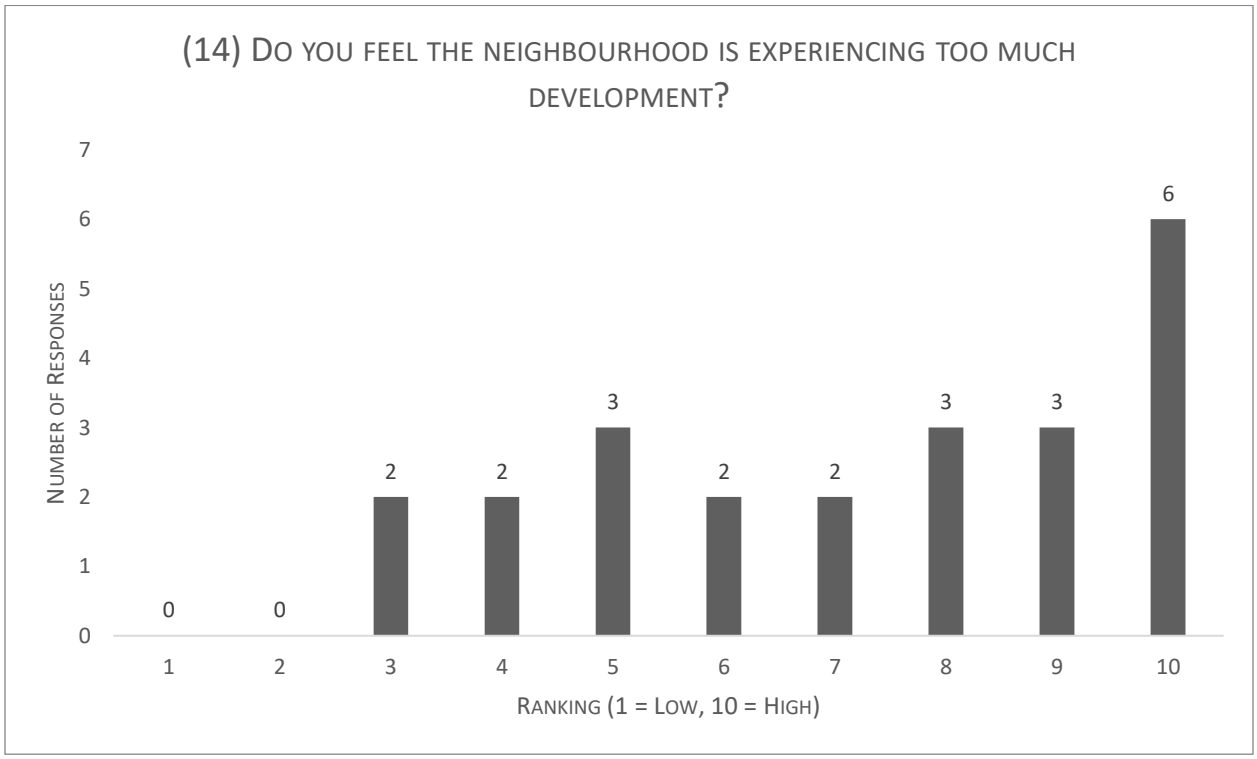

(9) Do you feel the neighbourhood provides easy access to necessary health services?
Number of Responses
14
12
10
8
6
4
2
0
0
0
0
1
1
2
3
12
2
2
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

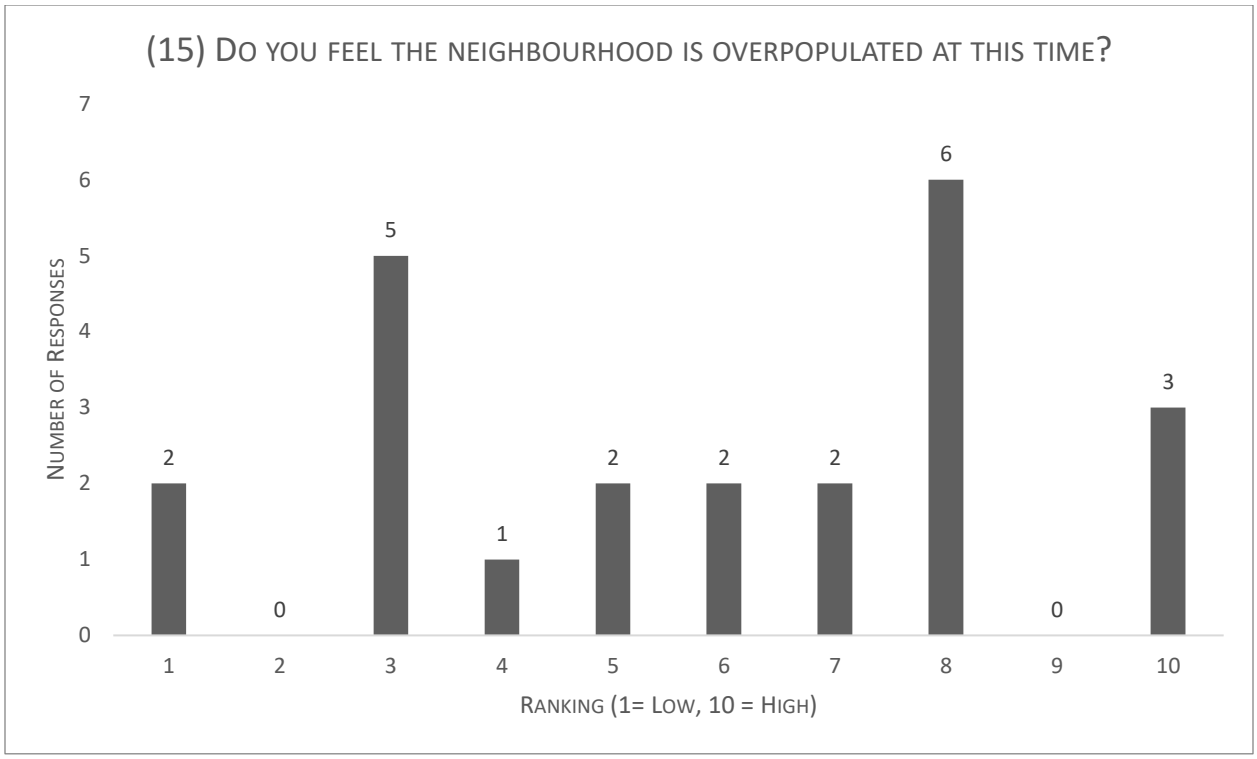

(10) Do you believe the neighbourhood has enough schools?
Number of Responses
7
6
5
4
3
2
1
0
0
2
1
0
0
6
5
4
0
2
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)

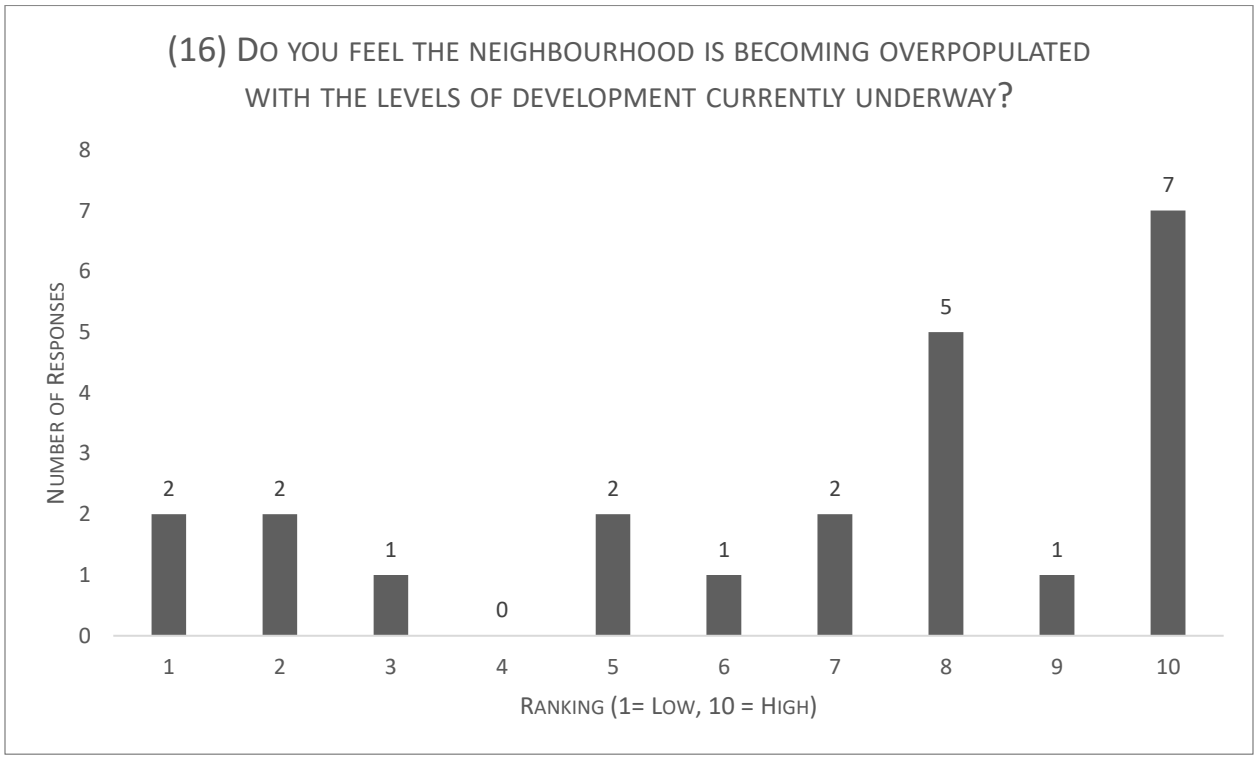

(11) Do you feel the neighbourhood is clean?
Number of Responses
10
9
8
7
6
5
4
3
2
1
0
0
0
0
4
1
3
1
9
2
3
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)


(12) Do you think there is an adequate supply of housing in the neighbourhood?
Number of Responses
8
7
6
5
4
3
2
1
0
0
0
2
0
5
2
1
7
3
3
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)


(13) Do you think there is an adequate variety of housing forms in the neighbourhood? (ie. high-rise, mid-rise and low-rise)
Number of Responses
0
1
2
3
4
5
6
7
0
1
2
2
1
3
5
6
2
1
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)


(14) Do you feel the neighbourhood is experiencing too much development?
Number of Responses
0
1
2
3
4
5
6
7
0
0
2
2
3
2
2
3
3
6
1
2
3
4
5
6
7
8
9
10
Ranking (1 = Low, 10 = High)


(15) Do you feel the neighbourhood is overpopulated at this time?
Number of Responses
0
1
2
3
4
5
6
7
2
0
5
1
2
2
2
6
0
3
1
2
3
4
5
6
7
8
9
10
Ranking (1= Low, 10 = High)


(16) Do you feel the neighbourhood is becoming overpopulated with the levels of development currently underway?
Number of Responses
0
1
2
3
4
5
6
7
8
2
2
1
0
2
1
2
5
1
7
1
2
3
4
5
6
7
8
9
10
Ranking (1= Low, 10 = High)

BIBLIOGRAPHY

Addison, C., Zhang, S., & Coomes, B. (2013). Smart Growth and Housing Affordability: A Review of Regulatory Mechanisms and Planning Practices. Journal of Planning Literature, 28(3), 215–257. https://doi.org/10.1177/0885412212471563

Allen, N. (2015). Understanding the Importance of Urban Amenities: A Case Study from Auckland. *Buildings*, *5*(1), 85–99. https://doi.org/10.3390/buildings5010085

Allen, N. (2016). *Quality of Urban Life and Intensification:* 223.

Allen, N., Haarhoff, E., & Beattie, L. (2018). Enhancing liveability through urban intensification: The idea and role of neighbourhood. *Cogent Social Sciences*, *4*(1). https://doi.org/10.1080/23311886.2018.1442117

American Planning Association. (2012, April 14). APA Policy Guide on Smart Growth. Retrieved from https://www.planning.org/policy/guides/adopted/smartgrowth.htm

Ariyaningsih, Dewanty, A. N., & Ulimaz, M. (2019). The Influence of The Distribution of Public Green Space on The Health of The Residential Environment in Balikpapan City. *IOP Conference Series: Earth and Environmental Science*, *328*, 012010. https://doi.org/10.1088/1755-1315/328/1/012010

Badland, H., Whitzman, C., Lowe, M., Davern, M., Aye, L., Butterworth, I., Hes, D., & Giles-Corti, B. (2014). Urban liveability: emerging lessons from Australia for exploring the potential for indicators to measure the social determinants of health. *Social science & medicine* (1982), 111, 64–73. https://doi.org/10.1016/j.socscimed.2014.04.003

Baig, F., Rana, I. A., & Talpur, M. A. H. (2019). Determining Factors Influencing Residents' Satisfaction Regarding Urban Livability in Pakistan. *International*

Journal of Community Well-Being, *2*(2), 91–110. https://doi.org/10.1007/s42413-019-00026-w

Bass, B. (2004). Is Smart Growth a smart adaptation strategy?: Examining Ontario's proposed growth under climate change. Ekistics, 71(424/425/426), 57–62.

Bertlin, J. (2014). Social Sustainability from the perspective of three concepts: Human scale, the city at eye level, and public life (Unpublished master's thesis). KTH Royal Institute Of Technology. Retrieved from https://www.diva-portal.org/smash/get/diva2:774050/FULLTEXT01.pdf

Bibri, S., Krogstie, J., & Kärrholm, M. (2020). Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. Developments in the Built Environment, 4, 100021–. https://doi.org/10.1016/j.dibe.2020.100021

Bingley, M. (2020, October 02). 5 more months of DELAYS expected before completion of Eglinton CROSSTOWN LRT. Retrieved from https://globalnews.ca/news/7374161/eglinton-crosstown-lrt-toronto-delayed-completion/

Black, C. (2016, August 04). Urban green spaces. Retrieved from https://www.who.int/sustainable-development/cities/health-risks/urban-green-space/en/

Blais, P. (2003). Smart Development for Smart Growth (Issue brief No. 6). Retrieved https://neptis.org/sites/default/files/smart_growth_issue_papers_smart_development_and_smart_growth/sm_dev_nip6_report.pdf

Blais, P. (2011). *Perverse Cities: Hidden Subsidies, Wonky Policy, and Urban Sprawl*. UBC Press.

Boudreau, J., Keil, R., & Young, D. (2009). Changing Toronto: Governing Urban Neoliberalism. University of Toronto Press. doi:10.3138/j.ctv1005d98

Bradburn, N. & Miles, C. (1979). Vague Quantifiers. Public Opinion Quarterly, 43(1), 92–101. https://doi.org/10.1086/268494

Bramley, G., & Power, S. (2009). Urban Form and Social Sustainability: The Role of Density and Housing Type. *Environment and Planning. B, Planning & Design*., 36(1), 30–48. https://doi.org/10.1068/b33129

Brooks, H., & Parzen, J. (2006, January). Livability and Smart Growth. Retrieved from http://environment.yale.edu/publication-series/documents/downloads/o-u/report_9_livability_growth.pdf

Brown, M. (2008). Mitigating Climate Change through Green Buildings and Smart Growth. Environment and Planning A: Economy and Space, 40(3). https://doi.org/10.1068/a38419

Bunce, S. (2004). The emergence of “smart growth” intensification in Toronto: environment and economy in the new official plan. Local Environment, 9(2), 177–191. https://doi.org/10.1080/1354983042000199525

Central Ontario Smart Growth Panel. (2003). Shape the Future: Central Ontario Smart Growth Panel (Rep.). Retrieved https://books-scholarsportal-info.proxy.lib.uwaterloo.ca/uri/ebooks/ebooks2/ogdc/2014-02-21/5/10308868

Cheshire, P. & Vermeulen, W. (2009). Land markets and their regulation: the welfare economics of planning. Retrieved

https://www.researchgate.net/publication/48910203_Land_markets_and_their_regulation_the_welfare_economics_of_planning

Chiu, R. L. H. (2008). Shanghai's Rapid Urbanization: How Sustainable? *Built Environment*, *34*(4), 532–546. https://doi.org/10.2148/benv.34.4.532

Ciorici, P., & Dantzler, P. (2019). Neighbourhood Satisfaction: A Study of a Low-Income Urban Community. *Urban Affairs Review*, *55*(6), 1702–1730. https://doi.org/10.1177/1078087418755515

City of Toronto (1970) *Official Plan for the City of Toronto Planning Area Part 1*. Toronto: City Toronto, Planning Department

City of Toronto. (2002, October 31). Toronto official plan approved by City Council. Retrieved from http://wx.toronto.ca/inter/it/newsrel.nsf/9da959222128b9e885256618006646d3/e15e62536ee0b66885256df60045f1e4?OpenDocument

City of Toronto. (2013). Eglinton Connects (1st ed.) (Canada, City of Toronto). City of Toronto, ON.

City of Toronto. (2013, May). Tall Building Design Guidelines. Retrieved from https://www.toronto.ca/wp-content/uploads/2018/01/96ea-cityplanning-tall-buildings-may2013-final-AODA.pdf

City of Toronto. (2014). *Midtown in Focus* (Canada, City of Toronto). City of Toronto, ON.

City of Toronto. (2016, November). Yonge-Eglinton Secondary Plan. Retrieved from https://www.toronto.ca/wp-content/uploads/2017/11/97ea-cp-official-plan-SP-21-YongeEglinton.pdf

City of Toronto. (2017, November 22). Section 37 Benefits. Retrieved from https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/section-37-benefits/

City of Toronto. (2018, January 19). Mid-Rise Buildings. Retrieved from https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/design-guidelines/mid-rise-buildings/

City of Toronto. (2018, May 16). Midtown: Community Services and Facilities Strategy. Retrieved from https://www.toronto.ca/wp-content/uploads/2018/05/90cd-2018-05-24-Attachment-3-CSF-Strategy-AODA.pdf

City of Toronto. (2018, May 24). Midtown in Focus: Final Report. Retrieved from https://www.toronto.ca/legdocs/mmis/2018/pg/bgrd/backgroundfile-115684.pdf

City of Toronto. (2019, August 12). Pedestrian Scramble. Retrieved from https://www.toronto.ca/services-payments/streets-parking-transportation/traffic-management/traffic-signals-street-signs/types-of-traffic-signals/all-way-signal-crossing/

City of Toronto. (2020). 2021 Budget Notes Toronto Water (Rep.). Toronto, ON. doi:https://www.toronto.ca/legdocs/mmis/2020/bu/bgrd/backgroundfile-158355.pdf

City of Toronto. (2021). Development Applications. Retrieved from http://app.toronto.ca/AIC/index.do

City of Toronto Planning Division. (2014, July 8). Midtown in Focus – Parks, Open Space and Streetscape Plan for the Yonge-Eglinton Area (Rep.). Retrieved https://www.toronto.ca/legdocs/mmis/2014/pg/bgrd/backgroundfile-72138.pdf

City of Toronto Planning Division. (2015, April 17). Midtown in Focus – Official Plan Amendment – Final Report (Rep.). Retrieved https://www.toronto.ca/legdocs/mmis/2015/pg/bgrd/backgroundfile-79743.pdf

City of Toronto Planning Division. (2017, October 25). Midtown in Focus: Proposals Report (Rep.). Retrieved https://www.toronto.ca/legdocs/mmis/2017/pg/bgrd/backgroundfile-108408.pdf

City of Toronto Planning Division. (2018, May 24). Midtown in Focus: Final Report (Rep.). Retrieved https://www.toronto.ca/legdocs/mmis/2018/pg/bgrd/backgroundfile-116456.pdf

City of Toronto Planning Division. (2019, July 12). Minister's Approval of Official Plan Amendments 405 (Yonge-Eglinton) and 406 (Downtown) with Modifications and Staff's Preliminary Assessment of Potential Impacts of Bill 108 (Rep.). Retrieved https://www.toronto.ca/legdocs/mmis/2019/cc/bgrd/backgroundfile-135949.pdf

City of Toronto Transportation Services. (2017). Vision Zero: Toronto's Road Safety Plan (Rep.). Retrieved https://www.toronto.ca/wp-content/uploads/2017/11/990f-2017-Vision-Zero-Road-Safety-Plan_June1.pdf

Creswell, J. W., & Creswell, J. D. (2018). *Research design : qualitative, quantitative, and mixed methods approaches* (Fifth edition.). SAGE Publications, Inc.

de Grange, L., Troncoso, R., & González, F. (2012). An empirical evaluation of the impact of three urban transportation policies on transit use. Transport Policy, 22, 11–19. https://doi.org/10.1016/j.tranpol.2012.04.003

Douglas, O., Lennon, M., & Scott, M. (2017). Green space benefits for health and well-being: A life-course approach for urban planning, design and management. Cities, 66, 53–62. https://doi.org/10.1016/j.cities.2017.03.011

Fassio, O., Rollero, C., & De Piccoli, N. (2013). Health, Quality of Life and Population Density: A Preliminary Study on “Contextualized” Quality of Life. *Social Indicators Research*, *110*(2), 479–488. https://doi.org/10.1007/s11205-011-9940-4

Filion, P., & Mcspurren, K. (2007). Smart Growth and Development Reality: The Difficult Co-ordination of Land Use and Transport Objectives. *Urban Studies*, *44*(3), 501–523. https://doi.org/10.1080/00420980601176055

Fillion, P. (2007, May). The Urban Growth Centres Strategy in the Greater Golden Horseshoe: Lessons from Downtown, Nodes and Corridors (Rep.). Retrieved https://neptis.org/sites/default/files/nodes_and_corridors/filion_electronic_report_20070528.pdf

Flouri, E., Papachristou, E., & Midouhas, E. (2018, September 05). The role of neighbourhood greenspace in children's spatial working memory. Retrieved from https://onlinelibrary.wiley.com/doi/full/10.1111/bjep.12243

Foddy, W. (1993) Constructing Questions for Interviews and Questionnaires. Theory and Practice in Social Research. Cambridge, UK: Cambridge University Press. Retrieved from https://doi-org.proxy.lib.uwaterloo.ca/10.1086/269453

Frank, L., Kavage, S., & Litman, T. (2007, January 30). Promoting Public Health Through Smart Growth (Publication). Retrieved https://www.vtpi.org/sgbc_health.pdf

Gehl, J. (2010). Cities for people. Island Press.

Gehl, J., & Svarre, B. (2013). How to study public life. Island Press.

Gehl, J. (2020, June 19). Planning Cities on the Human Scale. Retrieved from https://parcitypatory.org/2020/06/19/jan-gehl-human-scale/

Giles-Corti, B., Vernez-Moudon, A., Reis, R., Turrell, G., Dannenberg, A. L., Badland, H., Foster, S., Lowe, M., Sallis, J. F., Stevenson, M., & Owen, N. (2016). City planning and population health: A global challenge. *The Lancet*, *388*(10062), 2912–2924. https://doi.org/10.1016/S0140-6736(16)30066-6

Gifford, R. (2007). The Consequences of Living in High-Rise Buildings. *Architectural Science Review*, *50*(1), 2–17. https://doi.org/10.3763/asre.2007.5002

Greater Toronto area urban structure concepts study: background report. (1990). IBI Group.

Green, K., Filipowicz, J., Lafleur, S., & Herzog, I. (2016, July). The Impact of Land-Use Regulation on Housing Supply in Canada (Publication). Retrieved https://www.fraserinstitute.org/sites/default/files/impact-of-land-use-regulation-on-housing-supply-in-canada.pdf

Haarhoff, E., Beattie, L., & Dupuis, A. (2016). Does higher density housing enhance liveability? Case studies of housing intensification in Auckland. *Cogent Social Sciences*, *2*(1). https://doi.org/10.1080/23311886.2016.1243289

Hall, P. (1999). Sustainable cities or town cramming. RSA Journal,148(5491), 72-81. Retrieved from http://www.jstor.org/stable/41378849

Holdsworth, S., Kenny, D., Cooke, J., & Matfin, S. (2019). Are We Living with Our Heads in the Clouds? Perceptions of Liveability in the Melbourne High-Rise Apartment Market. In P. Rajagopalan, M. M. Andamon, & T. Moore (Eds.), *Energy*

Performance in the Australian Built Environment (pp. 181–198). Springer Singapore. https://doi.org/10.1007/978-981-10-7880-4_12

Houston, D., Boarnet, M. G., Ferguson, G., & Spears, S. (2015). Can compact rail transit corridors transform the automobile city? planning for more sustainable travel in los angeles. Urban Studies, 52(5), 938-959. Retrieved from http://search.proquest.com.proxy.lib.uwaterloo.ca/scholarly-journals/can-compact-rail-transit-corridors-transform/docview/1708523870/se-2?accountid=14906

Inrix. (2021). Global Traffic Scorecard. Retrieved from https://inrix.com/scorecard/

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. Field Methods, 18(1), 3–20. https://doi.org/10.1177/1525822X05282260

Jacobs, T. (2018, September 07). More evidence that green space helps develop young brains. Retrieved from https://psmag.com/education/more-evidence-that-green-space-helps-develop-young-brains

Janssen-Jansen, L.B. (2013). Delivering Urban Intensification Outcomes in a Context of Discontinuous Growth: Experiences from the Netherlands. Built Environment (London. 1978), 39(4), 422–437. https://doi.org/10.2148/benv.39.4.422

Johnson, R. (2019, June 5). Province Opens Door to Building Boom in Midtown Toronto. Retrieved from https://trnto.com/new-toronto-restaurants-june-2019/

Johnston, R., Owen, D., Manley, D., & Harris, R. (2016). House price increases and higher density housing occupation: The response of non-white households in London, 2001–2011. *International Journal of Housing Policy*, *16*(3), 357–375. https://doi.org/10.1080/14616718.2015.1130607

Kabisch, N., & Haase, D. (2014). Green justice or just green? Provision of urban green spaces in Berlin, Germany. *Landscape and Urban Planning*, *122*, 129–139. https://doi.org/10.1016/j.landurbplan.2013.11.016

Kaczynski, A., & Henderson, K. (2007). Environmental Correlates of Physical Activity: A Review of Evidence about Parks and Recreation. Leisure Sciences, 29(4), 315–354. https://doi.org/10.1080/01490400701394865

Kelly, H., Kramer, A., & Warren, A. (2020). Emerging Trends in Real Estate (Publication). Retrieved https://ulidigitalmarketing.blob.core.windows.net/ulidcnc/sites/14/2019/10/ET2020FallMeeting.pdf

Kenworthy, J. (2006). The eco-city: Ten key transport and planning dimensions for sustainable city development. Environment & Urbanization, 18(1), 67-85. doi:10.1177/0956247806063947

Kotulla, T., Denstadli, J. M., Oust, A., & Beusker, E. (2019). What Does It Take to Make the Compact City Liveable for Wider Groups? Identifying Key Neighbourhood and Dwelling Features. *Sustainability*, *11*(12), 3480. https://doi.org/10.3390/su11123480

Lahoti, S., Lahoti, A., & Saito, O. (2019). Benchmark assessment of recreational public Urban Green space provisions: A case of typical urbanizing Indian City, Nagpur. *Urban Forestry & Urban Greening*, *44*, 126424. https://doi.org/10.1016/j.ufug.2019.126424

Lardier, H. (2020, October 02). Understanding the "compact" city. Retrieved from https://easyelectriclife.groupe.renault.com/en/outlook/cities-planning/understanding-compact-cities-new-urban-model/

Lennard, H., & Crowhurst Lennard, S. (2004). Principles of True Urbanism. Retrieved from https://www.livablecities.org/articles/principles-true-urbanism

Lietz, P. (2010). Research into Questionnaire Design: A Summary of the Literature. International Journal of Market Research, 52(2), 249–272. https://doi.org/10.2501/S147078530920120X

Lin, B., Meyers, J., & Barnett, G. (2015). Understanding the potential loss and inequities of green space distribution with urban densification. *Urban Forestry & Urban Greening*, *14*(4), 952–958. https://doi.org/10.1016/j.ufug.2015.09.003

Litman, T. (2011, April 15). Land Use Impacts on Transportation (Rep.). Retrieved http://www.reconnectingamerica.org/assets/Uploads/Land-Use-Impacts.pdf

Litman, T. (2018, November 20). Evaluating Criticism of Smart Growth (Rep.). Retrieved https://www.vtpi.org/sgcritics.pdf

Lorinc, J. (2018, June 6). Midtown Toronto development may be at a tipping point. Retrieved from https://www.theglobeandmail.com/real-estate/article-midtown-toronto-development-may-be-at-a-tipping-point/

Marlow, J. (2008, July). Economic and Fiscal Impacts of Smart Growth Policies (Publication). Retrieved https://sonoraninstitute.org/files/pdf/economic-and-fiscal-impacts-of-smart-growth-policies-07012008.pdf

McCrea, R., & Walters, P. (2012). Impacts of Urban Consolidation on Urban Liveability: Comparing an Inner and Outer Suburb in Brisbane, Australia. *Housing, Theory and Society*, *29*(2), 190–206. https://doi.org/10.1080/14036096.2011.641261

Mehaffy, M. W. (2015). *Urban Form and Greenhouse Gas Emissions: Findings, Strategies, and Design Decision Support Technologies*. Delft University of Technology. Retrieved from http://resolver.tudelft.nl/uuid:08008807-2699-411b-9e21-d5e733a68ba4

Melia, S., Parkhurst, G., & Barton, H. (2011). The paradox of intensification. Transport Policy, 18(1), 46–52. https://doi.org/10.1016/j.tranpol.2010.05.007

Merriam Webster. (2021). Manhattanization. Retrieved from https://www.merriam-webster.com/dictionary/Manhattanization

Metrolinx. (2013, December). Eglinton Crosstown LRT Demand Forecasting Report. Retrieved from http://www.thecrosstown.ca/sites/default/files/eglinton_crosstown_lrt_demand_forecasting_report.pdf

Metrolinx. (2018). Demolishing the Abandoned TTC Bus Terminal at Yonge and Eglinton. Retrieved from http://www.thecrosstown.ca/node/1536

Miller, E., & Soberman, R. (2003). Travel Demand and Urban Form. Retrieved from http://www.neptis.org/sites/default/files/smart_growth_issue_papers_travel_demand_and_urban_form/travel_demand_nip9.pdf

Ministry of Municipal Affairs and Housing. (2019, June 5). Notice of Decision with respect to Official Plan Amendment No. 405 (Rep.). Retrieved https://www.toronto.ca/legdocs/refdocs/11188.pdf

Ministry of Municipal Affairs and Housing. (2020, July 10). Create Vibrant and Complete Communities. Retrieved from https://www.ontario.ca/document/performance-indicators-growth-plan-greater-golden-horseshoe-2006/create-vibrant-and-complete-communities

Ministry of Municipal Affairs and Housing. (2020, August). A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Canada, Ministry of Municipal Affairs and Housing). Retrieved from https://files.ontario.ca/mmah-place-to-grow-office-consolidation-en-2020-08-28.pdf

Mok, T. (2018, July). Yonge and Eglinton residents don't want any more condos. Retrieved from https://www.blogto.com/city/2018/06/yonge-and-eglinton-residents-dont-want-any-more-condos/

Mouratidis, K. (2018). Is compact city livable? The impact of compact versus sprawled neighbourhoods on neighbourhood satisfaction. *Urban Studies*, *55*(11), 2408–2430. https://doi.org/10.1177/0042098017729109

Nabil, N., & Eldayem, G. (2015). Influence of mixed land-use on realizing the social capital. HBRC Journal, 11(2), 285–298. https://doi.org/10.1016/j.hbrcj.2014.03.009

Namazi-Rad, M.-R., Perez, P., Berryman, M., & Wickramasuriya, R. (2016). A Semi-Empirical Determination of Perceived Liveability. *Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique*, *129*(1), 5–24. https://doi.org/10.1177/0759106315615510

Nallathiga, R. (2007). Compact City and Smart Growth as Policy guiding models for achieving Sustainable City Development: The case for Mumbai metropolis. *ICFAI Journal of Urban Policy*, II(1), 42-59. Retrieved from

https://www.researchgate.net/publication/297387187_Compact_City_and_Smart_Growth_as_Policy_guiding_models_for_achieving_Sustainable_City_Development_The_case_for_Mumbai_metropolis

National Research Council. (2002). Community and Quality of Life: Data Needs for Informed Decision Making. Washington, DC: National Academy Press. doi:https://doi.org/10.17226/10262

Neptis Foundation. (2010, February). Implementing Residential Intensification Targets (Publication). Retrieved https://neptis.org/sites/default/files/growth_plan_2013/implementing_web_20100302.pdf

Neuman. (2015). The compact city fallacy. Journal of Planning Education and Research, 25(1), 11–26. https://doi.org/info:doi/

Ngom, R., Gosselin, P., & Blais, C. (2016). Reduction of disparities in access to green spaces: Their geographic insertion and recreational functions matter. *Applied Geography*, *66*, 35–51. https://doi.org/10.1016/j.apgeog.2015.11.008

Nieuwenhuijsen, M., & Khreis, H. (2019). Integrating Human Health into Urban and Transport Planning A Framework (1st ed. 2019.). Springer International Publishing. https://doi.org/10.1007/978-3-319-74983-9

Oksenberg, L., Cannell C., & Kalton, G. (1991). New strategies for pretesting survey questions.Journal of Official Statistics, 7(3), 349. Retrieved from http://search.proquest.com.proxy.lib.uwaterloo.ca/scholarly-journals/new-strategies-pretesting-survey-questions/docview/1266806850/se-2?accountid=14906

O'Muircheartaigh, C., Krosnick, J. & Helic, A. (2000). Middle Alternatives, Acquiescence, and the Quality of Questionnaire Data. Harris School of Public Policy Studies, University of Chicago, Working Papers. Retrieved from https://www.researchgate.net/publication/5091207_Middle_Alternatives_Acquiescence_and_the_Quality_of_Questionnaire_Data

Onderwater, M. (2017, April 17). Liveability: Who's experiencing it and where is it? [Scholarly project]. In McGill University. Retrieved from https://tram.mcgill.ca/Teaching/srp/documents/MarkO.pdf

O'Neil, L. (2020, December 04). Toronto cyclists call for Tougher safety rules after 3 people killed in 2 months. Retrieved from https://www.blogto.com/city/2020/12/toronto-cyclists-tougher-safety-rules-people-killed/

Onyschuk, B., Kovacevic, M., & Nikolakakos, P. (2001). Smart Growth in North America: New Ways to Create Livable Communities (Publication). Retrieved https://static1.squarespace.com/static/546bbd2ae4b077803c592197/t/54b3e713e4b0d2480d449c25/1421076243548/CUIPublication.SmartGrowthLiveableCommunities.pdf

Oppenheim, A. N. (1992). Questionnaire design, interviewing, and attitude measurement. New ed. London: Pinter Publishers. Retrieved from https://dimas0709.files.wordpress.com/2018/02/a-n-oppenheim-questionnaire-design-interviewing-and-attitude-measurement-1992.pdf

O'Toole, R. (2001). The folly of "smart growth.". Regulation, 24(3), 20-25. Retrieved from http://search.proquest.com.proxy.lib.uwaterloo.ca/scholarly-journals/folly-smart-growth/docview/56100605/se-2?accountid=14906

Pagliaro, J. (2019, June 05). Province overrules Toronto on plans For MIDTOWN, downtown to allow taller, denser towers. Retrieved from https://www.thestar.com/news/city_hall/2019/06/05/province-to-change-development-rules-for-toronto.html

Parsons, V. L. (2017). Stratified Sampling. Statistics Reference Online. https://doi.org/10.1002/9781118445112.stat05999.pub2

Peksa, S. (2018, January 12). Midtown Toronto needs more parkland, not park improvement money. Retrieved from https://www.postcity.com/Eat-Shop-Do/Do/January-2018/Plenty-of-dough-not-enough-green/

Pelczynski, J., & Tomkowicz, B. (2019). Densification of cities as a method of sustainable development. *IOP Conference Series: Earth and Environmental Science*, *362*, 012106. https://doi.org/10.1088/1755-1315/362/1/012106

Psatha, Eva & Deffner, Alex & Psycharis, Yannis. (2011). Defining the quality of urban life: Which factors should be considered?. Retrieved from https://www.researchgate.net/publication/254456851_Defining_the_quality_of_urban_life_Which_factors_should_be_considered

Public Health Agency of Canada. (2014, May 02). Government of Canada. Retrieved from https://www.canada.ca/en/public-health/services/being-active/active-transportation.html

Pukeliene, V., & Starkauskiene, V. (2011). Quality of Life: Factors Determining its Measurement Complexity. *Engineering Economics*, *22*(2), 147–156. https://doi.org/10.5755/j01.ee.22.2.311

Rérat, P. (2012). Housing, the Compact City and Sustainable Development: Some Insights From Recent Urban Trends in Switzerland. International Journal of Housing Policy, 12(2), 115–136. https://doi.org/10.1080/14616718.2012.681570

Resnik D. B. (2010). Urban sprawl, smart growth, and deliberative democracy. American journal of public health, 100(10), 1852–1856. https://doi.org/10.2105/AJPH.2009.182501

Russo, A., & Cirella, G. (2018). Modern Compact Cities: How Much Greenery Do We Need? *International Journal of Environmental Research and Public Health*, *15*(10), 2180. https://doi.org/10.3390/ijerph15102180

Sallis, J. F., Bull, F., Burdett, R., Frank, L. D., Griffiths, P., Giles-Corti, B., & Stevenson, M. (2016). Use of science to guide city planning policy and practice: How to achieve healthy and sustainable future cities. *The Lancet*, *388*(10062), 2936–2947. https://doi.org/10.1016/S0140-6736(16)30068-X

Satu, S. A., & Chiu, R. L. H. (2019). Livability in dense residential neighbourhoods of Dhaka. *Housing Studies*, *34*(3), 538–559. https://doi.org/10.1080/02673037.2017.1364711

Schläpfer, M., Lee, J., & Bettencourt, L. M. (2015, December 03). Urban Skylines: Building heights and shapes as measures of city size. Retrieved from https://arxiv.org/abs/1512.00946

Shamsuddin, S., Hassan, N., & Bilyamin, S. (2012). Walkable Environment in Increasing the Liveability of a City. Procedia, Social and Behavioral Sciences, 50, 167–178. https://doi.org/10.1016/j.sbspro.2012.08.025

Smart Growth America. (2019). What is smart growth? Retrieved from https://smartgrowthamerica.org/our-vision/what-is-smart-growth/

Sotheby's International Realty Canada. (2018, November). Modern Family Home Ownership Trends Report (Publication). Retrieved https://sothebysrealty.ca/insightblog/2018/11/01/2018-modern-family-home-ownership-trends-report/

Spurr, B. (2019, April 04). Key TTC subway project delayed years, $100 million over Budget, report says. Retrieved from https://www.thestar.com/news/gta/2019/04/04/key-subway-project-has-been-delayed-years-and-has-gone-way-over-budget.html?rf

Spurr, B. (2020, August 12). 2020 has been Toronto's safest year for pedestrians and cyclists in more than a decade. Retrieved from https://www.toronto.com/news-story/10136498-2020-has-been-toronto-s-safest-year-for-pedestrians-and-cyclists-in-more-than-a-decade/

Statistics Canada. (2016, October 07). Transportation. Retrieved from https://www150.statcan.gc.ca/n1/pub/11-402-x/2012000/chap/trans/trans-eng.htm

Strathcona County. (2020). Smart Growth (Publication). Retrieved https://www.strathcona.ca/files/files/at-pds-bremner-smarthgrowth2.pdf

Sustainable Property. (2012, January). Managing Urban Sprawl: Reconsidering Development Cost Charges in Canada(Issue brief). Retrieved from https://institute.smartprosperity.ca/sites/default/files/managing-urban-sprawl.pdf

Terzi, F., & Bölen, F. (2012). The Potential Effects of Spatial Strategies on Urban Sprawl in Istanbul. Urban Studies, 49(6), 1229–1250. https://doi.org/10.1177/0042098011410334

Thomas, J. A., Walton, D., & Lamb, S. (2011). The Influence of Simulated Home and Neighbourhood Densification on Perceived Liveability. *Social Indicators Research*, *104*(2), 253–269. https://doi.org/10.1007/s11205-010-9742-0

Toronto District School Board. (2018, July 4). TDSB Request for Adoption of Additional Recommendation. Retrieved from https://www.toronto.ca/legdocs/mmis/2018/pg/comm/communicationfile-86006.pdf

Toronto District School Board. (2019). Program Area Review. Retrieved from https://www.tdsb.on.ca/About-Us/Strategy-Planning/Search-All-Reviews

Toronto District School Board. (2020, November 11). Long Term Program and Accommodation Study (Rep.). Retrieved https://www.tdsb.on.ca/Portals/0/aboutus/StrategyPlanning/LTPASSections/2020/P20201029%20LTPAS%20V3_1%20Final%20.pdf

Toronto Lands Corporation. (2019, September 26). Official Plan Amendments 405 and 406 – Summary of Provincial Modifications and Potential Impacts on TLC/TDSB (Rep. No. 2019-09-789). Retrieved https://www.torontolandscorp.com/wp-content/uploads/2019/11/Official-Plan-

Amendments-405-406-–-Summary-of-Provincial-Modifications-and-Potential-Impacts-on-TLC-TDSB.pdf

Toronto Lands Corporation. (2020). Will students in Midtown be bussed to other schools or out of the area in the future? Retrieved from https://www.torontolandscorp.com/tlc.php/faqs/can-anyone-acquire-a-surplus-site/

Toronto Transit Commision. (2018, January 18). Managing Crowding on Line 1 Yonge-University. Retrieved from http://ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2018/January_18/Reports/6_Managing_Crowding_on_Line_1_Yonge.pdf

Toronto Transit Commission. (2020). Subway Closures - 2020 Review and 2021 Forecast (Rep. No. 2049.10). Toronto, ON: Toronto Transit Commission. doi:https://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2020/December_15/Reports/10_Subway_Closures_2020_Review_and_2021_Forecast.pdf

U.N. Secretary General, & World Commission on Environment and Development. (1987). Report of the World Commission on Environment and Development (Rep.). New York, NY: United Nations. Retrieved from https://digitallibrary.un.org/record/139811?ln=en#record-files-collapse-header

Urban Land Institute, & Pricewaterhouse Cooper. (2019). Emerging Trends in Real Estate 2019 (Rep.). Retrieved https://www.pwc.com/jg/en/publications/etre_us_2019_report.pdf

Urban Toronto. (2021). Minto Midtown. Retrieved from https://urbantoronto.ca/database/projects/minto-midtown

Utt, J., & Cox, W. (2004, June 25). The Costs of Sprawl Reconsidered: What the Data Really Show (Rep.). Retrieved https://www.heritage.org/report/the-costs-sprawl-reconsidered-what-the-data-really-show

Van Den Bosch, M. (2018, February 26). Parks, big and small, needed for public health. Retrieved from https://www.spph.ubc.ca/parks-big-and-small-needed-for-public-health/

Van Diepen, A. Katie Williams, Elizabeth Burton and Mike Jenks (Eds.), Achieving Sustainable Urban Form. Journal of Housing and the Built Environment 17, 93–95 (2002). https://doi.org/10.1023/A:1014883818411

Van Kamp, I., Leidelmeijer, K., Marsman, G., & de Hollander, A. (2003). Urban environmental quality and human well-being: Towards a conceptual framework and demarcation of concepts; a literature study. Landscape and Urban Planning, 65(1), 5–18. https://doi.org/10.1016/S0169-2046(02)00232-3

Villamagna, A., Angermeier, P., & Bennett, E. (2013). Capacity, pressure, demand, and flow: A conceptual framework for analyzing ecosystem service provision and delivery. Ecological Complexity, 15, 114–121. https://doi.org/10.1016/j.ecocom.2013.07.004

Vorontsova, A., Vorontsova, V., & Salimgareev, D. (2016). The Development of Urban Areas and Spaces with the Mixed Functional Use. Procedia Engineering, 150, 1996–2000. https://doi.org/10.1016/j.proeng.2016.07.277

Walton, D., Murray, S. J., & Thomas, J. A. (2008). Relationships Between Population Density and the Perceived Quality of Neighbourhood. *Social Indicators Research*, *89*(3), 405–420. https://doi.org/10.1007/s11205-008-9240-9

Wang, L., Wei, Y., Omrani, H., Pijanowski, B., Doucette, J., Li, K., & Wu, Y. (2020). Analysis on residential density dynamics in USA-a case study in southeast Wisconsin. *Sustainable Cities and Society*, *52*, 101866. https://doi.org/10.1016/j.scs.2019.101866

Wang X., Khattak A., Zhang Y. (2013). Is Smart Growth Associated with Reductions in Carbon Dioxide Emissions? Transportation Research Record. 2013;2375(1):62-70. doi:10.3141/2375-08

Warzecha, M. (2014, August 30). Manhattanization: A history of the term in San Francisco, Toronto, Seattle and Miami. Retrieved from https://www.livabl.com/2014/08/manhattanization-toronto-sanfrancisco-history.html

Wiewel, W., Persky, J., & Sendzik, M. (1999). Private Benefits and Public Costs: Policies to Address Suburban Sprawl. Policy Studies Journal, 27(1), 96–114. https://doi.org/10.1111/j.1541-0072.1999.tb01956.x

Wildt, A., & Mazis, M. (1978). Determinants of Scale Response: Label versus Position. Journal of Marketing Research, 15(2), 261-267. doi:10.2307/3151256

Williams, K. (1999). Urban intensification policies in England: problems and contradictions. Land Use Policy., 16(3), 167–178. https://doi.org/10.1016/S0264-8377(99)00010-1

Wolch, J., Byrne, J., & Newell, J. (2014). Urban green space, public health, and environmental justice: The challenge of making cities “just green enough.” Landscape and Urban Planning, 125, 234–244. https://doi.org/10.1016/j.landurbplan.2014.01.017

Wolff, M., & Haase, D. (2019). Mediating Sustainability and Liveability-Turning Points of Green Space Supply in European Cities. Frontiers in Environmental Science, 7. https://doi.org/10.3389/fenvs.2019.00061

World Health Organization. (2016). Urban Green Spaces and Health (Rep.). Retrieved https://www.euro.who.int/__data/assets/pdf_file/0005/321971/Urban-green-spaces-and-health-review-evidence.pdf

World Health Organization. (2017). Urban Green Space Interventions and Health (Rep.). Retrieved https://www.euro.who.int/__data/assets/pdf_file/0010/337690/FULL-REPORT-for-LLP.pdf

Yelaja, P. (2012, July 03). The 'Manhattanization' of Toronto will Change Family Housing dreams. Retrieved from https://www.cbc.ca/news/canada/the-manhattanization-of-toronto-will-change-family-housing-dreams-1.1137590

Zhan, D., Kwan, M.-P., Zhang, W., Fan, J., Yu, J., & Dang, Y. (2018). Assessment and determinants of satisfaction with urban livability in China. *Cities*, *79*, 92–101. https://doi.org/10.1016/j.cities.2018.02.025

APPENDICES

Appendix A: Questionnaire Script

QUESTIONNAIRE – LIVABILITY IN MIDTOWN TORONTO

Connor Rudka – (connor0732@rogers.com)
Master of Arts (MA) in Urban Planning, University of Waterloo

Please return to crudka@uwaterloo.ca

Thank you for taking the time to complete this questionnaire. I am currently enrolled in the final term of the two-year Master in Urban Planning program at the University of Waterloo, working on the completion of my Thesis. My thesis is centered around the livability in an intensifying neighbourhood – specifically as it relates to Midtown Toronto (the area emanating from the intersection of Yonge and Eglinton). Please feel free to expand on any questions listed in this questionnaire should you have any additional concerns or comments. Any additional commentary is also greatly appreciated.

QUESTIONS

1. Where do you live and how long have you lived there? (ie. address, nearest intersection)

2. What type of dwelling are you in? (ie. house, townhouse, condominium)

3. Where did you live previously? (ie. location, condo vs. home, etc.)

4. Why did you choose this neighbourhood to live in?

5. Where do you work? (ie. location of office, distance from residence)

6. How do commute to work? (ie. transit, private automobile, etc.)

7. Do you have a private automobile?

8. Do you bike to travel around the neighbourhood? (please explain why your answer is yes or no)

9. What do you use your vehicle for and how often do you use it? (ie. groceries, errands, etc.)

10. In the time you've resided in the neighbourhood, what are the most pronounced changes you've seen?

11. What are the main things you love about the neighbourhood? (ie. park space, transit accessibility, etc.)

12. What are the main things you would like to change in the neighbourhood?

13. How has the Crosstown LRT construction impacted you? Do you believe the Crosstown LRT will alleviate or exacerbate congestion in the area?

14. What is your experience with public transit? (ie. what do you use it for, how is your experience, etc.)

15. Have you noticed a change in the demographics of the neighbourhood over the period you have lived here?

16. What is your view on the affordability of the area?

17. FOR RENTERS – Was it difficult to find rental opportunities in the neighbourhood?

18. What is your view on the ongoing development and construction in the area?

19. Do you think there are enough resources (community space, green space, schools, transit, etc.) in the area, and if not where do you think the shortages are/will be?

20. What do you predict for the future of the neighbourhood?

21. What do you think the biggest challenge will be for residents of the neighbourhood?

22. Do you think the neighbourhood is good to raise a family in?

23. Are you concerned about the business turnover in the area and the replacement of small stores with chains/large scale stores?

24. Do you believe the area is congested? (ie. population, traffic, etc.)

25. Are you concerned about the level of green space in the neighbourhood? (ie. do you feel there is enough green space for all residents to enjoy)

26. Do you believe the neighbourhood is being overdeveloped? (please briefly explain why your answer is yes or no)

SCALE RANKING QUESTIONS

Please rank the following questions on a scale of 1 to 10, with 1 being the lowest rank (strongly disagree) and 10 being the highest (strongly agree). Please feel free to include any comments you may have on each of the questions.

(Low) 1 2 3 4 5 6 7 8 9 10 (high)

1. Do you feel the neighbourhood provides good access to public transit?
   RANK:

2. Do you feel there is adequate public transit in the neighbourhood?
   RANK:

3. Do you feel the neighbourhood provides good access to green space (ie. parks, parkettes, etc.)
   RANK:

4. Do you feel there is an adequate supply of green space in the neighbourhood?
   RANK:

5. Do you feel the neighbourhood is safe during the day?
   RANK:

6. Do you feel the neighbourhood is safe during the night?
   RANK:

7. Do you feel the neighbourhood provides a good selection of recreational/ entertainment establishments?
   RANK:

8. Do you feel the neighbourhood provides a good selection of restaurants/bars?
   RANK:

9. Do you feel the neighbourhood provides easy access to necessary health services?
   RANK:

10. Do you believe the neighbourhood has enough schools?
    RANK:

11. Do you feel the neighbourhood is clean?
    RANK:

12. Do you think there is an adequate supply of housing in the neighbourhood?
    RANK:

13. Do you think there is an adequate variety of housing forms in the neighbourhood? (ie. high-rise, mid-rise and low-rise)
    RANK:

14. Do you feel the neighbourhood is experiencing too much development?
    RANK:

15. Do you feel the neighbourhood is overpopulated at the present time?
    RANK:

16. Do you feel the neighbourhood is becoming overpopulated with the levels of development currently underway?
    RANK:

Should you have any further information you would like to include, please feel free to do so. Please return this questionnaire to my email crudka@uwaterloo.ca and do not worry about formatting if anything has changed. Thank you for completing this questionnaire.

Appendix B: Questionnaire Information Letter

Dear xxxxxx,

I am reaching out to you as I am currently working on my Master's Thesis at the University of Waterloo in the School of Planning and wanted to inquire if you would be willing to complete a questionnaire for my research. The study is titled 'The Manhattanization of Midtown Toronto: A Case Study on the Effect on Livability in an Intensifying Neighbourhood'.

My thesis is centered around the ongoing intensification of the Midtown Toronto neighbourhood, the area emanating from the intersection of Yonge and Eglinton in Toronto. For many years, the neighbourhood has experienced increased development pressures which have led to pressure on local services, infrastructure and public spaces. Through questionnaires with local residents, I intend to research and discover how local residents' life have been impacted and what their perspective is on the ongoing development and intensification of the neighbourhood.

The questionnaire is 42 questions long and should take no longer than 30 minutes of your time. The questions are focused around such topics as Midtown Toronto as an area, transit capacity and experience with transit service, green space availability, affordability, the construction of the Crosstown LRT, the level of infrastructure in the area, traffic congestion within the area, and livability for residents.

Participation in this study is voluntary and you may decline participating. Should you complete the questionnaire and decide you would like to leave the study, your data collected up to that point will be destroyed. You may also decline to answer any

question(s) you would prefer not to answer. You can request to have your data removed and to leave the study up until April 2021 as it is not possible to withdraw your data once my thesis has been submitted.

Your data and responses will be kept confidential and your identity will remain anonymous. Any quotations from your responses will be included anonymously so your identity will not be compromised.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE# 43080). If you have questions for the Committee contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

Should you have any further questions about the research study, your participation or the handling of your answers and data, please contact me at crudka@uwaterloo.ca.

Thank you,

Connor Rudka

University of Waterloo

School of Planning

crudka@uwaterloo.ca

Appendix C: Questionnaire Consent Form

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I agree to participate in an interview being conducted by ***Connor Rudka*** of the ***School of Planning, University of Waterloo*** under the supervision of Associate Professor ***Joe Qian.*** I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details. As a participant of this study, I understand I will be asked to complete a questionnaire and that I may decline to answer any of the questions, as I so choose. I have been informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE# 43080). If you have questions for the Committee contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

I understand I may contact Connor Rudka (Student Investigator) at crudka@uwaterloo.ca if I have any questions about the research study, my participation and the handling of my answers and data.

I agree to have my questionnaire responses recorded:

Yes ☐ No ☐

I agree to the use of anonymous quotations in any thesis or publication that comes from this research:

Yes ☐ No ☐

I agree of my own free will to participate in this study:

Participants Name: _____

Participants Signature: _____

Signature of Witness/ Researcher: _____

Date: _____

Appendix D: Appreciation Letter

Dear *xxxxxx*,

I would like to thank you for your participation in this study entitled 'The Manhattanization of Midtown Toronto: A Case Study on the Effect on Livability in an Intensifying Neighbourhood'. As a reminder, the purpose of this study is to identify if the ongoing development in the Midtown Toronto neighbourhood, the area emanating from Yonge and Eglinton, has affected the livability for residents of the neighbourhood.

The data collected during interviews will contribute to a better understanding of the effects of the ongoing development and intensification in the Midtown Toronto neighbourhood and whether residents have experienced a reduced sense of livability subsequently.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE# 43080). If you have questions for the Committee contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

Please remember that any data pertaining to you as an individual participant will be kept confidential. Once all the data is collected and analyzed for this project, I plan on sharing this information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or would like a summary of the results, please provide your email address, and when the study is completed, anticipated by April 2021, I will send you the information. Should you have any further questions about the research

study, your participation or the handling of your answers and data, please contact me at crudka@uwaterloo.ca.

Connor Rudka

University of Waterloo

School of Planning

647-289-3722

crudka@uwaterloo.ca

Appendix E: Respondent Coding

Respondent Code	Age Group	Sex	Ethnicity
MT-01	50’s	Male	Caucasian
MT-02	50’s	Female	Caucasian
MT-03	20’s	Female	Caucasian
MT-04	60’s	Female	Caucasian
MT-05	60’s	Female	Caucasian
MT-06	30’s	Male	Caucasian
MT-07	20’s	Male	Middle Eastern
MT-08	30’s	Male	Middle Eastern
MT-09	60’s	Male	Caucasian
MT-10	60’s	Female	Caucasian
MT-11	50’s	Male	Asian
MT-12	50’s	Female	Caucasian
MT-13	40’s	Female	Caucasian
MT-14	50’s	Male	Caucasian
MT-15	50’s	Male	Caucasian
MT-16	50’s	Male	Caucasian
MT-17	50’s	Female	Caucasian
MT-18	40’s	Female	Caucasian
MT-19	30’s	Female	Caucasian
MT-20	20’s	Female	Caucasian
MT-21	40’s	Female	South American
MT-22	50’s	Male	Caucasian
MT-23	40’s	Female	Asian