Gentle Densification:
Strategies for Integrating Low-Rise, Medium-Density Housing into Toronto's Yellowbelt Neighbourhoods

by
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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 required final revisions as accepted by my examiners.

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

ABSTRACT

This thesis explores how alternative housing typologies can serve as viable solutions to increase development in low-rise neighbourhoods. Toronto's current zoning only permits limited forms of densification in single-family areas, such as laneway suites, garden suites, and multiplexes up to four units, which is insufficient to address the city's growing housing demand. The limited scope and complexity of these densification efforts highlight the need for more ambitious reforms that streamline processes, reduce costs, and promote a wider range of higher-density housing types.

Gentle densification can be implemented in Toronto neighbourhoods in the form of low-rise, medium-density typologies such as multiplexes up to eight units, laneway or garden apartments and townhouses, and mixed-use apartments to increase housing options while making use of existing infrastructure. These new typologies provide suggestions for unintrusive densification by adding multi-unit buildings to single-family properties while utilizing laneways and yard space, reducing the need for the deconstruction of existing houses. The incorporation of additional public, community, and retail programs in neighbourhoods is also proposed. To allow for increased densification in single-family areas, new changes must be put forward for the zoning bylaws to enable more efficient typologies of medium-density housing and expand housing stock in neighbourhoods. This thesis focuses specifically on integrating gentle densification into the three neighbourhoods of East Willowdale, Leaside, and North Riverdale, chosen to encompass diversity in terms of existing housing types, property sizes, and household statistics. Feasibility, costs, and development scenarios for low-rise, medium-density housing are also investigated.

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0.

INTRODUCTION



Fig 0.1 Photo of Toronto's downtown skyline.

0.1 - BACKGROUND AND CONTEXT

The City of Toronto and its surrounding Greater Toronto Region (GTA) have been dealing with a housing crisis that began in the late 1990s and continues to today. This housing situation in Toronto is marked by soaring property prices, limited availability, and growing concerns about affordability both for home purchase and rental. The GTA will see the largest increase in population in Ontario, adding 3.3 million residents by 2046 with a growth of 45.9%,[1] growing too quickly to be accommodated in the metro region's current housing stock. This surge in population caused by both economic success and immigration due to that success has created strain on Toronto's housing market, leading to a shortage of homes of all types relative to demand. Consequently, property prices have risen to unprecedented levels, making it difficult for many residents of Toronto to own a home and pushing rental costs beyond the reach of low-to-moderate-income households. The Toronto Regional Real Estate Board's March 2024 report indicates that the benchmark price of a single-family detached home in the City of Toronto is now $1.7 million, and the average selling price of homes is projected to increase to $2 million by 2034.[2] In addition, the average rent of a one-bedroom unit per month in 2022 had increased to $1,526 in Toronto, compared to $1,222 in Calgary and $912 in Montreal.[3]

Despite the fact that the City of Toronto has moved forward with a number of initiatives and made large investments in housing in recent years, recent housing indicators show that more work remains to be done to improve housing options for current as well as future inhabitants. Furthermore, new data from the City of Toronto indicates that the housing crisis is still mostly affecting low- and moderate-income households, especially renters.[4] Mid- and high-rise units have outpaced other types of residential new builds, causing the composition of the housing stock to shift, leading to a smaller percentage of low-rise units with the consequence of urban sprawl. In 2021, 30.7% of occupied units were in apartment buildings with five or more storeys,

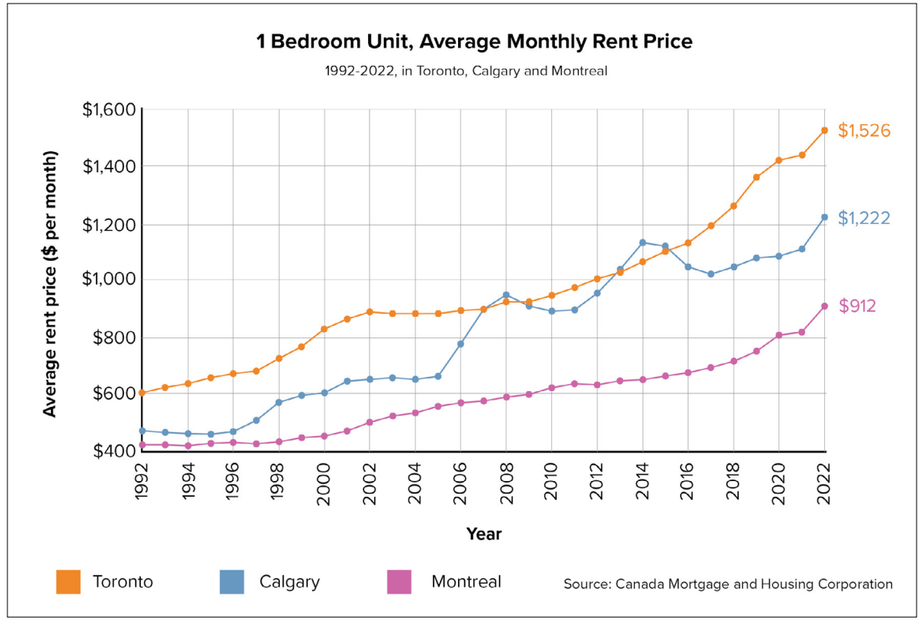


Fig 0.2 Change in average monthly rent price for a 1 bedroom unit in Toronto over time.

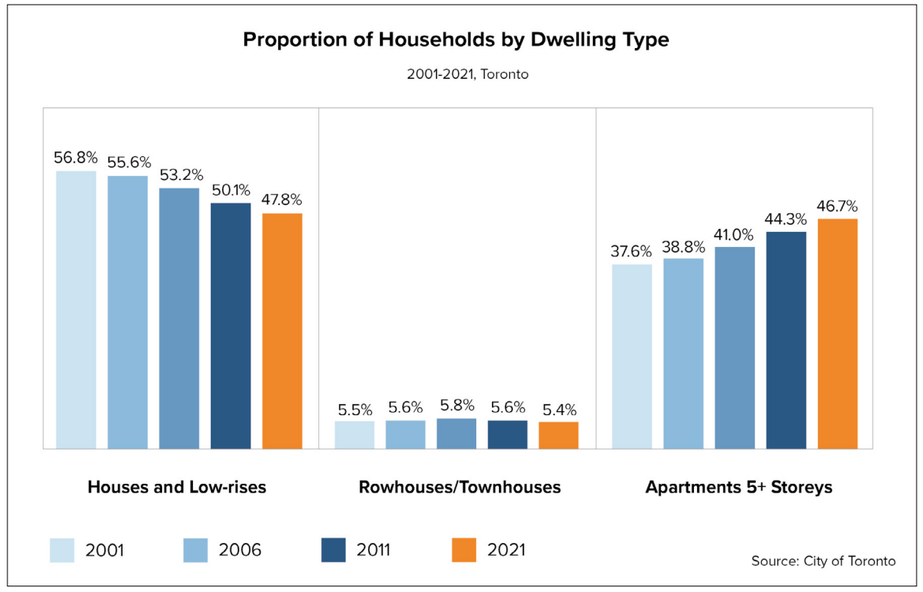


Fig 0.3 Change in housing stock in Toronto over time. Housing is becoming more dense, with the number of mid/high-rise apartments now nearly equaling the number of houses and low-rise units.

while single-detached houses represented 39.0% of all occupied private dwellings.[5] There has been a push in recent years for the construction of medium-density housing as opposed to detached single-family and condominium tower typologies as the primary building type to house the city's growing population.

This thesis explores how alternative housing typologies can serve as viable solutions to increase development in low-rise neighbourhoods. Toronto's current zoning only permits limited forms of densification in single-family areas, such as laneway suites, garden suites, and multiplexes up to four units, which is insufficient to address the city's growing housing demand. The limited scope and complexity of these densification efforts highlight the need for more ambitious reforms that streamline processes, reduce costs, and promote a wider range of higher-density housing types.

Gentle densification is a suggested term used to describe the above process of increasing the density of existing residential areas by adding more housing units while maintaining the scale and character of the neighbourhood. It is a way to increase the supply of housing without drastically changing the look of the urban fabric. Examples of gentle densification include accessory dwelling units (ADUs), which could be attached (secondary suites) or detached (such as garden suites and laneway suites), as well as duplexes and tri-plexes to six-plexes.[6] Unlike medium- or high-density projects, gentle density is considered 'gentle' because of the comparatively minimal impact it has on established neighbourhoods and communities. It is a more modest and unintrusive way to add residential density and revitalize existing neighbourhoods while retaining the qualities that make them desirable.[7] This thesis will focus specifically on integrating gentle densification into the three City of Toronto neighbourhoods of East Willowdale, Leaside, and North Riverdale, all chosen to encompass diversity in terms of existing housing types, property sizes, and household statistics. Feasibility, costs, and development scenarios for low-rise, medium-density housing are also investigated as part of design case studies.

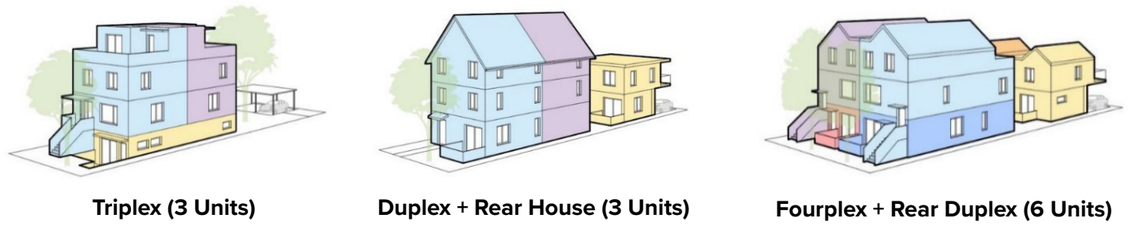


Fig 0.4 Examples of possible gentle densification housing types on a single lot.

The missing middle is a term coined in 2010 by architect and urbanist Dan Parolek, defined as "house-scale buildings with multiple units in walkable neighbourhoods."[8] In parallel with gentle densification, the term is used to describe a wide range of multi-unit housing types that are historically compatible in scale with homes in single-detached neighbourhoods but have gone missing or unused as housing solutions in many cities due to land-use zoning changes, which have resulted in a polarized shift toward neighbourhoods with only single-family homes incorporating a few areas of very tall high-rise apartment buildings.[9] Gentle density housing is part of missing middle housing, which includes multiplexes, stacked townhouses, and low- and mid-rise apartments. In a period in which the population of Toronto is growing rapidly, missing middle housing not only offers more efficient use of available space but also gives families access to desirable living in neighbourhoods that they may not otherwise have been able to afford, thus leading to a more equitable and inclusive community. In addition to serving the requirements of a growing family, missing middle housing can also accommodate senior citizen downsizers who wish to remain in their community and get daily life assistance from younger members of their family.[10] Gentle densification can maximize the use of the city's current physical infrastructure, as well as social infrastructure such as parks, libraries, schools, and community and retail businesses, all the while fostering a sense of community.

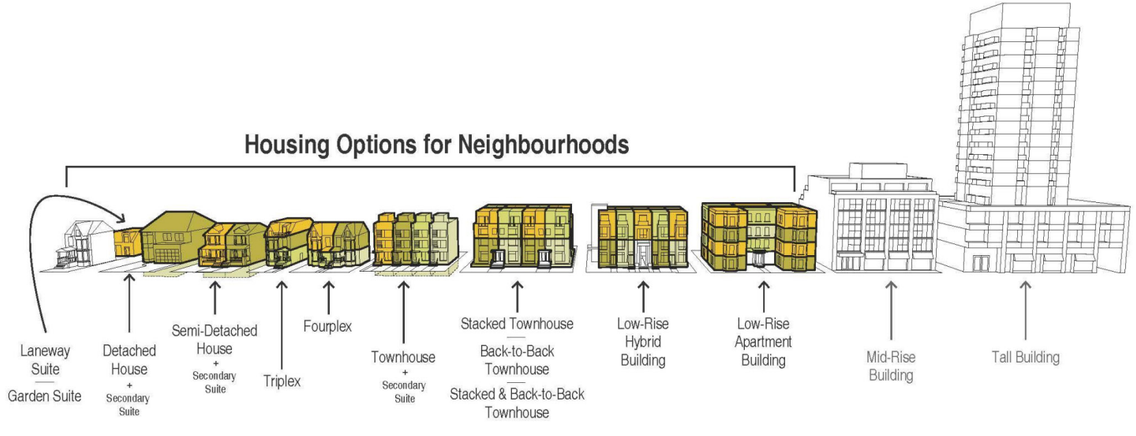


Fig 0.5 Diagram of missing middle housing types.

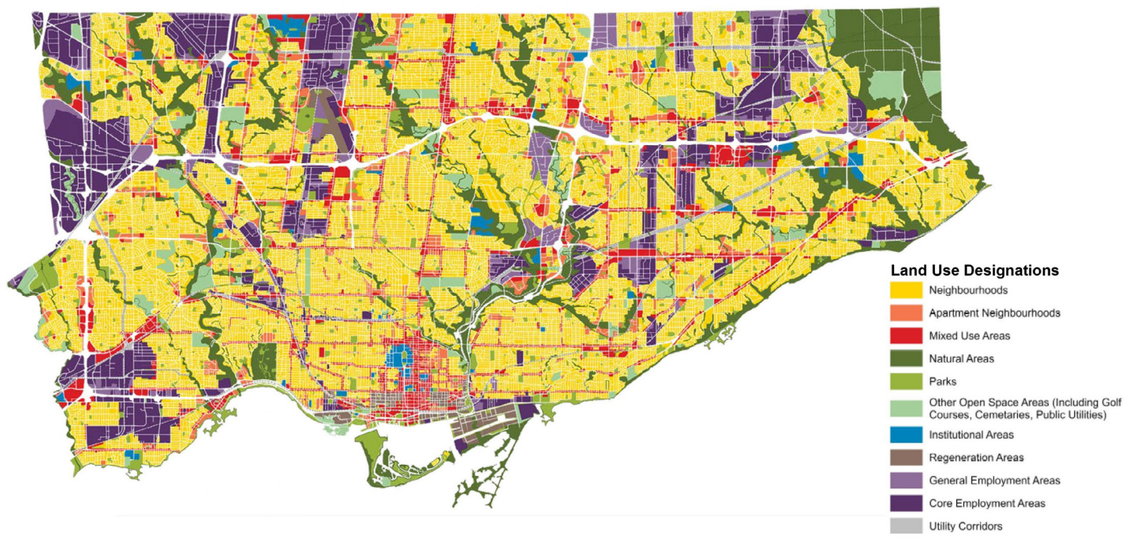


Fig 0.6 Toronto's Official Plan Land Use Map; Neighbourhoods are shown in yellow.

The Yellowbelt is a term coined in 2016 by Toronto planner and housing advocate Gil Meslin[11] and refers to the land in Toronto that is designated as “Neighbourhoods” in the City of Toronto’s Official Plan Land Use Map, land which is coloured yellow on the zoning map. The yellow colour has always stood for low-density single-family homes in zoning maps since the initiation of land-use zoning in the mid-twentieth century (light brown or orange typically represents middle density, like townhouses). Yellowbelt is a nod to the better-known Greenbelt, 1.8 million acres of protected farmland and natural heritage in the Greater Golden Horseshoe region, of which the GTA is the urban core region. While the Greenbelt goal is to restrict urban sprawl, the Yellowbelt has historically restricted the type of urban densification that does not reflect and reinforce the existing physical character of the area in neighbourhoods.[12] The city's Official Plan specifies “Neighbourhoods” as areas where urban growth must be managed carefully to protect the culture and characteristics of the area, and are often characterized by single-family or semi-detached houses which represent historical architectural styles and cultural significance.

Currently, the Yellowbelt comprises of 47.3% of the gross land area of the city.[13] Within the Yellowbelt, there are various types of residential zoning, including Residential Detached (RD), Residential Semi-Detached (RS), and Residential Townhouse (RT). The RD zone makes up 31.5% of the gross land area of the city, and approximately two-thirds of the land zoned for residential use.[14] This means that prior to 2023, on one-third of Toronto’s land, only detached and semi-detached single-family homes (the historical Toronto types) were allowed to be constructed (with exceptions). However, recent changes have been made to allow for densification to happen within these less permissive residential zones.

This thesis was inspired by the decision made on May 10, 2023, by the Toronto City Council to permit multiplexes (low-rise housing with two, three, or four units in a single building) anywhere within the Yellowbelt by amending the Toronto Official Plan and the

Zoning By-law. The decision allows for multiplex housing to emerge as a promising solution to increase affordable housing stock. By introducing low-rise, multi-unit structures, the City hopes for neighbourhoods to evolve organically, adapting to changing housing needs and offering a range of housing options. In early 2022, the Toronto City Council also adopted the Garden Suites Official Plan Amendment and Zoning By-law Amendment to allow for the construction of garden suites across the city, which are accessory dwelling units located in the rear yard of a principal residence that do not need direct access to a public laneway. These suites are similar to laneway houses, which are self-contained residential units located on the same lot as a single-family dwelling abutting a laneway and have been permitted since 2018. Both of these versions of accessory dwellings aid in low-density densification without much visual impact on the neighbourhood. By incorporating more housing options like these small-scale housing typologies, communities can incrementally accommodate growing populations and provide more housing choices while utilizing existing physical and social infrastructure more efficiently.

Multiplex housing, laneway suites, and garden suites, however, are not easily or universally applicable solutions. In addition to the issues that hinder their affordability, issues like basic affordability, community resistance to change in the perceived social mix and neighbourhood character, gentrification to higher income groups, and economic viability of the building development itself, the small scale of incremental densification would take a long time for new housing to be built. First, in contrast to high-rise buildings, there are only small, multiple actors in the development and building process of missing middle housing, and getting municipal approvals is a lengthy process; permits can take up to 8 to 12 months to be approved, just to add one to four additional units. Zoning restrictions such as building height limits and setbacks also make it difficult for multiplexes to be built with adequately sized units. There is also a financial reliance on entrepreneurial individual homeowners to increase housing supply and a lack of incentive due to financial barriers, which is not an efficient way to



Fig 0.7 A laneway suite in Toronto. (144 Ascot Ave #3)



Fig 0.8 A four unit multiplex house in Toronto. (319 Mortimer Ave)

undertake development. According to James White, a professor of planning and urban design at the University of Glasgow in Scotland, private investors are most likely to take an interest in building multiplexes and ADUs, as opposed to institutional investors or public housing providers, and there is skepticism about whether multiplex development will actually deliver rent or price relief.[15] The Affordable Laneway Suites Pilot Program, launched in 2018, promised homeowners a forgivable loan of up to $50,000 in exchange for a 15-year commitment to keep rent below the city's average market rate; however, it was quietly discontinued in 2023. It has been proven difficult to build laneway suites as a form of affordable housing, as construction costs, which can typically be between $350 and $500 per square foot, would likely not make enough of a return on their investment for homeowners if initially restricted below-market rents were to be charged.[16]

Doubt aside, housing demands cannot be met by replacing smaller single-family houses with larger gentrified single-family homes or solely constructing high-rise apartment complexes. It is necessary to create new building typologies and forms of gentle densification, such as larger multiplexes, low-rise apartments, and other types of ground-related housing. For gentle densification to act as a viable answer to increasing housing options, upzoning is required. While this may not entirely solve housing unaffordability by itself, it can nonetheless help make unattainable neighbourhoods more affordable for middle-class lower-income households and ease the pressure on families to find housing.

0.2 - RESEARCH OBJECTIVES

The aim of this study is to comprehensively examine how gentle densification can be implemented in Toronto neighbourhoods in the form of low-rise, medium-density typologies such as multiplexes up to eight units, laneway or garden apartments and townhouses, and mixed-use apartments to increase housing options while respecting the neighbourhood's character.

The analysis and case studies provide suggestions for unintrusive densification by adding multi-unit buildings to single-family properties while utilizing laneways and overly large rear, side, and front yard space, reducing the need for the deconstruction and demolition of existing houses. The incorporation of additional public, community, and retail programs and infrastructure in neighbourhoods is also investigated to support increased urban intensification.

The ultimate objective of this thesis is to propose policy recommendations that will encourage the upzoning of neighbourhoods in Toronto to allow for more intense typologies of densification and to produce design interventions illustrating the viability of increased density in the neighbourhood through low-rise, medium-density typologies.

0.3 - SIGNIFICANCE OF STUDY

Toronto's escalating housing prices and the resulting affordability crisis serve as a critical backdrop for this study, which acknowledges the pressing need to address the lack of housing availability. The city faces increasing pressures from population growth and the desire to reduce urban sprawl. As property values rise, traditional single-family homes become increasingly unattainable for many residents, especially young families. Alternative housing typologies such as multiplexes and laneway apartments offer a possible solution to the issue of unaffordability, allowing a range of socioeconomic groups to gain equal access to suitable housing and amenities in neighbourhoods within the city.

The research contributes valuable insights that extend beyond Toronto to provide recommendations for North American cities experiencing similar housing crises, and the recommendations produced by the study may influence policy discussions and guide future urban development strategies, ultimately aiming to create a more inclusive, adaptable, and sustainable urban environment.

0.4 - LITERATURE REVIEW

The foundation of this thesis lies in the theoretical frameworks of urban design and planning. Ideas developed in works such as Jane Jacobs' *The Death and Life of Great American Cities* emphasize the importance of mixed-use development and dense, pedestrian-friendly neighborhoods. Jacobs argues that vibrant urban environments are characterized by their diversity and density, principles that directly inform the current study's exploration of small-scale multi-unit housing and gentle densification.[17] Similarly, in *Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis*, Daniel Parolek argues that more diverse typologies of housing are needed to fill the options between detached single-family homes and tower condo and apartment buildings.[18] He suggests that the reintroduction of missing middle typologies will re-establish the human-centric scale of neighbourhoods with less dependence on the private vehicles needed to live in sprawl-based suburban areas. Parolek also insists that in order for the missing middle typology to reappear in our cities, barriers such as financial viability and zoning issues must be addressed.

According to Daniel Herriges in an article in *Strong Towns*, complex zoning and development regulations, lengthy and unpredictable approval processes, and financing systems that favour predictability and standardization have given wealthy developers a monopoly over development in neighbourhoods, excluding many citizens from actively contributing to the creation of their own living spaces.[19] There are also arguments for the negative impacts of planning policies such as single-family zoning, which, as reported by Wegmann in the article *Death to Single-Family Zoning...and New Life to the Missing Middle*, "has exacerbated both inequality and climate change."[20]

The concept of "gentle densification" has gained prominence in recent urban planning and architectural discourse as a nuanced approach to urban growth and neighbourhood development. Gentle densification is often contrasted with more aggressive, high-density urbanization strategies, and it emphasizes a context-sensitive increase in residential or mixed-use development. The article *"Gentle" Density Can Save Our Neighborhoods* explores various aspects of densification, highlighting its potential to support neighbourhood retail and increase economic opportunities.[21] Baca et al. argue that "gentle density" could increase housing availability while bringing down average housing prices in high-cost locations and retaining the physical scale of the neighbourhood.[22]

A 2015 report by the Pembina Institute states that "many zoning bylaws in GTA municipalities have not been updated in decades, so they don't reflect the evolving nature of our cities or the provincial goal to build upward and inward."[23] Incremental change should be allowed in neighbourhoods in order to prevent either stagnation and decay, or radical change which could come in the form of rapid redevelopment at much higher urban densities, the result leaving a community wiped of its former identity. As Charles Marohn writes in S*trong Towns: A Bottom-Up Revolution to Rebuild American Prosperity*:

> It is critical that every neighborhood ... be allowed, by right, to evolve to the next level of development intensity ... without any special permitting, approval of neighbours, or added conditions. To become more financially productive, we need our neighborhoods to thicken up.[24]

In his book, *The Shape of the City: Toronto Struggles with Modern Planning*, former Toronto mayor and planning activist John Sewell writes about the history of the development of urban planning in Toronto and focuses on the importance of low-density housing, limited-access streets, segregated uses, and green space. Like other authors, he advocates for permitting the conversion of single-family houses into more than one unit, which can make homeownership more affordable with added income for homeowners while supporting local retail and transit service.[25]

House Divided: How the Missing Middle Can Solve Toronto's Affordability Crisis is an anthology of essays that address the housing crisis in Toronto specifically, focusing on three sections: planning decisions of the past that resulted in the lack of low-density housing in the present day, the current-day housing crisis caused by the overdevelopment of high-rise towers in the city's core, and the future of Toronto, which is dependent on legislation and planning changes in order to allow for more low-rise, human-scaled housing. The authors criticize the current planning policies of Toronto, highlighting the lack of affordable housing in the present day due to zoning that protects "stable" residential neighbourhoods with high property values.[26]

0.5 - THESIS STRUCTURE

This thesis is structured into six main chapters:

Chapter 1 provides a brief analysis of the history of housing and zoning in Toronto and the issues of housing unaffordability and urban sprawl that have emerged in recent years. This chapter gives an overview of the trends of development and densification in Toronto as well as the current housing initiatives presented by the city. This chapter asserts that Toronto's zoning bylaws and exclusionary zoning practices are at the root of the city's housing crisis, and a rethinking of zoning policies is required to create a long-term affordable housing supply through small-scale housing.

Chapter 2 presents case studies within and outside of Toronto. A history of infill strategies and low-rise, high-density typologies in Toronto is analyzed, as well as examples of low-rise, multi-unit buildings internationally. Additionally, densification initiatives and strategies in similar cities are examined. These case studies serve as precedents for Chapters 4 and 5 in the design of gentle densification typologies suitable for neighbourhoods.

Chapter 3 introduces the three neighbourhoods in Toronto (East Willowdale, Leaside, and North Riverdale) that are used as site studies for this thesis to investigate a range of typologies and contexts within the city. The chapter presents an in-depth analysis of each neighbourhood in terms of its demographics, layout, building typologies, lot configurations, and architectural styles.

Chapter 4 provides an analysis of the types of gentle densification that can be found in Toronto presently and illustrates the possibilities that can be built while adhering to the current zoning bylaws. This chapter also presents new, denser typologies of gentle densification that allow for more intensity but do not abide by the zoning bylaws.

Chapter 5 suggests strategies on how low-rise, medium-density typologies can be integrated into Toronto neighbourhoods with descriptions of their impacts on human relationships and the neighbourhood while considering feasibility, cost, and sustainability. The chapter also includes recommendations to amend zoning bylaws and policies to allow for the development of these typologies.

Chapter 6 consists of a design synthesis of the implementation of new low-rise, medium-density typologies based on the recommendations suggested in the previous chapters. This chapter visualizes and diagrams factors such as density, public space, infrastructure, and amenities within the three chosen neighbourhoods.

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1.

HOUSING IN THE CITY OF TORONTO

1.1 - ZONING AND PLANNING POLICIES

Toronto's housing landscape is influenced significantly by its regulatory framework and planning policies. These policies dictate how land is used, what types of housing can be built, and where development can occur. Ontario's Planning Act (Section 34) gives the city authority to implement land use controls through zoning bylaws. The Zoning By-law is the legal document that implements the goals, objectives, and policies described in the city's Official Plan. The Toronto Official Plan was first created in 1997, following the amalgamation of East York, Etobicoke, North York, Scarborough, and York into the city of Toronto. The plan sets out the city's vision for growth and development over the long term, including policies related to housing, transportation, and infrastructure. While the Official Plan emphasizes the need for a diverse range of housing options to accommodate Toronto's growing population, conflicting priorities and interests sometimes hinder the implementation of these policies, particularly in Yellowbelt neighbourhoods. Key sections of the plan emphasize balanced growth that respects existing neighbourhood character while accommodating increased density. Current city policy states that "no changes will be made through rezoning, minor variance, consent or other public action that are out of keeping with the overall physical character of the entire *Neighbourhood*."[1]

In the past, exclusionary zoning rules have made it challenging to add housing by restricting what can be built in certain places. In the late 1800s, large numbers of eastern Europeans immigrated to Toronto, resulting in the construction of new multi-unit tenement buildings in the city. However, there was a negative response to these new immigrants, in addition to concerns about overcrowding and insufficient amenities. There was also a perceived threat of lower-income or immigrant tenants to the landowning classes of the predominantly residential areas.[2] Motivated by moral and health concerns, bylaw 6061 was passed in 1912, which prohibited the construction of apartment buildings on many streets to reserve them for single-family

homes.[3] This was the earliest form of exclusionary zoning in Toronto. Since developers were restricted from building apartments in many areas of the city, the overall housing supply began to decelerate. Over time, areas not covered by Bylaw 6061 were developed into high-rise apartment buildings to accommodate the growing need for housing, leading to uneven development. In addition, by the time zoning was implemented in the 1950s, the prewar city had been built out and suburban sprawl had begun. What resulted was a city in which people of varying social and economic statuses were housed in various types of housing, with uneven access or power to modify those restrictions. Suburban communities were widely designed and constructed with single-family detached houses, as strict zoning bylaws often limit the development of low-rise, medium-density housing options.[4] A report by Housing Matters also argues that the purpose of zoning has always been to safeguard existing land owners against changes imposed by neighbours through the use of government power.[5] As Toronto continued to increase in size in the 1960s, city planners began to designate many residential neighbourhoods as “inviolate”, meaning that only single-family homes could be built on that land. These areas were coloured yellow on the city’s map, resulting in what is now known as the Yellowbelt.[6]

On May 9, 2013, city-wide zoning By-law 569-2013 was passed, defining the zones in which certain types of buildings and structures can be built. The bylaw applies to all areas in the City of Toronto and integrates zoning definitions and requirements across the amalgamated City of Toronto's former municipalities. Until recently, in 2023, when by-law 474-2023 was passed, property owners were not permitted to construct a triplex, duplex, or low-rise apartment complex without a drawn-out and expensive public consultation and zoning bylaw amendment process. However, owners were permitted to demolish old bungalows and rebuild them as larger single-family houses. Meanwhile, currently mid-rise and high-rise buildings are mostly only permitted in mixed-use zoned areas, leading to the problem of the “missing middle,” a term used to describe how Toronto's housing supply is mostly distributed between single-family houses

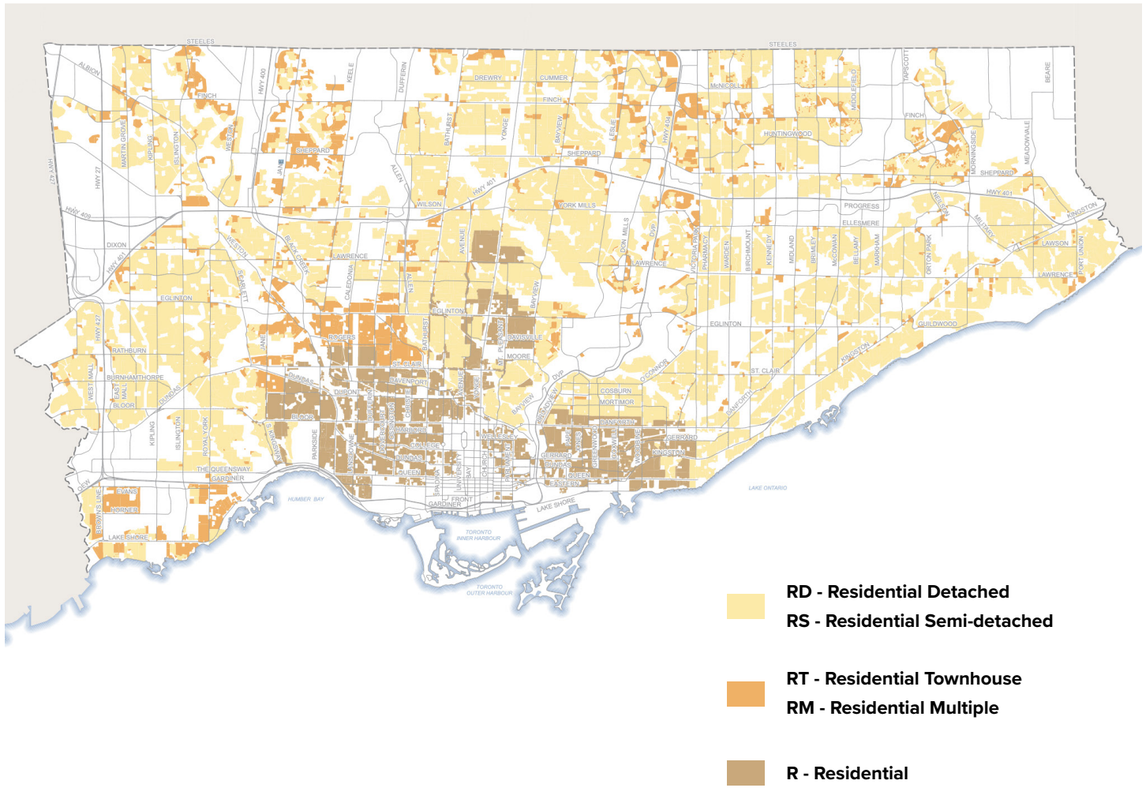


Fig 1.1 Map of Toronto's Citywide Zoning By-law Residential Zones, showing the types and density of housing permitted in the area.

in low-density areas and tall condo and apartment complexes in high-density neighbourhoods,[7] with a lack of housing in between in the form of accessory dwellings, multiplexes, townhouses, and low- and mid-rise apartments.

1.2 - LACK OF AFFORDABLE HOUSING

Affordable housing is a broad term that includes housing provided by the private, government, and non-profit sectors, as well as various types of housing tenure, such as rental, ownership, coop, temporary, and permanent housing. According to the City of Toronto, affordable housing is defined as "Housing where the total monthly shelter cost (gross monthly rent, inclusive of utilities for heat, hydro, hot water, and water) is at or below the lesser of one times the average City of Toronto rent, by dwelling unit type, as reported annually by the Canada Mortgage and Housing Corporation (CMHC), or 30% of the before-tax monthly income of renter households in the City of Toronto."[8]

The issue of unaffordable housing in Toronto is a growing concern. According to the City of Toronto's Generational Transformation of Toronto's Housing System to Urgently Build More Affordable Homes report, approximately 48% of Toronto households are renters, and 40% of renters are living in unaffordable housing compared to 26% of homeowners.[9] Over the last decade, housing costs have grown four times faster than income, with rental costs growing two times faster than income.[10] The city's current rental vacancy rate is around 1.7%, and for every new affordable unit built in Toronto, it is estimated that 15 existing private affordable units are lost.[11] In addition to the lack of availability of housing for rental, property prices are skyrocketing. The average price of a house in Toronto is now $1.7 million, and according to RBC Economics Research, the current average share of household income needed to cover ownership costs is at least 66.1%.[12]

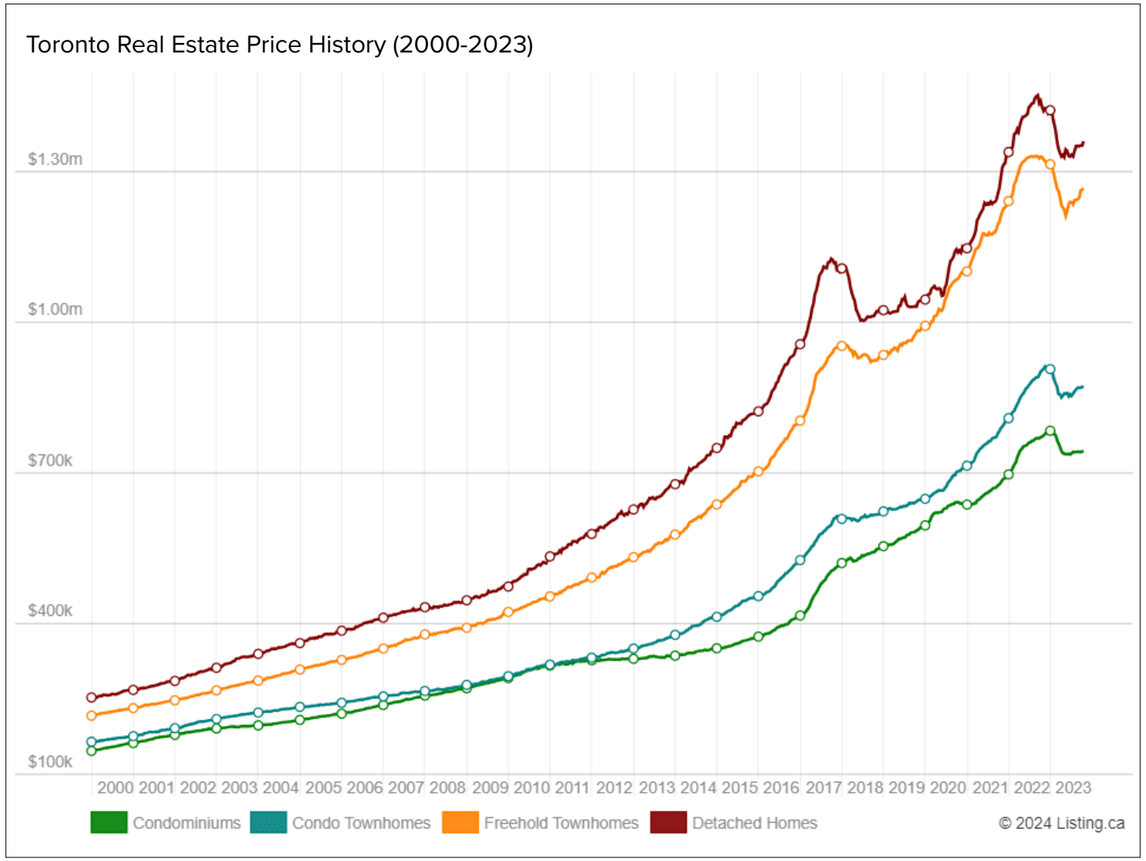


Fig 1.2 Graph of the yearly increase of real estate price in Toronto by housing type.

Toronto's affordable housing crisis arises from a variety of factors. The limited housing supply is driven by restrictive zoning policies and historical preferences for single-family dwellings. Skyrocketing real estate prices, fueled by speculative investment and a constrained market, have created an environment where homeownership becomes unattainable for many. Additionally, the city's economic growth attracts a steady influx of newcomers, placing further strain on the housing market.

New rental units are not being built quickly enough to keep pace with the city's growth. Existing zoning policies, particularly the Yellowbelt designation, historically aimed at preserving neighbourhood character, inadvertently prevent densification and limit the creation of new housing units. Gentrification, driven by the influx of higher-income residents into lower-income neighbourhoods, displaces long-time residents and contributes to the diminishing stock of affordable housing.

1.3 - UNEVEN INTENSIFICATION AND GROWTH

Toronto has grown considerably over the past decade, adding approximately 280,000 people between 2009 and 2018. Within this same time frame, 182,750 residential units have been built.[13] A majority of this growth, directed by the Official Plan, has been concentrated in areas with redevelopment potential and served by transit and existing structures, including the Downtown, North York Centre, Yonge-Eglinton Centre, Etobicoke Centre, and Scarborough Centre, and along Toronto's Avenues in the form of tall buildings and mid-rise buildings.[14] Between 2016 and 2021, a vast majority of housing stock growth either occured within a three kilometre radius of Union Station or on the urban fringe of the GTA.[15] The 'tall and sprawl' approach to development in the GTA has significant implications for health and sustainability.

Investment and amenities are concentrated in specific areas while other regions are neglected, and additionally, sprawl contributes to environmental degradation through increased car dependency, higher greenhouse gas emissions, and the loss of green spaces.[16]

Toronto's housing supply is not keeping up with demand during a housing crisis marked by escalating costs and limited availability. Scotiabank Economics estimated in 2022 that the GTA had the lowest number of housing units per capita among Canada's ten largest census metropolitan areas.[17] Even though the city is expanding, with a 4.5% growth in overall population from 2011 to 2019, 39% of the census tracts in the city have actually decreased in population.[18] There is an extreme uneven distribution of residents, where nearly all the new population growth has been squeezed into the downtown core, midtown core, and a handful of other pockets, placing strain on infrastructure and services. According to the Toronto Housing Market Analysis: From Insight to Action study issued in January 2019, several low-rise communities in Toronto have had declining populations or restricted expansion in recent years.[19] The authors highlight that areas with declining populations have lost 220,000 individuals since 2001, with children and early to mid-career adults underrepresented in current demographics, implying that public infrastructure in these areas may be underutilized.[20] The significant decline in population in existing low-rise areas is due to 'baby-boom' occupants who age-in-place rather than downsizing, with little new development in these areas, leading to an abundance of unoccupied bedrooms. The substantial population decline of these neighbourhoods, if left unchecked, could lead to the eventual loss of educational, social, and retail programs, while the areas experiencing rapid development struggle to provide adequate amenities. Despite the fact that there is plenty of available land that is already served by public services, more people are attempting to fit into a smaller portion of Toronto's land, which would also require the construction of new infrastructure.

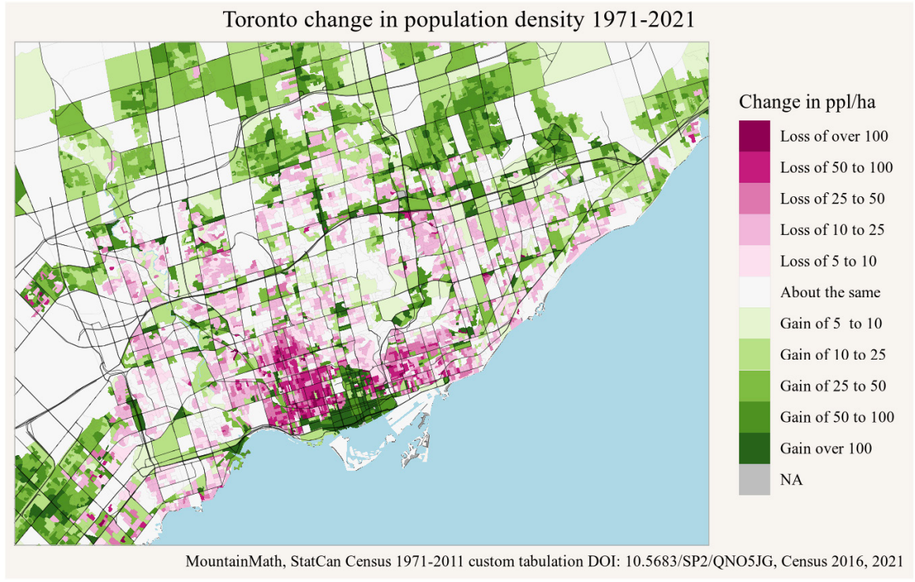


Fig 1.3 A map showing the uneven distribution of residents, where nearly all the new population growth has been squeezed into the downtown core, midtown core, and a handful of other pockets.

1.4 - THE MISSING MIDDLE

The missing middle describes the lack of "a greater mix of housing types to meet differing income and generational needs...building types, such as duplexes, fourplexes, cottage courts, and courtyard buildings, [which] provide diverse housing options and support locally-serving retail and public transportation options."[21] Although missing middle housing was built throughout the city pre-WWII, zoning restrictions have stopped its construction. According to the 2021 census,

only 22.8% of occupied private dwellings in Toronto fall into the category of missing middle housing, while 39.0% are single-detached houses and 30.7% are mid- to high-rise apartment and condo buildings.[22] The deficit of missing middle housing in Toronto neighbourhoods has driven up demand and the cost of single-family homes in the city. Because of this increase in demand, large groups of the population are forced into high-density housing as they cannot afford to own or rent housing within neighbourhoods. Since high-density housing is typically not permitted in residential neighbourhoods, many residents are forced to live in high-rises along arterial roads that lack amenities such as green space and proximity to schools and daycares.

Missing middle housing allows for more residents to benefit from human-scaled neighbourhoods while creating more diverse demographics in neighbourhoods, reducing the demand for single-family homes and therefore increasing housing affordability by creating



Fig 1.4 Bird's eye view of the Yonge-Sheppard intersection. High- and mid-rises are restricted to Yonge St, while the surrounding areas only contain single-family homes.

more housing options in the medium-density range. Breakthroughs in low-rise, missing middle construction techniques such as the use of mass timber and modular construction substantially reduce development time and cost while also providing more sustainable ways of development.[23]

There are challenges associated with gentle densification, such as concerns about the impact of new development on the character of existing neighbourhoods, with increased traffic, noise, and congestion, and loss of green space and privacy. These concerns are amplified by opposing homeowners, commonly referred to as NIMBYs (not in my backyard), who believe that by introducing multi-unit housing to their neighbourhoods, property values will decrease. There are also concerns about the strain of new development on existing infrastructure, such as public services, transportation, and parking. One of the main barriers preventing the creation of missing middle housing are the restrictive zoning bylaws that used to only permit single-family detached homes within certain areas of the Yellowbelt. Though a 2023 bylaw was passed to allow multiplexes throughout the Yellowbelt, units are restricted to a maximum of five on property (including a laneway or garden suite), and restrictions such as maximum building height and minimum setbacks limit the size of buildings, making it difficult to create adequate units.

1.5 - TYPES OF HOUSING IN TORONTO

Homes in Toronto are shrinking, limiting the housing alternatives accessible to current and future people, particularly families. Condominiums account for an increasing number of homes in Toronto, yet they remain out of reach for many low-to-middle-income renter households.[24] Residential development in the GTA is typically characterized by new low-density subdivisions in greenfield areas far from urban centres, which lead to urban sprawl; high-density developments built on small parcels of land in urban centres, which cause strain on infrastructure,

transit, and services; or mid-rise buildings on major avenues, usually in the form of mixed-use condominiums.

Single-family detached homes are the most common type of housing in Toronto and are well sought after due to the larger floor area they provide for the spatial needs of a family. Detached homes provide privacy and a sense of ownership that many find appealing. They typically include private exterior amenities such as front and back yards and are situated in quieter, suburban neighbourhoods, making them ideal for families with direct access to the street level and proximity to neighbourhood amenities such as daycares, schools, and parks. However, due to the high demand for single-family homes, the costs of land and construction can make single-family homes unaffordable for many.



Fig 1.5 Single-family detached houses in the Forest Hill neighbourhood.

Semi-detached homes often offer the same advantages as single-family homes at a lower price since attached houses can be accommodated on smaller properties, therefore reducing the cost of the house as the area of land is smaller. Like single-family detached homes, semi-detached houses can be found in centrally located neighbourhoods with private front and back yards. Acoustical and privacy issues of the shared wall between homes cause semi-detached homes to have property values lower than those of detached houses, and semi-detached homes are often marketed as a financial stepping stone between condo units and detached homes.

Rowhouses mainly exist as a historical typology and provide more density than detached homes while preserving the scale and continuity of street frontages in residential neighbourhoods. Rowhouses typically have a uniform appearance and layout, often forming a continuous line of houses along a street. **Townhouses** also refer to connected homes sharing one or more walls with neighbouring units, but they can vary more in design and size compared to rowhouses. Townhouses are often more contemporary developments and can include a broader range of architectural styles and layouts. Both typologies are under either freehold ownership (meaning the ownership of the unit itself and the plot of land it sits on) or condominium ownership (meaning the ownership of only the interior unit). Similar to detached and semi-detached houses, rowhouses have private direct access to the street; however, outdoor spaces are more restricted. Sharing walls with neighbours can lead to noise disturbances and reduced privacy compared to detached homes, and the ability to customize the exterior and sometimes the interior of their homes is often limited.

In recent years, **low- and mid-rise apartment and condominium buildings** have seen a rise in development in the GTA. The Avenues and Mid-Rise development guidelines established in 2010 have encouraged the development of transit-oriented mixed-use buildings along main streets. Mid-rise buildings are the “in-between” scale of building, bigger than houses but smaller than towers. They provide a good scale and relationship to the street, support a



Fig 1.6 Semi-detached houses on Cadorna Ave in East York.



Fig 1.7 Rowhouses along Belmont St in Rosedale.



Fig 1.8 Townhouses along Finch Ave in Newtonbrook West.

comfortable pedestrian environment, and animate the street by lining the sidewalk with doors and windows with active uses. While mid-rise buildings are efficient in producing a large number of units per area of property, the approval process is long, and the time taken to get an approval can take as long as the time it takes to construct the building. Mid-rise buildings are also often limited to major avenues, increasing congestion and construction disruption for long periods of time in already busy areas. Units are also typically small, under 3 bedrooms, and not ideal for families with children. There is also opposition from local communities, as these taller buildings disrupt the character of the neighbourhood and cast shadows over neighbouring properties.

The second most common type of housing in Toronto is **high-rise apartment and condominium buildings**. Newer developments in the 21st century often employ the tower podium mixed-use typology, with non-residential programs located on the bottom floors and residential upper floors set back from the street to make them appear less intrusive to the surrounding fabric. These buildings are often located on main streets in non-residential zoned areas. Older forms of high-rise apartments are the Tower in the Park typology, one of the primary modes of housing production beginning in the 1950s. These high-rise slabs have extensive setbacks from the street to create large open spaces, with uniform floorplates that do not blend into the surrounding residential context. A primary benefit of apartments and condos is that they are the most affordable form of housing. Less maintenance is required since landscaping, snow removal, and repairs are provided by the condo or apartment management. Most high-rises also include amenities such as gyms, party rooms, and outdoor barbeque areas to make up for the lack of space for personal amenities within units. Like mid-rise buildings, high-rises often cannot accommodate families with children due to small unit sizes, and high-rises are often located in dense urban areas where amenities are more adult-centred. Since 2012, in new rental apartments, studio and one-bedroom units make up an average of 54.4% of the unit mix, while the percentage of two-bedroom units has fallen to 38.9%.[25] Zoning bylaws also cause high-rises



Fig 1.9 A mid-rise building on Avenue Rd, just north of Lawrence Ave.



Fig 1.10 New mixed-use high-rises near Bayview Village.



Fig 1.11 Towers in the Park typology on Bathurst St, Lawrence Manor.

to be restricted to arterial roads, restricting residents from enjoying the luxury of neighbourhood amenities such as schools and parks.

1.6 - HOUSING INITIATIVES AND PROGRAMMES

The City of Toronto has implemented various initiatives to address the affordable housing crisis. The HousingTO 2020-2030 Action Plan, a comprehensive strategy launched by the city, outlines ambitious goals to increase affordable housing options, protect existing rental stock, and create supportive housing for vulnerable populations.[26] Action 45 in this plan calls for a range of housing opportunities in complete communities across the city through developing neighbourhood housing initiatives in consultation with local communities.[27] Moreover, the Toronto Community Housing Corporation (TCHC) plays a pivotal role in managing public housing and facilitating redevelopment projects to enhance housing accessibility. However, these initiatives face challenges, including funding limitations, bureaucratic hurdles, and the slow pace of development approvals.

Expanding Housing Options in Neighbourhoods is a City of Toronto initiative proposed in 2020 that aims to address the demands of the growing city through the development of additional low-rise housing in residential districts. The City of Toronto is attempting to increase the availability of "missing middle" housing options, which range from duplexes to low-rise walk-up apartments. Although all of these housing types are already available across Toronto, their availability for new construction has historically been restricted by zoning bylaws. Included in the Expanding Housing Options in Neighbourhoods initiative are the Multiplex study, focused on permitting residential buildings containing up to four units across Toronto's low-rise neighbourhoods,[28] the Major Streets study, focused on permitting missing middle housing on major streets in low-rise neighbourhoods,[29] and the Garden Suites study, focused on permitting garden suites on properties without lane access.[30] The study also focuses on public engagement and virtual design workshops on increasing housing options in addition to reviewing parking standards for residential uses and financial barriers to missing middle housing. A pilot project demonstrating missing middle housing is also planned for development in Ward 19 in the Beaches-East York area.

In an effort to provide its citizens with more housing alternatives, the City of Toronto has been pushing for missing middle housing in recent years. Laneway suites have been permitted in the districts of Toronto and East York since 2018, and following their success and potential to add housing options in established neighbourhoods, the permissions for laneway suites were expanded to the full city in July 2019. Toronto City Council adopted the Garden Suites Official Plan Amendment and Zoning by-law Amendment in 2022, allowing garden suites to be built in most residential zones across Toronto. In early 2023, the city permitted the construction of multiple units on properties in residential districts citywide that have historically been designated for single-family homes.

A zoning bylaw amendment restricting short-term rentals to principal residences was also approved in 2024, in response to the sharp increase in short-term rentals and their impact on the rental housing market. The purpose of the amendment is to ensure that critical housing stock such as secondary sites, laneway suites, and garden suites is preserved for long-term accommodation rather than for accommodation for travelling visitors.[31]

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2.

CASE STUDIES AND PRECEDENTS

2.1 - DENSIFICATION INITIATIVES IN OTHER CITIES

Urban densification poses a significant challenge for cities in North America due to rising populations and housing shortages, which have led to the need for policy changes to effectively address these issues. Cities such as Vancouver, Edmonton, Portland, and Minneapolis have taken the lead in implementing strategies to support higher population densities without compromising the unique character of their neighbourhoods or making housing less affordable. Studying the policies of these cities can offer insights into the obstacles and opportunities linked with densification and assess the lessons Toronto might draw from their experiences.

Vancouver

Vancouver has long been at the forefront of urban densification in Canada, particularly through its focus on gentle density and the inclusion of missing middle housing forms. The city first introduced laneway housing back in 2009, allowing small homes to be built in backyards in areas designated as RS-1 and RS-5 single-family districts, with these districts making up 94% of the city's single-family lots.[1] In 2018, the city's "Making Room Program" expanded the number of residential zones that would permit ground-related missing middle housing to approximately 65,000 lots.[2] Since then, this policy has been expanded in 2023 to allow for multiplexes up to six units, with a faster permit process for smaller-scale multiplex projects starting early 2025.[3] In addition, if the multiplexes are purpose-built rentals, they can have seven or eight units, allowing for one unit to be occupied by the registered owner of the site. Vancouver council also voted to eliminate minimum parking requirements city-wide in mid-2024. However, despite the introduction of more flexible zoning, the city still faces high housing prices due to strong demand and limited land, with one of the most expensive housing markets in the country, though laneway houses and multiplexes units help serve as unique forms of affordable housing

inside the city for homebuyers and alternative sources of income for homeowners to help pay for a mortgage. Vancouver's draft policies also aim to support more opportunities to add corner stores and other small scale retail options within residential neighbourhoods; retain trees; integrate ecological landscaping and function into new developments; and improve the public realm.[4]

Edmonton

In the last four decades, the population of Edmonton's mature neighbourhoods has been declining, while having a projected population increase of 170,000 by 2025.[5] To reduce barriers that prevent the development of missing middle housing, the city's "Infill Roadmap" was created in 2014, which helped to guide the city on facilitating policy and regulatory changes to support improved medium-scale infill development. An update to Zoning Bylaw 12800 in 2024 allows for infills to be permitted in any residential area in Edmonton, reducing the red tape required to rezone the property while also allowing three-storey townhouses or apartments, rowhouses, or duplexes with up to eight units to be built in any residential area citywide.[6] The new bylaw contains fewer zones that are more enabling and inclusive, reducing the number of zones from 16 to 6, allowing for a greater diversity of uses within zones. The single-home zoning bylaw was also eliminated, and single-detached residential, semi-detached residential and small-scale infills all fit under the new Small Scale Residential zone: a flexible residential zone that permits secondary suites, zero lot line housing, reduced setbacks, and cluster housing. Infill leads to an increase in affordable housing and improved access to exiting amenities while using space efficiently and protecting the existing environment. Though there are tools made to aid developers, there are factors that discourage infill development, such as extensive financing requirements and land use regulatory barriers surrounding infill developments in mature neighbourhoods.[7]



Fig 2.1 Photo of infill housing in West Edmonton.

Portland

In 2020, the city of Portland adopted the Residential Infill Project (RIP), arguably the most innovative reform in the United States, which established new limits on building sizes, created new allowances for different residential types, and expanded allowances for accessory dwelling units (ADUs). In addition to making new single-family homes of over 2,500 square feet illegal, RIP erased bans on duplexes, triplexes, fourplexes, and townhouses across the city, allowed for two ADUs on all lots, removed residential parking mandates, and permitted three-storey apartment buildings of up to six homes on any lot, as long as they met affordability standards.[8] RIP sets FAR limits for single-family houses while progressively decreasing those limits as the number of units increases, allowing for a higher FAR for fourplexes and an additional bonus increase in FAR if there are one or more affordable units included on the site, incentivizing investment away from large single-family homes to more affordable units. Half of the "historically narrow lots" (typically 25 feet wide by 100 feet deep lots) in amenity-rich areas are also rezoned to allow for pairs of attached houses to be built, promoting the construction of smaller, less expensive homes.[9] A year after RIP went into effect, middle housing and ADU production have increased dramatically, with 271 units of middle housing permitted in the R2.5, R5, and R7 single-dwelling zones, compared to 102 new single-dwelling houses. Additionally, fourplexes made up the largest share of middle housing units permitted, at 76%.[10]

Minneapolis

Starting in 2009, Minneapolis was one of the first cities to enact a series of policy changes that reduced, then eliminated minimum parking requirements, allowed construction of ADUs, and lowered minimum lot size requirements in residential zones. The Minneapolis 2040 Plan, which was implemented in 2020, positioned the city as the first in the United States to eliminate single-family zoning completely, allowing two- and three-unit homes to be built in every neighborhood. In the five-year period of 2017 to 2022, Minneapolis saw an increase of 12% to its housing stock, with 87% of the new housing being midsize apartment buildings with 20 or more units and only 1% being buildings with two to four units.[11] Though multiplexes have been permitted, duplex and triplex construction have made a very modest impact on the housing stock due to other aspects of Minneapolis' zoning code that make building such structures challenging, such as low maximum FAR and 2.5-storey height limits in the lowest-density zones, which are the same limits for single-family houses.

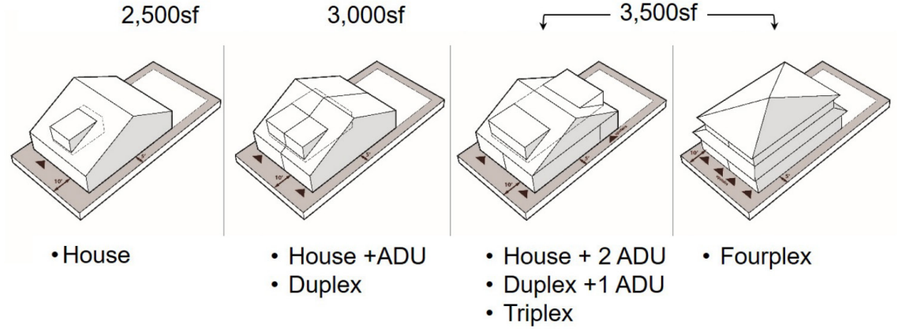


Fig 2.2 Diagram of scaling FAR to increase as the number of units increases on the site in Portland. On a 5,000 square foot lot in the R5 zone, these building sizes would be possible.

Lessons Learned

While these cities operate within different legislative frameworks, key takeaways from precedent research that can apply to zoning regulations in Toronto include the following:

- Eliminate single-family zoning citywide and allow multiple units arranged in any configuration of buildings on a lot with defined minimum site standards, similar to the new Multi-unit Housing use in low-rise residential zones in Edmonton or the rezoning of "historically narrow lots" in Portland.
- Implement a sliding scale of FSI permissions based on building type, similar to Portland (e.g. Single unit: 0.5 FSI; duplex: 0.6 FSI; triplex: 0.7 FSI), or limit FSI restriction to only single-family detached and semi-detached houses. As seen in the case study of Minneapolis, FSI and height restrictions decrease the feasibility of duplexes, triplexes, and multiplexes.
- Provide a size or development bonus for multi-unit missing middle buildings if one or more of the units are considered affordable housing.
- Encourage densification in amenity-rich neighbourhoods with decreasing populations, with denser multifamily housing to be focused on public transit routes and higher densities along high-frequency routes and near metro stations.
- Reduce or eliminate parking requirements, which can be justified by societal trends that shift towards less car dependency, and it can be anticipated that people living in small-scale housing do not require parking spaces.
- To gain community support, efforts must be made to ensure that the infill development conforms with the character of the neighbourhood for increased community acceptance, as the city of Edmonton experienced resistance from communities on infill development due to a lack of enforcement on current building practices.[12]

2.2 - LOW-RISE MEDIUM-DENSITY BUILDING TYPOLOGIES

This section will examine precedents of low-rise, medium-density building typologies both in Toronto and internationally to gather insights on successful approaches and how these can inform new forms of medium-density housing that can be applied to typically single-family neighbourhoods in Toronto. A range of typologies will be used to assess architectural features and planning strategies that work best to implement context-sensitive housing solutions while preserving neighbourhood character.

2.2.1 - TORONTO 1910-1980

Medium-density housing in Toronto from 1910 to 1980 focused on creating public and affordable housing projects while prioritizing integration into existing neighborhoods. Early examples such as Spruce Court and Bain Apartments Co-op represent some of Toronto's first low-rise housing cooperatives, built to address housing affordability to meet the needs of working-class residents. These developments introduced additional density into residential areas without disrupting neighbourhood scale or character, offering a model for how affordable housing could blend with established surroundings. In the 1970s, projects like Sherbourne Lanes and Hydro Block continued this approach, using infill strategies to create new public housing within the fabric of older neighborhoods. By preserving existing homes in the development of new structures, these projects demonstrate that medium-density housing could meet social and economic needs without resorting to high-rise construction.

Bain Apartments Co-Operative



Fig 2.3 Photo of Bain Apartments Co-op.

Housing Type:	Low-Income Public Housing
Location:	Toronto, ON
Architects:	Eden Smith
Developer:	Toronto Housing Company
Completion:	1913 - 1923
Number of Units:	260
Units per Hectare:	109.0
Site Area:	23,845 sqm

Originally named Riverdale Courts, Bain Apartments Co-op was built in 1913 by the Toronto Housing Company, a public-private partnership dedicated to providing comfortable but affordable homes for low-wage earners. The public housing project is located east of the Don River in Riverdale, and along with Spruce Court in Cabbagetown, and was at the center of the public health movement and the government's involvement in social housing and community-wide planning as the first social housing projects built in the city.

The design was influenced by the Garden City movement, which was popular in England at the time, with buildings constructed in cross-axial arrangements around open, grassy courtyards. By the time the project was fully completed in the mid-1920s, the Riverdale Courts consisted of 260 apartments, from one to four bedrooms, in 25 three-storey buildings, as well as two small double houses, scattered over two large city blocks. The structures comprised several "cottage flats" with forms similar to common single-family homes at the time, each with a front door and its own private balcony or patio.

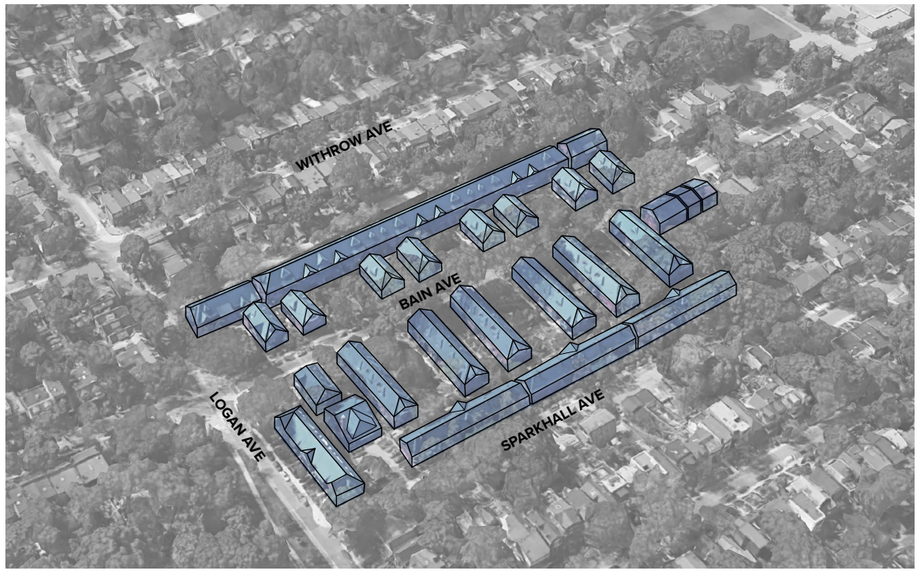


Fig 2.4 Axonometric view of Bain Apartments Co-op.

Though the Courts were originally meant to provide tenants with subsidized rents, in the 1930s, the Courts moved to private ownership, and the then landlord allowed the property to deteriorate and fall into disrepair as he wanted to convert the apartments into condominiums, threatening the tenants with eviction and higher rents.[13] As a result, the residents came together to form Bain Apartments Co-operative in 1977 with the help of local politicians and the Canada Mortgage and Housing Corporation, eventually buying out the complex and establishing a limited equity cooperative in which members were guaranteed stable rent at affordable rates.

Key points:

- Each apartment featured a private entrance, a rarity in urban housing at the time, along with access to shared green spaces that fostered a sense of community among residents.
- Courtyards were planted with mature trees and gardens, providing a shared space for residents, offering a stark contrast to the cramped and haphazard housing that dominated much of the city at the time.
- Green spaces, which were once fenced off and underutilized, are now full of life, serving as communal gathering spaces, children's play areas, and gardens.
- Building height fits into the existing context at three storeys and with hip roofs, and the building forms are similar to continuously horizontally arrayed single-family homes.
- The Arts and Crafts style of the buildings emphasized a return to traditional construction techniques, bringing attention to craftsmanship and simple, functional beauty.



Fig 2.5 Site plan of Bain Apartments Co-op.



Fig 2.6 Photo of a courtyard in Bain Apartments Co-op.

Spruce Court Co-Operative



Fig 2.7 Photo of Spruce Court Co-op.

Housing Type:	Low-Income Public Housing
Location:	Toronto, ON
Architects:	Eden Smith
Developer:	Toronto Housing Company
Completion:	1913 - 1926
Number of Units:	77
Units per Hectare:	145.8
Site Area:	5,281 sqm

Similar to Bain Avenue Co-op, Spruce Court was built in 1913 by the Toronto Housing Company in order to provide low-cost housing for working-class earners. Located in the Cabbagetown area, the plan is based on the English Garden City ideal and was meant to combine the best of city and country living with a central location and access to urban conveniences, lawns, gardens, and trees. Like Bain Avenue Co-op, by the late 1960s and 70s, after several changes of ownership and management companies, the property and units showed significant deterioration, causing unpleasant living conditions. The tenants formed the Spruce Court Tenants' Association in 1974 to prevent losing their homes to new construction condominiums and, after much lobbying, convinced the City of Toronto to buy the property, which became the first acquisition of the city's newly formed non-profit housing corporation, Cityhome. Three years later, the tenants formed a co-operative, which bought the property from Cityhome.

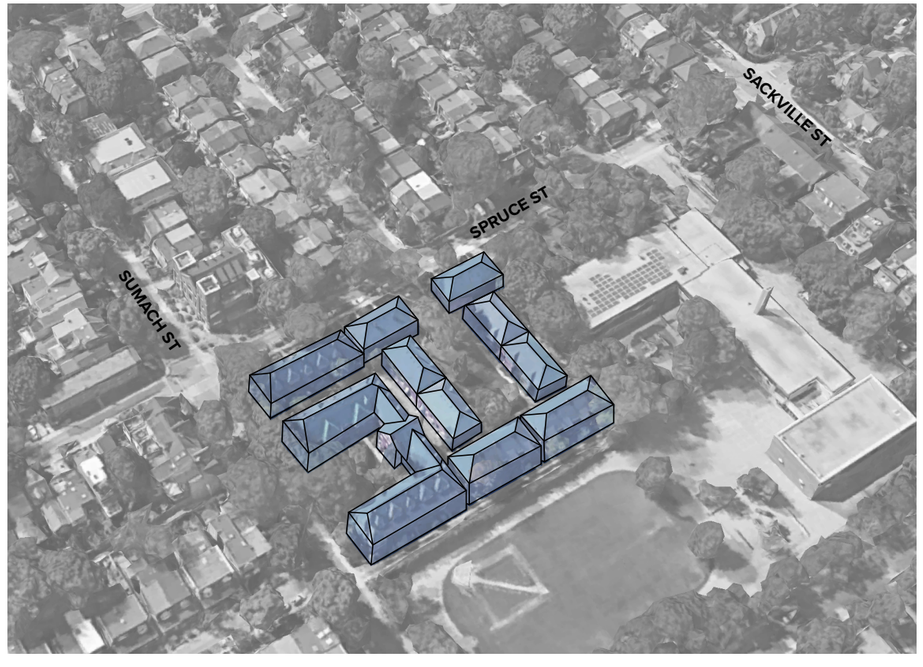


Fig. Axonometric view of Spruce Court Co-op.

Though developed as a sister project to Riverdale Courts, Spruce Court is notably smaller in size, likely due to the area having higher land values and being more densely populated at the time of construction. Each unit in the complex includes access to the street and to a large courtyard area, with units ranging in size from one bedroom to three bedrooms and townhouses, and although units of the same size are all similar in design, no two are exactly alike, imitating the design of single-family homes.

Key Points:

- Multi-unit apartments are built around grassy courtyards, which act as play spaces for children, encouraging a strong sense of community among residents.
- Each flat has its own door with access to a courtyard, avoiding the stigma of "tenement" housing.
- Units vary in size to accommodate different family needs, with many including multiple bedrooms.
- Residents collectively manage the co-op, allowing for a democratic decision-making process in maintenance and policy matters.



Fig 2.9 Photo of a courtyard in Spruce Court Co-op.

Sherbourne Lanes (Dan Harrison Community Complex)



Fig 2.10 Photo of Sherboune Lanes.

Housing Type:	Infill Apartments
Location:	Toronto, ON
Architects:	Diamond and Myers
Developer:	City of Toronto Non-Profit Housing Corporation
Completion:	1974
Number of Units:	376
Units per Hectare:	149.1
Site Area:	25,222 sqm

This social housing project was the first infill housing scheme to be constructed in Toronto, undertaken by the city's Non-Profit Housing Corporation, demonstrating the feasibility of low-rise, high-density housing typologies as an alternative to high-rise towers. The infill development, which involves constructing a "high-rise on its side" at the back of a site, preserves existing buildings, respects neighbourhood character and social fabric, and allows for more people to be housed on the same property without the need for high-rise apartments.



Fig 2.11 Axonometric view of Sherboune Lanes.

Sherbourne Lanes (formerly Dundas/Sherbourne) is located in the Cabbagetown neighbourhood and was originally bought by a developer who planned to demolish the 16 existing buildings to construct a high-rise apartment tower. However, local citizens and preservation groups convinced the city to buy out the developer to save the old houses and construct new, low-rise apartments behind the houses, with accommodation equal to that of the towers. The coordination of five levels of government was required to realize the development.[14]

Existing houses were renovated into 74 apartments, and with the construction of the five- to seven-storey buildings, the total number of units added up to 376 units, including 49 for families, 121 one-bedrooms, and 103 studios, plus 103 rooms for the "roomer" population in the area. Since the area is well connected to public transit, parking was restricted to 80 spaces in an underground garage.

A half century after its construction, Sherbourne Lanes, now called the Dan Harrison Community Complex, is in need of major rehabilitation, with issues such as deteriorating physical conditions and tenants struggling with their mental health, addiction, isolation, and poverty.[15] A draft business case for a refurbishment or revitalization project was written by the Toronto Community Housing Corporation in 2021, with local consultations for a long-term strategy beginning this summer.

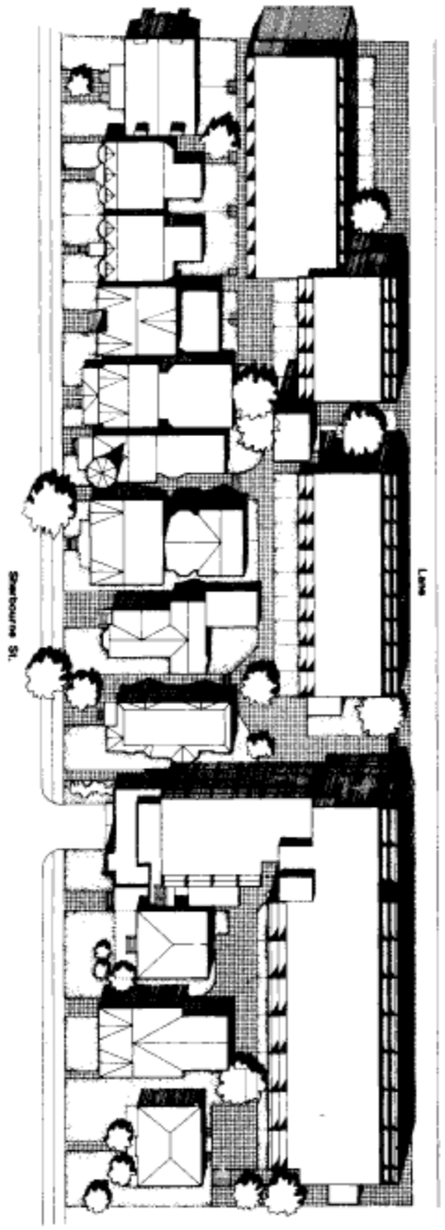


Fig 2.12 Roof plan of Sherbourne Lanes.



Fig 2.13 .Sectional perspective of Sherbourne Lanes.

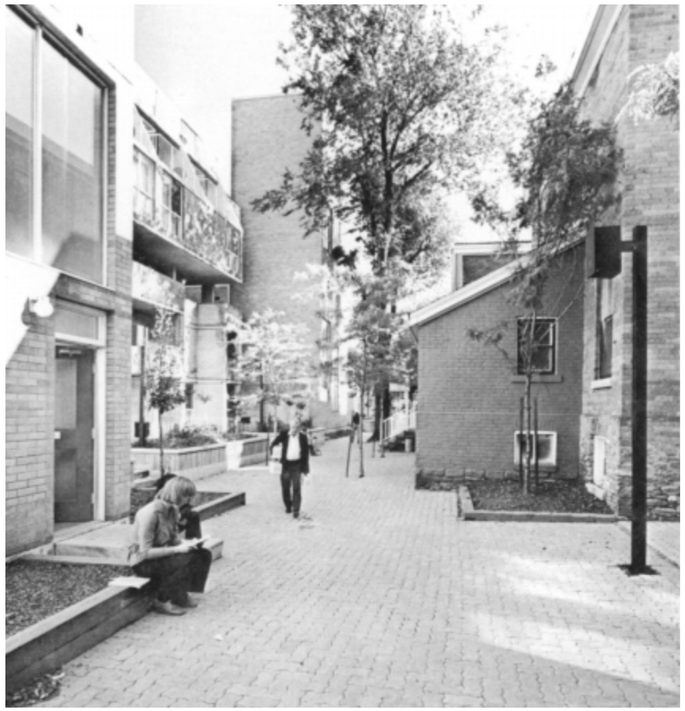


Fig 2.14 Photo of areas between back of existing houses and the new building construction.

Key points:

- Existing streetscapes are preserved by retaining and renovating the existing houses. The new buildings fill the rear along the laneway.
- The ground plane is utilized with a maximum number of ground-floor apartments having direct access to private yard spaces.
- Reliance on public transit allows for a low ratio of parking spaces to the number of units.
- The new infill buildings complement the materiality and scale of the houses with brick cladding and projecting porches at lower floors and setbacks at upper floors.
- The project prioritizes "a good social mix" and aims to accommodate low-income families, seniors, and the neighbourhood's existing roomer community. Rent may be maintained at a low rate since the operating expenses for new construction and restoration are lower than those for high-rise buildings, however this has led to social issues.
- Dead ends, low-visibility corners, and multiple potential entrances allow trespassers and non-residents to enter the building, encouraging dangerous activity.[16]

Hydro Block (Beverley Place)



Fig 2.15 Photo of Hydro Block.

Housing Type:	Infill Apartments
Location:	Toronto, ON
Architects:	Diamond and Myers
Developer:	City of Toronto Non-Profit Housing Corporation
Completion:	1978
Number of Units:	94
Units per Hectare:	97.0
Site Area:	9,700 sqm

Built on land once reserved by the Ontario Hydro-Electric Power Commission for a transformer station, Hyrdro Block, also known as Beverley Place, was developed as an early project by the city's not-for-profit housing company, CityHome. In the 1960s, Ontario Hydro began purchasing houses on the block, intending to build a 9-storey hydro transformer station. Protests and activism by community-based groups prevented the station from being built, and when ownership was transferred to the Ontario Housing Corporation in the 1970s, it was decided that instead the dilapidated houses on the site should be demolished to construct new, higher density public housing.



Fig 2.16 Axonometric view of Hydro Block.

Similar to the public housing project at Sherbourne Lanes, Hydro Block intended to preserve the houses that already existed on site. However, the existing Victorian rowhouses along Henry Street were demolished due to poor conditions, save for one at the corner of the site, which was renovated and incorporated into part of the building. Detached homes along Beverley Street were also refurbished to be included in the development. The building footprint of the project covers the same area as the previously existing single-family homes, with setbacks on the upper floors to maintain a cohesive appearance in the neighbourhood.



Fig 2.17 Photo of Townhome Entrances.

The 5-storey project includes two-storey units on the lower floors, with individual entrances on Henry Street and Cecil Street and private yards to the rear. Family-sized townhouse units are also located on a half-basement level and are accessed by stairs, allowing for a lower building height for the project to integrate better into its surroundings. Smaller one-bedroom apartments are accessed through a shared landing on the second floor, and units on the upper two levels are accessed by a glazed corridor on the third storey, which overlooks the streets below. Units on the upper floors are primarily bachelor and one-bedroom units, with larger units on the lower floors to make more use of the rear yards.



Fig 2.18 Photo of Hydro Block with commercial use on ground floor.

Key Points:

- The east half of the block along Beverley Street retains the pre-war detached and semi-detached housing previously existing on site.
- Family-sized units are located on the first two floors, with each unit having its own street address and front porch fronting onto Henry Street, and private rear yards facing the common courtyard and playground area.
- Building height and presence are reduced by setbacks and slopes on the upper floors, as well as the use of a half-basement level.
- The open rear yard provides a buffer between the building and the nearby single-family homes, mitigating issues of overlook and access to light for neighbours while proving both private and shared outdoor spaces for residents.
- Convenience store retail is accommodated at grade to support the existing mix of restaurants and shops, with the integrated existing Victorian home currently serving as a restaurant.
- Underground parking is located under the common courtyard, accessed by a ramp on Baldwin Street.
- The traditional brick façade of the apartment building allows the development to blend into its surrounding context.

2.2.2 - POST 2010

In recent years, there has been an emergence of innovative low-rise, medium-density housing typologies that push the boundaries of traditional zoning to address pressing housing needs. This section examines these new typologies, including larger multiplexes with up to 10 units, low-rise mixed-use apartments offering a range of unit types, laneway apartments, and terraced houses, which may also require creative infill solutions and flexible living arrangements. Often designed to achieve greater density within a small footprint without compromising the character and scale of their surroundings, some of these projects require updating zoning regulations to become feasible, reflecting a shift towards more adaptable housing policies in response to increasing demand for housing. The thesis draws inspiration from these precedents to present new forms of low-rise, medium-density housing that could be effectively integrated into Toronto neighborhoods. These examples provide insights into balancing density and livability within existing residential contexts.

Lanehouse on Bartlett



Fig 2.19 Photo of Lanehouse on Bartlett.

Housing Type:	Adaptive Reuse Loft Condos
Location:	Toronto, ON
Architects:	AUDAX Architecture
Developer:	Curated Properties
Completion:	2016
Number of Units:	16
Units per Hectare:	126.8
Site Area:	1,262 sqm

One of the more uncommon infill projects in recent years, Lanehouse consists of custom-built loft condos converted from a formerly vacant yarn factory in a residential laneway. The project includes two one-bedroom and 14 two-bedroom loft-style units ranging from 1,000 sq. ft. to 2,000 sq. ft., marketed as exclusive luxury 3-storey townhouses. Three of the units are located in a newly constructed building facing Bartlett Avene, while the rest are located within the existing factory. 17 parking spaces are provided with a three-tiered parking lift system within a garage located at grade.



Fig 2.20 Axonometric view of Lanehouse on Bartlett showing entrances.

Located in the Bloordale neighbourhood, the buildings that surround the site are primarily two-storey detached, semi-detached, and rowhouse dwellings, with two low-rise former converted industrial apartment buildings further down the laneway. Since the proposal for the project was 2.4 times the area of the lot and exceeded the maximum permitted density, a zoning amendment application was required. The project was proposed at a time when housing on laneways was not yet permitted and the construction of houses on lanes could be considered only in special circumstances. In the project's application report, it was noted that during community consultation, residents raised concerns with privacy, overlook, traffic, water/sewage infrastructure, garbage, and environmental contamination.[17]

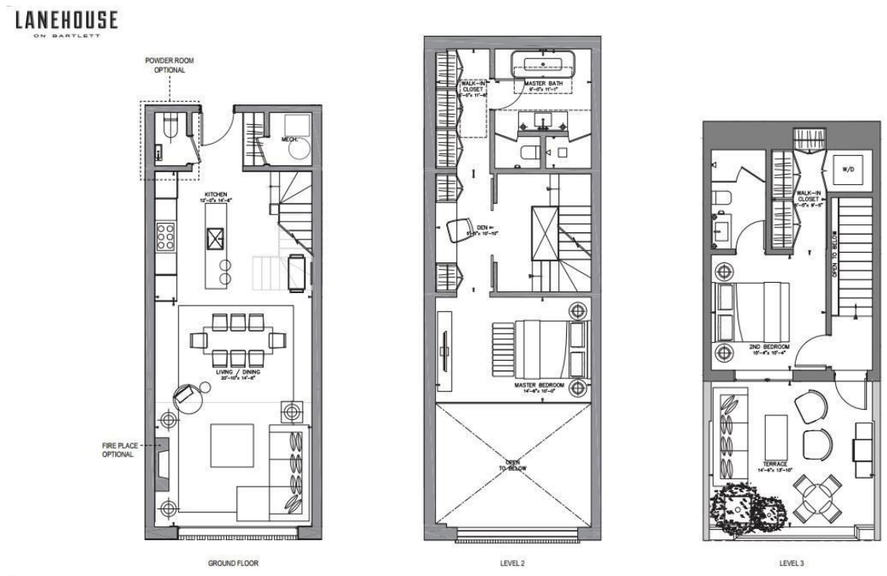


Fig 2.21 Plans of a two-bed two-bath unit within Lanehouse.

Key Points:

- Red brick and metal cladding are consistent design elements throughout both the converted and newly built residential structures, to fit with the materiality of the neighbourhood.
- Though the lofts are built along the laneway, units are accessed through two shared entrances. There are no private entrances to units apart from the unit fronting Bartlett Avenue.
- Balconies are east-facing and positioned on the third storey. They have wood-louvred privacy screening that limits the view of adjacent back yards and vice versa.
- The top two panes of the large east-facing windows are treated with translucent film for the privacy of both occupants and adjacent neighbours on Bartlett Avenue.
- Parking for each unit is provided via a car elevator to reduce the floor area dedicated to parking.
- A lengthy zoning amendment application process and community consultation were required.



Fig 2.22 Photo of view from laneway.

Le Jardinier



Fig 2.23 Photo of Le Jardinier.

Housing Type:	Low-rise Affordable Apartments
Location:	Montreal, QC
Architects:	ADHOC Architects
Developer:	Knightsbridge
Completion:	2018
Number of Units:	16
Units per Hectare:	161.7
Site Area:	989 sqm

Composed of 16 one- to three-bedroom units, the project provides affordable housing on Rouville Street in the Hochelaga-Maisonneuve borough. The LEED Platinum-certified building is designed with double-aspect windows, allowing residents to have a view of the inner courtyard and the front of the building while enjoying natural daylight. A checkerboard pattern, which is present in heritage buildings on Sainte-Catherine Street, is implemented in the cornice and brick siding on the courtyard facade. Light metal stairs provide access from the units to the inner courtyard, which integrates garden beds for vegetables and vegetation. Shared bicycle parking and storage are located at the back entrance, and a car-sharing service in the garage is accessible to all residents.

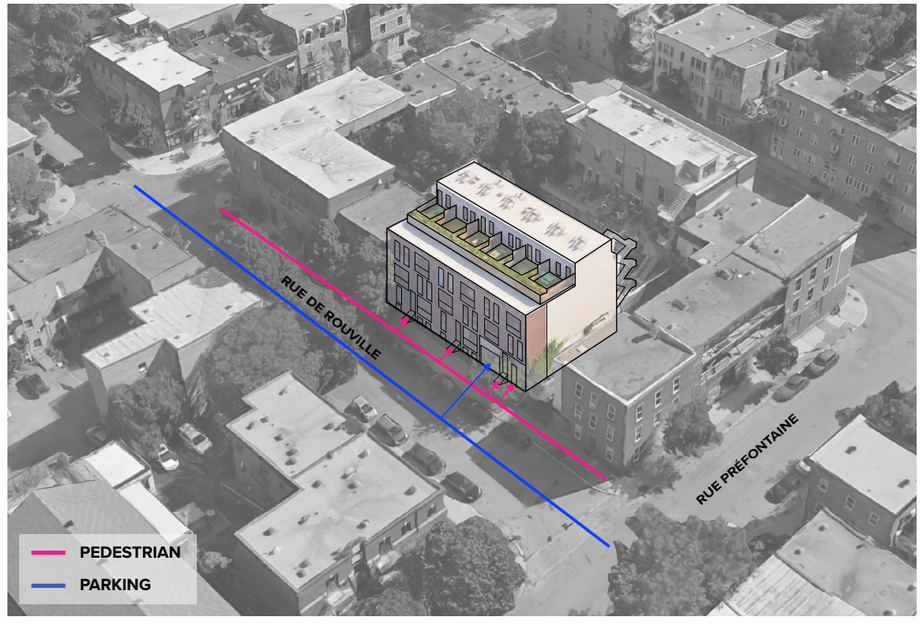


Fig 2.24 Axonometric view of Le Jardinier showing entrances.

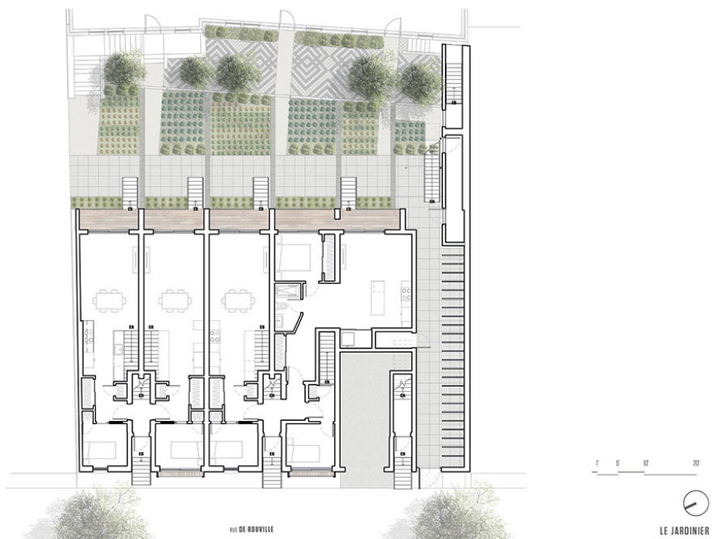


Fig 2.25 Ground floor plan of Le Jardinier.

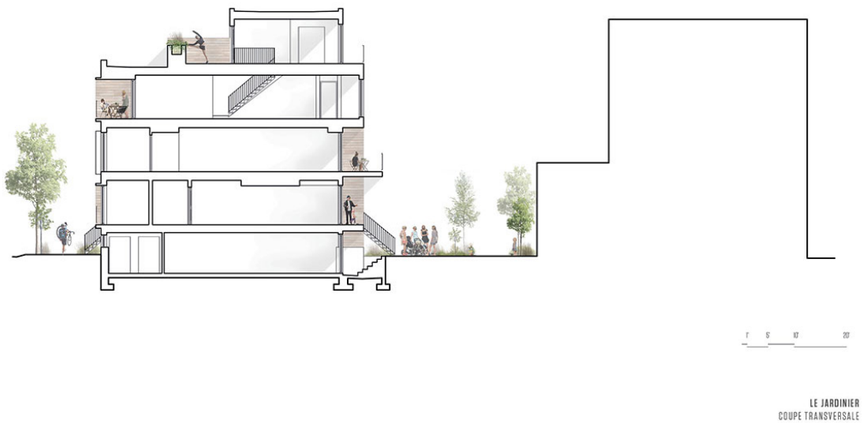


Fig 2.26 Section of Le Jardinier.

Key Points:

- The colour of the brick and the overall size of the building fit into the surrounding neighbourhood's characteristics.
- Each unit has a connection to an outdoor corridor, which provides privacy and soundproofing between the units and access to open space.
- The inner courtyard is provided as a shared amenity with communal planters, encouraging interactions between residents.
- Operable windows on both the front and back ends of each unit increase circulation and daylighting.
- Bicycle parking and the lack of private parking spaces promote the use of public transportation to follow sustainable guidelines.



Fig 2.27 Photo of building rear with courtyard.

Inverness



Fig 2.28 Photo of Inverness.

Housing Type:	10-Unit Multiplex (Condos)
Location:	Montreal, QC
Architects:	ADHOC Architects
Developer:	Knightsbridge
Completion:	2018
Number of Units:	10
Units per Hectare:	235.4
Site Area: 425	sqm

Inverness is a multi-family residential project with 10 high-end housing units located in the Notre-Dame-de-Grâce Côte-des-Neiges Borough of Montréal. The three-storey building offers densification while maintaining a human scale that is consistent with the row-house and low-rise apartment neighborhoods. A range of one- to three-bedroom units provide a mix within the building, with larger units encouraging the retention of families in the neighbourhood. The units are located within two separate buildings and are accessed either at street level or via a metal staircase within the inner courtyard, providing each unit with a private entrance, reducing the need for an entrance lobby. Shared bike lockers are located on the basement level of the building at the back of the site.

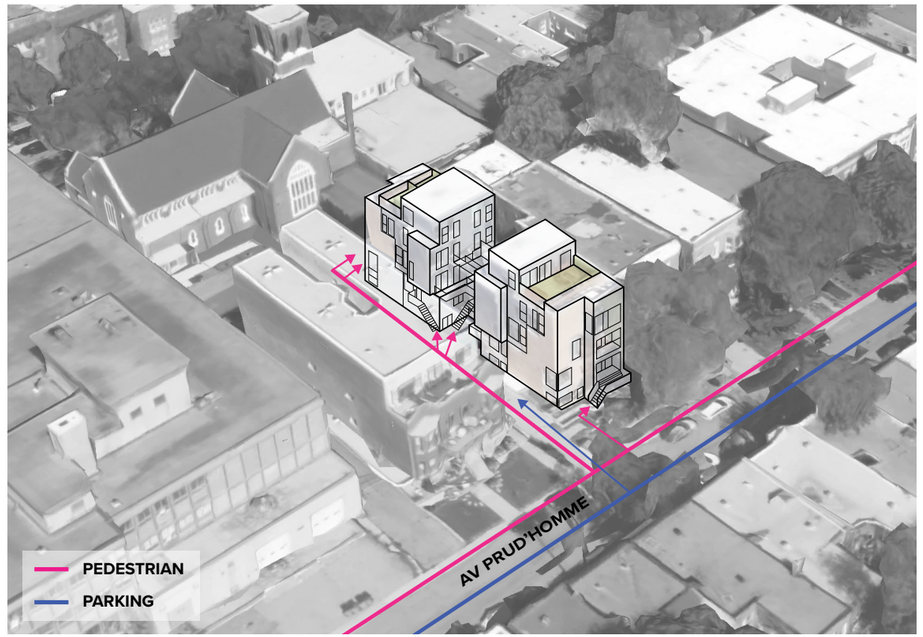


Fig 2.29 Axonometric view of Inverness showing entrances.

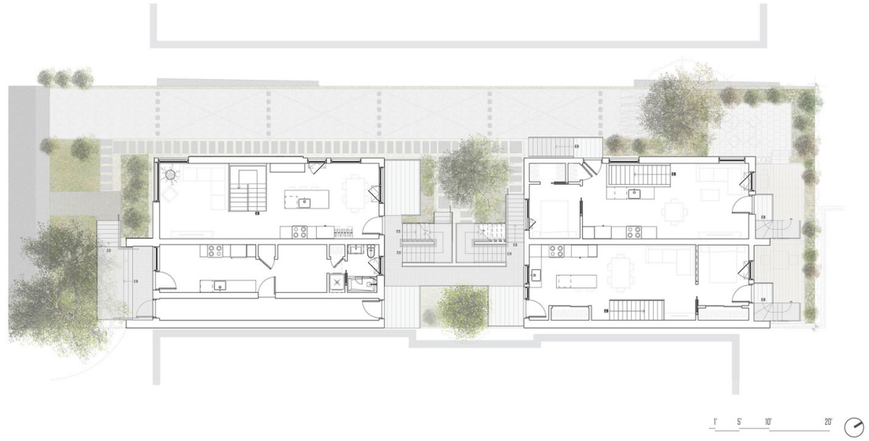


Fig 2.30 Ground floor plan of Inverness.



Fig 2.31 Elevation of Inverness.

Key Points:

- Private outdoor amenities are offered as balconies or rooftop terraces for larger units.
- Individual private entrances to each unit give residents a greater sense of ownership and autonomy.
- The separation of the units into two buildings and an internal courtyard allows for more efficient floor plans with better placement of windows.
- The fine masonry work and the brick façade mimic the architectural language of the area.
- The property has a width of only 36 feet, yet it houses 10 units on 3 floors plus a basement.



Fig 2.32 Photo of internal courtyard.

Mole Hill Missing Middle Infill Housing



Fig 2.33 Photo of Mole Hill Missing Middle Housing.

Housing Type:	6-Unit Multiplex (Rental)
Location:	Vancouver, BC
Architects:	Haeccity Studio Architecture
Developer:	Pacific Cove Properties
Completion:	2018
Number of Units:	6
Units per Hectare:	160.4
Site Area:	374 sqm

This multiplex house in Vancouver is situated on the heritage home and tree-lined Comox Street at Bute and acts as a transition between a 7-storey heritage apartment building and a 2.5-storey heritage house by replacing a 1950's single-family bungalow. The lot size for this property is 33 feet by 122 feet and includes six dedicated rental units. The project aims to encourage walkable urban living, increase accessibility to a middle-income household, and increase housing diversity in the neighbourhood. The multiplex consists of two masses connected by a corridor, which includes shared bike parking and building services. In addition to the eight bike stalls, two parking spaces are included at the back of the property.

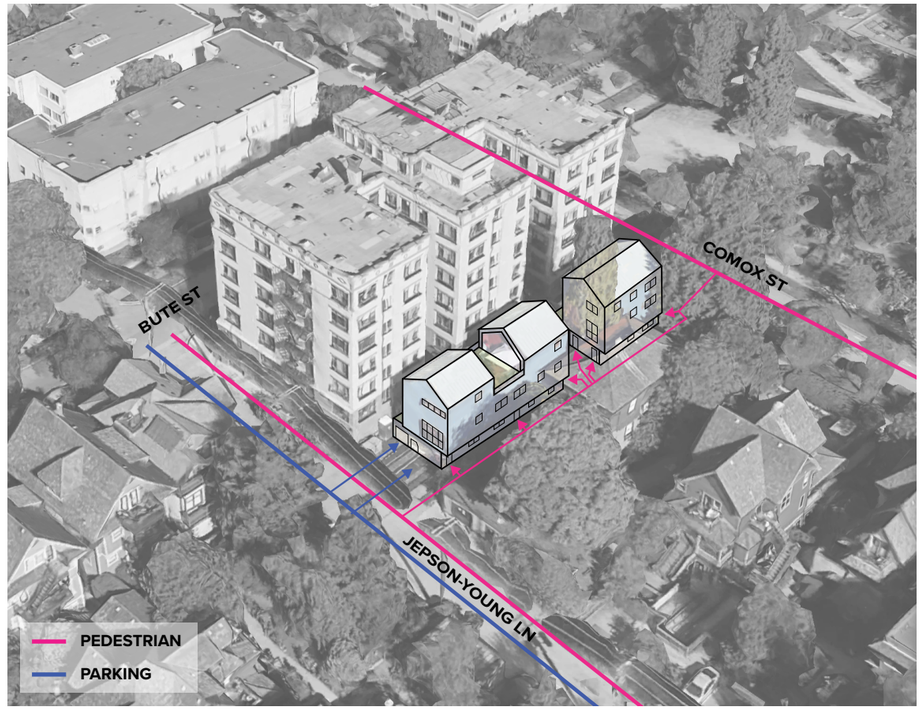


Fig 2.34 Axonometric view of Mole Hill Missing Middle Housing showing entrances.

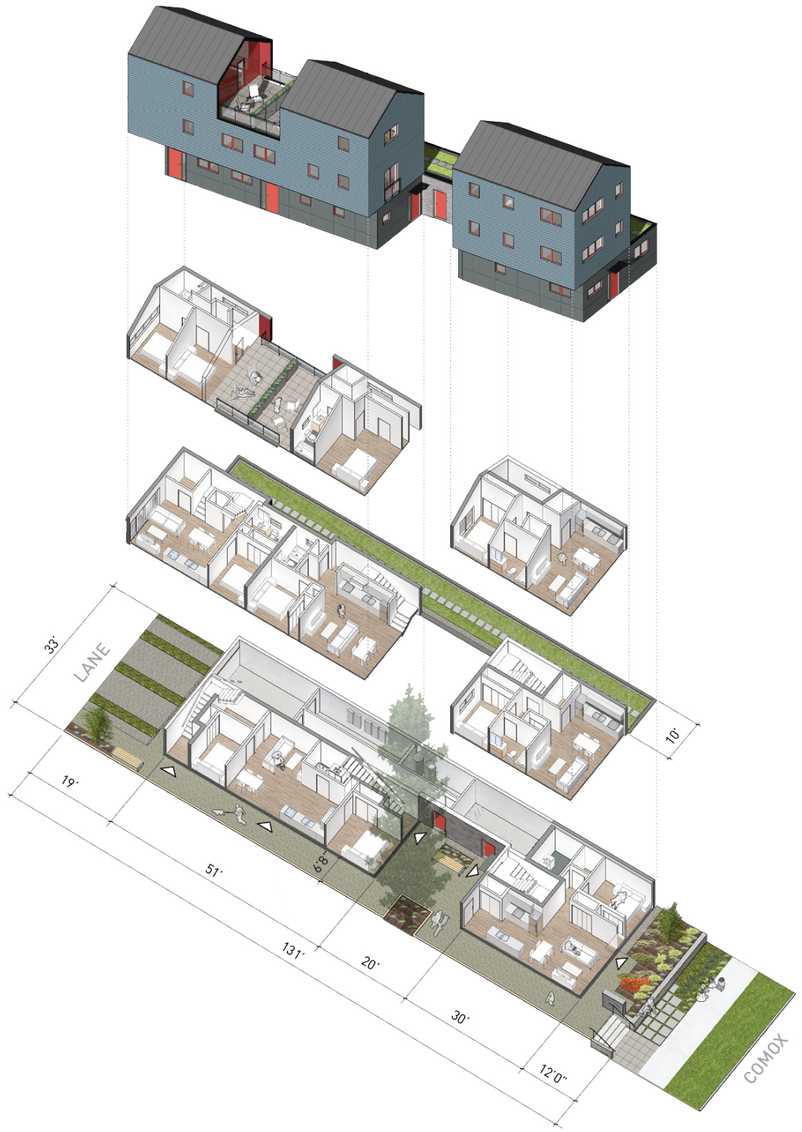


Fig 2.35 Diagram and plans of Mole Hill Missing MiIddle Housing.

Key Points:

- Sloped roofs and a network of paths and walkways mimic the traditional Victorian and Edwardian typologies of the neighbouring houses.
- Four units have separate exterior entrances accessed from the front, side, and courtyard, with two units accessed by a shared staircase with an entrance in the courtyard.
- An interior courtyard with a large cypress tree, a planted breezeway on the second floor, and rooftop patios for the larger units provide open green spaces for residents.
- As the project is located in a walkable neighbourhood, individually assigned bike storage and few parking spaces encourage the use of public transit in the area.



Fig. 2.36 Photo of inner courtyard.

Hannibal Road Gardens / Beveridge Mews



Fig 2.37 Photo of Hannibal Road Gardens.

Housing Type:	Affordable Terraced Houses
Location:	London, UK
Architects:	Peter Barber Architects
Developer:	Southern Housing Group
Completion:	2012
Number of Units:	8
Units per Hectare:	26.4
Site Area:	3,033 sqm

Hannibal Roal Gardens is a social housing project consisting of a row of eight terraced houses and a new community garden located in Tower Hamlets, East London, replacing what was originally a problematic strip of garages within an existing housing estate. The project creates large family-sized homes to address issues of overcrowding in multigenerational households that were previously living in small apartments within the existing estate. The units are considered affordable housing, range in size from three to seven bedrooms, and are designed to optimize inclusive design with oversized communal living spaces and a large number of bedrooms. The building uses an innovative notched terrace typology to create a variety of outlooks and amenity spaces, and stepped profiles allow for daylighting and differentiation between units.



Fig 2.38 Axonometric view of Hannibal Road Gardens showing unit entrances.

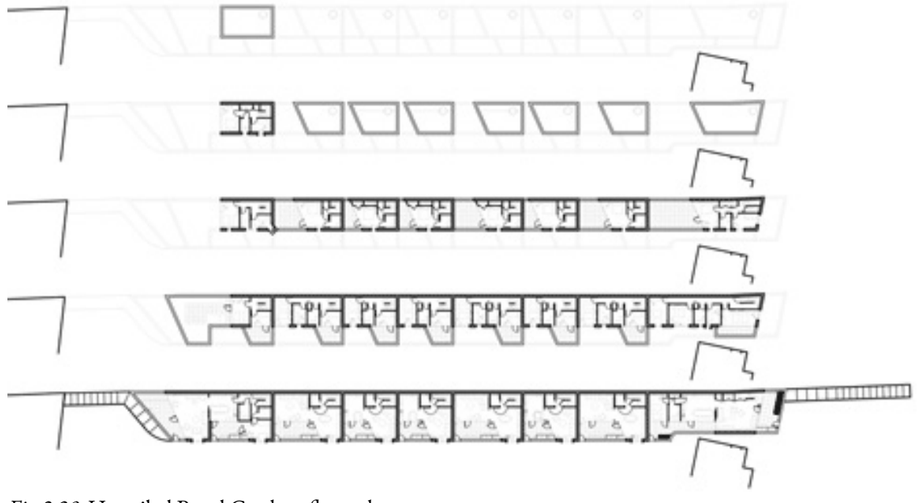


Fig 2.39 Hannibal Road Gardens floor plans.



Fig 2.40 Photo of unit entrances.

Key Points:

- Large units with three to seven bedrooms accommodate large, multi-generational families.
- Each unit has an entrance at street level as well as two private terraces overlooking the community garden, encouraging residents to personalize their own space.
- The use of wood shingles complements the pattern and texture of the surrounding brick buildings and mimics the nearby aesthetic of existing sheds and patchwork of wooden fences, as the project is located at the back of a 1960s council estate.
- Half of the units are allocated to social housing tenants, and the other half are owned.

Powerhouse



Fig 2.41 Photo of Powerhouse.

Housing Type:	Infill Housing (Mix of Unit Types)
Location:	Philadelphia, PA
Architects:	Interface Studio Architects
Developer:	Equinox MC, Postgreen Homes
Completion:	2016
Number of Units:	31
Units per Hectare:	138.3
Site Area:	2,241 sqm

Powerhouse consists of a dense cluster of 31 units in an urban block in the Francesville neighbourhood. The project infills around three existing brick rowhouses on a steep sloping site, providing a mix of units including three-bedroom rowhouses, two-bedroom duplexes, and one- and two-bedroom walk-up apartments, with live/work units and ground-floor commercial space located within the apartment buildings. A limited number of enclosed and surface parking spaces are accessed through a laneway. The project incorporates the typical Philadelphia rowhouse stoop, which acts as a semi-public amenity at unit entrances. The stoops, which consist of large entry platforms with sitting steps, wood cladding, decorative railing panels, and a sidewalk bench, navigate the grade change of the site while encouraging connections between residents and the surrounding community through a shared social space. Green space is provided through private back yards, roof terraces, and curbside rain gardens.

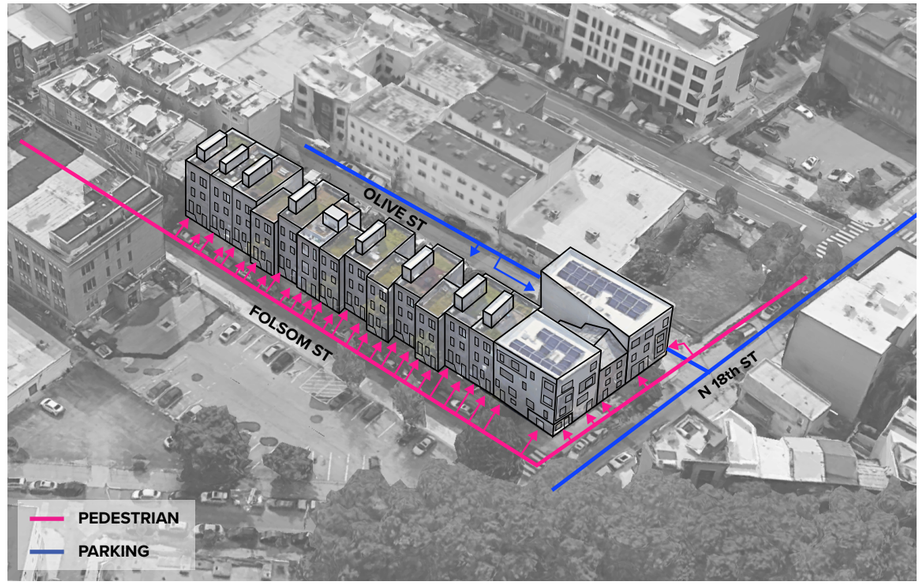


Fig 2.42 Axonometric view of Powerhouse showing entrances.



Fig 2.43 Diagram of uni mix.

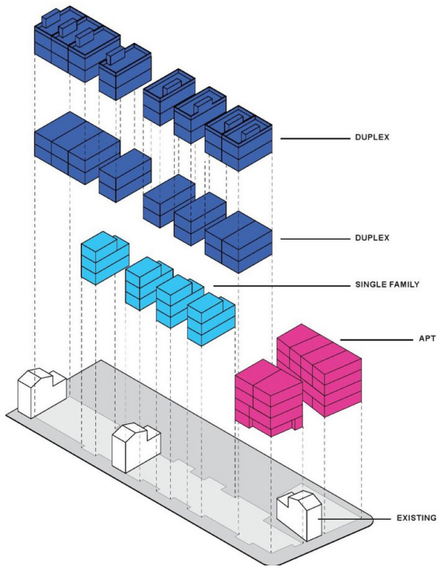


Fig 2.44 Powerhouse floor plan.



Fig 2.45 Photo of Powerhouse townhouse entrances.

Key Points:

- A variety of different unit types at a range of prices offer a diversity of living options to meet the needs and budgets of residents.
- Three existing rowhouses are integrated into the streetwall, with an in-and-out jog of the infill façade blending together the old and new to keep in character with the surrounding buildings.
- The building is LEED Platinum certified, with solar panels to offset energy consumption and passive house levels of insulation and window efficiency. Green roofs and rain gardens along the curb line manage stormwater onsite.
- Social stoops, street furniture, and public art enhance the surrounding streetscape and promote interactions within the community.

Evaluation Of Precedents

These examples of low-rise, medium-density housing precedents provide valuable insights into different approaches to integrating denser housing into established neighborhoods. From early public housing projects in Toronto to newer projects in Canada and internationally, these precedents demonstrate architectural and contextual strategies to successfully balance density, affordability, and community integration.

Common positive aspects of Toronto's medium-density public housing projects include private entrances and shared green spaces of apartments, which foster community interactions; courtyards with mature trees and gardens providing communal spaces; a variety of unit sizes, including large apartments with access to play spaces for children; the retention and renovation of existing houses in conjunction with infill housing; brick cladding and architectural forms that complement existing houses in the surrounding area; and the integration of commercial space at ground level.

Similarly, the recurring positive aspects of the newer low-rise, medium-density typologies include both private entrances for each to provide a sense of autonomy and units accessed through shared entrances to encourage communal living; brick and metal cladding to unify both older and newer structures; shared courtyards and communal planters to encourage resident interaction; interior courtyards to improve light access and ventilation; a variety of unit types, including multi-bedroom units for multi-generational families; minimized parking with sustainable transport options like bike storage; and retail spaces, social stoops, and streetscape enhancements to promote a sense of community.

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3.

SITE STUDIES

3.1 - TORONTO NEIGHBOURHOODS

In Toronto, the concept of "neighbourhoods" holds significant importance as they provide a sense of belonging and community for residents. Neighbourhoods offer a diverse range of amenities, including parks, schools, shops, and cultural institutions, and play a crucial role in shaping the city's identity, reflecting its rich history, cultural diversity, and architectural heritage. The preservation and enhancement of neighbourhoods are integral to ensuring equitable access to resources, fostering social cohesion, and maintaining livability and must be considered when implementing residential densification.

This study will focus specifically on implementing gentle densification in three neighbourhoods in Toronto. North Riverdale, Leaside, and East Willowdale are chosen as sites of study as a strategic approach to encompass diversity in terms of property sizes and household statistics. Each neighbourhood represents a distinct aspect of the city's architectural heritage, community dynamics, and socio-economic characteristics, offering unique perspectives on the challenges and opportunities associated with densification. The typologies of housing present in the combination of all three neighbourhoods comprise most of the common typologies of single-family houses in all of Toronto.

CITY OF TORONTO

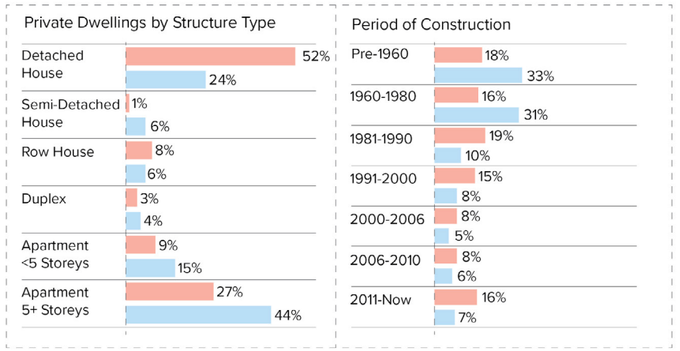


East Willowdale

North York

Total Private Dwellings: 5,560

Residential Detached (RD)

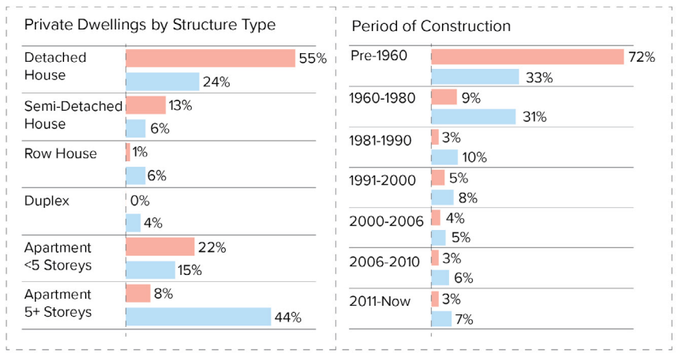


Leaside

East York

Total Private Dwellings: 6,435

Residential Detached (RD) / Residential Multiple (RM)



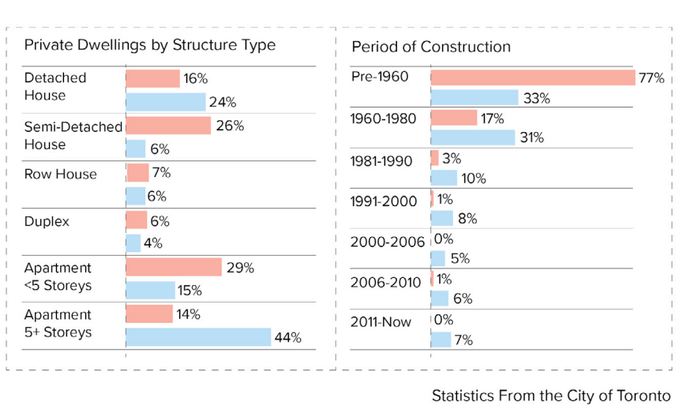
*Stats of Leaside-Bennington

North Riverdale

Toronto

Total Private Dwellings: 5,005

Residential (R)



Neighbourhood

City of Toronto Average

Statistics From the City of Toronto

Fig 3.1 Land use map of the City of Toronto indicating the three neighbourhoods investigated in this study, along with statistics of dwelling types and period of construction.

3.1.1 - EAST WILLOWDALE, NORTH YORK

East Willowdale is a part of the larger neighbourhood of Willowdale, located in the district of North York. Willowdale was first settled by Jacob Cummer in 1797. The town grew and developed as a result of the opening of a post office on Yonge Street in 1855.[1] Currently, the neighbourhood is seen as an "emerging" neighbourhood, with rising demand and housing prices. Located directly west of East Willowdale is the high-rise residential and commercial corridor along Yonge Street, which includes the North York City Centre, which is commonly thought to be at the center of Willowdale. Yonge Street is undergoing rapid development, characterized by a surge in high-rise buildings and increased urban intensity in recent years. The proximity to the high-density environment along Yonge Street has brought about challenges, particularly in terms of traffic congestion and fast commercial expansion along arterial roads such as Sheppard Avenue.

The neighbourhood of East Willowdale is organized in a grid layout and mainly consists of single-family detached dwellings on large lots. 47% of the homes were built after the 1990s, leading to a lack of heritage and character in the neighbourhood, with houses differing in age, style, size, and materials.[2] Apartments and townhouses, which make up 44% of the homes, are located on the east side in closer proximity to Yonge Street.[3] Since the 1990s, there has been a trend of large two- or three-storey luxury residences being built on land formerly occupied by smaller houses in the area. These houses, also known as "monster homes," tower over neighbouring houses and disrupt the visual pattern of the neighbourhood.

East Willowdale is popular with middle-class families, with over 28% of households earning over $125,000. The neighbourhood has a very high Chinese population, and 75.1% of the population are visible minorities. The neighbourhood is also popular with immigrants, which make up 60% of the population. TTC subway lines 1 and 4 run along the borders of East

Willowdale along Yonge Street and Sheppard Avenue, making it an ideal location for commuters, with 34% of people using public transportation as their main mode of commuting to work.[4] In addition to GO Transit bus service on Yonge Street, there are also TTC buses that run along Yonge Street, Sheppard Avenue, Bayview Avenue, Finch Avenue, and Willowdale Avenue. Though bike-friendly, there is only a designated bike lane on Willowdale Avenue, and future bike lanes planned for Sheppard Avenue.

East Willowdale is zoned as Residential Detached (RD) and could be a potential site for gentle densification. Though the area is currently undergoing densification, it is limited to the mid- and high-rise buildings near major intersections along Yonge Street, and not in the RD-zoned neighbourhood. The current housing stock in the neighbourhood is rather unaffordable, partly due to the trend of demolishing old houses to construct larger single-family homes, therefore a wider variety of unit types at different budgets would be beneficial for the neighbourhood.

Neighbourhood Statistics (East Willowdale)	
Population, 2021	15,485 people
Population change, previous 5 year period	-1.29%
Population density, 2021	4,420 people per km²
Mean shelter cost (renter), 2021	$2,048
Mean shelter cost (owner), 2021	$2,832
Unaffordable housing (renter), 2021	43%
Unaffordable housing (owner), 2021	42%

Fig 3.2 Neighbourhood Statistics for East Willowdale.

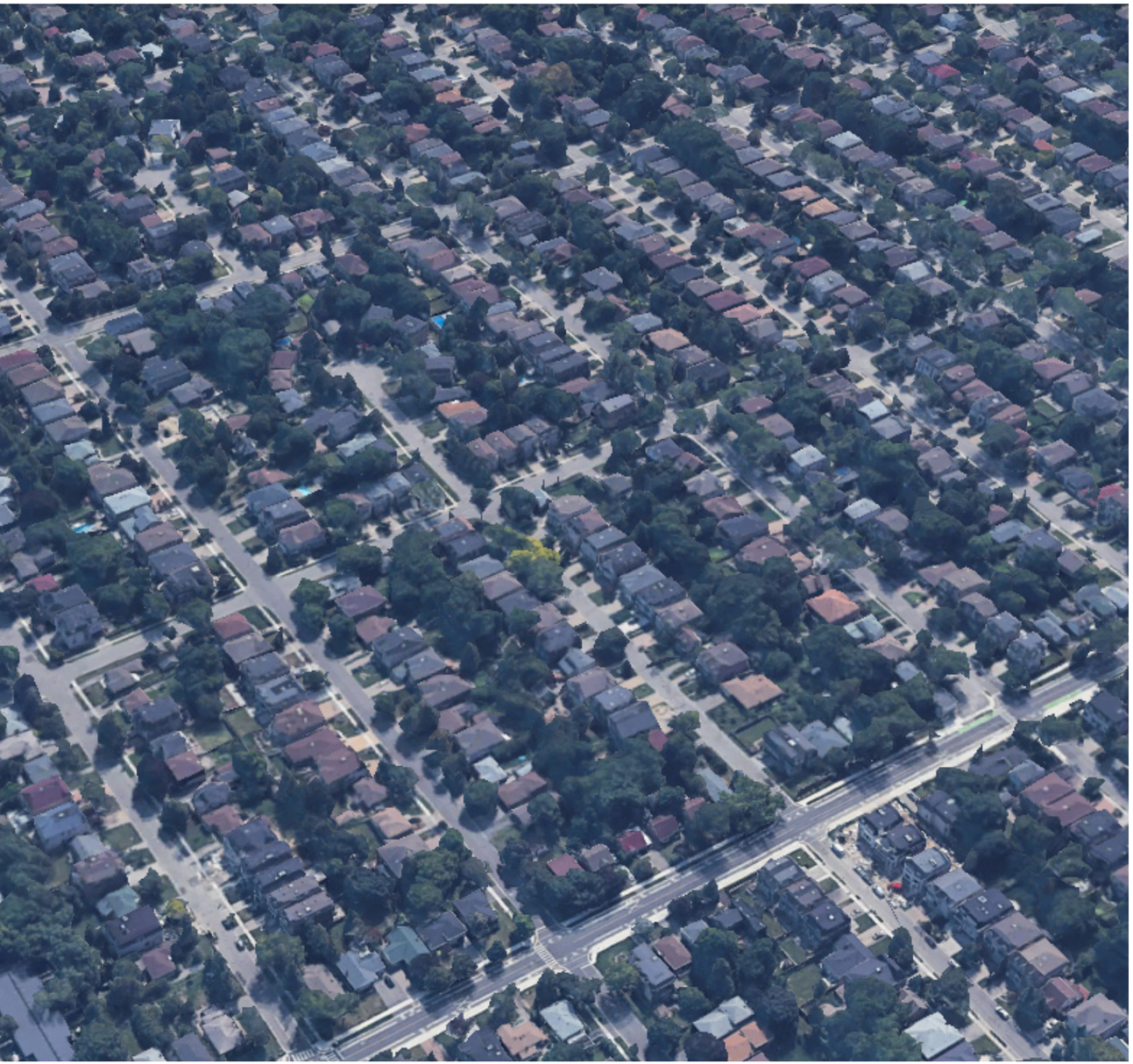
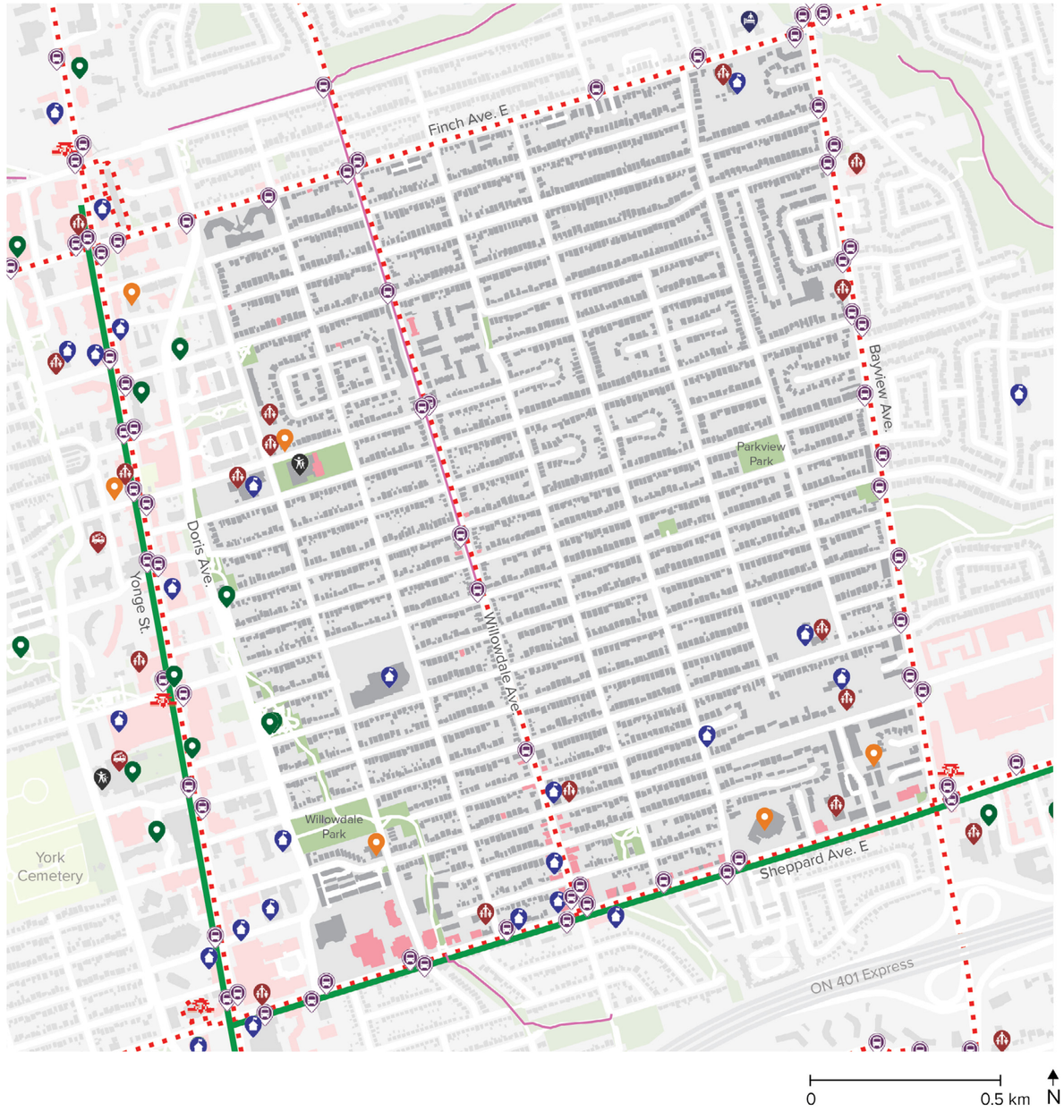


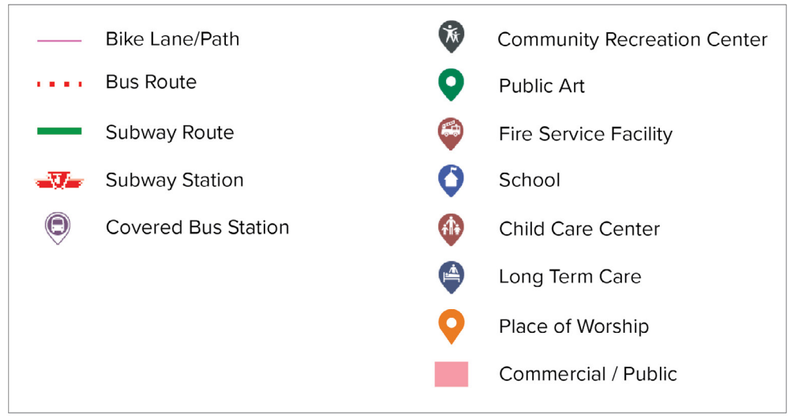
Fig 3.3 Aerial view of East Willowdale.



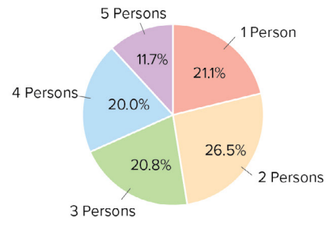
Fig 3.4 Images of East Willowdale.

Map of East Willowdale

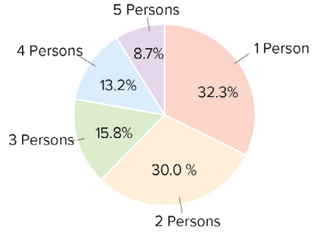




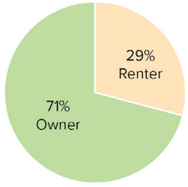
East Willowdale Households % by Size



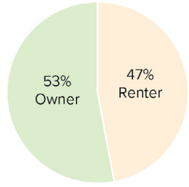
City of Toronto Households % by Size



East Willowdale Households % by Tenure



City of Toronto Households % by Tenure



Main Mode of Commuting to Work

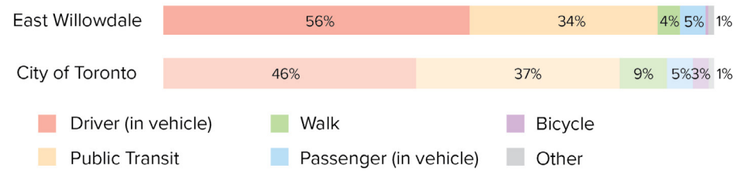


Fig 3.5 Map of East Willowdale, indicating transportation routes and public programs, with household size and tenure statistics and main modes of commuting to work. Statistics are sourced from the City of Toronto.

A Rapidly Evolving Neighbourhood

Major intersection (Yonge-Sheppard)



Most densification limited to high rises, subway station

Commercial Avenue



High rises on major street in background, variety of architectural styles

Typical residential avenue



Low-rise commercial, offices, protected bike lane, empty/bare

Typical residential avenue



"Monster homes", deep driveways, wide lots

Cul-de-sac



Private, lots of spaces between houses, large open space

Typical residential avenue



New development, cheap looking materials, lacking character, no trees

Fig 3.6 Collage of annotated images of various areas in East Willowdale.

EAST WILLOWDALE

Average FSI: 0.55

Average Lot Coverage: 24%

Units per Hectare: 17.2

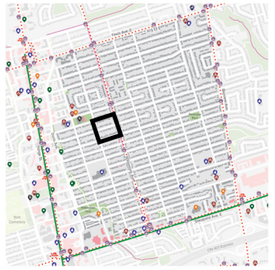




Fig 3.7 Axonometric of two residential blocks in East Willowdale, between Willowdale Ave, McKee Ave, Dudley Ave, and Parkview Ave.

Lot Configuration

Typical Lot Size: 50 x 120ft

Zone Label: RD



Fig 3.8 Plan diagram of lot sizes and configurations in East Willowdale.

Common Typologies/Styles

Strawberry Box Houses/Bungalows 1946-1960s





Neo-Eclectic Snout Houses 1950-2000s





Monster Homes 1980-now





Fig 3.9 Images of types and styles of single-family houses in East Willowdale.

3.1.2 - LEASIDE, EAST YORK

The first town in Ontario to be fully planned before it was built, Leaside was designed in 1912 using garden suburb principles by landscape architect Frederick Todd, a student of Frederick Law Olmsted.[5] The new community was planned to include commercial, residential, and industrial areas and a town centre west of Laird Drive. The goal was to create Leaside as a new upper-class residential area in Toronto.[6] Despite the Town of Leaside's creation in 1913, the Second World War and the Depression prevented significant residential building from happening for about 25 years. The majority of Leaside's residential growth occurred following the construction of the Leaside Viaduct in 1927, which crossed the Don Valley.[7] In recent years, Leaside has seen many changes. Land use designations aim to intensify the area surrounding residential areas with mixed-use developments, and infill projects and teardowns are allowed in areas with historic homes. According to the Leaside Resident's Association, the neighbourhood, which was once known as an example of Canadian town planning, is not well served by the current planning system, though planning and zoning regulations were strict in the past.[8]

The houses in Leaside are built in the styles of Modern Classicism, such as Tudor and Georgian Revival, Art Moderne, and Beaux Arts, and are located on gently curved and diagonal streets with consistent uniform setbacks as opposed to a typical grid layout.[9] Over half of the houses in Leaside-Bennington are single-detached houses, and 13% of houses are semi-detached.[10] There is also a concentration of “garden apartment”-style multi-family walk-up apartment buildings, which account for 30% of the dwelling types.[11]

Known to be one of the more expensive neighbourhoods in Toronto, Leaside predominantly houses upper-middle-class families in single-family detached homes. 72% of households in the neighbourhood are owner-occupied households. (The City of Toronto average percentage of owner households is 53%).[12] 51% of households in Leaside have a total household income of over $125,000, and only 18% of the population are visible minorities, making it a predominantly White neighbourhood.[13] When completed, the Eglinton Crosstown LRT will service Leaside alongside the buses which currently run on Eglinton Avenue, Laird Drive, and Bayview Avenue. Though bikeable, there are very few designated bike lanes in the neighbourhood and the surrounding roads.`

Leaside is zoned as Residential Detached (RD) and Residential Multiple (RM), and would be a ideal potential site for gentle densification due to its large lot sizes, which can accommodate densification in back yards. The irregularly curved streets of the garden suburb-style neighbourhood may also require different design techniques when compared to typical rectangular lots. The construction of affordable housing in affluent neighbourhoods such as Leaside can help ensure that low- and moderate-income households benefit from the same advantages and opportunities.

Neighbourhood Statistics (Leaside-Bennington)	
Population, 2021	16,535 people
Population change, previous 5 year period	-1.74%
Population density, 2021	3,571 people per km^2
Mean shelter cost (renter), 2021	$1,752
Mean shelter cost (owner), 2021	$2,772
Unaffordable housing (renter), 2021	43%
Unaffordable housing (owner), 2021	15%

Fig 3.10 Neighbourhood Statistics for Leaside-Bennington.

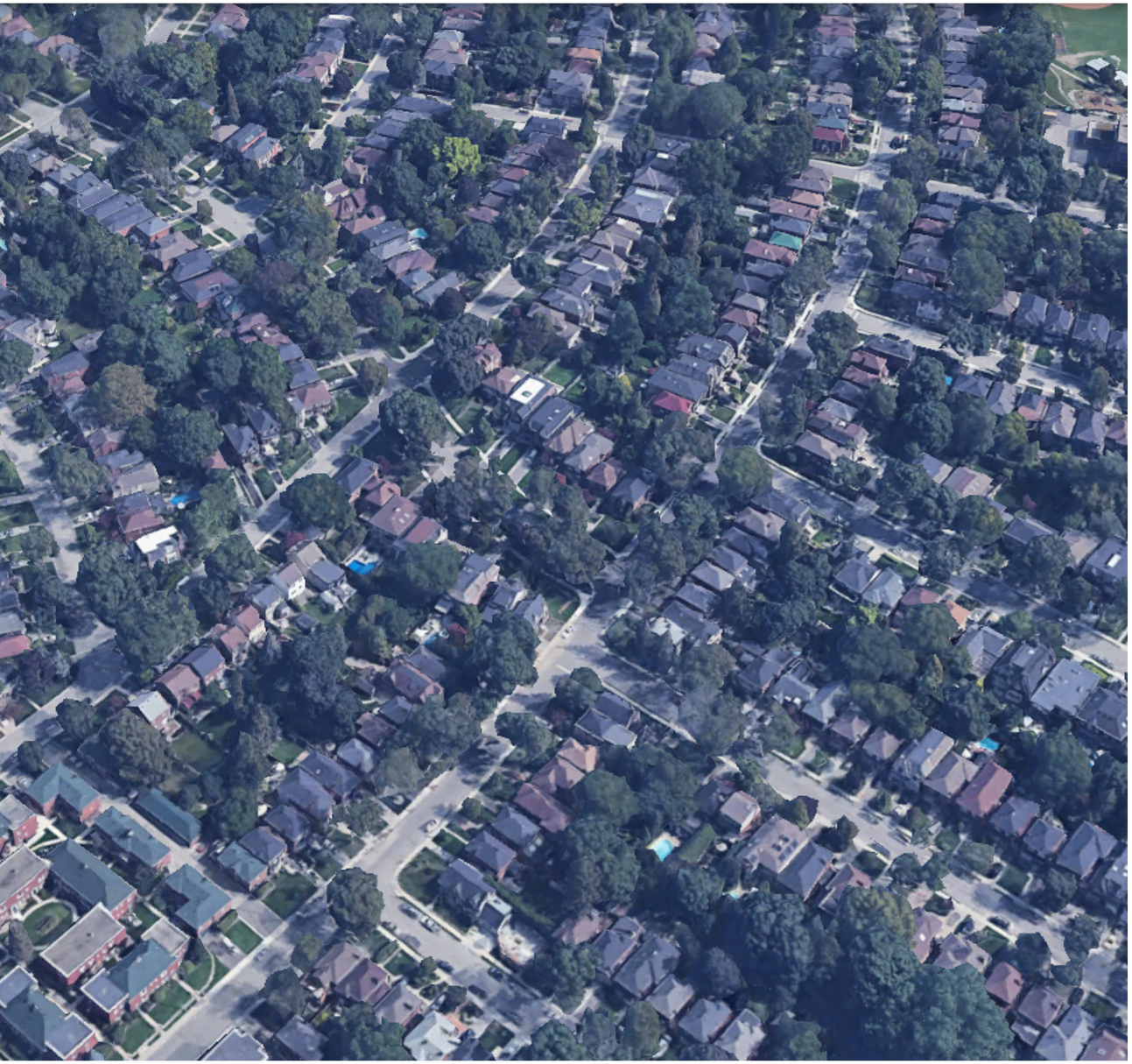


Fig 3.11 Aerial view of Leaside.

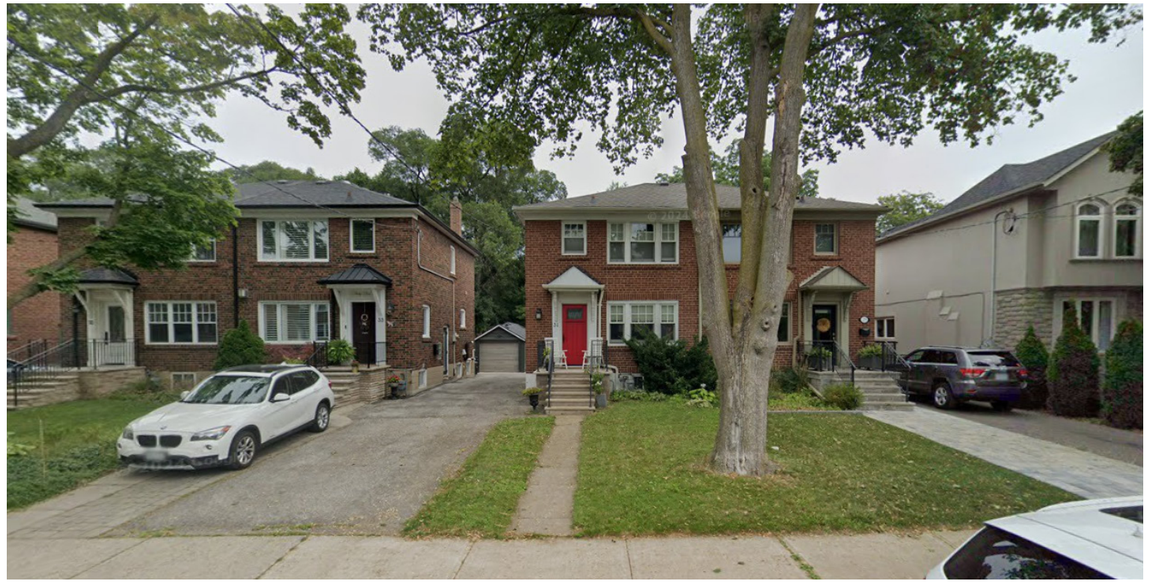
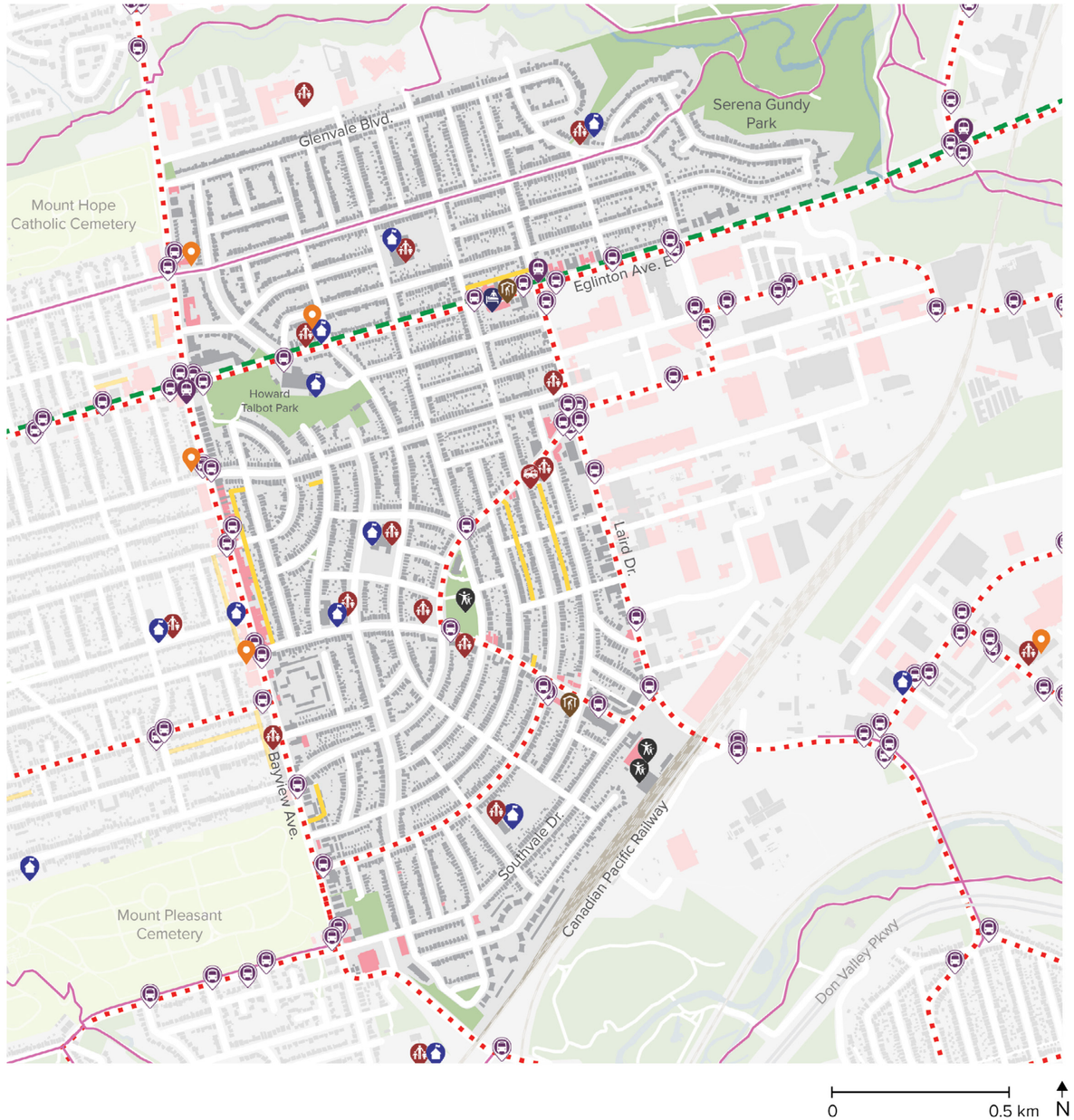
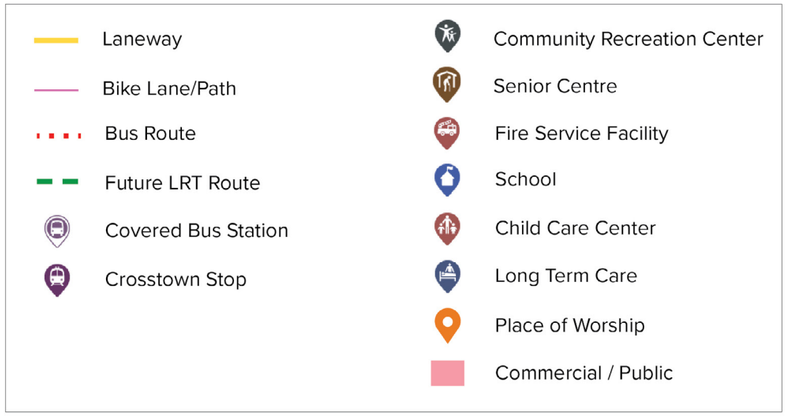


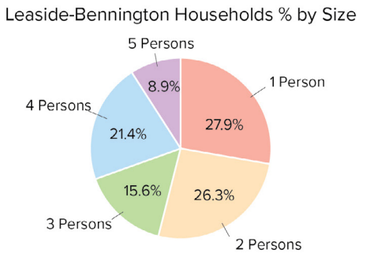


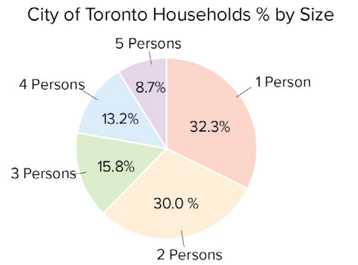
Fig 3.12 Images of Leaside.

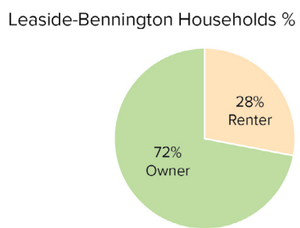
Map of Leaside

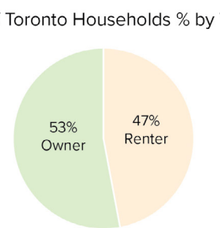












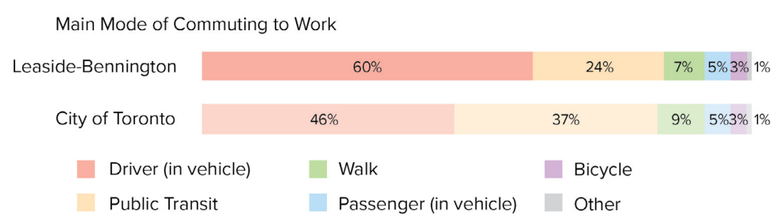


Fig 3.13 Map of Leaside, indicating transportation routes and public programs, with household size and tenure statistics and main modes of commuting to work. Statistics are sourced from the City of Toronto.

An Exclusive “Suburb” Neighbourhood

Major intersection (Eglinton-Brentcliffe)



Community amenities (library/park)



Street facing park (Parklea Dr)



New LRT station, high rise / apartments along main avenue

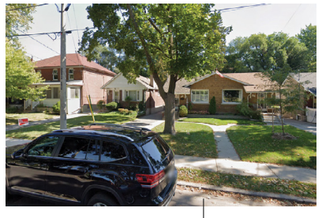
Affluent neighbourhood, new build luxury homes on larger lots

Brick single-storey public buildings, protected pedestrian crossing, park for children

Typical residential avenue



Typical residential avenue



Laneway



Curved streets, variety of building styles, deep driveways

Mixture of old/new houses, bungalows/semi-detached

Spacious laneway, lots of tree cover, private

Fig 3.14 Collage of annotated images of various areas in Leaside.

LEASIDE

Average FSI: 0.61

Average Lot Coverage: 30%

Units per Hectare: 26.5

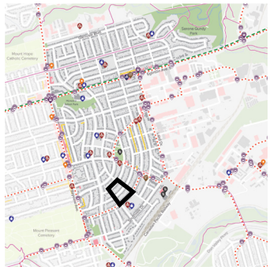




Fig 3.15 Axonometric of two residential blocks in Leaside, between Rumsey Rd, Hanna Rd, Sutherland Dr, and Rolph Rd.

Lot Configurations

Typical Lot Size: 30 x 120ft

Zone Label: RD / RM



Fig 3.16 Plan diagram of lot sizes and configurations in Leaside.

Common Typologies/Styles

Georgian/Tudor Revival, Detached (1910-1940)





Georgian/Tudor Revival, Semi-Detached (1910-1940)





Other Multi-Unit Housing: Crestview Apartments, Kelvingrove Apartments





Fig 3.17 Images of types and styles of housing in Leaside.

3.1.3 - NORTH RIVERDALE, TORONTO

North Riverdale is located within the larger neighbourhood of Riverdale, situated in Toronto's East End. Riverdale originated as a blue-collar community centered around industries associated with the Grand Trunk Railroad, established in the 1850s.[14] Most of the neighbourhood's early development occurred between the 1880s and the Great Depression of the 1930s, and by the 20th century, Riverdale had attracted high numbers of immigrants, leading to the creation of Greektown and East Chinatown, which surround North Riverdale.[15] In the past few decades, Riverdale has been subject to issues of gentrification, with increasing housing prices and the development of high-end restaurants, bars, and art galleries. Heritage has become a large part of the neighbourhood's culture through the preservation of the facades of historical buildings and restoration projects. The neighbourhood is rich in history and is home to iconic landmarks such as the 1864-built Don Jail, now a National Historic Site, and the Riverdale Historic District, which includes over 800 Victorian homes constructed between 1890 and 1920.

The residential landscape within Riverdale is made up primarily of two- and three-storey Victorian- and Edwardian-style homes situated on narrow lots, with only 5% of the houses built after the 1980s.[16] Many of the older houses have had major renovations, some of which included creating larger open floor plans.[17] Most of North Riverdale's homes abut public laneways, which allow for access to parking, while permits are also available for street parking. Only 14% of dwellings are in the form of apartments over five storeys, and 29% of the dwelling stock is in the form of low-rise apartment units, which include Bain Apartments Co-op and Broadview Mansions.[18]

Considered a fairly affluent neighbourhood, 38% of households in Riverdale have a household income of over $125,000.[19] Though considered a multicultural neighbourhood, only 24% of the population in North Riverdale are visible minorities.[20] North Riverdale is well

connected to transit, with regular bus service or streetcar service on Pape Avenue, Gerrard Street, Danforth Avenue, and Broadview Avenue. The Bloor-Danforth subway has three stations serving North Riverdale, including Broadview, Chester, and Pape, making it an ideal location for commuters.

North Riverdale is selected as one of the possible sites of study due to its diverse urban fabric, community engagement, historical significance, and cultural vibrancy. The neighbourhood is zoned as Residential (R), meaning it has previously been zoned to allow for multiplexes and laneway suites, which makes it an appropriate case study to investigate the types of gentle densification that have already occurred in Toronto. It also offers a dynamic context for studying the transformation of neighbourhoods while preserving their unique character.

Neighbourhood Statistics (North Riverdale)	
Population, 2021	11,290 people
Population change, previous 5 year period	-5.25%
Population density, 2021	6,529 people per km^2
Mean shelter cost (renter), 2021	$1,560
Mean shelter cost (owner), 2021	$2,380
Unaffordable housing (renter), 2021	44%
Unaffordable housing (owner), 2021	17%

Fig 3.18 Neighbourhood Statistics for North Riverdale.



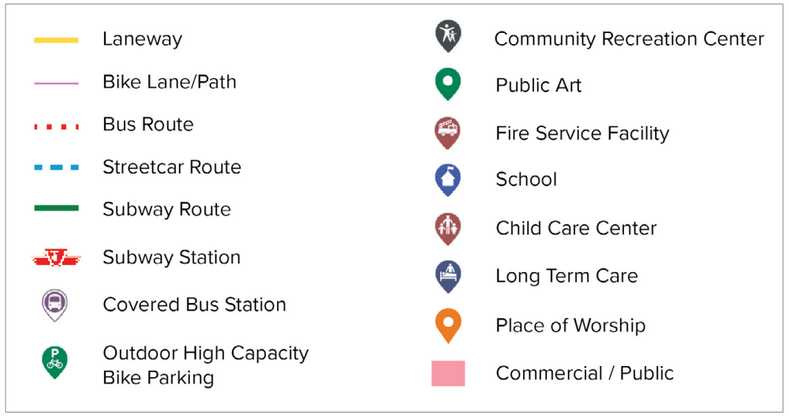
Fig 3.19 Aerial view of North Riverdale.

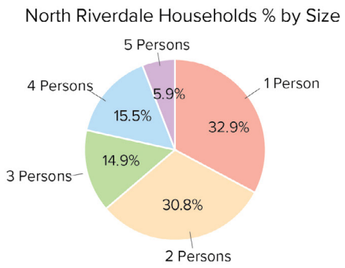


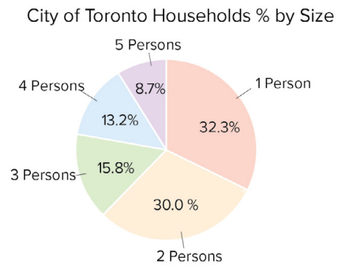
Fig 3.20 Images of North Riverdale

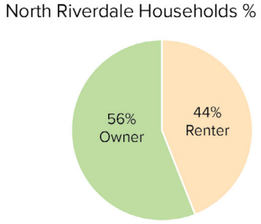
Map of North Riverdale

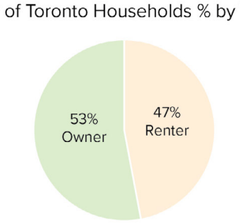












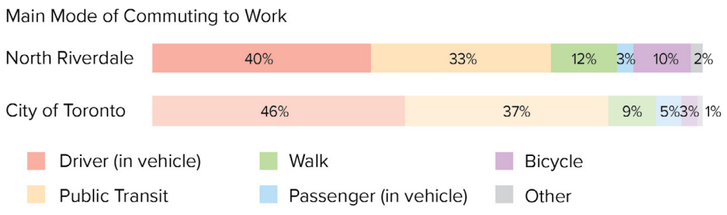


Fig 3.21 Map of North Riverdale, indicating transportation routes and public programs, with household size and tenure statistics and main modes of commuting to work. Statistics are sourced from the City of Toronto.

A Historic Multicultural Neighbourhood

Major intersection (Danforth-Broadview)



Construction of LRT, increased public transit

Commercial Avenue



Low-rise commercial, protected bike lane

Broadview Ave. Housing



High rises in distance, wide street, Victorian style single-family homes

Typical residential avenue



Renovated semi-detached houses, narrow lots, no driveways

Typical residential avenue



Sightly uniform design, typical house layouts, lots of tree cover

Laneway



Narrow laneway, cramped garages, graffiti

Laneway



Shared play space for kids, non-uniform

Fig 3.22 Collage of annotated images of various areas in North Riverdale.

NORTH RIVERDALE

Average FSI: 0.75

Average Lot Coverage: 44%

Units per Hectare: 37.7



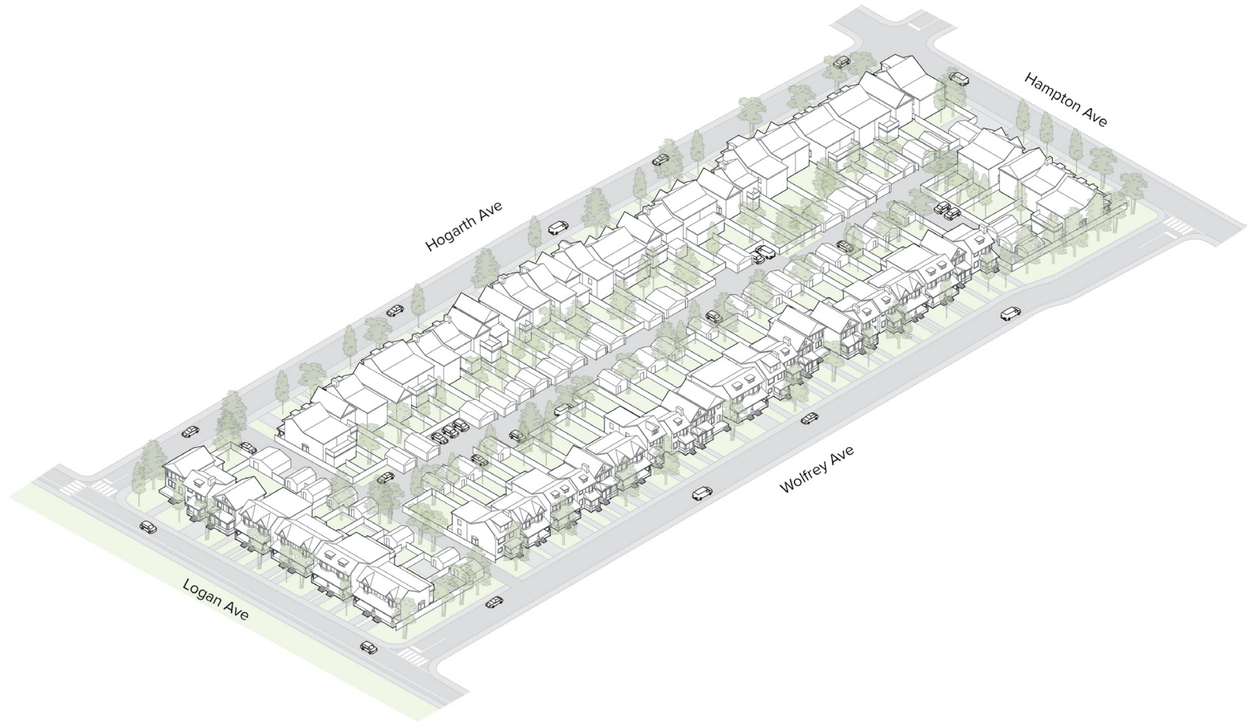


Fig 3.23 Axonometric of a residential block in North Riverdale, between Hogarth Ave, Hampton Ave, Wolfrey Ave, and Logan Ave.

Lot Configurations

Typical Lot Size: 20 x 110ft

Zone Label: R



Fig 3.24 Plan diagram of lot sizes and configurations in North Riverdale.

Common Typologies/Styles

Edwardian/Victorian Gable, Detached (1890-1930)





Edwardian/Victorian Gable, Semi-Detached (1890-1930)





Other Multi-Unit Housing: Bain Apartments Co-op (1923), Broadview Mansions (1927)





Fig 3.25 Images of types and styles of housing in North Riverdale.

3.2 - NEIGHBOURHOOD CHARACTER AND IDENTITY

"Neighbourhood character" is a multifaceted concept that encompasses the physical, cultural, and historical attributes that define a specific area. Each neighbourhood in Toronto carries its own unique history, architectural style, and cultural heritage. According to Toronto's Official Plan, "physical character" takes into account architectural styles, the scale of buildings, the presence of green spaces, and the overall ambiance that makes each neighbourhood unique.[21] The city emphasizes the importance of preserving these characteristics while accommodating growth. Neighbourhood character, therefore, is a reflection of the collective identity and history of a community. Gentle densification can have both positive and negative effects on neighbourhood character. Low-rise medium densification can help preserve the unique character of the neighbourhood by retrofitting existing buildings and infrastructure, rather than demolishing existing single-family homes to construct new ones. This approach can help maintain the unique character of the neighbourhood while accommodating new residents. However, it may also lead to the loss of neighbourhood character if the new developments are out of scale with the existing neighbourhood or if they do not respect the prevailing architectural styles and typologies of the area.

The character of the neighbourhood is about much more than architectural styles or building scale; it encompasses the day-to-day interactions, social connections, and sense of belonging that define a community's identity. It is defined by intangible aspects such as the shared familiarity of a local coffee shop, interactions between residents on the streets, and the communal spaces where children play that create a livable, cohesive neighbourhood. As demographics shift, the preservation of these elements becomes essential. Gentle densification has the potential to enrich the character of the neighbourhood by introducing livelier streetscapes, local retail, and opportunities for social engagement by increasing density in neighbourhoods with shrinking populations without overshadowing existing structures.



Fig 3.26 Houses North Riverdale which demonstrates the neighbourhood's "character."

Many neighbourhoods in Toronto are experiencing a decline due to aging populations and decreasing household sizes, with fewer young families, more closed businesses, and a reduction in essential services. 71% of the neighbourhoods in Old Toronto have seen a population decline from 1971 to 2021 despite being highly desirable neighbourhoods.[22] In addition, aging populations in single-family neighbourhoods highlight the need for change to maintain economic vibrancy. By adding more density, neighbourhoods ensure a dynamic mix of residents across ages and household types. Adding diverse unit types, such as multiplexes, laneway and garden suites, townhouses, and apartments, contributes to a more inclusive housing mix that allows people to stay within their neighbourhoods as their housing needs change, which, in turn, enhances the social fabric and character. It allows a range of incomes, lifestyles, and ages to coexist. Adding more units on single-family can allow new developments to fit into the neighbourhood context without overwhelming it. In East Willowdale, for instance, “monster homes” can often be seen replacing smaller houses without increasing density while building to the maximum allowed building envelope. If such expansive single-family homes are permitted, then allowing similarly scaled buildings with multiple, affordable units is a logical step forward, bringing in more residents, more local engagement, and a more vibrant community, contributing to the overall neighbourhood character.



Fig 3.27 Example of a "monster home" in Richmond Hill, north of Toronto, which is nearly twice as tall as the others on the street. Special approval was not required for the project.

ENDNOTES

1. “Willowdale Post Office,” Toronto Historical Association, accessed December 11, 2023, http://www.torontohistory.net/willowdale-post-office/.

2. “Neighbourhood Profile Detail,” City of Toronto (City of Toronto), Toronto, Ontario, Canada, accessed December 13, 2024, https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/find-your-neighbourhood/neighbourhood-profile-detail/.

3. “Neighbourhood Profile Detail.”

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5. Zack Taylor and John van Nostrand, “Leaside, City of Toronto (1930s–50s),” Neptis Foundation, January 2008, https://neptis.org/publications/chapters/leaside-city-toronto-1930s-50s.

6. Jane Pitfield, *Leaside*, 2nd ed. (Toronto: National Heritage Books, 2000), 324.

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8. “Walking Tour: West-Central Leaside,” Leaside Residents Association, accessed December 11, 2024, https://leasideresidents.ca/tours/.

9. "Walking Tour: West-Central Leaside.”

10. “Neighbourhood Profile Detail.”

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12. “Neighbourhood Profile Detail.”

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14. Zack Taylor and John van Nostrand, “Riverdale, City of Toronto (19th Century),” Neptis Foundation, January 2008, https://neptis.org/publications/chapters/riverdale-city-toronto-19th-century.

15. Elizabeth Gillan Muir, *Riverdale: East of the Don* (Dundurn, 2014).

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17. “Riverdale - A Neighbourhood Guide by SHANE,” SHANE, accessed December 11, 2024, https://soldbyshane.com/area/riverdale/.

18. “Neighbourhood Profile Detail.”

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21. Kyle Knoeck, “Toronto Official Plan Office Consolidation - June 2024” (City of Toronto, June 2024), https://www.toronto.ca/wp-content/uploads/2023/10/960f-city-planning-official-planoffice-consolidation-chapters1-5.pdf.

22. Erik Drysdale, “An Analysis of Neighbourhood Level Population Changes in Toronto and Vancouver,” Erik Drysdale, February 8, 2021, https://www.erikdrysdale.com/DA_kramer/.

4.

INTEGRATING GENTLE DENSIFICATION

4.1 - CURRENT TYPOLOGIES OF GENTLE DENSIFICATION

Toronto's current zoning by-laws primarily prioritize single-family housing in much of the city, especially in the expansive Yellowbelt, which designates areas for low-density residential use. This restrictive zoning permits only limited forms of densification, such as multiplexes, laneway suites, and garden suites under the city's Expanding Housing Options in Neighbourhoods (EHON) initiative. While EHON aims to provide gentle densification, its impact has been minimal due to several challenges. The application process for laneway and garden suites is difficult, requiring lengthy approvals, costly permitting fees, and adherence to restrictive design guidelines that often deter homeowners. As a result, relatively few applications have been submitted, with and few projects reaching completion. Moreover, these initiatives allow for the addition of only up to four additional units per lot with typically only one or two units being added, which is insufficient to address Toronto's growing housing demand. The limited scope and complexity of these densification efforts highlight the need for more ambitious reforms that streamline processes, reduce costs, and promote a wider range of medium-density housing typologies to create meaningful change. This section will analyze the current typologies of gentle densificiaton found in single-family neighbourhoods, typically in the Residential Detached (RD) and Residential Semi-Detached (RS) zones.

The following diagram illustrates an example of possible intensification of a multiplex and laneway site on a single-family lot, under what is currently permitted under existing zoning by-laws. It outlines the strict parameters for development for an example lot in North Riverdale, including maximum building heights, allowable building lengths, and mandatory front, rear, and side setbacks, as well as angular planes and minimum separation for a laneway suite. These regulations are designed to maintain the low-density character of single-family neighborhoods, with typical height limits capped at 10 meters and building lengths restricted to approximately 19 meters if the lot depth is greater than 36 meters. Setback requirements dictate the distance between structures and property lines, often prioritizing open yards over increased density. While these rules aim to preserve neighborhood aesthetics and minimize disruptions, they also impose significant constraints on the potential for more flexible and diverse housing solutions within these areas.

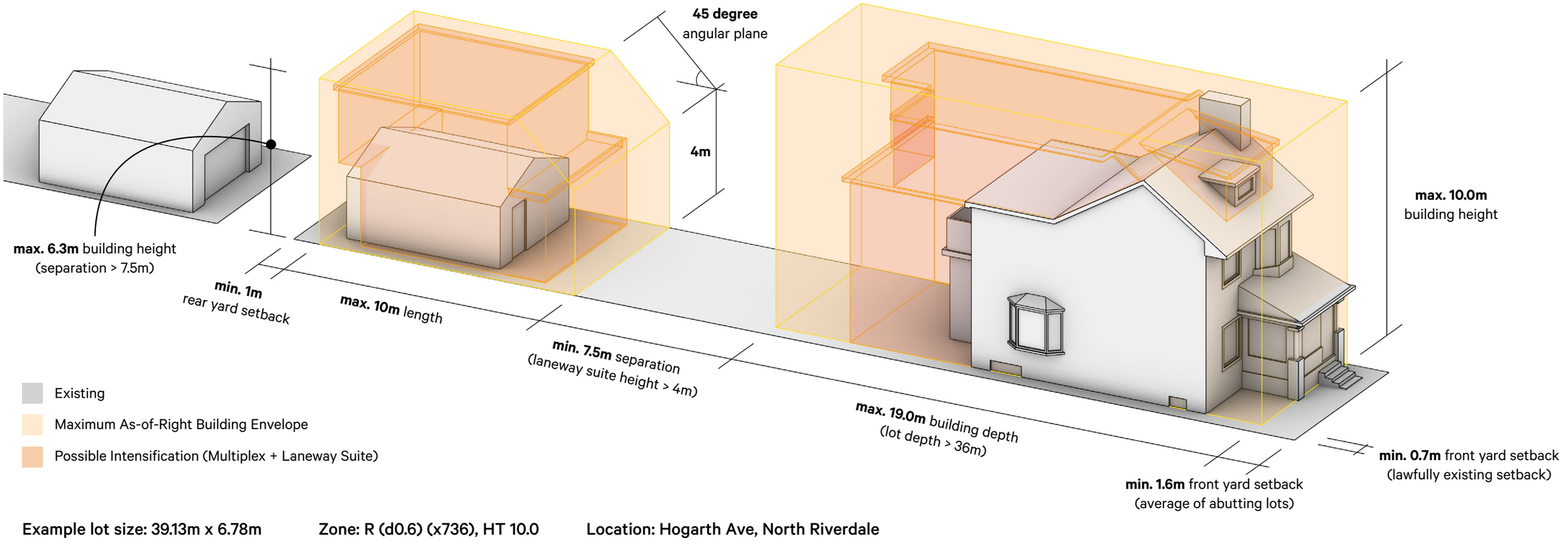


Fig 4.1 Diagram of maximum as-of-right building envelope and possible intensification on an example lot in North Riverdale.

4.1.1 - MULTIPLEX HOUSING

The multiplex typology in Toronto refers to low-rise residential buildings that contain two, three, or four dwelling units. These buildings can either be purpose-built multiplexes or conversions of single-family homes. Multiplexes maximize land use efficiency by accommodating more households within the same footprint as traditional detached or semi-detached homes. They often include shared resources such as common entrances, laundry facilities, or outdoor spaces, fostering a sense of community among residents.

Historically, multiplexes have been part of Toronto's urban fabric since the early 20th century. Initially designed to address housing shortages during periods of rapid population growth, particularly after the Second World War, these buildings fit into residential neighbourhoods, offering an affordable and practical housing option for extended families, renters, or smaller households. Over time, however, the city's zoning policies heavily favoured single-family homes, leading to a decline in new multiplex construction. In recent years, a renewed focus on housing affordability has reignited interest in multiplexes as a means to increase housing supply while preserving the scale and character of existing neighbourhoods.

Older homes can be converted into multiplexes, preserving the architecture and making use of existing infrastructure while adapting structures for new units. Additionally, multiplexes can provide flexibility by accommodating diverse households, from multi-generational families to co-living arrangements, while maintaining a small-scale form that blends in to surrounding single-family homes. However, shared walls, entrances, and limited areas of outdoor spaces can reduce privacy compared to single-family homes. Integrating multiple appropriately sized units into a single structure while meeting zoning requirements can be difficult, and despite recent changes, rezoning processes and compliance with city bylaws can still be time-consuming and costly.





Fig 4.2 Photo and diagrams of Ulster Street Multiplex and Laneway House by LGA Architectural Partners located in Toronto. The project consists of a four-unit multiplex with the additon of a laneway suite that can either be added to the main floor unit or rented out as a separate standalone unit.



Fig 4.3 Multiplex addition in East Willowdale.

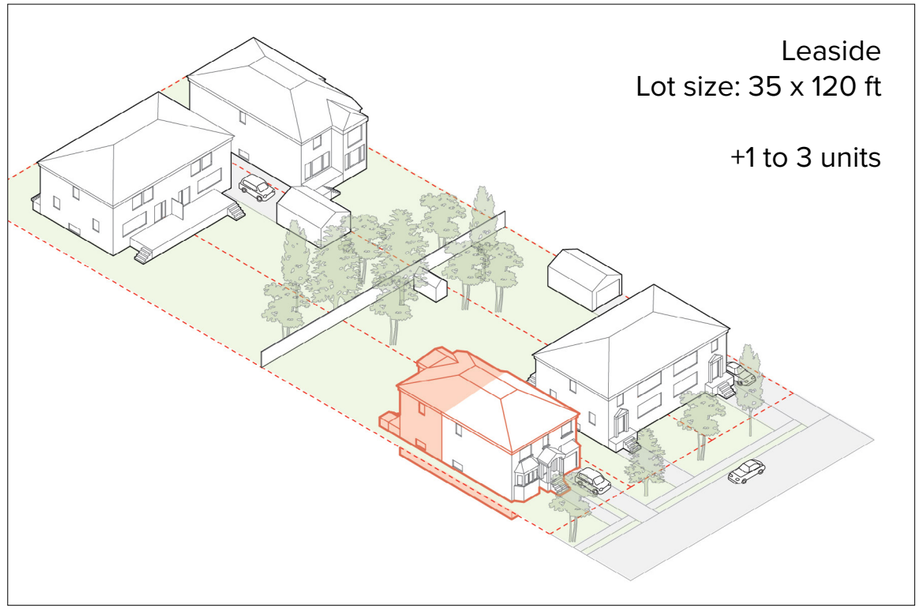


Fig 4.4 Multiplex addition in Leaside.

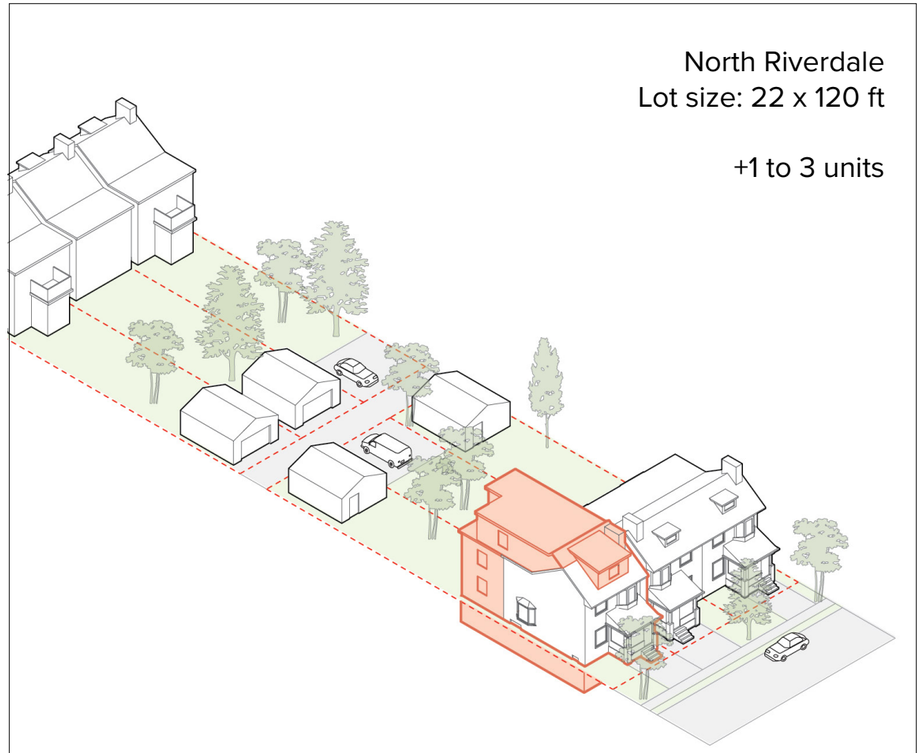


Fig 4.5 Multiplex addition in North Riverdale.

A single-family house can be converted into a multiplex by adding a rear or side addition, a top addition, or making use of a finished basement. The diagrams show how the footprint of a single-family home can be repurposed to accommodate multiple units while retaining similar building height and setbacks. In neighbourhoods with wide lots, such as East Willowdale and Leaside, rear additions can be made, while more narrow lots, such as those in North Riverdale, may require a top addition, as the unit sizes are limited by the lot width and maximum building length.

4.1.2 - LANEWAY SUITES

Laneway suites are secondary residential units located on existing residential lots, typically at the rear of properties fronting a laneway. They are self-contained, fully equipped homes independent of the primary dwelling and represent a form of small-scale intensification that efficiently uses existing infrastructure on underutilized land while maintaining the low-rise character of Toronto's neighbourhoods by introducing additional housing without the primary frontage of the property.

While laneways have existed since the late 19th century as service alleys for homes, they were largely overlooked until the past decade. In 2018, Toronto introduced policies permitting laneway suites in certain areas, expanding them citywide in 2019. These policy changes have encouraged property owners and developers to consider laneway suites as possible housing options, with streamlined zoning approvals facilitating their adoption.

Laneway suites utilize otherwise unused spaces, adding housing without expanding the urban footprint, and offer property owners a potential source of supplemental income. These units are ideal for housing extended family members, aging relatives, or young adults seeking semi-independent living and provide relatively affordable housing options for renters. However, building a laneway suite can be expensive, with high upfront costs for design, permits, utilities, and construction. Some laneways may lack adequate utility connections or emergency vehicle access, complicating development. While policies have eased, it may still be difficult to adhere to city requirements for setbacks, height restrictions, and services.

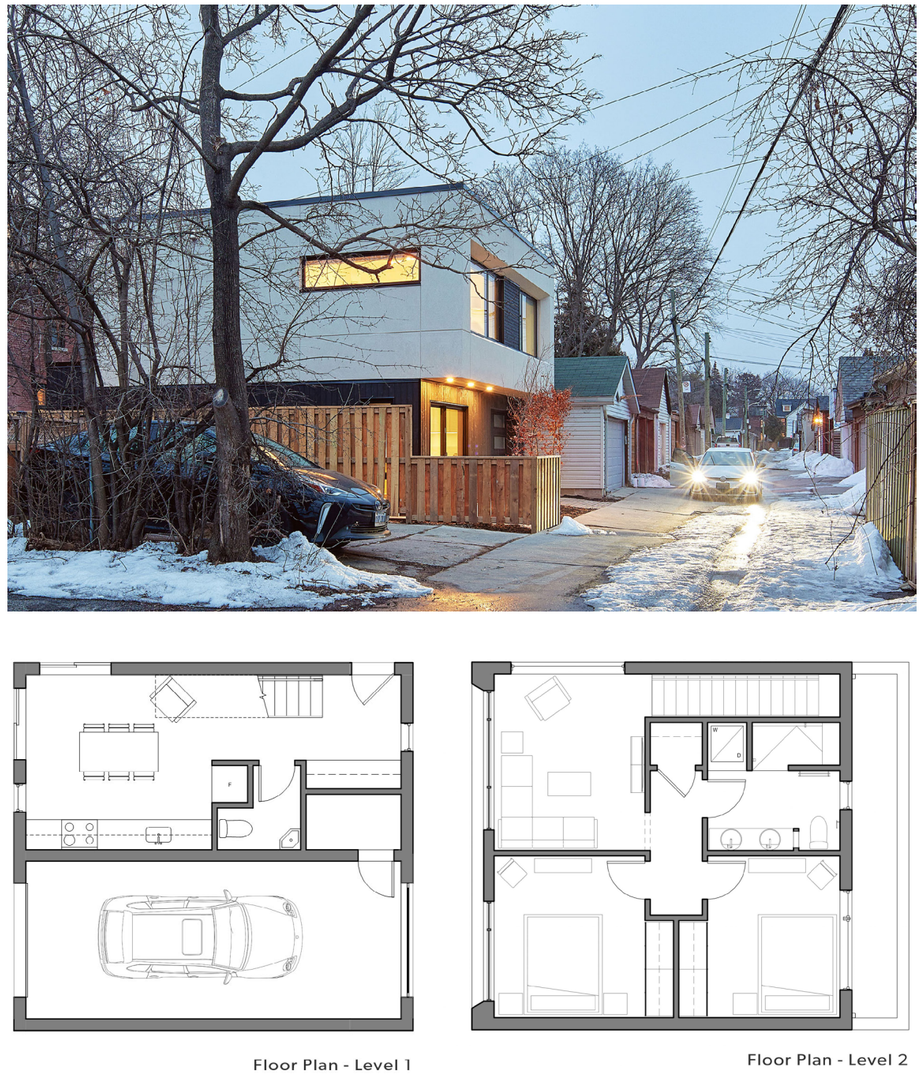


Fig 4.6 Photo and plans of Parkdale Laneway House by Solares Architecture, a two bedroom, 1080 square-foot laneway house located in Toronto's west end.

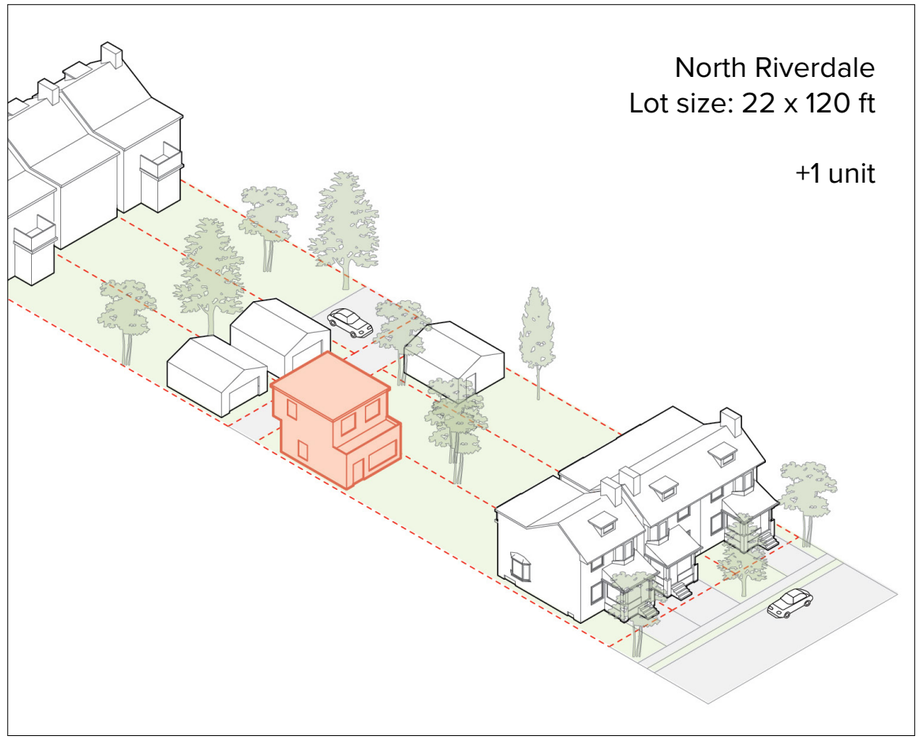


Fig 4.7 Laneway Suite addition in North Riverdale.

Laneway suites are suitable for properties abutting laneways in neighbourhoods closer to Toronto's downtown, such as North Riverdale, The Annex, Little Italy, and Trinity-Bellwoods. These areas often feature laneways that were historically used for access to garages, rear entrances, or deliveries, making them ideal for repurposing into housing opportunities. Typically, laneway suites contain one or two bedrooms. Only one unit is permitted per laneway suite, and it must be a rental unit, as the services are provided by the main house.

4.1.3 - GARDEN SUITES

A garden suite is a detached residential unit located in the backyard of a primary residence, separate from the main house but on the same lot, with direct access to the street or a shared path through the lot. Unlike laneway suites, garden suites do not require access to a laneway, making them more versatile and applicable to a wider range of properties across Toronto. These suites can accommodate a variety of uses, such as rental housing, multi-generational living, or downsized housing for homeowners.

Garden suites became a part of Toronto's housing strategy in 2022, when the city expanded its policies to allow secondary units in backyard spaces as part of its push for gentle density. While garden suites are a newer housing typology in Toronto as introduced in the EHON initiative, similar concepts have existed in other cities for decades, often referred to as backyard homes, coach houses, or granny flats.

Homeowners in Toronto can generate additional income by renting out garden suites, helping offset high property taxes and mortgage costs. Additionally, garden suites use existing urban infrastructure like roads, transit, and utilities, minimizing the need for new developments on the city's outskirts. However, despite streamlined processes, obtaining permits and meeting zoning requirements in Toronto can be time-intensive and expensive, leading to a low number of applications for garden suites. The proximity of garden suites to adjacent yards can lead to privacy disputes and opposition from neighbours. Similar to laneway suites, garden suites can only exist as rental housing.



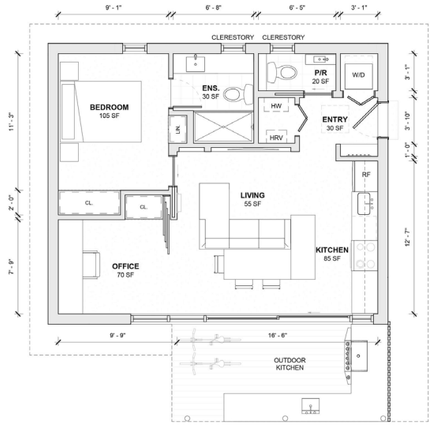


Fig 4.8 Photo and plan of Meadowvale Garden Suite by Lanescape Architecture, one of the first garden suites built in Toronto. The suite has 1 bedroom and 1.5 bathrooms.

Garden suites are suitable for properties across Toronto, particularly in neighbourhoods with larger lots and spacious backyards, such as East Willowdale and Leaside in North York and East York, further from the city's downtown. The total floor area of a suite is capped at 40% of the size of the primary dwelling or 60 square meters, whichever is greater. Garden suites must also provide adequate access for emergency services, usually via a 1.0-meter-wide unobstructed pathway. Typically, garden suites contain one or two bedrooms, depending on the lot size and design. Similar to laneway sites, only one garden suite is permitted per property, and it must remain under the same ownership as the primary residence, with utility services shared between the two buildings.



Fig 4.9 Garden Suite addition in East Willowdale.

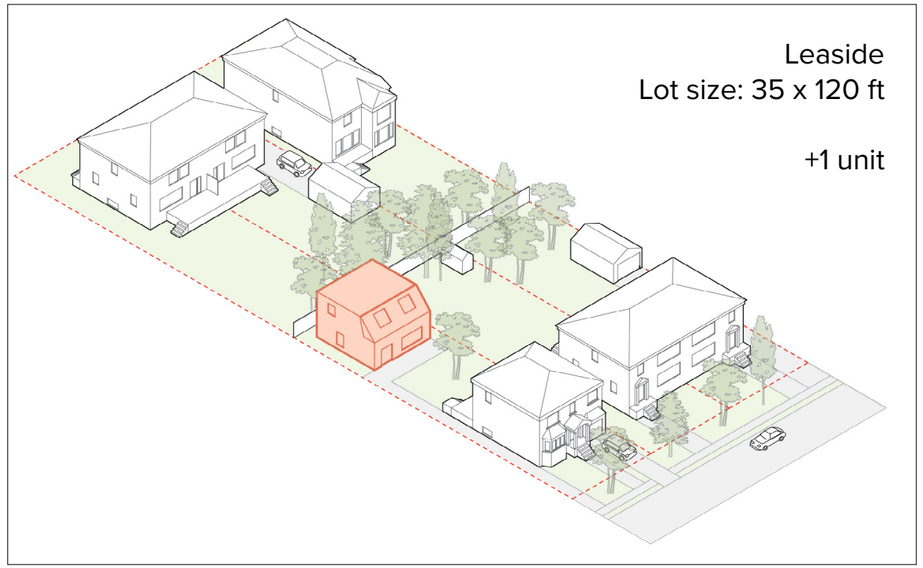


Fig 4.10 Garden Suite addition in Leaside.

4.2 - NEW TYPOLOGIES OF GENTLE DENSIFICATION

In order to increase housing options in neighbourhoods, it is essential to rethink the types of housing permitted in residential detached (RD) and residential semi-detached (RS) zones. While current zoning regulations allow for minor densification such as garden suites, laneway suites, and small multiplexes, these measures are not sufficient to meet the demand for affordable housing in neighbourhoods. The incremental addition of one to four units per lot, while helpful, does not provide the level of density required to address the pressing demand for housing. Under the current regulations, adding more than one unit to a property can also be expensive and difficult, given the size restrictions and approval process.

In addition to allowing more dense forms of low-rise housing, such as townhouses and apartments in single-family neighbourhoods, new types of housing can be implemented to allow for increased density while making use of existing infrastructure and otherwise unused spaces such as backyards and laneways. New typologies of gentle densification, such as larger multiplexes up to eight units, townhouses and apartments in backyards and laneways, and mixed-use low-rise apartments, push the boundaries of what is currently permitted while also remaining consistent with the existing streetscapes. Achieving densification in single-family neighbourhoods requires more than modifying existing regulations; it also requires introducing entirely new housing forms that do not strictly adhere to current zoning constraints.



Fig 4.11 Townhouses along Avenue Road in a R zoned area in Toronto.

4.2.1 - LANEWAY TOWNHOUSES/APARTMENTS

Laneway apartments utilize the underused space at the rear of existing properties without requiring the demolition of current homes. This typology involves severing and assembling the back portions of several lots to create a unified development, such as townhouses or small apartment buildings, along a laneway. For instance, instead of building three separate laneway suites behind three homes, the space could accommodate five townhouse units. This maximizes the efficiency of the land while retaining the existing original houses, reducing the need for reconstruction of the original houses to add more units, maintaining the neighbourhood's existing character. This typology would be suitable for neighbourhoods close to downtown, such as North Riverdale, which have existing laneway networks and strong transit access.

In addition to providing much-needed housing, laneway apartments foster a stronger sense of community by creating shared courtyard or backyard spaces, which would serve as places for social interaction and neighbourhood engagement. Townhouses and apartment units could offer a wider range of unit sizes and types compared to individual laneway suites, accommodating various household needs and incomes. This form of housing would also revitalize alleys into functional spaces and encourage the possibility of adding small-scale retail to laneways in the future, such as cafés or local businesses.

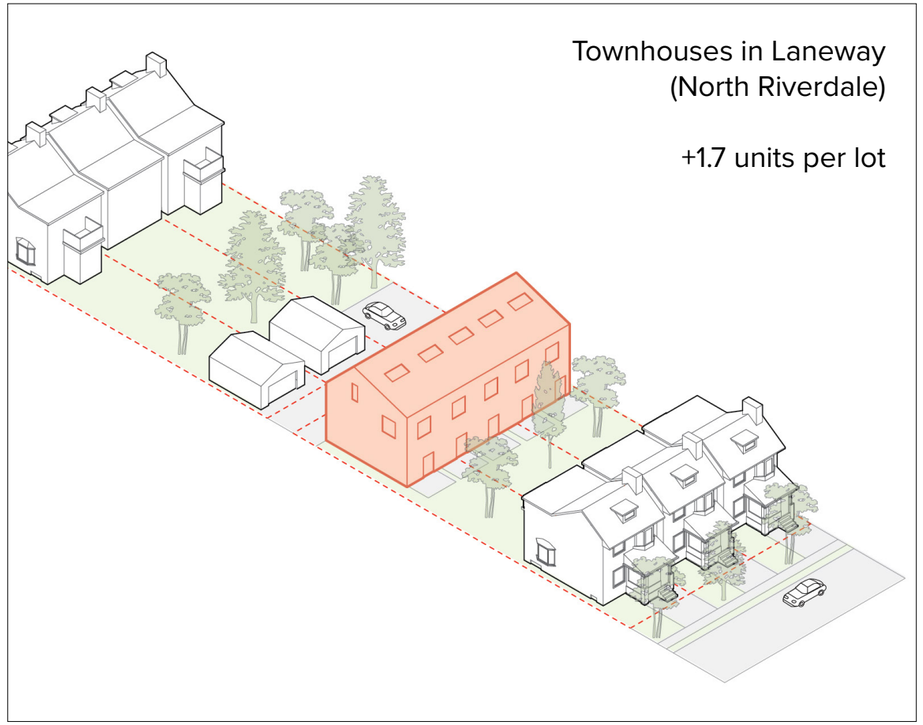


Fig 4.12 Laneway townhouses in North Riverdale.

4.2.2 - GARDEN TOWNHOUSES/APARTMENTS

By building townhouses or apartments in the backyards of lots without demolishing the main houses, this typology creates new housing opportunities that preserve existing streetscapes and neighbourhood character. Rather than building individual garden suites, which are limited in floor area, this typology offers a larger-scale solution and allows for more units to be built on otherwise unused spaces. Rear portions of properties can be severed and sold or assembled into a unified parcel for redevelopment. This enables the creation of shared housing structures while maintaining the front-lot houses intact.

In neighbourhoods like Leaside, the construction of a two-storey apartment building in the backyards of two properties could add six new units. Large backyards and shared driveways are features of lots in Leaside, making Leaside and similar neighbourhoods ideal for this typology. In East Willowdale, where lot sizes are generally wider and larger, the backyards of four properties could be severed and assembled to create eleven townhouse units. If the apartments or townhouses are built on corner lots, limited parking could be accessed by the side road. These scenarios illustrate the flexibility and scalability of this typology, which can adapt to varying lot sizes and neighbourhood layouts. New developments can include shared green spaces, courtyards, or communal gardens, promoting interaction and a sense of community among residents.

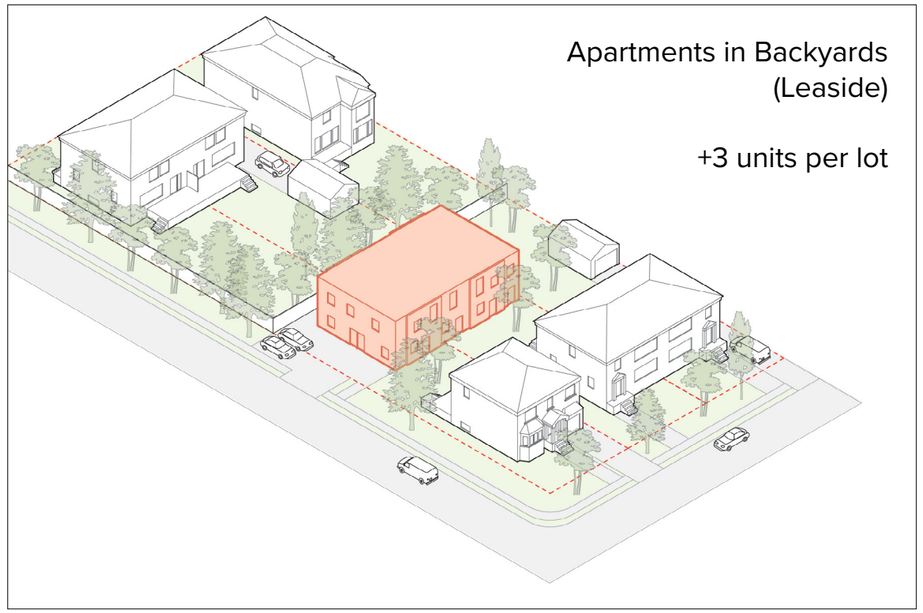


Fig 4.13 Garden apartments on a corner lot in Leaside.

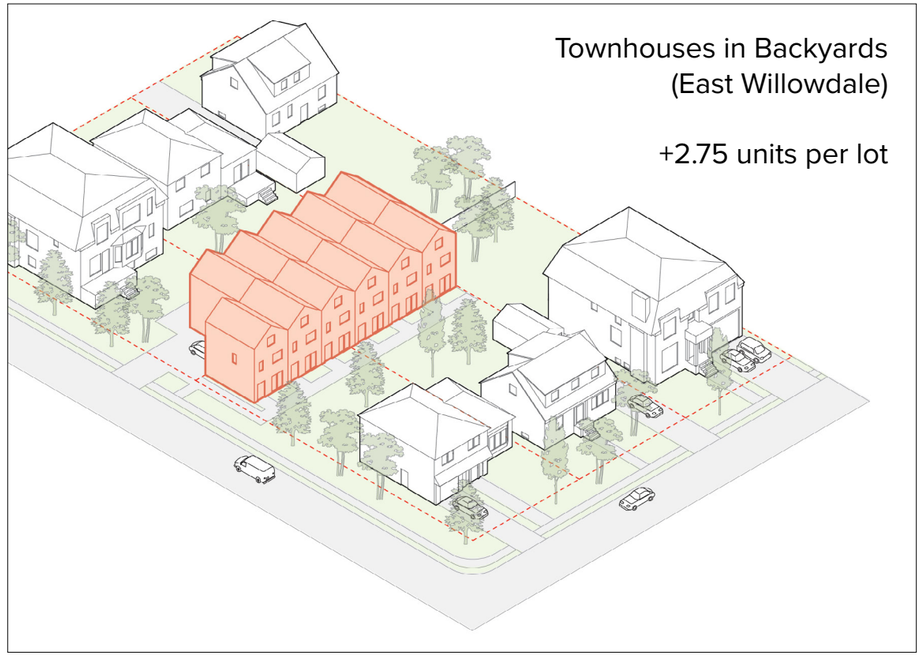


Fig. 4.14 Garden townhouses on a corner lot in East Willowdale.

4.2.3 - MULTIPLEX HOUSING (UP TO 8 UNITS)

Expanding the concept of multiplexes to include up to eight units effectively doubles the potential housing capacity compared to the current four-unit limit. With more units sharing the cost of land and construction, the per-unit cost of housing decreases, which can translate into more affordable rental and ownership options for residents. An eight-unit multiplex can be designed to fit within the height, massing, and architectural style of traditional neighbourhoods, ensuring it blends seamlessly into the existing urban fabric. A wider mix of unit sizes and types can also be accommodated with more units.

This typology would be best suited for neighbourhoods similar to North Riverdale and East Willowdale, as many historical multi-family homes and rowhouses already exist in North Riverdale and older neighbourhoods downtown. These types of neighbourhoods are well sought after and are well connected to public transit, reducing the need for parking. In East Willowdale, lot sizes are larger and wider, which are more accommodating for larger building sizes to develop more units. Many “monster homes,” single-family homes that are very large in size and often unattractive, exist in East Willowdale and similar newly developing neighbourhoods, therefore an 8-unit multiplex would not be an issue for the impact of the larger building on the surrounding streetscape and character. Multiplexes could include interior courtyards to provide green space rather than a backyard, and the building could be accessed from either shared entrances or from separate entrances if facing a public road. Units can be configured to either provide rental units or be sold as individual condominiums, accommodating a wide range of housing needs and financial situations.

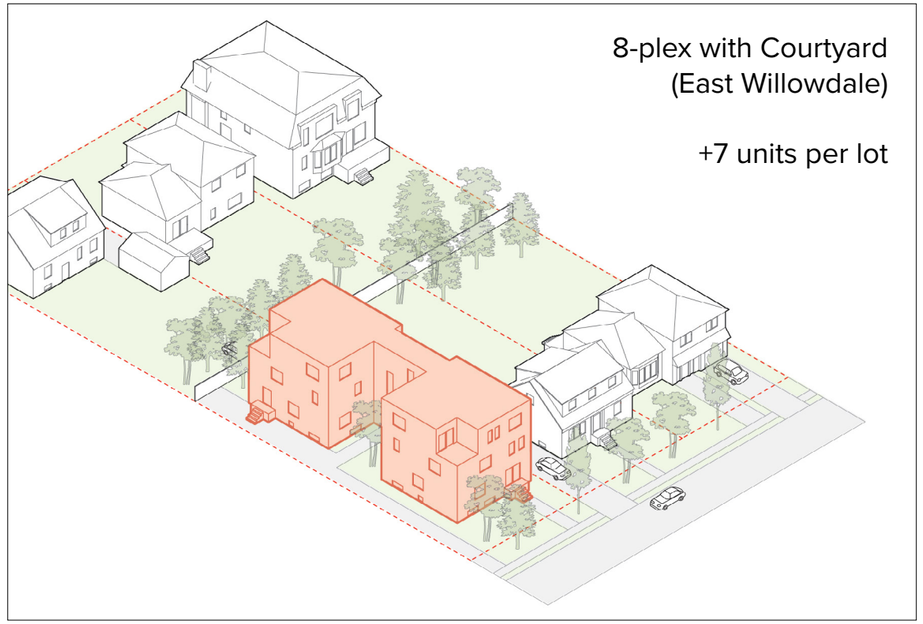


Fig 4.15 An 8-unit multiplex in East Willowdale.

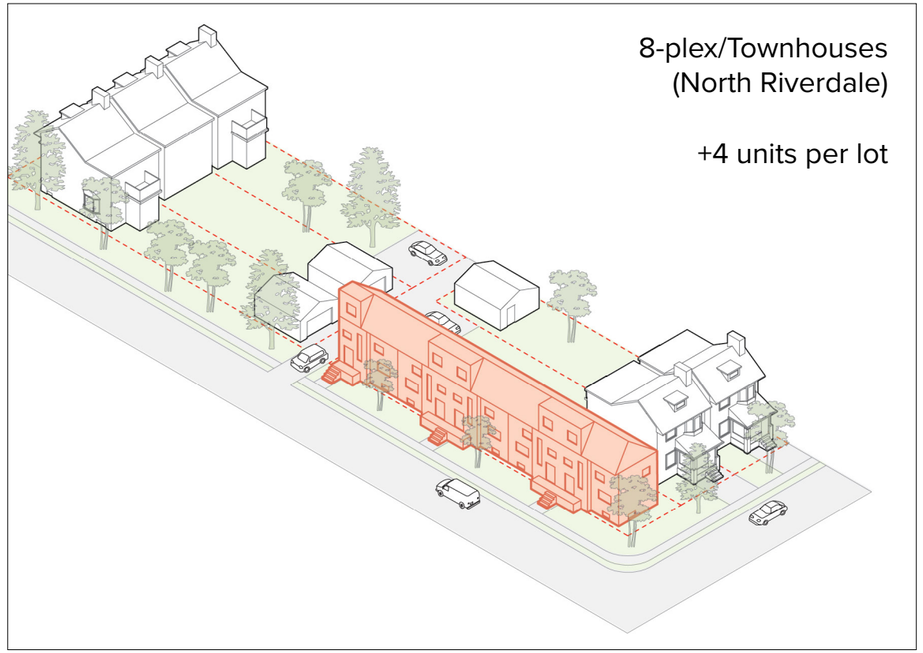


Fig 4.16 A 5-unit multiplex on a corner lot in North Riverdale.

4.2.4 - LOW-RISE MIXED-USE APARTMENTS

Low-rise mixed-use housing brings together residential units and small-scale commercial spaces like cafés, shops, or offices into a single building, creating more economically vibrant and walkable communities. Introducing small-scale mixed-use buildings can create hubs of activity that benefit both residents and the broader community, all while maintaining a low-rise, neighbourhood-appropriate scale.

Low-rise mixed-use developments make better use of land by combining uses, addressing both housing shortages and the lack of local amenities in a single development. This typology would be most suitable for East Willowdale, where currently, commercial uses are mainly restricted to Sheppard Avenue and Willowdale Avenue, which are not within walking distance for many homes. Larger lot sizes also allow for more units without compromising green space. Leaside and similar neighbourhoods would also benefit from mixed-use apartments, as pockets of apartment buildings and mixed-use areas already exist, such as near Bayview Avenue and Eglinton Avenue East. Leaside is a family-oriented neighbourhood with a mix of young professionals, young families, empty nesters, and retirees. A mixed-use apartment development can offer a variety of unit types, including larger family units with multiple bedrooms and smaller, more affordable units for young professionals and seniors. Corner lots would be chosen for the development of mixed-use housing for reduced impact on neighbours, increased visibility and accessibility for commercial uses, and better integration with existing infrastructure such as transit stops and wider sidewalks.

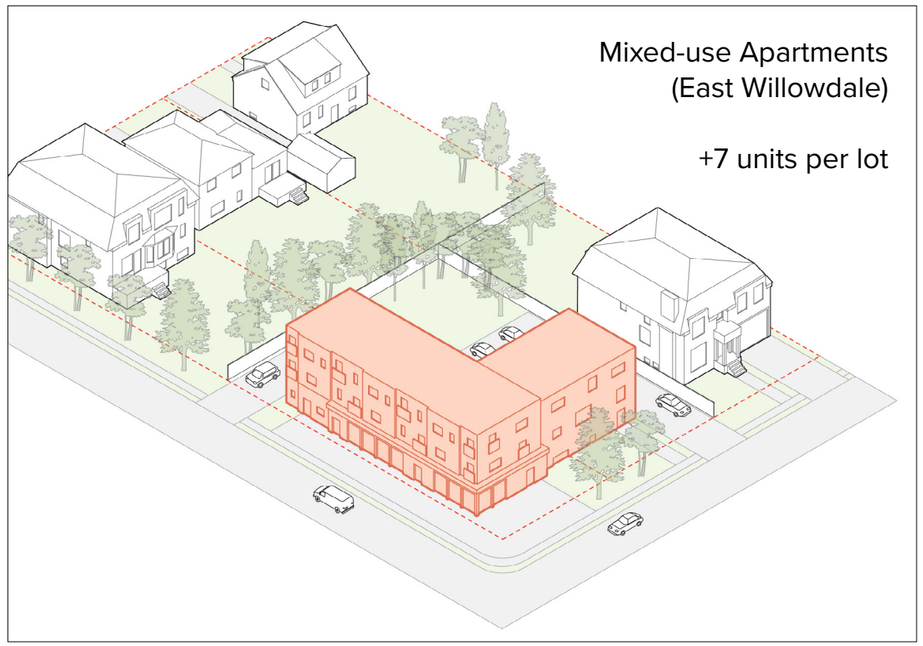


Fig 4.17 Mixed-use apartments in East Willowdale.

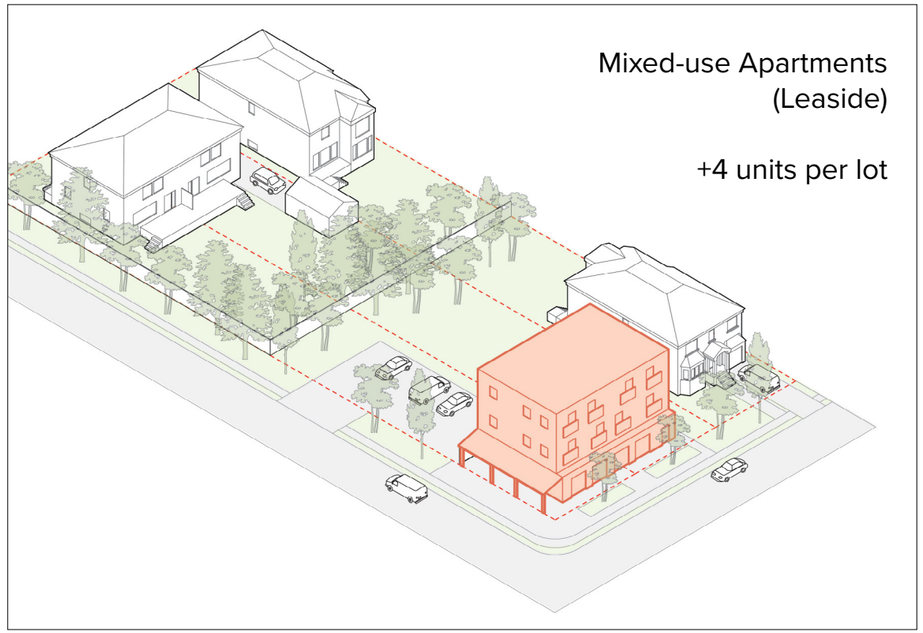


Fig 4.18 Mixed-use apartments in Leaside with parking.

5.

SUGGESTED POLICY RECOMMENDATIONS AND IMPLEMENTATION

5.1. - ZONING BY-LAW RECOMMENDATIONS

Recent changes to the zoning bylaw allowing multiplexes and garden suites were a step forward towards creating more types of increased density in neighbourhoods; however, these forms of housing are hard to implement due to current zoning restrictions such as setbacks, height, and number of units permitted. In order to allow for increased densification in neighbourhoods, a number of changes must be made to the Toronto zoning bylaw to enable new typologies of medium-density housing and expand housing stock in neighbourhoods.

While a property owner may apply to work with the property outside of the confines of the By-Law by applying to Committee of Adjustment for a Minor Variance, if the variance to the By-Law is deemed major, the owner would be forced to apply for a Zoning By-Law Amendment. These are far more complex in nature, and planning consultation is usually required. Applications usually involve a Public Hearing, consultation with staff planners, and other forms of review, which are costly and time consuming, deterring homeowners and developers from making changes that do not align with zoning bylaws.

The following are suggestions for changes that can be made to the zoning bylaw to allow for new typologies of low rise, medium-density housing to exist in Residential (R), Residential Detached (RD), Residential Townhouse (RT), and Residential Multiple (RM) zones.

Reduce Setbacks and Increase Building Length and Depth

Front and rear yard setbacks in residential zones should be reduced to help promote the construction of low-rise, medium-density housing typologies. Setbacks are the minimum distances a building must be from the property lines, and reducing these requirements can provide more usable lot space for development. While these setbacks maintain suburban-style space around buildings, they can hinder the development of denser housing types, especially in urban areas where land is limited. Reducing setbacks in key areas could free up more lot area for housing without significantly impacting neighbourhood character.

Front yard setback in all residential zones should be reduced to 4 meters. Buildings closer to the sidewalk create a more urban and pedestrian-friendly environment, encouraging walkability and neighbourhood interaction. **Rear yard setback should be reduced to the greater of 6 meters, or 20% of the lot depth. Similarly, maximum building length and building depth should be increased to 22 meters for multiplexes.**

10.20.40.20 Building Length

(3) Maximum Building Length for a Duplex, Triplex or Fourplex if Lot Frontage and Lot Depth is in Specified Range
Despite regulation 10.20.40.20(1), in the RD zone, a **duplex**, **triplex** or **fourplex** may have a permitted maximum **building length** of 19.0 metres if the **lot**:
(A) has a **lot depth** of 36.0 metres or greater and a **lot frontage** of less than 10.0 metres; or
(B) has a **lot depth** of 40.0 metres or greater and a **lot frontage** of 10.0 metres or greater. [By-law: 474-2023]

10.20.40.30 Building Depth

(2) Maximum Building Depth for a Duplex, Triplex or Fourplex if Lot Frontage and Lot Depth is in Specified Range
In the RD zone, a **duplex**, **triplex** or **fourplex** may have a permitted maximum **building depth** of 19.0 metres if the **lot**:
(A) has a **lot depth** of 36.0 metres or greater and a **lot frontage** of less than 10.0 metres; or
(B) has a **lot depth** of 40.0 metres or greater and a **lot frontage** of 10.0 metres or greater. [By-law: 474-2023]

City of Toronto Zoning By-law 569-2013

10.20.40.70 Setbacks

(1) Minimum Front Yard Setback
If regulation 10.5.40.70(1) does not apply, the required minimum **front yard setback** in the RD zone is 6.0 metres.

(2) Minimum Rear Yard Setback
The required minimum **rear yard setback** in the RD zone is the greater of:
(A) 7.5 metres; or
(B) 25% of the **lot depth**.

City of Toronto Zoning By-law 569-2013

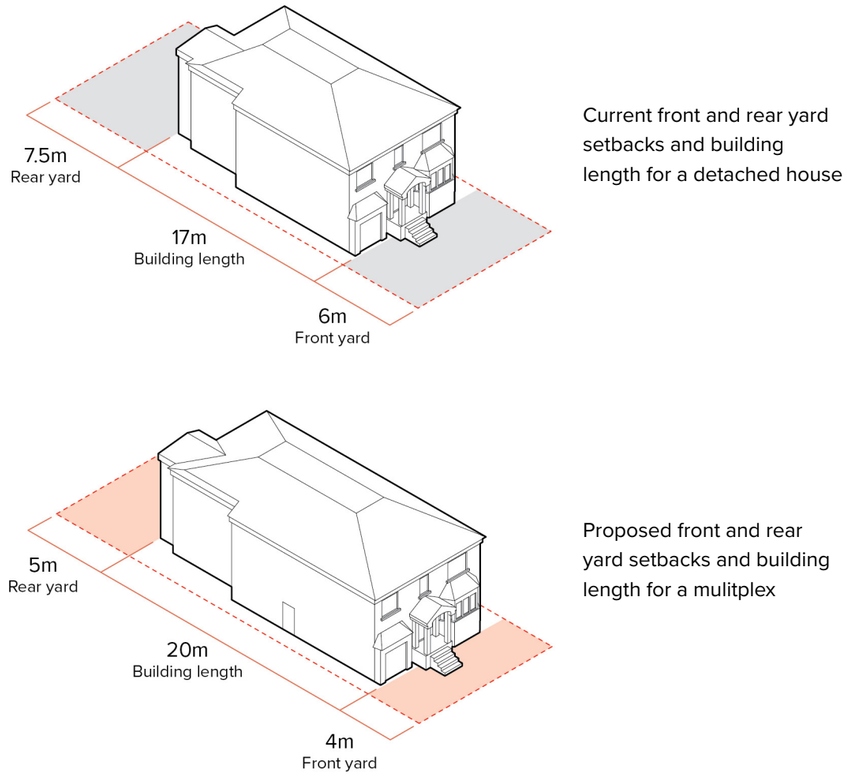


Fig 5.1 Diagram of proposed zoning bylaw changes for setbacks and building length.

Increase Height Limits

Increasing height limits for both main buildings and garden and laneway suites will allow for the creation of a wider range of housing, such as stacked townhouses or 4-storey multiplexes and apartments, creating a greater housing supply without expanding building footprints.

Maximum height should be increased to 12 meters for townhouses, multiplexes, and apartments, and up to 14 meters for multi-unit buildings on street corners. The permitted maximum number of storeys should be amended to only apply to detached and semi-detached houses.

Maximum heights for garden and laneway suites should be increased to 7 meters if a garden or laneway suite is located 5 to 7.5 meters from the main building, and to 10 meters if a garden or laneway suite is located 7.5 meters or more from the main building. The permitted maximum number of storeys should be removed for garden and laneway suites. Design guidelines on stepbacks, sloped roofs, and carefully placed windows will reduce shadowing and maintain neighbour privacy.

10.20.40.10 Height

(1) Maximum Height
The permitted maximum height for a **building** or **structure** on a **lot** in the RD zone is:
(A) the numerical value, in metres, following the letters "HT" on the Height Overlay Map; or
(B) if the **lot** is in an area with no numerical value following the letters "HT" on the Height Overlay Map, 10.0 metres; and
(C) despite (A) above, the permitted maximum height for a **duplex**, **triplex**, or **fourplex** is the greater of:
(i) the numerical value, in metres, following the letters "HT" on the Height Overlay Map; or
(ii) 10.0 metres. [By-law: 474-2023]

City of Toronto Zoning By-law 569-2013

150.7.60.40 Height

(1) Maximum Height of a Garden Suite
Despite regulation 10.5.60.40(2)(B), the permitted maximum height of an **ancillary building** containing a **garden suite** is:
(A) if the **ancillary building** containing a **garden suite** is located a minimum of 5.0 metres to less than 7.5 metres from the **residential building** on the **lot**, 4.0 metres;
(B) if the **ancillary building** containing a **garden suite** is located 7.5 metres or more from the **residential building** on the **lot**, 6.0 metres; and
(C) despite regulations 150.7.60.40(1)(A) and (B), if the **ancillary building** containing a **garden suite** is on a **lot** in the area bounded by Coxwell Avenue, Coxwell Boulevard and Massey Creek to the west, the Don River and Sunrise Avenue to the north, Victoria Park Avenue and Nursewood Park to the east, and Lake Ontario to the south, 6.3 metres. [By-law: 101-2022]

(2) Maximum Storeys for Garden Suites
Despite regulation 10.5.60.40(3), an **ancillary building** containing a **garden suite** may have a maximum of two **storeys**, subject to (1) above. [By-law: 101-2022]

City of Toronto Zoning By-law 569-2013

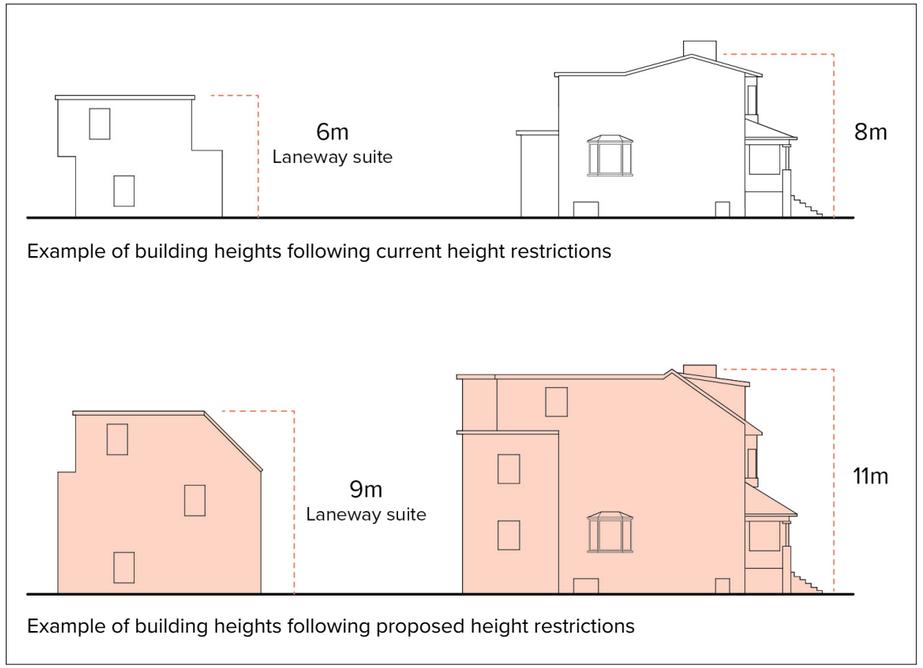


Fig 5.2 Diagram of proposed zoning bylaw changes for building height.

Remove Maximum Lot Coverage Limits

Removing the maximum lot coverage limits in Toronto's zoning bylaws can help facilitate more efficient use of land. Lot coverage limits, which control the percentage of a lot that can be covered by buildings, often restrict development potential, especially on small lots where land is at a premium. These limits are typically in place to preserve open space, provide outdoor areas for residents, and prevent overbuilding. However, they can also limit the flexibility to add additional housing units. According to the Lot Coverage Overlay map, maximum lot coverage ranges from 25% to 35% in East Willowdale and 30% to 80% in Leaside. There is no maximum lot coverage in North Riverdale.

In some areas closer to downtown, no maximum lot coverage applies. **Maximum lot coverage should only apply to detached and semi-detached homes and should be eliminated for multiplexes, townhouses, and apartments to make full use of available land.** A minimum percentage of permeable surfaces or green infrastructure should be required if lot coverage limits are removed to manage stormwater runoff and prevent over-paving.

10.20.30.40 Lot Coverage

(1) Maximum Lot Coverage
In the RD zone:

(A) if a **lot** in is in an area with a numerical value on the Lot Coverage Overlay Map, that numerical value is the permitted maximum **lot coverage**, as a percentage of the **lot area**; and

(B) if a **lot** is not in an area with a numerical value on the Lot Coverage Overlay Map, no **lot coverage** applies.

City of Toronto Zoning By-law 569-2013

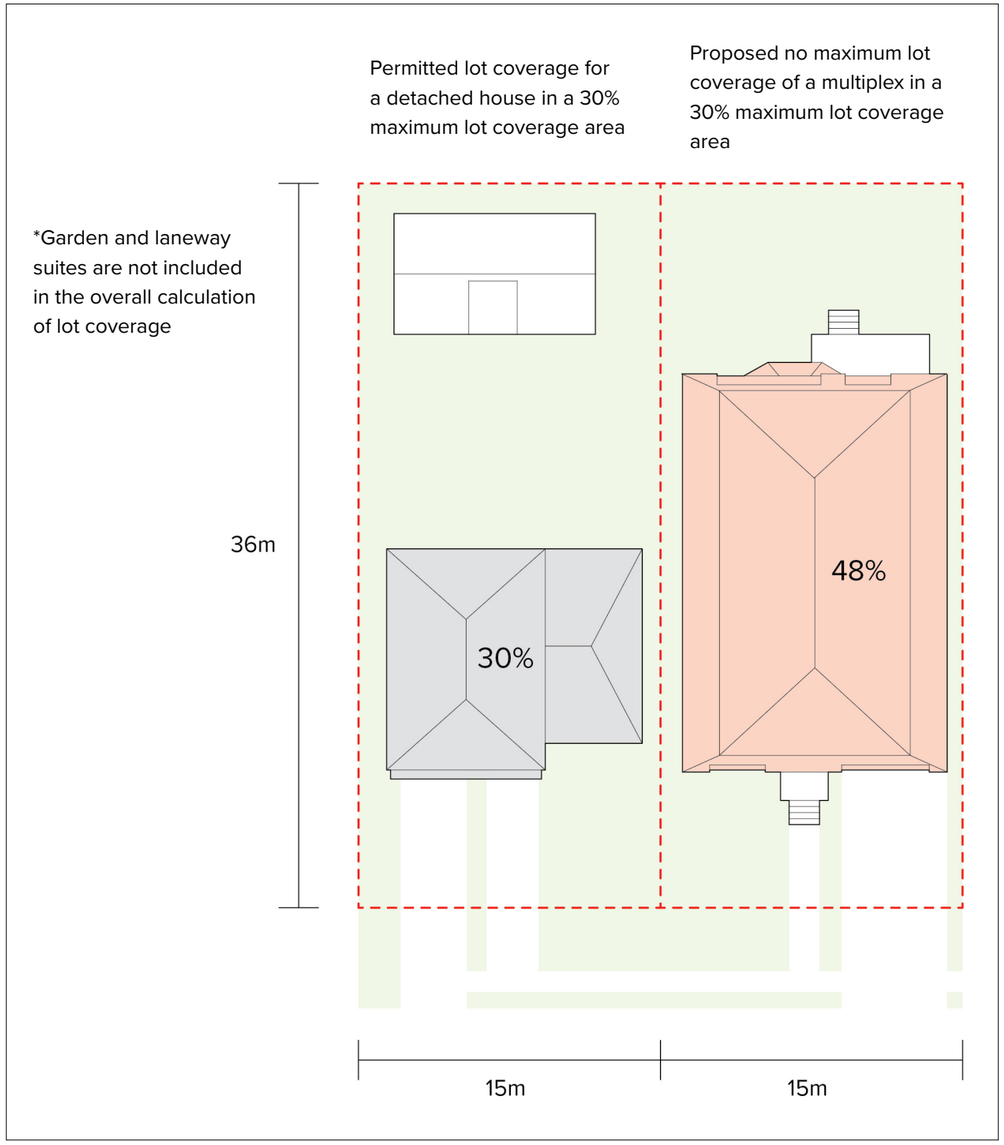


Fig 5.3 Diagram of proposed zoning bylaw changes for maximum lot coverage.

Permit Smaller Lot Severances by Reducing Minimum Lot Area and Lot Frontage

Large minimum requirements for lot frontage and area are designed to accommodate single-family homes, but they make it difficult to create smaller lots suitable for townhouses or multiplexes, leading to fewer housing options. Permitting smaller lot severances by reducing the minimum lot frontage and minimum lot area requirements can enable the construction of townhouses and other medium-density housing types, increasing the supply of ground-related housing, particularly in established neighbourhoods where demand for housing is high.

The minimum lot frontages are typically 12 meters in Leaside and range from 12 to 15 meters in East Willowdale. The minimum lot frontage is 12 meters in North Riverdale, however most lots are narrower than the required minimum as they existed before the regulations were in place and are permitted to remain as they are. Minimum lot areas are typically 370 square meters in Leaside and range from 370 to 550 meters in East Willowdale. The minimum lot area in North Riverdale is the required minimum lot frontage multiplied by 30 meters.

There are many lawfully existing examples of smaller lots already existing throughout the city, which often predate modern zoning regulations and serve as evidence that smaller lot severances can work within the urban fabric while providing desirable housing options. Neighbourhoods such as Riverdale, The Annex, and Cabbagetown include narrow-frontage homes, often less than 6 meters wide in frontage.

The minimum lot frontage and "f" values on the Zoning By-law Map should be reduced in relation to the zoning areas, to a minimum lot frontage of 4 to 6 meters, depending on the surrounding context. The minimum lot area should ignore the "a" value on the Zoning By-law Map and instead be equal to the required minimum lot frontage multiplied by 30 meters.

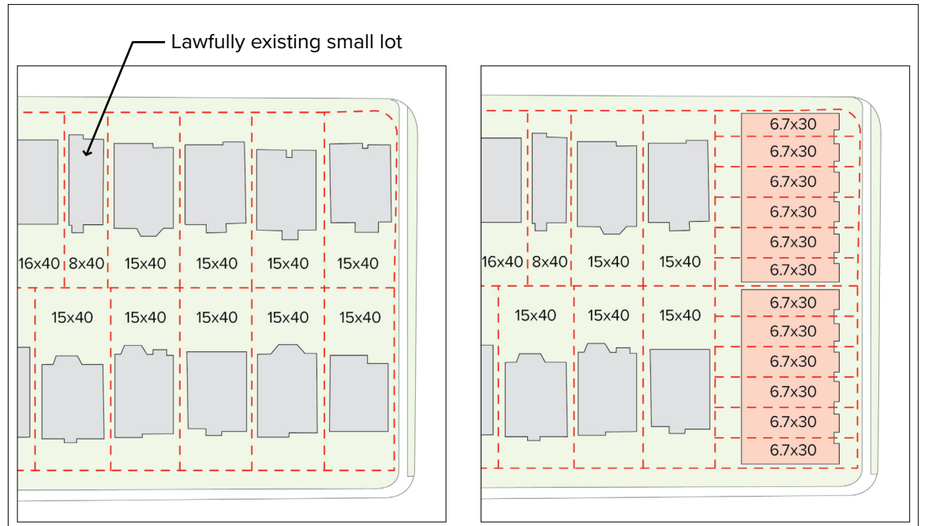
10.20.30.20 Lot Frontage

(1) Minimum Lot Frontage
In the RD zone:
(A) if a zone label includes the letter "f", as on the Zoning By-law Map, the numerical value following the letter "f" is the required minimum **lot frontage**, in metres; and
(B) if the zone label does not include an "f" value on the Zoning By-law Map, the required minimum **lot frontage** is 12.0 metres.

10.20.30.10 Lot Area

(1) Minimum Lot Area
In the RD zone:
(A) if a zone label includes the letter "a", on the Zoning By-law Map, the numerical value following the letter "a" is the required minimum **lot area**, in square metres; and
(B) if the zone label does not include an "a" value on the Zoning By-law Map, the required minimum **lot area**, in square metres, is the required minimum **lot frontage** multiplied by 30 metres

City of Toronto Zoning By-law 569-2013



Example of a block in East Willowdale with a minimum frontage of 15m and a minimum area of 550 sqm

Proposed zoning change to have a minimum frontage of 6m, allowing for townhouses to be built

Fig 5.4 Diagram of proposed zoning bylaw changes for minimum lot area and frontage. Dimensions are shown in meters.

Permit Townhouses and Apartments on Street Corners in RD, RS, and RT Zones

The current zoning bylaw does not permit townhouses and apartments in RD and RS zones, and apartments are not permitted in RT zones. **Zoning in the RD, RS, and RT zones should be modified to permit townhouses and small-scale apartment buildings (e.g., 4-6 units) by-right on street corners.** Corner lots serve as a transition between areas of varying density within a neighbourhood, and they typically have larger frontages and more street-facing access, making them ideal locations for higher-density housing while still preserving the character of the neighbourhood fabric. Allowing these developments as of right will significantly reduce approval timelines, making medium-density projects more attractive to developers.

10.20.20.40 Permitted Building Types

(1) Permitted Residential Building Types - RD Zone
In the RD zone, a **dwelling unit** is permitted in the following **residential building** types:
(A) **Detached House**;
(B) **Duplex**;
(C) **Triplex**; and
(D) **Fourplex**. [By-law: 474-2023]

City of Toronto Zoning By-law 569-2013

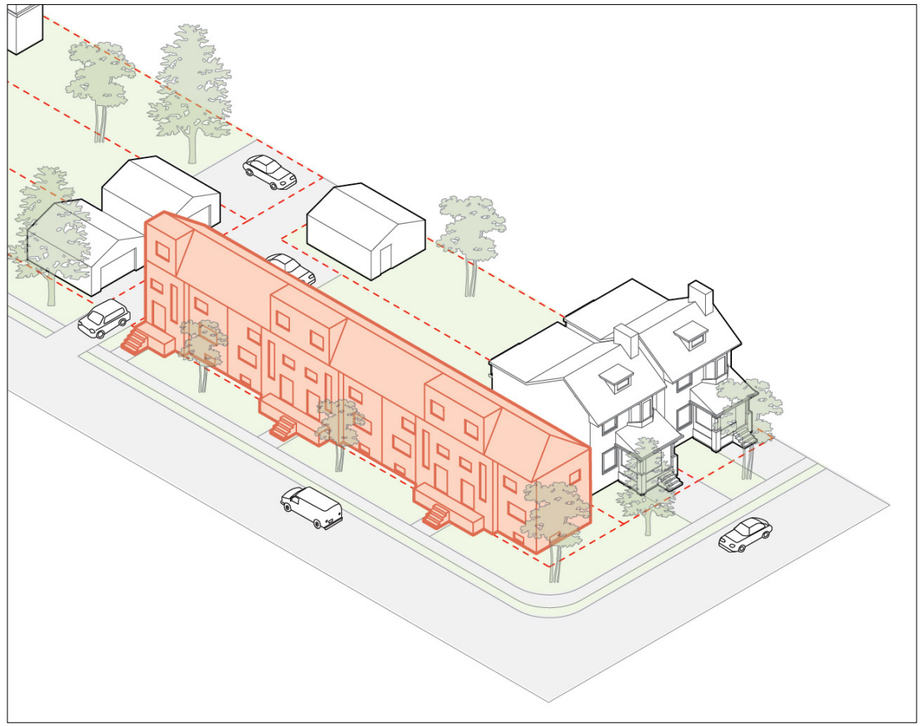


Fig 5.5 Diagram of townhouses on corner lot in a single-family neighbourhood.

Allow Retail in Residential Buildings and Zones

In most of Toronto's residential neighbourhoods, particularly in areas zoned RD, RS, and RT, commercial uses such as retail shops, cafes, or professional services are generally not permitted. This results in strictly residential streets that lack the everyday amenities residents need, leading to car dependency and long commutes to access basic goods and services.

Currently, the only amenity type uses that are permitted are community centres, daycares, libraries, and places of worship. Allowing for a range of retail uses that support neighbourhood needs, such as cafes and restaurants, local markets and convenience stores, medical centres, and service-oriented businesses such as hair salons or fitness studios, can create a sense of place, provide informal gathering spots, and contribute to a neighbourhood's identity while stimulating neighbourhood economies.

10.20.20.20 Permitted Use - with Conditions

(1) Use with Conditions - RD Zone

The following uses are permitted in the RD zone if they comply with the specific conditions associated with the reference number(s) for each use in Clause 10.20.20.100:

Ambulance Depot (1)
Cogeneration Energy (2)
Community Centre (3)
Day Nursery (4)
Fire Hall (1)
Garden Suite (17)
Group Home (5)
Home Occupation (6)
Laneway Suite (16)
Library (3)
Multi-tenant House (18)
Place of Worship (8)
Police Station (1)
Private Home Daycare (9)
Public Utility (10, 11)
Renewable Energy (2)
Secondary Suite (12)
Seniors Community House (13)
Short-term Rental (15)
Transportation Use (14)
[By-law 1453-2017]
[By-law: 545-2019]
[By-law: 1210-2019]
[By-law: 101-2022] [By-law: 156-2023]

City of Toronto Zoning By-law 569-2013

The zoning bylaws should be amended to permit small-scale retail and commercial uses within residential buildings and on residentially zoned lots, especially along main streets, corner lots, and transit corridors. This could include allowing ground-floor retail in residential buildings or standalone small businesses in residential zones.

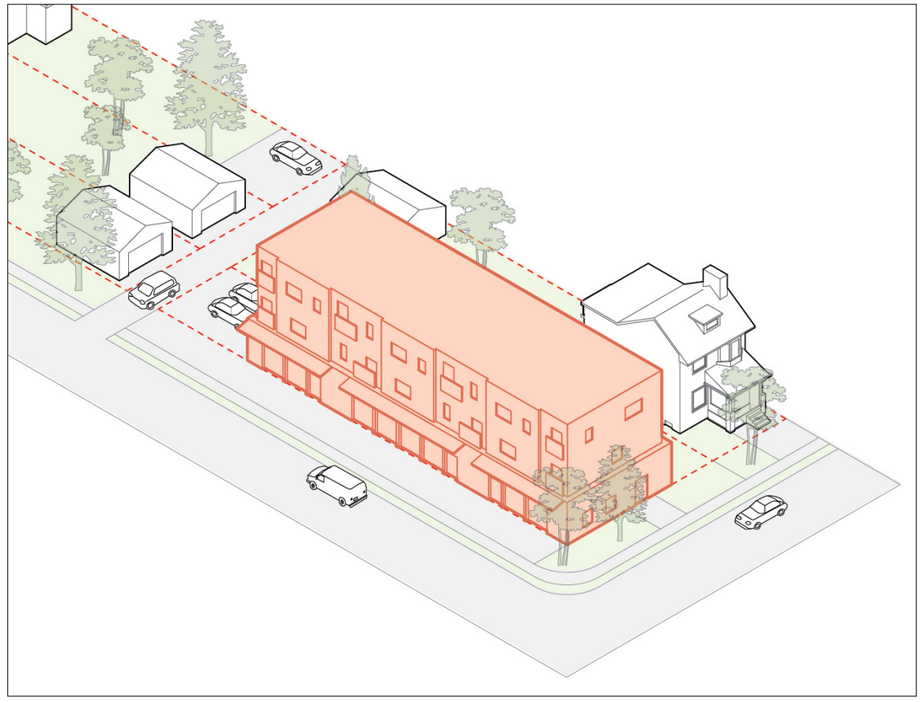


Fig 5.6 Diagram of a mixed-use apartment building with ground floor commercial spaces on a corner lot and along a laneway.

Increase Number of Units Permitted in Multiplexes

Currently, multiplexes in Toronto are limited to 2 to 4 units, with the maximum number of units on one lot being 5 with the addition of a garden or laneway suite. **The city should amend zoning bylaws to allow for multiplexes with up to 8 units in low- to medium-density areas where infrastructure can support it.** This would encourage the development of larger multiplexes, especially in neighbourhoods with good access to transit and services. 8-unit multiplexes should be permitted to be built as-of-right in residential areas, meaning no special approval processes or zoning variances should be needed as long as the design fits within the building envelope, height limits, and other urban design guidelines.

10.20.20.40 Permitted Building Types

(1) Permitted Residential Building Types - RD Zone

In the RD zone, a **dwelling unit** is permitted in the following **residential building** types:

(A) **Detached House**;
(B) **Duplex**;
(C) **Triplex**; and
(D) **Fourplex**. [By-law: 474-2023]

City of Toronto Zoning By-law 569-2013

Permit Multi-Unit Laneway and Garden Suites

Toronto currently permits laneway and garden suites in residential neighbourhoods, but they are restricted to one unit per lot. While laneway and garden suites add housing to low-rise neighbourhoods, the restriction to one unit per property limits their overall impact on housing supply and affordability.

The zoning by-laws should be amended to remove the restriction of only one unit per laneway or garden suite. This would allow for the creation of multiplexes within laneways or backyard spaces, increasing housing density without expanding the building footprint or significantly altering the neighbourhood's appearance.

150.8.20.1 General

(1) Laneway Suite – Permitted Uses

(A) Despite regulation 10.5.60.1(2), an **ancillary building** may be used for living accommodation in one **laneway suite**.
(B) Despite regulation 10.5.60.1(3), an **ancillary building** may have both food preparation facilities and sanitary facilities in a **laneway suite**.
(C) Despite regulation 150.5.60.1(1) a **home occupation** is permitted in a **laneway suite** if the **laneway suite** is exclusively and separately occupied as a principal residence, applying the regulations of Section 150.5 as if it is a **dwelling unit**; and
(D) Despite regulation 150.13.20.1(1) a **short-term rental** is permitted in an **ancillary building** if it is in a **laneway suite** that is exclusively and separately occupied as a principal residence.
(E) Despite regulation 10.5.60.1(4) above-ground parts of an **ancillary building** containing a **laneway suite** may be erected prior to the erection of the **main walls** and completion of the roof of a **residential building** on the same **lot**. [By-law: 810-2018; 1107-2021]

(2) Laneway Suite - Use Restriction

A maximum of one **ancillary building** containing either a **laneway suite** or a **garden suite** is permitted on a **lot**. A **lot** may not contain both a **laneway suite** and a **garden suite**. [By-law: 101-2022]

City of Toronto Zoning By-law 569-2013

Reduce Restrictions on Distance from Main Dwelling for Laneway and Garden Suites

Under current zoning regulations, laneway and garden suites must maintain a minimum distance of 5 or 7.5 meters from the main dwelling on the lot. These restrictions can often limit the size or placement of secondary units, particularly in smaller lots, making it difficult to maximize the available space.

The minimum separation between a residential building and a laneway or garden suite should be reduced to 5 meters, regardless of the height of the laneway or garden suite, and the angular plane restrictions should be amended to reduce height and slope limitations, enabling more flexible designs such as taller or multi-storey units. This would allow for larger, more comfortable living spaces while still respecting the privacy of neighbouring properties.

150.8.60.30 Separation and Dimensions

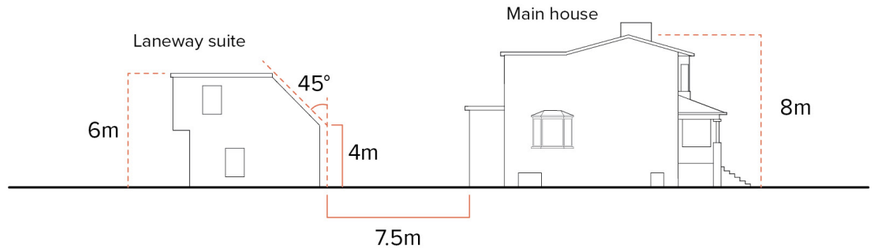
(1) Minimum Separation between a Residential Building and the Ancillary Building
Despite regulation 10.5.60.30(1) an **ancillary building** containing a **laneway suite** must be:

(A) no less than 5.0 metres from a **residential building** on the same **lot** if the height of the **ancillary building** is no greater than 4.0 metres; and

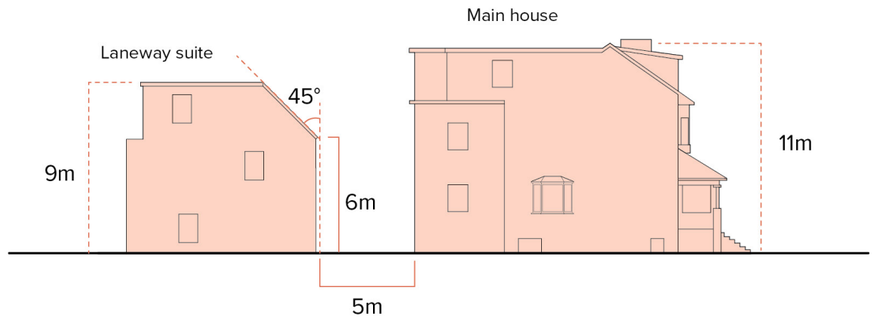
(B) no less than 7.5 metres from a **residential building** on the same **lot** if the height of the **ancillary building** is greater than 4.0 metres. [By-law: 810-2018]

(2) Angular Plane
No part of an **ancillary building** containing a **laneway suite** may penetrate a 45 degree **angular plane** projected towards the **rear lot line** beginning from a height of 4.0 metres at a distance of 7.5 metres from rear **main wall** of the **residential building** on the same **lot**. [By-law: 1210-2019]

City of Toronto Zoning By-law 569-2013



Example following current minimum separation distance and angular plane



Example following proposed minimum separation distance and angular plane

Fig 5.7 Diagram of proposed zoning bylaw changes for minimum separation distance and angular plane.

Remove Maximum Size Limits for Laneway and Garden Suites

Currently, size restrictions such as the maximum length and width of laneway suites and the maximum area of garden suites often limit the livability and utility of secondary suites, restricting the usability of these units, particularly for families or multi-unit dwellings. For example, families who require more than one or two bedrooms may find laneway and garden suites too small to accommodate their needs under current rules.

The restrictions on the maximum length and maximum width of a laneway suite should be removed, allowing the maximum size of the suite to be determined by setbacks and the minimum distance between the main building and suite. Similarly, the restrictions on the maximum area of the lot covered by a garden suite should be removed.

150.7.60.70 Lot Coverage

(1) Lot Coverage Requirement for a Lot with a Garden Suite

Despite regulations 10.5.60.70(1) and 10.10.60.70(1), if a **lot** has an **ancillary building** containing a **garden suite**:

(A) the **ancillary building** containing a **garden suite** is not included in the overall calculation of **lot coverage**;

(B) the area of the **lot** covered by all **ancillary buildings** combined, including the **ancillary building** containing a **garden suite**, may not exceed 20 percent of the **lot area**; and

(C) the area of the **lot** covered by an **ancillary building** containing a **garden suite** may not exceed the lesser of:

(i) 40 percent of the area:

(a) between all rear **main walls** of the **residential building** on the **lot** and the **rear lot line;** and

(b) extending parallel to the **rear lot line** across the full width of the **lot** from the point where the rear **main wall** of the **residential building** meets the **residential building's side main walls** closest to the respective **side lot lines**; and

(ii) A total floor area of 60.0 square metres. [By-law: 101-2022]

City of Toronto Zoning By-law 569-2013

150.8.60.30 Separation and Dimensions

(5) Maximum Length of a Laneway Suite

The permitted maximum **building length** for an **ancillary building** containing a **laneway suite** is 10.0 metres. [By-law: 1210-2019]

(6) Maximum Width of a Laneway Suite

The permitted maximum **building** width of an **ancillary building** containing a **laneway suite** is 8.0 metres. [By-law: 1107-2021]

City of Toronto Zoning By-law 569-2013

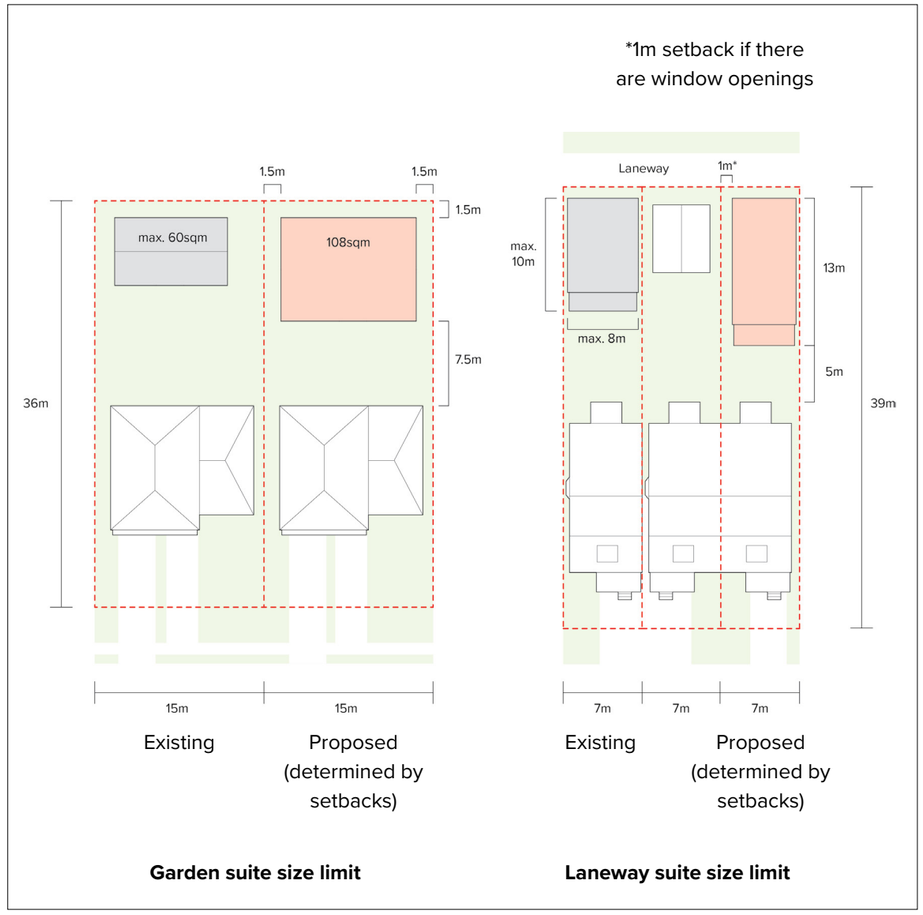


Fig 5.8 Diagram of proposed zoning bylaw changes for maximum size limits for garden and laneway suites.

5.2. - DEVELOPMENT SCENARIOS

The new typologies of gentle densification introduced previously (laneway and garden apartments/townhouses, multiplexes up to eight units, and low-rise mixed-use apartments) allow for both rental and ownership tenure types and would vary based on the typology. Rental would be more suited for projects managed by developers or non-profits, offering long-term affordable options, such as apartments or large multiplexes. Condominium ownership would also be possible for multiplex and apartment units, where each unit is sold to individual buyers, with shared ownership of common areas. For laneway and garden townhouses where each unit has its own separate entrance, freehold ownership may be more suitable, with the owner having complete ownership of the property, including the land and any structures on it.

The development of these typologies can be done through both traditional developers or resident developers, depending on the situation and unique needs and characteristics of different lot types and neighborhoods. In the case of a traditional developer, the developer would purchase properties, densify them, and sell or rent units for profit. For projects such as mixed-use apartments and laneway and garden townhouses or apartments, land assembly or land severance may also be required. Land assembly refers to the legal combination of two or more separate parcels of land into a single parcel of land to create a larger property that provides increased development potential. Land severance is the legal process of dividing a single parcel of land into two or more distinct lots, allowing property owners to sell, develop, or use the newly created lots independently or assemble them with other parcels of land.

A resident developer is an individual or group of individuals who take on the role of a developer to create housing projects on properties they already own or occupy. Unlike traditional developers, resident developers are typically motivated by personal, community, or multi-generational goals rather than solely by profit. Because of this, resident developers usually focus on smaller projects like adding a laneway suite or converting a home into a multiplex.

Laneway Townhouses/Apartments and Garden Townhouses/ Apartments

These two typologies are similar in that they can be constructed while retaining the existing street-facing houses. In the example where five laneway townhouse units are built in the backs of three houses, there are two scenarios in which they can be developed. In the first scenario, the developer purchases the entirety of all three lots and assembles them into one large property. While retaining the original houses, the developer then builds five townhouses facing the laneway. The three houses and five townhouses can then be rented out or sold by the developer. In the second scenario, the developer negotiates with the three property owners and convinces them to sever and sell a portion of their backyard parcels. The developer assembles the three parcels, then constructs five townhouses, which they can then sell or rent out. The three property owners retain ownership of the three original street-facing houses.

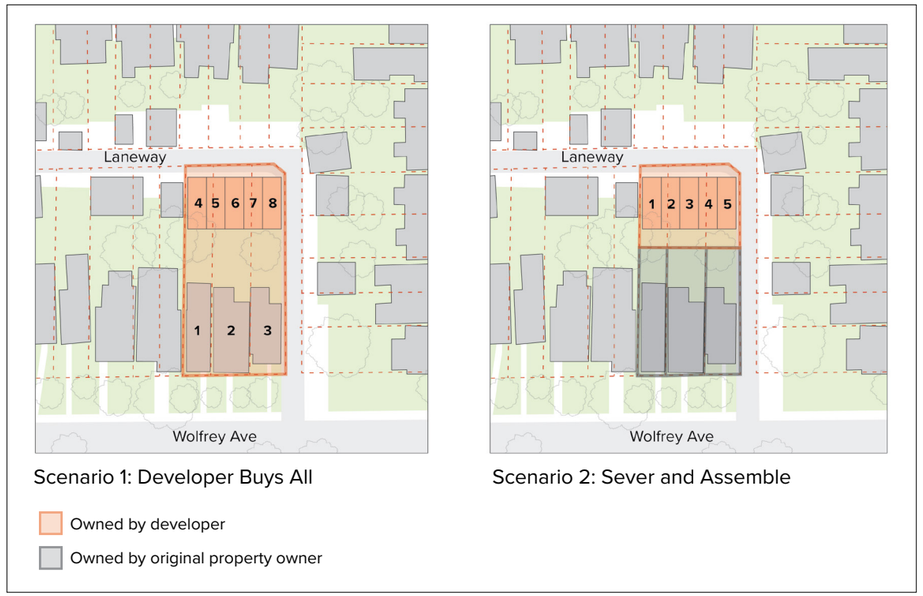


Fig 5.9 Diagram of two scenarios in which laneway townhouses can be developed.

8-Unit Multiplex

The development process of multiplexes can vary depending on whether the multiplex is built on a single lot, through redevelopment of an existing home, or as part of a larger land assembly. An 8-unit multiplex will most likely require the demolition of the existing house and the new construction of the multiplex on a single lot. In one scenario, a traditional developer, such as a large firm or individual investor, purchases the property to demolish the existing house and construct the 8-unit multiplex. Once construction is completed, the developer either rents out the units or sells them as individual condominiums. In the second scenario, a resident developer, who already owns the property, decides to demolish their existing single-family home and build an 8-unit multiplex. The resident developer lives elsewhere temporarily while construction takes place, and once completed, intends to live in one of the units while renting out the other seven, likely for long-term income.



Fig 5.10 Diagram of the development of an 8-unit multiplex on a single lot.

Low-Rise Mixed-Use Apartments

A three- to four-storey mixed-use apartment would require two adjacent lots, one of which would be a corner lot for better visibility, accessibility, and opportunities for integrating commercial uses. This scenario would typically be developed by a traditional developer, who would negotiate with the property owners to purchase the two lots, potentially paying a premium for the corner property, assemble the lots, demolish the two existing single-family houses, and construct residential units with ground-floor commercial spaces to be rented out, targeting young professionals, couples, and small families. The ground-floor units would be leased to businesses such as coffee shops, boutiques, or medical offices.



Fig 5.11 Diagram of the development of a mixed-use low-rise apartment building on two lots.

5.3. - FEASIBILITY AND FINANCIAL IMPLICATIONS

Previous sections of this thesis have demonstrated how new types of low-rise, medium-density housing can be accommodated on a variety of lot types and neighbourhoods. However, a crucial factor in the development of these housing types is the cost. In this section, three potential development scenarios will be investigated to demonstrate the financial feasibility of these typologies. A basic pro forma is included for each scenario.

Scenario 1A: Laneway Townhouses (Ownership)

In a growing North Riverdale, a developer sees an opportunity to buy severed land from the backyards of three adjacent properties, which have small houses and no garages. The developer decides to assemble and use the land to build five 3-bedroom townhouses that face onto laneway. They plan to develop the townhouses and sell them individually. The developer recognizes that large backyards in North Riverdale are often underused, and by purchasing and severing portions of these backyards, the developer can turn the land into a profitable project without the need for major land acquisition by only paying for half the cost of three lots. The project offers significant profit potential given the high real estate values in North Riverdale and the appeal of laneway living.

Unit Mix			
	Unit Size (sqft)	Unit Size (sqm)	Unit Count
2 Bedroom Townhouses	1250	116.1	5
Total	**6250**	**580.5**	



Fig 5.12 Diagram of laneway townhouses.

The following table provides a financial breakdown of the estimated cost to construct the five townhouses, as well as the projected profit and returns. Since the cost of land is drastically cheaper than a normal townhouse development, this scenario presents itself as very financially feasible. The difficulty in this scenario would be finding the opportunity of adjacent homeowners who would be willing to sever and sell off a portion of their land.

Proforma for 5x2B Townhouses		
	Amount	% of Total
FUNDING		
Equity	$1,628,539	30.00%
Construction Loan	$3,799,923	70.00%
Total Funds	**$5,428,462**	

COSTS		
Acquisition		
Land Purchase (Severed Land x3)*	$2,625,000	
*assuming average full lot price of $1,750,000 in area, developer buys half of each lot		
Severance / Minor Variance Fees	$40,226	
Total Acquisition Costs	**$2,665,226**	49.10%
Hard Costs		
Construction at $300/sqft of GFA	$1,875,000	
Contingency (5% of construction cost)	$93,750	
Total Hard Costs	**$1,968,750**	36.27%
Soft Costs		
Permit Fees	$10,952	
Development Charges	$569,690	
Architectural / Engineering Fees (8.8% of construction cost)	$165,000	
Surveyor / Grading	$5,000	
Design Contingency (5% of design fees)	$8,250	
Insurance	$25,594	
Legal	$10,000	
Total Soft Costs	**$794,486**	14.64%
Total Cost	**$5,428,462**	

REVENUE		
Sale of Townhouses*	$6,000,000	
*at $1,200,000 per townhouse		
Total Revenue	**$6,000,000**	

PROFIT		
Total Revenue	$6,000,000	
Debt Repayment*	-$4,141,916	
*for construction loan at an interest rate of 9%		
Net Profit	**$1,858,084**	

RETURN		
Initial Equity	$1,628,539	
Cost	$5,428,462	
Profit	$1,858,084	
Return on Equity		**114%**
Return on Investment		**34.23%**

Even by selling each townhouse at a lower price of $1.2 million, where the market price of houses in the area is around $1.75 million, the developer is still able to make a large return on investment. The difficulty in this scenario would be finding the opportunity of adjacent homeowners who would be willing to sever and sell off a portion of their land, as well as receiving severance approval. The proposed zoning by-law changes in the previous section of this thesis for the severance of smaller lots would encourage the development of this housing type.

Scenario 1B: Laneway Townhouses (Rental)

Similar to Scenario 1A, a developer sees an opportunity to build five 3-bedroom townhouses that face onto a laneway. However, this developer decides to purchase all three lots, including the existing houses. After completing the construction of the townhouses, the developer intends to rent out the three detached houses as well as the five townhouses and possibly sell the property in the future.

Unit Mix			
	Unit Size (sqft)	Unit Size (sqm)	Unit Count
2 Bedroom	1250	116.1	5
3 Bedroom Houses	1800	167.2	3
Total	**11650**	**1082.1**	**8**



Fig 5.13 Diagram of rental laneway townhouses and detached houses.

The following table provides a financial breakdown of the estimated cost to construct and rent out the five townhouses and three detached houses, as well as the annual revenue, projected profit, and returns.

Proforma for 5x2B Townhouses + 3x3B Houses		
	Amount	% of Total
FUNDING		
Equity	$2,405,755	30.00%
Construction Loan	$5,613,429	70.00%
Total Funds	**$8,019,185**	
COSTS		
Acquisition		
Land Purchase (Severed Land x3)*	$5,250,000	
*assuming average full lot price of $1,750,000 in area		
Minor Variance Fees	$5,949	
Total Acquisition Costs	**$5,255,949**	65.54%
Hard Costs		
Construction at $300/sqft of GFA	$1,875,000	
Contingency (5% of construction cost)	$93,750	
Total Hard Costs	**$1,968,750**	24.55%
Soft Costs		
Permit Fees	$10,952	
Development Charges	$569,690	
Architectural / Engineering Fees (8.8% of construction cost)	$165,000	
Surveyor / Grading	$5,000	
Design Contingency (5% of design fees)	$8,250	
Insurance	$25,594	
Legal	$10,000	
Total Soft Costs	**$794,486**	9.91%
Total Cost	**$8,019,185**	

REVENUE		
Income		
Annual rent for 5x 2B Units at $3,200 per month each	$192,000	
Annual rent for 3x 3B Units at $4,500 per month each	$162,000	
Residential Vacancy (1.0%)	$3,540	
Total Annual revenue	**$357,540**	
Operating Expenses		
Property Tax	$37,553	
Insurance	$5,000	
Maintenance	$10,000	
Management Fee (5%)	$17,877	
Total Annual Operative Expenses	**$70,430**	
Net Operating Income (NOI)	**$287,110**	

PROFIT		
Cap Rate	3.58%	
Discounted Cash Flow (at 5 years at discount rate of 8%)	$1,181,315	
Terminal Value	$6,728,721	
Debt Repayment*	-$6,118,638	
*for construction loan at an interest rate of 9%		
Net Profit	**$1,791,398**	

RETURN		
Initial Equity	$2,405,755	
Cost	$8,019,185	
Profit	$1,791,398	
Return on Equity		**74%**
Return of Investment		**22.34%**

Like Scenario 1A, the developer is able to make a large return on investment when renting the units out at the average market price of the area. The low cap rate of 3.58% reflects higher property values and lower rental yields, but with a lower investment risk and stable and predictable property income. Assuming the developer sells the property after five years, the profit is similar to that of Scenario 1A, where the developer does not purchase the existing detached houses, however, the return on equity is less.

Scenario 2: 6-Unit Multiplex (Resident Developer Rental)

A couple in their mid-40s live in an older home on a large lot in East Willowdale. As their children have moved out, they find themselves with more space than they need. They need to downsize but don't want to leave their neighbourhood and community. Inspired by rising housing demand and potential for long-term rental income, they decide to redevelop their property into a six-unit multiplex, maintaining ownership to rent out the units or sell them as condo units later, while residing in one of the units themselves. The couple is planning for retirement and sees this project as a way to generate passive rental income to support their future financial security. The multiplex will consist of three 1-bedroom units, two 2-bedroom units, and one 3-bedroom unit, with units ranging from 700 to 1300 square feet. The project will be financed by the current property's equity and a construction loan.

Unit Mix			
	Unit Size (sqft)	Unit Size (sqm)	Unit Count
1 Bedroom	700	65.03	3
2 Bedroom	1000	92.90	2
3 Bedroom	1300	120.77	1
Total	**5400**	**501.68**	**6**



Fig 5.14 Diagram of an 8-unit multiplex.

The following table provides a financial breakdown of the estimated cost for the demolition, construction, and rental of the 6-unit multiplex, as well as the annual revenue, projected profit, and returns.

Pro forma for 6-Unit Multiplex		
	Amount	% of Total
FUNDING		
Equity	$821,938	30.00%
Construction Loan	$1,917,854	70.00%
Total Funds	**$2,739,792**	

COSTS		
Acquisition		
Land Purchase (property is worth $1,800,000)	$0	
Minor Variance Fees	$5,949	
Total Acquisition Costs	**$5,949**	0.22%
Hard Costs		
Demolition at $200/sqft	$320,000	
Construction at $300/sqft of GFA	$1,620,000	
Contingency (5% of construction cost)	$81,000	
Total Hard Costs	**$2,021,000**	73.76%
Soft Costs		
Permit Fees	$8,609	
Development Charges	$513,273	
Architectural / Engineering Fees (8.8% of construction cost)	$142,560	
Surveyor / Grading	$5,000	
Design Contingency (5% of design fees)	$7,128	
Insurance	$26,273	
Legal	$10,000	
Total Soft Costs	**$712,843**	26.02%
Total Cost	**$2,739,792**	

REVENUE		
Income		
Annual rent for 3x 1B Units at $1,900 per month each	$68,400	
Annual rent for 2x 2B Units at $2,600 per month each	$62,400	
Annual rent for 1x 3B Units at $3,200 per month each	$38,400	
Residential Vacancy (1.0%)	$1,692	
Total Annual revenue	**$170,892**	
Operating Expenses		
Property Tax	$12,875	
Insurance	$6,000	
Maintenance	$8,000	
Management Fee (5%)	$8,545	
Total Annual Operative Expenses	**$35,420**	
Net Operating Income (NOI)	**$135,472**	

PROFIT		
Cap Rate	2.98%	
Discounted Cash Flow (at 5 years at discount rate of 8%)	$556,512	
Terminal Value	$2,781,455	
Debt Repayment*	-$2,090,461	
*for construction loan at an interest rate of 9%		
Net Profit	**$1,247,506**	

RETURN		
Initial Equity	$821,938	
Cost	$2,739,792	
Profit	$1,247,506	
Return on Equity		**152%**
Return of Investment		**45.53%**

Once the project is completed, the couple may refinance with a commercial mortgage to replace the construction loan. This would be a long-term loan with a fixed interest rate and longer repayment terms (typically 15 to 25 years), secured by the income-producing property (the multiplex). The couple could use the rental income to service the mortgage, and may choose to continue renting out the units after five years to generate passive income, which will supplement their retirement savings. Over time, as property values rise, the rental income can increase, and the property value can appreciate. If the couple were to sell the property after the five years, they still receive a very large return on investment and profit, even after renting out the units at below market prices.

Scenario 3: Low-Rise Mixed-Use Apartments (Rental)

A developer sees an opportunity to acquire two adjacent lots on a corner street in Leaside, Toronto, to build a three-storey, low-rise, mixed-use apartment building. The development will feature residential units on the upper floors and commercial spaces on the ground floor. The developer aims to rent out both the residential units and the commercial space, diversifying their rental income stream.

Unit Mix			
	Unit Size (sqft)	Unit Size (sqm)	Unit Count
1 Bedroom	600	55.74	4
2 Bedroom	900	83.61	6
3 Bedroom	1200	111.48	2
Commercial	1600	148.64	
Total	**11800**	**1096.26**	**12**

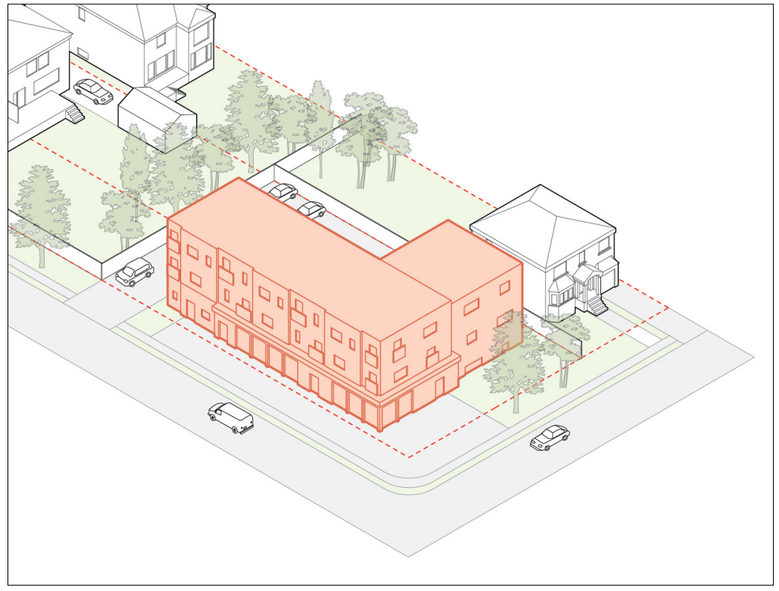


Fig 5.15 Diagram of low-rise mixed-use apartments.

The following table provides a financial breakdown of the estimated cost for the demolition, construction, and rental of the mixed-use building, as well as the annual revenue, projected profit, and returns after ten years.

Pro forma for 12-Unit Mixed-Use Apartments		
	Amount	% of Total
FUNDING		
Equity	$3,002,015	30.00%
Construction Loan	$7,004,702	70.00%
Total Funds	**$10,006,717**	

COSTS		
Acquisition		
Land Purchase x2	$4,000,000	
*assuming lot price of $2,000,000 in area		
Site Plan Approval Fee + other fees	$35,757	
Total Acquisition Costs	**$4,035,757**	40.33%
Hard Costs		
Demolition at $200/sqft	$640,000	
Construction at $350/sqft of GFA	$4,130,000	
Contingency (5% of construction cost)	$206,500	
Total Hard Costs	**$4,976,500**	49.73%
Soft Costs		
Permit Fees	$18,812	
Development Charges	$514,342	
Architectural / Engineering Fees (8.8% of construction cost)	$363,440	
Surveyor / Grading	$5,000	
Design Contingency (5% of design fees)	$18,172	
Insurance	$64,695	
Legal	$10,000	
Total Soft Costs	**$994,460**	9.94%
Total Cost	**$10,006,717**	

REVENUE		
Income		
Annual rent for 4x 1B Units at $2,100 per month each	$100,800	
Annual rent for 6x 2B Units at $2,900 per month each	$208,800	
Annual rent for 2x 3B Units at $3,700 per month each	$88,800	
Annual rent for Commercial Unit(s) at $33/sqft	$52,800	
Residential Vacancy (1.0%)	$3,984	
Total Annual revenue	**$455,184**	
Operating Expenses		
Property Tax	$52,724	
Insurance	$10,000	
Maintenance	$30,000	
Management Fee (5%)	$22,759	
Total Annual Operative Expenses	**$115,483**	
Net Operating Income (NOI)	**$339,701**	

PROFIT		
Cap Rate	3.39%	
Discounted Cash Flow (at 10 years at discount rate of 8%)	$2,077,512	
Terminal Value	$7,626,763	
Debt Repayment*	-$7,635,125	
*for construction loan at an interest rate of 9%		
Net Profit	**$2,069,150**	

RETURN		
Initial Equity	$3,002,015	
Cost	$10,006,717	
Profit	$2,069,150	
Return on Equity		**69%**
Return of Investment		**20.68%**

The proposed mixed-use apartment building in Leaside represents a promising investment opportunity for the developer, with the potential to generate a profit of $2 million after 10 years. The location in Leaside, a highly sought-after neighbourhood in Toronto, further increases the potential for long-term rental income and capital appreciation. The inclusion of retail space in a mixed-use development not only benefits the developer but can also have a positive impact on the long-term economic health of the surrounding neighbourhood by encouraging economic growth.

Appendix 5.3

Table of values for financial assumptions made the in calculation of the pro formas.

Financial Assumptions		
		Source
Construction Hard Costs	average of $260-300 per sqft	https://odimaconstruction.ca/cost-of-building-a-house-in-toronto-gta/
Construction Loan Rate	8 to 10% interest	https://www.ontarioconstructionloans.ca/construction-financing/construction-financing-interest-rates
Severace Fee	Base fee for severing one lot into two, or establishing a new easement: $7,412.57	https://www.toronto.ca/city-government/planning-development/application-forms-fees/fees/
Fee for each additional lot created	$6,019	https://www.toronto.ca/city-government/planning-development/application-forms-fees/fees/
Building Permit Fee	$17.16 per sqm for Single Family Dwellings, Semis, Townhouses, Duplexes, Live/Work Units	https://www.toronto.ca/services-payments/building-construction/apply-for-a-building-permit/building-permit-fees/
Development Charges	varies by unit type and rental/non-rental	https://www.toronto.ca/wp-content/uploads/2024/06/8fc1-DC-Rates-Effective-June-6-2024-for-web.pdf
Architectural / Engineering Fees	percentage fee based on construction cost, typically 8-10%	https://raic.org/sites/raic.org/files/nov2020_2019_fee_guide_en_web_4.pdf
Insurance	1.3% of hard costs	https://www.ratehub.ca/best-mortgage-rates#BMRTable-tab-panel_best-market-rates-0Loan
Property Tax	0.715289% of property value for residential, 1.162478% for multi-residential, 2.228677% for commercial	https://www.toronto.ca/services-payments/property-taxes-utilities/property-tax/property-tax-calculator/property-tax-calculator/

5.4. - SUSTAINABILITY

One of the primary contributions of gentle densification to environmental sustainability lies in its ability to make use of existing infrastructure and reduce urban sprawl. By optimizing existing urban spaces and utilizing underutilized areas such as laneways and backyards, the city can accommodate population growth without encroaching on valuable green spaces, overcrowding the downtown and midtown cores, or contributing to the expansion of the urban footprint. This reduction in sprawl helps preserve natural habitats and biodiversity and mitigates the ecological strain associated with continuous urban expansion.[1] Moreover, residential and commercial development in established neighbourhoods can promote the use of public transportation, cycling, and walking, which reduce greenhouse gas emissions and improves air quality, contributing to the city's broader environmental objectives.

Wood building materials used to construct multiplexes, townhouses, and laneway and garden housing are less carbon-intensive than materials such as steel and concrete, which are typically used in the construction of mid- and high-rise buildings. The construction of new, low-rise housing or the retrofitting of single-family homes into multiplexes also provides an opportunity to implement energy-efficient technologies and green building practices. Upgrading existing structures to meet modern sustainability standards contributes to reduced energy consumption, lower greenhouse gas emissions, and improved overall building performance.

Because the Ontario Building Code allows wood construction on buildings under six storeys tall, some kinds of gentle densification are also inherently cheaper. According to urban designer Ken Greenberg, building with wood is easier, quicker, and less expensive than building with concrete.[2] This also permits many small developers to participate in the ecosystem who would otherwise be unable to participate in large-scale condo building. Instead of relying on a few huge corporations, there are many more participants that can contribute to increased housing.[3]



Fig 5.16 A rendering of the R-Hauz prefabricated ADU by Forma Studio, which specializes in sustainability with the use of low carbon materials, electric power, green roofs, greywater recycling, and energy recovery ventilators.

5.5. - ADDITIONAL COMMUNITY AND RETAIL PROGRAMS AND INFRASTRUCTURE

Allowing community spaces, retail, and small-scale commercial spaces to coexist with residential units is important for fostering vibrant, livable neighborhoods. These amenities not only enhance the daily lives of residents but also create more dynamic streetscapes, increase accessibility to essential services, and reduce the reliance on cars. Corner lots are ideal for this kind of mixed-use development as they naturally attract foot traffic and can serve as hubs for community interaction. Daycares and community spaces located closer to residential neighbourhoods can also help support families and foster social connections among neighbours.

Retail is already permitted in residential neighbourhoods in downtown Toronto, demonstrating how commercial uses can be successfully integrated into single-family areas. Many downtown neighbourhoods, such as Kensington Market, Cabbagetown, and parts of the Annex, feature small-scale retail embedded within primarily residential areas. These stores, cafes, and services are often located on the ground floor of residential buildings or corner lots, blending into the neighbourhood's fabric.

Supporting retail and community programs would also require increased infrastructure, including accessible public transit options and dedicated bike lanes to mitigate the potential rise in traffic. Additionally, integrating green infrastructure like rain gardens and permeable pavements into new developments can help address stormwater management issues exacerbated by increased density.

There are concerns that the current infrastructure may not be able to support the increased density. Laneway and garden housing often rely on the primary house for utility connections, such as water, sewage, and electricity, which can strain aging infrastructure. Not only are there concerns that the infrastructure of a single property might not be enough

to support multiple units, but there may also be a strain on existing transportation systems.[4] Investments in upgrading infrastructure are necessary to accommodate these additional units sustainably. New development can also lead to the loss of open green space with the addition of more units and the expansion of building footprints. Another obstacle to increasing housing in laneways is that many laneways are not wide enough to accommodate the vehicles that handle fire emergencies and waste collection.[5] The city should implement clear guidelines for fire safety, such as ensuring that laneways are wide enough for emergency vehicles and equipping units with fire-resistant materials. For garbage collection, solutions like combing waste with the main house or shared waste management hubs at the laneway entrance could streamline services.



Fig 5.17 A semi-detached house that has been converted into a corner store and office on Dundas St W in Trinity-Bellwoods, creating more retail and community opportunities.

5.6. - IMPACTS ON HUMAN RELATIONSHIPS AND THE NEIGHBOURHOOD

Gentle densification fosters greater interaction among neighbours, breaking down barriers of isolation that often accompany single-family housing. Spaces like shared backyards and courtyards in multiplexes, apartments, and mixed-use developments create more natural opportunities for residents to connect. Similarly, the introduction of small retail spaces like cafes or corner stores can act as neighbourhood meeting points, bringing together residents who might not otherwise interact. These amenities encourage collaborative use, inclusivity, and a sense of collective ownership, thus adding to the character of the neighbourhood.

The community's perception of gentle densification can vary depending on the location and the extent of the project. Some residents may welcome the idea of gentle densification, as it can provide more affordable housing options and increase the vibrancy of the neighborhood. However, others may be opposed to it due to concerns about increased traffic, parking, noise, and loss of privacy. This opposition is often referred to as NIMBYism (Not in My Backyard). NIMBYism can be a significant barrier to gentle densification, as it can delay or prevent projects from moving forward. In many cases, fear of change is driven by a lack of understanding of how new housing typologies can fit into existing urban fabrics. For instance, proposals for higher-density housing often create concerns about overcrowding or property devaluation, despite evidence showing that well-designed developments can enhance both the aesthetic and economic value of an area.

To overcome NIMBYism, it is essential to engage with the community early in the planning process, address their concerns, and provide incentives for participation. Providing incentives for participation, such as tax breaks, expedited permitting, and community benefits such as parks, public art, and community centers can also help overcome NIMBYism and encourage community support for gentle densification. Highlighting the ways in which densification can enhance a neighbourhood can shift the narrative toward a more positive perception of change.



Fig 5.18 Marmalade Lane, a co-housing community located in Cambridge, UK, with a sociable shared garden and car-free lane, encouraging neighbourly interaction.

ENDNOTES

1. Jacques Teller, “Regulating Urban Densification: What Factors Should Be Used?,” *Buildings and Cities* 2, no. 1 (March 25, 2021): 302–17, https://doi.org/10.5334/bc.123.

2. Erin Nicole Davis, “Missing Middle Housing Is An Answer, But Not A Solution,” STOREYS, November 14, 2023, https://storeys.com/missing-middle-toronto-housing-crisis/.

3. Erin Nicole Davis, “Missing Middle Housing.”

4. “Gentle Density and Infrastructure: Guidance Paper for Local and Provincial Government” (Small Housing BC, July 2023), https://smallhousing.ca/wp-content/uploads/2023/08/Gentle-Density-and-Infrastructure-Web-Version.pdf.

5. Nithya Vijayakumar and Mike Collins-Williams, “Make Way for Laneway: Providing More Housing Options for the Greater Toronto Area” (The Pembina Institute and the Ontario Home Builders’ Association, October 2015), https://www.ohba.ca/wp-content/uploads/2017/10/mwfl-report-ohba-pembina.pdf.

6.

NEIGHBOURHOOD DESIGN INTERVENTIONS

This section is a design synthesis of the integration of new low-rise, medium-density typologies based on the recommendations suggested in the previous chapters. The following diagrams and renders visualize factors such as density, public and shared spaces, infrastructure, green space, retail, and amenities within the three chosen neighbourhoods of East Willowdale, Leaside, and North Riverdale.

6.1 - EAST WILLOWDALE

Number of Units
Existing: 60 units
New: 111 units (+51)

Units per Hectare
Existing: 17.2
New: 32.0



Fig 6.1 Gentle densification being integrated into two residential blocks in East Willowdale, between Willowdale Ave, McKee Ave, Dudley Ave, and Parkview Ave.

6.2 - LEASIDE



Number of Units
Existing: 58 units
New: 103 units (+45)

Units per Hectare
Existing: 26.5
New: 47.2

Fig 6.2 Gentle densification being integrated into two residential blocks in Leaside, between Rumsey Rd, Hanna Rd, Sutherland Dr, and Rolph Rd.

6.3 - NORTH RIVERDALE

Number of Units
Existing: 66 units
New: units 101 (+35)

Units per Hectare
Existing: 37.7
New: 57.6



Fig 6.3 Gentle densification being integrated into a residential block in North Riverdale, between Hogarth Ave, Hampton Ave, Wolfrey Ave, and Logan Ave.

6.4 - RENDERS

Laneway Townhouses / Apartments



Fig 6.4 Laneway townhouses and a laneway suite in North Riverdale.

Garden Townhouses / Apartments



Fig 6.5 Garden townhouses in Leaside with a shared backyard.

Multiplex (8 Units)



Fig 6.6 An 8-unit multiplex in East Willowdale.

Low-rise Mixed-use Apartments



Fig 6.7 Mixed-use apartments with a cafe and store in North Riverdale.

CONCLUSION

This thesis has explored the potential for gentle densification as a tool to address Toronto's housing challenges while preserving the essential character and livability of its neighborhoods. Through historical analysis, evaluation of precedents, and the development of new typologies, it has demonstrated how increased densification and neighbourhood preservation can coexist. At its core, this research advocates for innovative housing solutions that meet the needs of a growing and diverse population while fostering resilient communities.

It is important to emphasize that the typologies proposed in this thesis are not architectural statements but a framework for the creation of medium-density housing forms. These typologies are not meant to dictate a specific style or form but instead demonstrate how they can be developed through the collaboration of multiple actors, including policymakers, developers, and community stakeholders. While it would be ideal to see more small-scale intensification initiated by individuals or community groups, the reality is that most development is likely to be led by traditional developers, who will build and sell units for profit, rather than having units retained by homeowners. This dynamic has implications for the accessibility and affordability of housing created through gentle densification.

Although this thesis presents opportunities for intensification in Leaside, East Willowdale, and North Riverdale, it is evident that certain neighbourhoods are better suited to this type of growth than others. For example, while Leaside offers potential for gentle densification, it may feel more like a forced fit compared to areas like East Willowdale or North Riverdale, where existing patterns of housing and infrastructure create more opportunities for medium-density housing to blend seamlessly with the surroundings. For instance, East Willowdale's wider lots and larger property sizes provide the physical space necessary for townhouses or multiplexes without compromising backyard or green space. Similarly, North Riverdale's proximity to transit, walkability, and vibrant mix of retail and residential uses make it more ideal for mixed-use developments that add to both the housing supply and local amenities. Forcing intensification in

neighbourhoods like Leaside may risk creating developments that feel out of place or at odds with community expectations. Instead, it is better to focus on neighbourhoods where the conditions for medium-density growth are already present or where there is community openness to these changes, where this type of intensification can feel more natural.

In addition, while the proposed housing typologies are backed by case studies and precedent analysis, their feasibility in Toronto depends on extensive community consultation and detailed cost analyses to refine their implementation. The complexity of retrofitting existing neighbourhoods, each with unique characteristics, infrastructure constraints, and community dynamics, adds another layer of difficulty. Another challenge is community pushback and NIMBYsim. Many residents fear that increased density will lead to overcrowding, reduced property values, or strain on local infrastructure. These concerns, while not always founded in evidence, are deeply rooted in perceptions of neighbourhood character. Building public support for gentle densification will require a cultural shift toward understanding density as an opportunity rather than a threat.

The City of Toronto is actively engaged in ongoing research and policy development to encourage innovative housing options and address the persistent housing crisis. Through initiatives such as the Expanding Housing Options in Neighbourhoods (EHON) program and the HousingTO 2020-2030 Action Plan, the city is exploring ways to allow for greater flexibility in zoning and land use to accommodate medium-density housing. These efforts include the Local Neighbourhood Retail and Services study, which is investigating ways to support the preservation and growth of small-scale retail, service, and office uses in the city's designated neighborhoods. This commitment to research reflects the city's recognition that traditional development patterns are no longer sufficient to meet the housing needs of a growing and diverse population, suggesting that the strategies presented in the thesis have a possibility of being implemented in the near future.

Furthermore, these policies must be flexible enough to account for the unpredictable nature of the housing market and neighbourhood development. The outcomes of gentle densification cannot be fully planned or predicted, as they depend on a mix of factors, including market demand, individual actors, and the adaptability of neighbourhoods themselves. Construction costs, interest rates, and government policies are all highly variable, making it difficult to predict how and when the strategies proposed in this thesis could be implemented. While gentle densification offers a promising path forward, its success depends on consistent political will, community acceptance, and economic viability, all of which are subject to change. Developers may be hesitant to adopt new typologies if profit margins are uncertain, and shifting political priorities could delay or halt zoning reforms. These realities underscore the difficulty of turning urban design strategies into actionable, long-term solutions.

As densification progresses in the scenarios outlined, the shaping of more fragmented areas of open green space is crucial and can involve defining small personal and collective territories within these denser urban environments. These spaces, such as small yard plots and shared open areas, will provide residents with opportunities to carve out personal green spaces while still benefiting from the broader communal areas. While the concept of shared communal spaces, like shared backyards, is proposed, it is important to acknowledge that their success hinges on the willingness of residents to embrace this communal approach. The idea that people will willingly share these spaces is hopeful, but it remains uncertain whether such arrangements will be accepted in practice. Additionally, parking will present a significant challenge in these denser scenarios. As driveways may be removed to create more living space, the need for alternative parking solutions becomes more pressing. With limited space, it will be hard to determine how to incorporate enough parking to accommodate the needs of residents, especially when many will no longer have access to private driveways.

There will inevitably be a tipping point where gentle densification will no longer suffice. Eventually, the demand for housing and the constraints of the built environment will require a more aggressive form of densification, one that cannot be classified as "gentle" any longer. In newer neighbourhoods like East Willowdale, with more open space, a variety of architectural styles and ages, and the potential for larger-scale redevelopment, there may be greater opportunity for such transformation. Here, the ability to reshape blocks and introduce denser, more mixed-use developments could be explored without disrupting the established urban fabric too drastically. In older, more established neighbourhoods like Leaside, there will be resistance to aggressive densification as these communities are often rooted in strong historical, cultural, and social ties. Therefore, while aggressive densification might be necessary in the long run to meet housing demands, it is unlikely to be embraced in neighbourhoods with a long-standing, tightly-knit character, where there are concerns about the loss of identity and disruption of community life.

While this thesis focuses on three neighbourhoods that represent a broad range of urban contexts in Toronto, it is essential to acknowledge that there are still many other types of neighbourhoods in the city that warrant further investigation. Certain urban morphologies, such as sloped neighbourhoods or those located near ravines and waterways, present unique challenges and opportunities for densification that differ from the typologies explored here. Additionally, neighbourhoods built on park lots, such as Cabbagetown and Little Italy, have specific, historically significant layouts that stem from land division practices dating back to 1793. The configurations of these neighbourhoods, with their distinct lot shapes and sizes, create constraints and opportunities for development that were not fully addressed in this thesis. Further research should involve these anomalies, as they could require unique densification strategies that consider their historical context and physical characteristics. Developing scenarios for these areas will be key to ensuring that the principles of gentle densification can be applied in a variety of settings across Toronto's diverse urban landscape.

This thesis challenges the assumption that increased density must come at the expense of neighbourhood character or livability. It demonstrates how medium-density housing developed through thoughtful design and policy changes can enhance the community of neighbourhoods. The inclusion of retail and rental units within these typologies further emphasizes their potential to create vibrant, connected communities, while also offering homeowners opportunities for mortgage repayment and steady cash flow.

In conclusion, this thesis calls for bold yet balanced action. Toronto must embrace housing forms that go beyond the incremental addition of units currently permitted by zoning. By changing the zoning to allow for the creation of new, denser typologies that blend seamlessly with existing urban forms, respect historical context, and meet the needs of diverse populations, the city can achieve a housing future that is equitable and responsive to its changing needs.

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