



Micro-housing Barriers, Issues, and Opportunities to Promote Housing Affordability in Toronto and Other Canadian Cities

May 2020



Publication Information

Citation: Erik Janssen, Gil Amdurski and Leigh St.Hilaire. 2020. *Micro-housing Barriers, Issues, and Opportunities to Promote Housing Affordability in Toronto and Other Canadian Cities*. Sustainable Technologies Evaluation Program, Toronto and Region Conservation Authority, Vaughan, Ontario.

Documents prepared by the Sustainable Technologies Evaluation Program (STEP) are available at www.sustainabletechnologies.ca. For more information about this or other STEP publications, please contact:

Tim Van Seters
Manager, STEP
Toronto and Region Conservation Authority
101 Exchange Avenue
Vaughan, Ontario
E-mail: tim.vanseters@trca.ca

Erik Janssen
Analyst, STEP
Toronto and Region Conservation Authority
101 Exchange Avenue
Vaughan, Ontario
E-mail: erik.janssen@trca.ca

The Sustainable Technologies Evaluation Program

The Sustainable Technologies Evaluation Program (STEP) is a multi-agency initiative developed to support broader implementation of sustainable technologies and practices within a Canadian context. STEP works to achieve this overarching objective by:

- Carrying out research, monitoring and evaluation of clean water and low carbon technologies;
- Assessing technology implementation barriers and opportunities;
- Developing supporting tools, guidelines and policies;
- Delivering education and training programs;
- Advocating for effective sustainable technologies; and
- Collaborating with academic and industry partners through our Living Labs and other initiatives.

Technologies evaluated under STEP are not limited to physical devices or products; they may also include preventative measures, implementation protocols, alternative urban site designs, and other innovative practices that help create more sustainable and livable communities.

Acknowledgements

The authors gratefully acknowledge the funding support for this project provide by the Canada Mortgage and Housing Corporation (CMHC) through the National Housing Strategy. STEP also acknowledges Services and Housing in the Province (SHIP) as a project partner. Funding support for STEP from The Region of Peel, York Region, and The City of Toronto, is also gratefully acknowledged.

Project Team

The STEP team included:

- Erik Janssen, Analyst
- Gil Amdurski, Technical Coordinator
- Leigh St. Hilaire, Project Manager

STEP would also like to acknowledge the input provided by the following stakeholders:

- Graham Cubitt, InDwell
- Jason Takerer, CMHC
- Michelle McMaster, CMHC
- Adam Kedebe, City of Toronto
- Cory O'Handley, Services and Housing in the Province (SHIP)
- Steve Heuchert, Toronto and Region Conservation Authority

Notice

The contents of this report do not necessarily represent the policies of the supporting agencies. Although every reasonable effort has been made to ensure the integrity of the report, the supporting agencies do not make any warranty or representation, expressed or implied, with respect to the accuracy or completeness of the information contained herein. Mention of trade names or commercial products does not constitute endorsement or recommendation of those products.

Cover Images

Images from Google Maps. **Top Left:** Stacked-town micro-suites used as infill in a low-density Kelowna neighbourhood, featuring 320 ft² units. **Top Middle:** Smart House Condos in Queen West Toronto featuring units as small as 289 ft². **Top Right:** Parkdale Landing from InDwell, a non-profit private community housing provider in Hamilton, ON, featuring micro-sized studio apartments. **Middle Right:** Burns Block building, formerly a single-room occupancy hotel and now renovated into 30 micro-suites as small as 220 ft², located in Vancouver's Downtown Eastside. **Bottom:** Temporary modular housing units as small as 250 ft² used by the Vancouver Affordable Housing Association (VAHA) to provide immediate housing relief for vulnerable individuals.

Executive Summary

Overview

A micro-suite is a "... a newly constructed housing unit that contains a private bathroom and kitchen or kitchenette, but that is significantly smaller than a standard studio in a given city."¹ In most jurisdictions, that means units that are on the scale of 300 ft² and smaller. They are designed to house single people and couples without children. From affordability, to environmental sustainability, to intensification, the concept has potential to address many of the challenges facing the housing sector. Over the past decade, different jurisdictions across Canada and the U.S. have been exploring micro-suites in multi-unit buildings using pilots at different scales. This study reviewed that experience through a literature search and jurisdictional scan, and then harmonized that experience into a set of transferrable lessons and next steps for Toronto and other Canadian cities.

Key Findings

- There are positive examples of micro-suites used as non-market community housing (Figure A), supportive housing for vulnerable demographics,² secured market rentals, and market ownership units. Micro-suites have housed seniors, students, and working professionals across a range of ages and incomes.
- Interest is high. Micro-suite tenants see size as an acceptable compromise to achieve affordability, location, and the ability to live without roommates.
- The well-being of tenants is a key concern of decision-makers and a barrier for deployment. However, the studies evaluated in this work showed overall high levels of satisfaction amongst tenants of micro-suites.
- There is no data on the well-being of tenants in micro-suites post-COVID-19. This knowledge gap should be filled with research that should then inform future decision-making. Extended periods of self-isolation in a smaller space would be difficult, but it is also important to consider micro-suites against the options they are displacing given the high cost of housing (for example, living in an illegal rooming house, or with strangers), which could be worse.

¹ Urban Land Institute. The Macro View on Micro Units. 2014.

² The Government of British Columbia and the Vancouver Affordable Housing Agency (VAHA) provide an excellent example of modular manufactured micro-suites deployed on vacant or under-utilized government land to provide immediate housing relief for homeless



Figure A: Hamilton-based Indwell provides an excellent case study of micro-suites being used in a cold-climate to provide shelter for individuals in housing need. They are also a model of sustainability with buildings constructed to meet the Passive House standard for relatively small cost premiums. Shown here is their Parkdale Landing building. (Credit: George Qua-Enoo)

- Commonly identified regulatory barriers are related to zoning and requirements around minimum area, parking, open- and common-space, as well as unit mix within a building. These regulations are not intrinsically "bad." Rather, they are barriers insofar as they outright prevent micro-suite developments, increase costs past the point of financial feasibility, or push development to occur only in certain types of buildings. A key issue relates to how regulations are applied "per unit" — such that a building with smaller units will require proportionally more space for building amenities like parking, open-space, and common-space, than a conventional building of the same physical size. This decreases affordability.

individuals. The City of Toronto is emulating this approach with 110 modular housing units across two sites planned for completion by September 2020, and 250 planned in total. CMHC's Affordable Housing Innovation Fund will cover 40% of the capital costs of Phase 1 in this development.

Fast Facts

- Research from the U.S. showed that 47% of conventional renters that are under the age of 34, making less than 40k, and living with roommates would consider renting a micro-suite.³
 - Post-occupancy surveys in one Vancouver market micro-suite development (with 192 units that were 281 to 320 ft²) showed that 84% of tenants were either very satisfied, satisfied, or neither satisfied nor unsatisfied, with their micro-suite.⁴
 - Even higher levels of tenant satisfaction have been seen when modular manufactured micro-suites have been used to provide immediate housing relief for homeless individuals – with no tenants reporting that they were unsatisfied with their housing.⁵
- Micro-suites can incorporate thoughtful design features and building amenities that support livability and the well-being of tenants. Micro-suites can also achieve deep levels of affordability. However, these two factors are somewhat at odds and the challenge for cities is in defining and encouraging buildings with the optimal balance.
 - In Toronto, most of the micro-suites are in market-ownership condominiums with units often being purchased as investment properties and rented on the secondary market. In this context, rental rates are often no more affordable than an average conventional studio. These units are also not affordable to the large majority of full-time workers in Toronto.⁶ Opportunities for affordability from micro-suites rentals are therefore mostly unrealized in the City.
 - There are also good examples that *demonstrate* the opportunity to promote affordability. In 2019, micro-suites in a new building (construction completed in 2017) sold for as low as \$267k while an average studio in the City was selling for \$384k.⁷ This building was in a lower-demand area that still has

good walk, bike, and transit scores, and this particular unit did not have a bundled parking space – two key factors promoting affordability. The monthly ownership costs for this micro-suite would be *affordable to the majority of full-time workers in the City*.⁸ A 1-bedroom unit with a parking space in the same building sold for approximately 70% higher (\$450k) around the same time.⁹

- The housing market in Toronto is already very good at producing studio and 1-bedroom units. A primary opportunity for micro-suites is in moving forward, for affordable market micro-suites to occupy some share of the conventional studio and 1-bedroom mix as the population grows, and more individuals opt to live alone. However, realizing that opportunity likely requires active interest from the City.

Implications for Housing Industry

The opportunity for micro-suites to provide a cost-effective housing option is most apparent for non-market community housing and immediate housing relief for vulnerable individuals. Toronto is already planning to deploy micro-suites for the latter application, emulating a similar initiative in British Columbia. In terms of affordable micro-suite *market* rentals, the opportunity is there but remains mostly unrealized. The recommended next step for Toronto and other cities is to follow the example of other jurisdictions and conduct a pilot. It may be a single building, a limited number of units, or an area of a city. Purpose-built rentals in a lower-demand area with good walk, bike and transit scores, likely hold more promise for affordability than market-ownership condominiums rented on the secondary rental market. The pilot should be in an area where opposition from residents would be low. It would consider relaxing regulatory barriers (like parking requirements) conditionally based on design and affordability criteria set by the City. As part of a pilot, cities should find allies within the community, and incorporate different measures to build community interest and involvement. Lastly, the impacts of micro-suites on tenants and the community should be studied and shared to fill the existing knowledge gaps.

³ Urban Land Institute. The Macro View on Micro Units. 2014.

⁴ Craig Thomas Sidjak. Residents' Satisfaction with Mini - Suite Housing: A Case Study of 600 Drake. University of British Columbia Master's Thesis in School of Community and Regional Planning. 1995.

⁵ Morrison Herschfield. CMHC Research Report: Evaluation of a Movable, Modular Affordable Housing Project. 2019.

⁶ The CMHC defines housing as "affordable" when housing costs are less than 30% of pre-tax income. The most recent census data showed that the median income for full-year full-time workers in Toronto was \$47,420. For housing to be affordable to a single individual it must therefore cost less than \$1,186 per month. Real estate data shows that micro-suites in sought-after locations like Queen St. W. (Smart House) or the Bay St. Corridor (Karma Condos) are achieving rents beyond \$1,700 per month. In lower demand areas (like The

2800 Condos in Downsview), rents are still beyond \$1,500 per month. This is discussed in Table 7. These rents do not significantly deviate from the average of new studio leases across the City – which was \$1,720 in Q2 2018 according to Urbanation.

⁷ This is a 310 ft² unit in The 2800 Condos in Downsview that sold in January 2019 (MLS # W4344140). The estimate for the average sale price of studios across the City is from Zolo.

⁸ Assuming 20% down, 2.75% interest, 25 year amortization and 135 \$/month condo fee (from the listing), the monthly cost of ownership is \$1,120 – below the median income for full-time full-year workers in Toronto.

⁹ In February 2019, a larger studio (371 ft²) in the building, with no parking, sold for \$312k (MLS # W4326907). In March 2019, a 1-bedroom unit with a parking space sold for \$450k (MLS # W4328760).

Contents

1 Introduction.....	1
1.1 Housing Issues in Toronto	1
1.2 Introduction to Micro-housing	2
1.3 Current Micro-housing Examples in Toronto	3
1.4 Types of Micro-housing	4
1.5 Micro-housing Options for Toronto	5
1.6 Who is it For and Why Would Someone Choose it?	6
1.7 Overview of Study	7
2 Federal Policy Context	8
2.1 National Housing Strategy	8
3 Provincial Policy Context.....	9
3.1 Community Housing Renewal Strategy	9
3.2 Ontario's Housing Supply Action Plan	9
3.3 Growth Plan for the Greater Golden Horseshoe	10
3.4 Ontario Building Code	10
4 Municipal Policy Context	11
4.1 Official Plan	11
4.2 Housing Opportunities Toronto (HOT)	11
4.3 Toronto Housing Charter.....	12
4.4 Housing Now	12
4.5 Housing 2020-2030 Action Plan.....	12
4.6 Open Door Affordable Housing Program	12
4.7 Expanding Housing Options in Neighbourhoods.....	12
4.8 Toronto Municipal Code	12
4.9 Zoning Bylaw	13

4.10 Growing Up Guidelines.....	13
5 Summary of Policy Context.....	14
5.1 Overview	14
5.2 Opportunities	14
6 Jurisdictional Scan	15
6.1 Overview	15
6.2 Type of Micro-suite Allowed.....	15
6.3 Ensuring Livability, Health and Well-being	18
6.4 Roll-out of Micro-suite Developments.....	23
6.5 Mix of Housing and Ensuring Long-term Viability	23
6.6 Incentivization for Developers	26
6.7 Process for Engagement with the Community	26
6.8 Ensuring Affordability	27
6.9 Study of Impacts	27
6.10 Minimum Area Requirements.....	34
6.11 Minimum Parking Requirements.....	34
6.12 Integration with Community Housing	37
6.13 Summary.....	37
7 Literature Review	38
7.1 Overview	38
7.2 Renter Experience and Needs	38
7.3 Micro-suite Barriers in the Academic Literature	43
8 Potential Micro-suite Barriers and Actions	46
8.1 Overview	46
8.2 Caution.....	46
8.3 Opposition.....	48
8.4 Regulatory	49

8.5 Summary of Barriers and Potential Actions	52
9 Micro-suite Barriers and Toronto Context.....	54
9.1 Literature Search and Jurisdictional Scan Considerations	54
9.2 Micro-suites Currently in Toronto	54
9.3 Toronto Demographics and Rental Market Supply	58
9.4 Towards Affordable Market Micro-suites in Toronto.....	59
9.5 Other Opportunities Within the City	59
10 Summary and Conclusion.....	60
10.1 Overview	60
10.2 Policy Context	60
10.3 Literature Search and Jurisdictional Scan	61
10.4 Specific Policy Measures and Initiatives.....	61
10.5 Micro-suites in the Toronto Context.....	62
10.6 Other Opportunities Within the City.....	62
10.7 Next Steps.....	63
10.8 Final Thoughts	63

1 Introduction

1.1 Housing Issues in Toronto

The Toronto housing market is facing a number of challenges:

- **Affordability.** In Q1 2019, median price for condo apartments was \$498k, and for a detached home, \$842k.¹⁰ Housing ownership costs divided by median income (a key affordability metric) was near a record high in 2018 – at 66.1%.¹¹ Community housing wait times are long.¹²
- **Changing demographics.** The average number of people per household is declining.¹³ In Canada, one-person households make up the largest household demographic group, followed by couples without children.¹⁴
- **Population growth and the need for intensification.** Toronto is projected to be the fastest growing region in Ontario, with a total growth of 44.5% by 2041.¹⁵ Intensification is key part to the Toronto Official Plan.¹⁶
- **Environmental sustainability.** Toronto is seeking to reduce emissions within their TransformTO strategy.¹⁷ In Toronto, the largest emitters of carbon emissions are buildings followed by transportation.¹⁸ Affordability has driven longer commuting distances, increasing emissions. Home energy consumption, and therefore, emissions, also directly correlate with household area¹⁹ which has increased historically (although that trend is now changing in many condo markets).²⁰

- **Housing supply gap.** The Toronto real estate supply has responded very weakly to rapidly increasing demand.²¹
- **Missing middle housing.** Toronto, and many other jurisdictions, have become increasingly polarized between high-rises and single-family detached homes, with few options in between.²²
- **Constrained rental market.** A low supply of purpose-built rental housing has constrained the rental market.²³

This list was not exhaustive but it's enough to characterize Toronto as a changing city, where it is difficult both to find and afford suitable housing. This, in turn, causes a host of other negative implications - for example, leaving some to resort to unsafe illegal rooming houses.²⁴ Population growth projections show that these problems will only persist in the future and this suggests that policy and planning interventions are required.

One important factor is the physical size of housing itself. Smaller "micro-sized" housing has grown in popularity across North America and may help to address many of these issues as part of a broader suite of measures. Micro-housing was evaluated in greater detail within this study.

¹⁰ Canadian Real Estate Association. Toronto Real Estate Board Housing Market Stats. Accessed online May 2019: www.creastats.crea.ca/treb/mis05_median.htm

¹¹ Royal Bank of Canada Economic Research. Housing Trends and Affordability. March 2019. Accessed online May 2019: www.rbc.com/newsroom/assets-custom/pdf/house-mar2019.pdf

¹² Wait time are discussed in a recent report from the Toronto Auditor General. Currently, more than 100,000 individuals on the wait list and placement can take more than 10 years. See: Toronto Auditor General Beverly Romeo-Beehler. An Effective Waiting List and Reduced Vacancy Rates Will Help More People Access Housing. June 21, 2019. Accessed online Oct 2019: www.toronto.ca/legdocs/mmis/2019/au/bgrd/backgroundfile-135339.pdf

¹³ Statistics Canada. The Shift to Smaller Households over the Past Century. Accessed online May 2019: www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015008-eng.htm

¹⁴ Statistics Canada. Survey of Household Spending, 2016: Appendix G Estimated Number of Households and Average Household Size by Domain, Canada. Accessed online May 2019: www150.statcan.gc.ca/n1/pub/62f0026m/2017002/app-ann-g-eng.htm

¹⁵ Government of Ontario Ministry of Finance. Ontario Population Projections Update, 2017 – 2041. Accessed online May 2019: www.fin.gov.on.ca/en/economy/demographics/projections/

¹⁶ City of Toronto. Toronto Official Plan (2015 Consolidated). Accessed Online May 2019: www.toronto.ca/wp-content/uploads/2017/11/99b3-cp-official-plan-volume-1-consolidation.pdf

¹⁷ Carbon targets are discussed on The City of Toronto's TransformTO webpage. Accessed online Oct 2019: <https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/transformto/>

¹⁸ The Atmospheric Fund. Keeping Track: 2015 Carbon Emissions in the Greater Toronto and Hamilton Area. July 2018. Accessed online Oct 2019: www.taf.ca/wp-content/uploads/2018/09/TAF_GTHA_Emissions_Inventory_Report_2018-Final.pdf

¹⁹ Statistics Canada. Households and The Environment: Energy Use, 2011. Table 4-2 Average household energy use, by household and dwelling characteristics, 2007 — Size of heated area. Accessed online May 2019: www150.statcan.gc.ca/n1/pub/11-526-s/2010001/t006-eng.htm

²⁰ Marc Vachon. The ever-shrinking condo. Canadian Journal of Urban Research Vol. 27, No. 2. Winter 2018, pp. 37-50.

²¹ CMHC. Examining Escalating House Prices in Large Canadian Metropolitan Centres. 2018. Accessed online May 2019: www.cmhc.schl.gc.ca/en/data-and-research/publications-and-reports/examining-escalating-house-prices-in-large-canadian-metropolitan-centres

²² Evergreen. What is the Missing Middle? A Toronto housing challenge demystified. Accessed online May 2019: www.evergreen.ca/downloads/pdfs/2018/What_is_the_Missing_Middle_Evergreen_CUI_s2.pdf

²³ Note that this beginning change, 2018 had the greatest increase in purpose-built rental unit supply in 30 years. See: Urbanation. GTA Condo Rents Grew 9% in 2018. Jan 11th, 2019. Accessed online May 2019: www.urbanation.ca/news/251-gta-condo-rents-grew-9-2018

²⁴ For a recent article on this topic see: Jason Miller. Toronto's housing crisis sparks conversation about illegal rooming houses. Toronto Star. Feb 12th 2019. Accessed online Oct 2019: www.thestar.com/news/gta/2019/02/12/torontos-housing-crisis-sparks-conversation-about-illegal-rooming-houses.html

1.2 Introduction to Micro-housing

This study evaluated potential micro-housing applications in the context of Toronto. The term “micro-housing” broadly refers to dwellings that are unconventionally small. The key attributes of micro-housing units are that they may better **utilize existing space**, allow for a **greater density** of dwellings, and also may be **more affordable**. They also promote **environmental sustainability** by their inherent energy efficiency, resulting in decreased carbon emissions.

It's not a new concept from a historical²⁵ or international²⁶ perspective, but only seems so according to modern Canadian standards which have seen the average home size balloon from less than 1,000 ft² in the 50s-60s to 2,300 ft² in the late 1990s (although now it has reduced slightly in size to 1,900 ft²)²⁷ while the average number of occupants has decreased.²⁸

Over the past 10 to 15 years, micro-housing has had a resurgence in North America as housing has become less affordable. It offers a solution at the confluence of the interests and needs of different stakeholders.

Governments need to provide affordable housing, increase the density of cities, and address the climate emergency. **Individuals** need affordable housing and easy access to city amenities. **Developers** want to satisfy an unfulfilled market need and increase profitability by building housing at a denser scale.

While it is not for everyone, or even every stage of life, micro-housing can be a pragmatic addition to a broader suite of measures aimed at providing independent, clean, safe, and affordable housing options with easy access to city amenities.

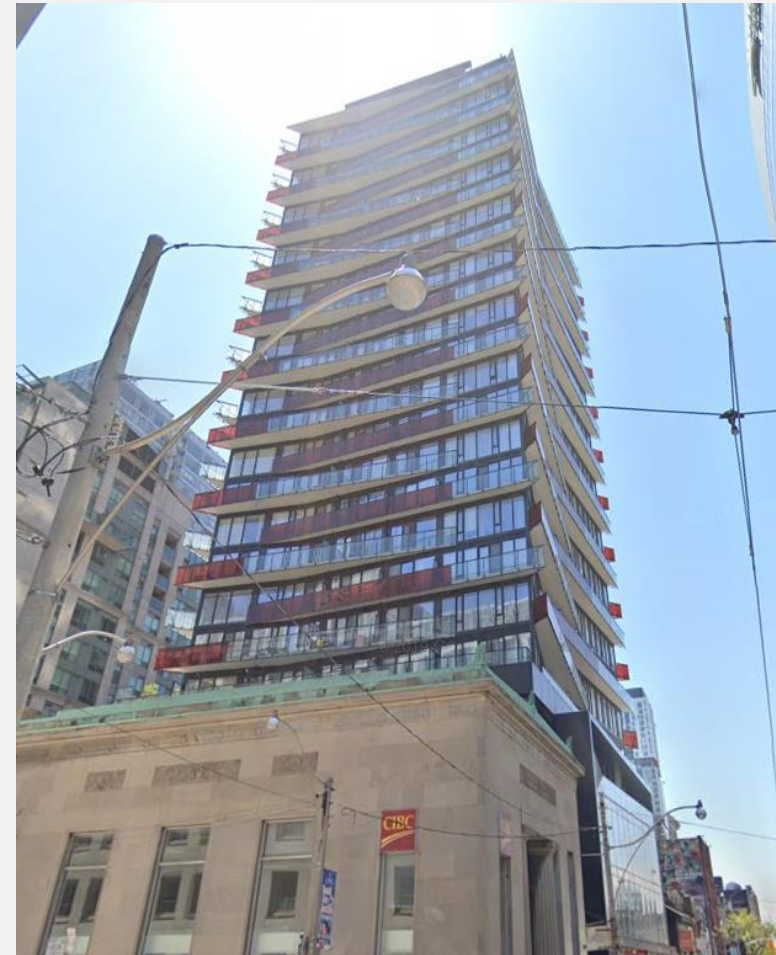


Figure 1. Smart House Condos in Queen W, Toronto, was completed in 2018. It offers micro-suites as small as 289 ft² (Credit: Google Maps).

²⁵ For a short history of home size see: Dawn Withers, Looking for a Home: How micro-housing Can Help California, Golden Gate University Environmental Law Journal, Volume 6, Issue 1; Symposium Issue: The City as Habitat: A Place for Urban Wildlands, Article 8, November 2012. Accessed online Oct 2019: digitalcommons.law.ggu.edu/cgi/viewcontent.cgi?article=1094&context=gguelj

²⁶ The website shrinkthatfootprint.com provides a comparison of average floorspace per person across the globe. Canada comes in at third for most floor space, behind Australia and the United States. Accessed Oct 2019: www.shrinkthatfootprint.com/how-big-is-a-house

²⁷ Marc Vachon, The ever-shrinking condo, Canadian Journal of Urban Research Vol. 27, No. 2, Winter 2018, pp. 37-50.

²⁸ Statistics Canada. The Shift to Smaller Households over the Past Century. Accessed online May 2019: www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015008-eng.htm

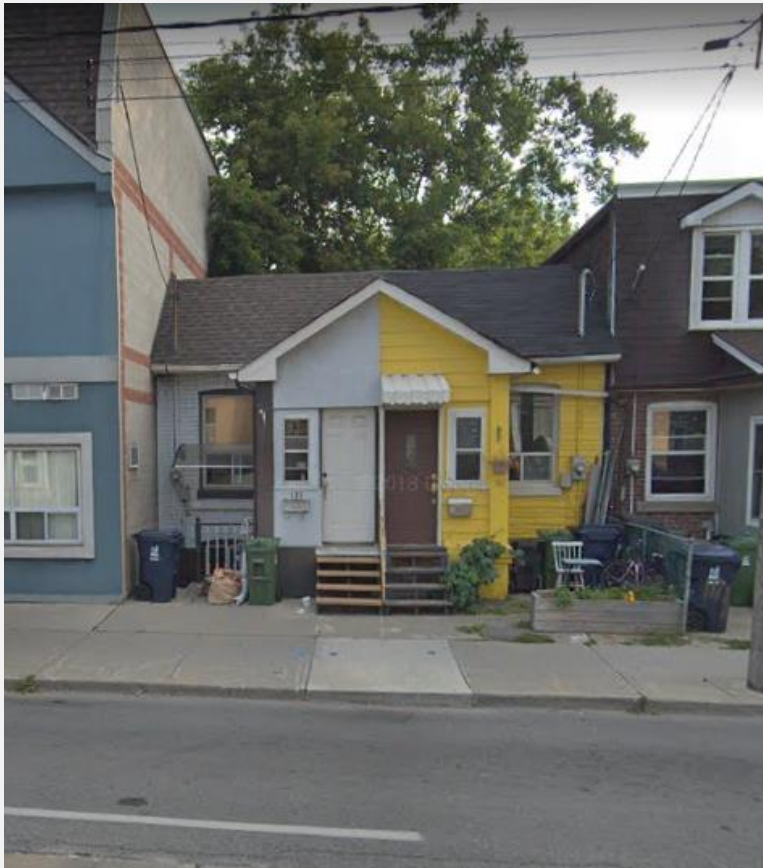


Figure 2. This micro-sized semi-detached home is an example of one many similar homes in the area around Craven Rd., Toronto, where some of the smallest semi-detached and detached homes in the city can be found (Credit: Google Maps).

1.3 Current Micro-housing Examples in Toronto

There are examples of micro-housing in Toronto – both old and new. The area around Craven Rd. in the East End of Toronto is home to the largest collection of homes under 500 ft² in the city.²⁹ Many homes in the area are over a century old, but they are slowly being replaced with new construction.

A May 2019 listing for a micro-sized semi-detached home in the area (Fig. 2) on a 12.5'-wide lot had sold for \$481k³⁰ – approximately 40% lower than Toronto's median detached home price of \$842k. Other examples of legacy micro detached homes are dispersed throughout the city, including one that may be the smallest in the city at 189 ft².³¹

Like many other larger cities, Toronto also has a limited number of older micro-sized rental studio apartments,^{32,33,34,35} but more recently there are examples of new market-ownership condominiums incorporating these units.

In 2019, micro-sized studio apartment rentals for Karma Condos near Yonge and College, with units as small as 277 ft², were between \$1,785 and \$2,100 per month.³⁶ This is 9 to 23% below the median rental rate in the city for all leases signed in 2018 (at \$2,310 with an average unit size of 709 ft²)³⁷ but it is likely not as significant a reduction in cost as one might expect given the small size.

Karma Condos is an example of micro-housing providing lower-cost access to an in-demand location, and premium design, but it doesn't meet the criterion of affordability to a broader component of the population, especially lower-income individuals.³⁸

If micro-housing is to help address the housing issues facing the city in a substantial way, then conscious effort from the City is required.

²⁹ Amber Daugherty. Tiny House Society of Craven Rd. Spacing Toronto. Feb 13th, 2013. Accessed online May 2019: spacing.ca/toronto/2013/02/13/the-tiny-house-society-of-craven-road/

³⁰ Sale price from HouseSigma.

³¹ Ahren Langschmidt. Small House Movement Part 1: Toronto's Tiniest Homes. Condos.ca Blog. Aug 24th, 2015. Accessed online May 2019: www.condos.ca/blog/small-house-movement-hits-toronto

³² Lauren Kolyn. A Teeny-Tiny Cozy & Clever 190-Square-Foot Toronto Studio. Apartment Therapy. May 15th, 2017. Accessed online Jul 2019: www.apartmenttherapy.com/house-tour-a-tiny-190-square-foot-studio-in-toronto-242887

³³ Toronto Storeys. This 236-Square-Foot Condo In Toronto Costs \$1000-A-Month. Toronto Storeys. June 5th, 2018. Accessed online Jul 2019: www.torontostoreys.com/2018/06/micro-condo-toronto-minimalist-rent/

³⁴ Daniel Tencer. Toronto Rental Rates Are Soaring, As This Tiny \$1,400 Apartment Proves. Huffington Post. October 11th, 2018. Accessed online Jul 2019: www.huffingtonpost.ca/2018/10/11/toronto-rental-rates-soaring_a_23558162/

³⁵ Alina Bykova. Why are Young Torontonians Moving into Tiny Micro Condos? Torontoist. 07/27/2016. Accessed online Jul 2019: www.torontoist.com/2016/07/why-are-young-torontonians-moving-into-microcondos/

³⁶ This is discussed in greater detail in Table 7.

³⁷ Urbanation. GTA Condo Rents Grew 9% in 2018. Jan 11th, 2019. Accessed online May 2019: www.urbanation.ca/news/251-gta-condo-rents-grew-9-2018

³⁸ Other new micro-housing developments include Smart House Condos in Queen West with units as small as 289 ft², Art Shoppe Lofts + Condos on Yonge and Eglinton with units as small as 321 ft², and the 2800 Condos near Downsview with units as small as 310 ft².

1.4 Types of Micro-housing

There are many types of micro-housing, including:

- micro detached homes, either with a single structure on a single lot³⁹, in clusters of multiple structures⁴⁰, or with multiple structures forming a dedicated community;⁴¹
- semi-permanent micro-housing villages⁴² or insulated sleeping structures for the homeless⁴³;
- so-called “Tiny Homes” constructed on trailer beds (Fig. 3);
- micro-suites (co-housing units or studio apartments) in multi-unit buildings including high-rise, mid- or low-rise, rowhouses, stacked towns, duplexes, triplexes, etc.⁴⁴
- micro accessory dwelling units including laneway homes and laneway house units; and
- micro lock-off units in a primary residence.

While it's clear that there are many micro-housing form factors, not all are necessarily compatible with the dense urban cityscape of Toronto. Furthermore, many of the options are completely disparate – with each requiring their own targeted analysis to identify barriers, issues and opportunities.



Figure 3. Tiny homes on wheels often use conventional building techniques, only shrunk down to fit a trailer bed. They are now explicitly considered in zoning bylaws for some Canadian jurisdictions.⁴⁵ (Credit: Weekend with Dee)

³⁹ There are many U.S. examples. For example, see See Cass Community Social Services in Detroit Michigan: casscommunity.org/tinyhomes/

⁴⁰ Homes for Heroes is Canadian Foundation that provides housing, a community of peers, and network of supports, to help veterans re-integrate into civilian life. In particular, Homes for Heroes is tackling the issues of homelessness amongst veterans. They have partnered with ATCO to build small communities of prefab micro detached homes (<300 ft²) with current developments planned in Calgary and Edmonton. See: homesforheroesfoundation.ca

⁴¹ The City of Okotoks, Alberta, is in the planning stages of a Tiny House ecovillage as part of a broader ecological developed named The Homestead with support from CMHC Innovation Fund and Vagabond Tiny Homes. The development is planning for 42 “Tiny Homes” in total on 2.8 acre parcel of land. While housing affordability is a key issue motivating the development, the ecovillage has a broader goal “to influence society through the modeling of a sustainable lifestyle based on ideas, built form, and practices that are focused on a reduced ecological footprint primarily achieved through a local community-based sharing economy.” See: www.okotoks.ca/municipal-government/public-participation/homestead-project

⁴² There are many examples of this approach and Seattle is at the forefront. The Low Income Housing Institute (LIHI) operates several micro house villages in Washington for homeless individuals as well as housing at other scales for low-income and formerly homeless

individuals. Each micro-home is equipped with heating and electricity. Kitchen, shower, and other services are located in communal spaces. A number of other services and supports are also provided to transition people into permanent housing. See: lihi.org/tiny-houses/

⁴³ There are many cases of homeless individuals or community members building small sleeping structures from salvaged materials. The intent is most often about survival rather than comfort but, for many, even this represents a large step up from sleeping out in the open. As an example, see the CBC news article: Lorenda Reddekopp “It’s called ‘The Crammer’ and it could provide a safe space for the homeless,” Mar 7th, 2019. Accessed online Oct 2019: www.cbc.ca/news/canada/toronto/cramper-shelter-homeless-1.5046033

⁴⁴ Micro-suites can be shrunk-down conventional studio apartments, of which there are many examples, but other types exist as well. For example, a form of co-housing, termed congregate housing, experienced a boom in Seattle in the early 2010s. In congregate housing, several small units share a communal kitchen. In many ways, the concept is similar to an SRO hotel or student dorm.

⁴⁵ In the Canadian context, Tiny Homes on wheels are now explicitly considered in the Zoning Bylaw for Grand Forks, B.C., and Yarmouth, Nova Scotia. See: The Corporation of Grand Forks B.C. Zoning Bylaw No. 2039, p.15. Accessed online Oct 2019: www.grandforks.ca/wp-content/uploads/bylaws/By2039-Zoning-Bylaw.pdf. Also see: Town of Yarmouth, Land Use Bylaw. June 2016. Accessed online Oct 2019: www.townofyarmouth.ca/land-use-bylaw.html

1.5 Micro-housing Options for Toronto

While other micro-housing form factors may be of interest, this study has focused on micro-suites in multi-unit buildings as one of the most relevant to Toronto.

The working definition for a micro-suite used in this study, as formulated by the Urban Land Institute (ULI),⁴⁶ is:

“a newly constructed housing unit that contains a private bathroom and kitchen or kitchenette, but that is significantly smaller than a standard studio in a given city.”

This micro-housing form factor is present but not common in the Toronto cityscape, especially in low-rise buildings, and could be one of the most relevant in to helping address the current housing context.

Examples from other jurisdictions are shown in Figure 4. They include both market and non-market units, new construction, infill and renovations of existing buildings.



Figure 4. (Top) McKay Apartments in Burnaby BC was developed as low-cost housing for seniors.⁴⁷ Studios are as small as 350 ft².⁴⁸ **(Mid)** The Burns Block development is a renovated SRO hotel in Vancouver's Downtown Eastside. It contains 30 units, some as small as 220 ft².⁴⁹ **(Bottom)** The Ethel St. development in Kelowna by Worman is a stacked town on a formerly vacant lot that contains 24 micro-suites less than 320 ft².⁵⁰ (Credits: Google Maps)

⁴⁶ Urban Land Institute. The Macro View on Micro Units. 2014. Accessed online Aug 2019: www.uli.org/wp-content/uploads/ULI-Documents/MicroUnit_full_rev_2015.pdf

⁴⁷ Burnaby Now. Affordable housing project for seniors opens in South Burnaby. Apr 13th, 2019. Accessed online Oct 2019: www.burnabynew.com/news/affordable-housing-project-for-seniors-opens-in-south-burnaby-1.23790755

⁴⁸ Global News. Micro suites offer affordable alternative to Lower Mainland seniors. Mar 19th, 2019. Accessed online Oct 2019: www.globalnews.ca/news/5074525/micro-suites-offer-affordable-alternative-to-lower-mainland-seniors/

⁴⁹ Willem Thomas. Is it time for Vancouver to allow more micro-lofts? Vancouver Magazine. Jul 13, 2019. Accessed online Oct 2019: www.vanmag.com/vancouver-micro-lofts

⁵⁰ Ron Seymour. More micro-suites coming. May 13th, 2015. Kelowna Daily Courier. Accessed online Oct 2019: www.kelownadailycourier.ca/news/article_410acd6e-f9ed-11e4-9941-1b90a3541912.html

1.6 Who is it For and Why Would Someone Choose it?

This question will be answered more scientifically in Section 7.2, but it is also worth addressing at the outset because micro-suites are often met with skepticism.

A prominent micro-suite developer noted that the primary demographic serviced by one of their micro-suite developments in Vancouver was millennials purchasing their first home.⁵¹ Similar developments have attracted a range of individuals from young professionals to retirees.⁵² Micro-suites have also been used as non-market units for seniors⁵³ or other vulnerable individuals.⁵⁴

The primary reasons individuals and couples choose micro-suites are:

- **Affordability.** Micro-suites can provide individuals the opportunity to live independently and cost-effectively in a clean and safe environment.
- **Location.** Micro-suites often replace “space” with “place.” It allows people to stay or relocate to denser urban areas where there is easy access to transit, amenities, entertainment, employment, education, all in the context of a walkable complete community. In a sense, the city becomes a living room.
- **Better than the alternatives.** The alternatives are much less desirable – dependence on parents or other family for housing, living with strangers, living in an unsafe illegal rooming house, living in a suburb far from work or city amenities, debt, homelessness, long community housing wait times, etc.

Anecdotal reports from news articles provide initial insights that micro-suites are, in fact, an acceptable housing solution for many.

"I want you to consider that there are people like me who are happy in a place like this... My unit is lovely, and the building is attractive. I can walk to stores and parks, and I can afford to live there." Judy Green, 67, congregate-housing tenant in Seattle. Congregate housing is a form of co-housing where individual unit sizes are 140 to 200 ft².⁵⁵

"I think it's a good kind of movement... This is a new, more well-thought out, well-executed kind of living, as long as people don't abuse it—you know, jam as many people as possible in ... It's perfect for one person." Dan Tomita, recent graduate, tenant in a 300 ft² market rental in New York City.⁵⁶

"It's small, but it's livable, we're very happy here." Terry Murphy, 74, resident in a 350 ft² community housing micro-suite in Burnaby, BC.⁵⁷

"...the sacrifice of the space is an equal trade-off to have my own spot... [I previously was housemates] with people I found on Craigslist, and I lived with strangers, and one of them was just a nut." Alex Tursi, 29, Microsoft employee and congregate-housing tenant in Seattle.⁵⁸

"My friends were like, 'It's too small; don't do it.' But I don't feel that way. I have my own bathroom, a full bed, a desk, shelves... I mostly just need a safe, clean place to shower, eat, and sleep.... There's so much going on. I'm rarely home." Anna Rogers, recent college graduate, living in congregate housing in Seattle.⁵⁹

"[The condo] had a really nice kitchen, a really nice dishwasher, the doors had a nice soft close... Even though it was small, it was fairly high quality. It was tiny but mighty." Anna Wolak, 26, co-owner of a 258 ft² market condominium in Cubix Condos, San Francisco.⁶⁰

"I'm so comfortable here... It's everything I ever prayed for." Chris Sabourin, 57, a formerly homeless individual and tenant in a 390 ft² suite from InDwell, a non-profit private community housing provider based in Hamilton, ON.⁶¹

"From out there in the gutter, to this. I'm telling you, it's a miracle in my life." William, Vancouver temporary modular housing resident.⁶² Temporary modular housing units in Vancouver range in size from 250 to 320 ft².

⁵¹ Leslie Braunstein. Micro-suites Fill an Affordability Niche for Young and Older Residents. Urban Land Institute. April 26, 2014. Accessed online Oct 2019: www.urbanland.uli.org/development-business/micro-suites-fill-affordability-niche-young-older-residents/

⁵² Dominic Holden. The Fight Against Small Apartments. Why Neighborhood Groups Are Uniting to Stop Developers from Building Tiny, Affordable Units. The Stranger. May 8, 2013. Accessed online Oct 2019: www.thestranger.com/seattle/the-fight-against-small-apartments/Content?oid=16701155

⁵³ MacKay Apartments in Burnaby features non-market studio apartments for seniors that are below 350ft². See: Burnaby Now. Affordable housing project for seniors opens in South Burnaby. Apr 13th, 2019. Accessed online Oct 2019: www.burnabynow.com/news/affordable-housing-project-for-seniors-opens-in-south-burnaby-1.23790755

⁵⁴ InDwell is a private non-profit community housing provider in Hamilton, ON, that includes micro-suites in many of their buildings. See: www.indwell.ca

⁵⁵ Dominic Holden. The Fight Against Small Apartments. Why Neighborhood Groups Are Uniting to Stop Developers from Building Tiny, Affordable Units. The Stranger. May 8, 2013. Accessed online Oct 2019: www.thestranger.com/seattle/the-fight-against-small-apartments/Content?oid=16701155

⁵⁶ Amy Plitt. What it's really like to live in NYC's first micro-suite building. Curbed New York. Sep 22, 2016. Accessed online Oct 2019: ny.curbed.com/2016/9/22/13019200/nyc-studio-apartment-carmel-place-house-calls

⁵⁷ Global News. Micro suites offer affordable alternative to Lower Mainland seniors. Mar 19, 2019. Accessed online Oct 2019: www.globalnews.ca/news/5074525/micro-suites-offer-affordable-alternative-to-lower-mainland-seniors/?utm_source=GlobalBC&utm_medium=Facebook

⁵⁸ Dominic Holden. The fight against small apartments. The Stranger. May 8th, 2013. Accessed online Oct 2019: www.thestranger.com/seattle/the-fight-against-small-apartments/Content?oid=16701155

⁵⁹ David Neiman. How Seattle Killed Micro-Housing. Sightline Institute. Sept. 6, 2016. Accessed online Oct 2019: www.sightline.org/2016/09/06/how-seattle-killed-micro-housing/

⁶⁰ Kathleen Pender. Big lifestyle decisions found in small places. San Francisco Chronicle. Jun 26th, 2016. Accessed online Oct 2019: www.pressreader.com/usa/san-francisco-chronicle/20160626/282381218850755

⁶¹ CBC News. Here's the secret to living in a 390-square-foot apartment. July 24th, 2018. Accessed online May 5th, 2020: www.cbc.ca/news/canada/hamilton/micro-dwellings-1.4758636

⁶² City of Vancouver Website. Temporary Modular Housing. Accessed online Feb 2020: vancouver.ca/people-programs/temporary-modular-housing.aspx

1.7 Overview of Study

This study analyzed micro-suites in the context of Toronto. Using the experience in other jurisdictions as a guide, the aim was to evaluate barriers, opportunities, and issues. The study proceeded by:

- a review of planning, policy, code, and legal documents;
- a literature review and jurisdictional scan, including relevant case studies; and
- a limited series of consultations with relevant stakeholders.

The study concluded with recommendations and next steps intended to help micro-suites realize their affordability potential within Toronto, and other Canadian cities by extension.

2 Federal Policy Context

2.1 National Housing Strategy

What is it?

Canada's first National Housing Strategy (NHS)⁶³ was released by the Canadian Mortgage and Housing Corporation (CMHC) in 2018. It represents an investment of \$40 billion and a 10 -year plan with the broad goal of ensuring "... Canadians across the country have access to housing that meets their needs and is affordable."

The goal will be accomplished using a mix of funding, grants and loans, available through a number of initiatives. NHS initiatives will directly incentivize new housing supply and the modernization of existing housing, provide resources for community housing providers, and also support research, demonstration, and knowledge sharing – prioritizing solutions for the most vulnerable Canadians.

What are the specific goals?

The plan articulates a number of targets, among them⁶⁴:

- cutting chronic homelessness by 50%;
- removing 530,000 families from housing need;
- renovating and modernizing 300,000 homes; and
- building 125,000 new homes.

How does it work?

Initiatives can broadly be categorized as (1) those that provide direct funding for specific housing developments and (2) those that promote housing solutions through research or other resources. The direct funding initiatives most relevant for this work include:

- **The National Housing Co-Investment Fund** for New Construction which offers \$5.19 billion in loans and \$2.26 billion in capital contributions to support the creation of 60,000 new affordable housing units that are energy-efficient, socially inclusive, mixed-use, mixed-tenure and mixed-income.
- **The Affordable Housing Innovation Fund** which offers \$200 million to support innovative building techniques and funding models in affordable housing.
- **Rental Construction Financing** which offers \$3.75 billion in low-cost loans (with possibility for future expansion) to support sustainable apartment projects.
- **The Federal Lands Initiative** which offers \$200 million in funding to support the transfer of surplus federal used to develop housing that is affordable, sustainable, accessible and socially inclusive.

Two other initiatives relevant to this work include:

- **The NHS Demonstration Initiative** which offers funding for the demonstration of innovative housing solutions through a variety of media and formats.
- **The Solutions Lab** which offers funding to convene groups of stakeholders and experts in focused short- or long-term sessions aimed at tackling complex affordable housing issues.

3 Provincial Policy Context

3.1 Community Housing Renewal Strategy

The Ontario Government's Community Housing Renewal Strategy⁶⁵ seeks to address problems within the social and affordable housing sector across three areas, including housing supply, the experience of individuals within community housing (or seeking community housing), and rules and regulations of the system itself.

A key issue within housing supply is that the original agreements with non-profit and co-operative housing providers are expiring and it is unclear how many units will remain as community housing because they would no longer have a legal obligation to provide non-market housing. Approximately 6,500 units have been lost due to expiring agreements and 41,000 are currently at risk.

A key outcome of the Community Housing Renewal Strategy is to increase the supply and appropriate mix of affordable and adequate housing. The Province has announced two new initiatives to be launched in 2019-2020: The Canada-Ontario Community Housing Initiative and The Ontario Priorities Housing Initiative.

The program details have not yet been finalized but the Province has stated that this funding can be used by Service Managers to expand social and affordable housing supply and this includes new affordable rental construction.

3.2 Ontario's Housing Supply Action Plan

The vision of Ontario's Housing Supply Action Plan,⁶⁶ introduced in May 2019, is that all "... all Ontarians can find a home that meets their needs and their budget." The Government's 5-point plan has made the following commitments⁶⁷:

- Maintaining Ontario's strong environmental protections while making the development approvals process faster
- Making costs more predictable to encourage developers to build more housing
- Making it easier to build different types of housing
- Protecting tenants and making it easier to build rental housing
- Encouraging more innovation and creativity in Ontario's housing sector

In line with these commitments, the Government has introduced changes to the Planning Act with Bill 108 to streamline local decision making, approvals and appeals; make it easier for individuals to create rental suits in laneways, above garages and in basements; make development costs more predictable; and increase certainty on where development can happen.

The Government has also made changes to the Local Planning Appeal Tribunal to address the backlog of legacy cases and long timelines for appeals. They have changed the Public Policy Statement to encourage a mix of housing development type, decrease uncertainty, reduce barriers and costs, recognize local decision-making, as well as update planning and development policies. Further changes include the Development Charges Act (notably to exempt development costs for secondary units), the Ontario Building Code as well as a number of other Acts.

⁶⁵ Government of Canada. Canada's National Housing Strategy. 2018. Accessed online Oct 2019: www.publications.gc.ca/collections/collection_2018/edsc-esdc/Em12-54-2018-eng.pdf

⁶⁴ These bullet points were taken directly from the webpage for the NHS: www.cmhc-schl.gc.ca/en/nhs/guidepage-strategy

⁶⁵ Province of Ontario. Community Housing Renewal Strategy. 2019. Accessed online Oct 2019: www.ontario.ca/page/community-housing-renewal-strategy

⁶⁶ Province of Ontario. More Homes, More Choice: Ontario's Housing Supply Action Plan. May 2019. Accessed online Oct 2019: files.ontario.ca/mmah-housing-supply-action-plan-21may2019.pdf

⁶⁷ The phrasing of these points is taken directly from the plan.

3.3 Growth Plan for the Greater Golden Horseshoe

The Growth Plan for the Greater Golden Horseshoe,⁶⁸ released May 2019, provides provincial policy upon which Greater Golden Horseshoe municipalities must base their land use planning.

The Plan covers many aspects of planning and development, including protected employment zones, housing, integrated transportation networks, natural environment, agricultural land, urban centres, and cultural heritage. A key concept within the document is the development of complete communities, defined within the Plan as:

“Places such as mixed-use neighbourhoods or other areas within cities, towns, and settlement areas that offer and support opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living, including an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and public service facilities. Complete communities are age-friendly and may take different shapes and forms appropriate to their contexts.”

Section 2.2.6 provides policy specific to housing. Relevant items to this work include:

- targets for intensification and density;
- targets for housing, either owned or rented, that is affordable; and
- a directive to identify a mix of housing options and densities (including secondary units) to meet the needs of current residents and projections for the future.

3.4 Ontario Building Code

Minimum floor areas are laid out in the Ontario Building Code (OBC). These are the bare minimum and it is often the case that municipalities will specify more restrictive requirements in their zoning bylaw.

Section 9.5.8.1 states: *“where living, dining, bedroom and kitchen spaces are combined in a dwelling unit that contains sleeping accommodation for not more than two persons, the area of the combined spaces shall be not less than 13.5 m².”*

Section 9.5.9.1 states: *“In every dwelling unit an enclosed space of sufficient size shall be provided to accommodate a water closet, lavatory and bathtub or shower stall.”*

Section 9.5.1.3 states: *“Minimum floor areas specified in this Section do not include closets or built-in bedroom cabinets unless otherwise indicated.”*

It follows that the minimum area requirement according to the building code is 145 ft² for a combined living/dining/kitchen/bedroom space in addition to the space required for closets and an enclosed bathroom of sufficient area to accommodate a sink, toilet and shower.

The OBC Supplementary Standard SB-10 provides energy efficiency requirements for new buildings and different compliance paths towards meeting them. Importantly, energy consumption targets are considered relative to building size, as energy use intensities (EUIs), rather than in terms of absolute energy usage. This means that a 3,000 ft² luxury home may be compliant, while a micro-home is not, despite the fact that the micro-home consumes a fraction of the energy overall (in absolute terms). It's worth noting that there are currently discussions around adding bonus points for small housing forms and eliminating any unfair treatment of small housing forms within compliance path methodologies.

⁶⁸ Province of Ontario. A Place to Grow Growth Plan for the Greater Golden Horseshoe. May 2019. Accessed online Oct 2019: files.ontario.ca/mmah-greater-golden-horseshoe-place-to-grow-english-15may2019.pdf

4 Municipal Policy Context

4.1 Official Plan

The Toronto Official Plan⁶⁹ was adopted by in 2002 and approved with modifications by the Ontario Municipal Board in 2006. It was further approved with amendments in 2015. The Plan presents the vision for the growth of Toronto into the future as *"...an attractive and safe city that evokes pride, passion and a sense of belonging - a city where people of all ages and abilities can enjoy a good quality of life."*

Key aspects of this are *"vibrant neighbourhoods that are part of complete communities"* and *"affordable housing choices that meet the needs of everyone throughout their life."* The Plan states that the future of Toronto is a city where *"no person pays more than they can afford for shelter"* and *"innovative implementation solutions are embraced."*

The Plan includes policy to help realize these, and other, objectives. This policy also directs where growth will happen in the City - in the Centres, Avenues, Employment Areas and the Downtown, each of which have their own separate plan or are under further study.

Sensitive infill will occur in Neighbourhoods and Apartment Neighbourhoods but these areas are considered stable (although this is now changing – see Section 4.7) and any development *"...will respect and reinforce the existing physical character of buildings, streetscapes and open space patterns in these areas."* The Plan also includes policy specifically aimed at promoting new rental housing, which has fallen behind, as well as maintaining the current stock.

4.2 Housing Opportunities Toronto (HOT)

The HOT plan set targets and provided a blueprint for Toronto's approach to affordable housing. The plan comprised \$484 million in investments over 10 years to assist a target of 257,700 households. It had recommendations across 8 themes. Among the themes are: (1) create housing opportunities in all neighbourhoods; (2) assist individuals and families to afford rents; (3) revitalize neighbourhoods; and (4) create new affordable rental homes;

Highlight recommendations relevant to this work include:

- *"Preserve and expand the supply of affordable housing available to single persons by... encouraging and permitting an increase in legal, well run rooming houses and other appropriate forms of housing where current zoning bylaws allow, and subject to any future changes to the zoning bylaw."*
- *"Prioritize the allocation of affordable housing program funding for... initiatives to support the redevelopment of selected emergency shelter sites and the acquisition of SRO hotels... [and] proposals that deliver a range of housing types and rent levels... [and] affordable housing proposals that secure the affordability of units for longer terms (e.g. more than 20 years)."*
- *"Use planning tools to create affordable housing in mixed income, inclusive communities by... the use of Section 37 of the Planning Act to obtain contributions for affordable housing from other residential developments where density and/or height is increased."*

⁶⁹ City of Toronto. Toronto Official Plan. Feb 2019 Consolidation. Accessed online Oct 2019: www.toronto.ca/wp-content/uploads/2019/06/8f06-OfficialPlanAODA_Compiled-3.0.pdf

4.3 Toronto Housing Charter

The Toronto Housing Charter,⁷⁰ implemented in 2017, was created as part of the HOT and provides guiding principles for City Council's decision-making regarding housing. The Charter is brief, at only a page long, but it is a bold statement of citizens' rights for housing that is affordable:

"It is the policy of the City of Toronto that fair access to a full range of housing is fundamental to strengthening Toronto's economy, its environmental efforts, and the health and social well-being of its residents and communities. ... In that regard: All residents should have a safe, secure, affordable and well-maintained home from which to realize their full potential."

4.4 Housing Now

The first phase of Housing Now⁷¹ was launched in 2019 and forms one part of the upcoming 2020-2030 Housing Action Plan. In total, the plan is expected to deliver over 10,000 residential homes – this includes affordable units (rented at 80% of market value), market rentals and ownership units. This will be accomplished by activating under-utilized City land for housing developments, mirroring similar efforts from The Government of British Columbia in 2017 (see Case Study 7). A new initiative within the City emulated previous initiatives in BC is using modular manufactured micro-suites deployed on vacant or under-utilized government land to provide immediate housing relief for homeless individuals. The City of Toronto is emulating this approach with 110 modular housing units across two sites planned for completion by September 2020, and 250 planned in total. CMHC's Affordable Housing Innovation Fund will cover 40% of the capital costs of Phase 1 in this development.

4.5 Housing 2020-2030 Action Plan

At the time of this report, Toronto's Housing 2020-2030 Action Plan⁷² is still under development.

⁷⁰ City of Toronto. Toronto Housing Charter – Opportunity for all. 2017. Accessed online Oct 2019: www.toronto.ca/wp-content/uploads/2017/11/8eca-2016-TOHousingCharter.pdf

⁷¹ For more information see City of Toronto Housing Now website: www.toronto.ca/community-people/community-partners/affordable-housing-partners/housing-now/

⁷² For more information see City of Toronto website: www.toronto.ca/community-people/get-involved/public-consultations/toronto-housing-strategy-2020-2030/

4.6 Open Door Affordable Housing Program

The Open Door Affordable Housing Program⁷³ was adopted in 2016 to allow the City to work with non-profit and private housing providers to accelerate the creation of affordable housing spaces. It includes capital funding, relief from fees and taxes, activating surplus land, and fast-tracking of approvals.

4.7 Expanding Housing Options in Neighbourhoods

In July of 2019, Toronto City Council voted unanimously "to direct the Chief Planner and Executive Director of City Planning to report to the Planning and Housing Committee in the fourth quarter of 2019 on options and a timeline to increase housing options and planning permissions in areas of Toronto designated as Neighbourhoods in Toronto's Official Plan."⁷⁴ These parts of the City, termed the "Yellow Belt," are predominantly low-density detached and semi-detached homes. This is a new direction from that in the The Official Plan, which states that development in these areas was to be very limited.

4.8 Toronto Municipal Code

Chapter 629-25 of the Toronto Municipal Code⁷⁵ provides occupancy standards for habitable rooms. It has the following requirements:

- "the maximum number of persons living in a habitable room shall not exceed one person for each nine square metres of habitable room floor area"
- "the minimum floor area of a room used by only one person for sleeping shall be six square metres with the room having a minimum dimension on one side of two metres."
- "the minimum floor area of a room used by two or more persons for sleeping shall be four square metres for each person so using the room"

It follows that the combined living/dining/kitchen/bedroom space in a micro-suite used by two individuals must be at least 18 m² (194 ft²) according to the Toronto Municipal Code.

⁷³ City of Toronto. Open Door Affordable Housing Program Guidelines. 2018. Accessed online Oct 2019: www.toronto.ca/wp-content/uploads/2018/01/8d97-Open-Door-Guidelines-2018.pdf

⁷⁴ See the City Council voting results on this initiative here: app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019-MM9.36

⁷⁵ City of Toronto Municipal Code. Accessed online Oct 2019: www.toronto.ca/legdocs/bylaws/lawmcode.htm

4.9 Zoning Bylaw

Parking requirements for dwelling units in an apartment are laid out in Table 200.5.10.1 of City of Toronto Zoning Bylaw 569-2013. The minimum number of required parking spaces depends on the policy area and rates are applied per unit. In Policy Areas 1 (Downtown), 2, 3, and 4, it is 0.3, 0.6, 0.6 and 0.7 spaces per studio unit, respectively and for all other areas of the City it is 0.8. It follows that parking requirements can be significant.

Sections 10.10.40.50 and 15.10.40.50 of the Zoning Bylaw covers indoor and outdoor amenity space requirements for residential and residential apartment zones. Requirements are determined based on the numbers of units: "an apartment building with 20 or more dwelling units must provide amenity space at a minimum rate of 4.0 square metres for each dwelling unit, of which: (A) at least 2.0 square metres for each dwelling unit is indoor amenity space; (B) at least 40.0 square metres is outdoor amenity space in a location adjoining or directly accessible to the indoor amenity space; and (C) no more than 25% of the outdoor component may be a green roof."

4.10 Growing Up Guidelines

Unit mix requirements apply to buildings with 20 or more units and are defined within the City's Growing Up Guidelines. They require that at least 25% of the units are large (2+ bedrooms). They also encourage flexible design that allows reconfiguration of units.

5 Summary of Policy Context

5.1 Overview

Housing policy across all levels of government echoes common themes. Interventions are needed to:

- improve affordability;
- improve supply of rental housing;
- safeguard and expand the current stock of community housing;
- improve environmental sustainability;
- encourage a range of different housing types;
- ensure housing is an integral part of complete communities;
- guide intensification and density growth in key areas;
- promote innovative solutions.

The vision of the Official Plan is that Toronto will be a city where “no person pays more than they can afford for shelter” and the Toronto Charter states that “... all residents should have a safe, secure, affordable and well-maintained home from which to realize their full potential.” Given the current housing crises, it is difficult to see how those aspiration can be fulfilled without new and innovative solutions.

Micro-suites are not specifically identified in any of these policy documents, but it is could be one innovative housing solution, among others, that could directly address these issues.

Overall, the major barriers for micro-suite developments are not found in higher-level policy documents, which if anything, are supportive of innovative solutions to address the housing crisis.

Rather, some barriers exist at the zoning by-law level. These will be discussed in Section 8 alongside other barriers identified in the literature search and jurisdictional scan.

5.2 Opportunities

Opportunities for micro-suites emerging from the policy review include:

- At the **federal** level, the National Housing Strategy has provided several initiatives relevant to micro-suite deployment and is currently funding at least four projects related to micro-housing.⁷⁶ The NHS Solutions Lab and Demonstration Initiative are further opportunities to study micro-suites and build knowledge.⁷⁷
- At the **provincial** level, the Community Housing Renewal Strategy highlights new commitments to increase the supply and appropriate mix of affordable and adequate housing. Micro-suites have been used in other North American jurisdictions to cost-effectively house couples and individuals (for example see Case Study 3) and community housing renewal is an opportunity for micro-suite deployment.
- At the **municipal** level, new opportunities are emerging to increase the mix of housing in areas of the City traditionally zoned for detached and semi-detached housing and there are micro-suite form factors that could integrate well into these neighbourhoods (discussed in Figure 5). The acquisition and refurbishment of SRO hotels is also a unique opportunity to retrofit micro-suites into existing buildings (See Burns Block Building in Vancouver; Fig. 4). Various other initiatives exist to accelerate the development of affordable housing spaces – which could include micro-suites.

⁷⁶ See the list of funded projects on CMHC's website. Accessed online Oct 2019: www.cmhc-schl.gc.ca/en/nhs/affordable-housing-innovation-fund?guide=WHAT%20IS%20INNOVATION

⁷⁷ See InDwell, covered in Case Study 3.

6 Jurisdictional Scan

6.1 Overview

The jurisdictional scan looked at the experience with micro-suites in British Columbia, Boston, Seattle, San Francisco and New York City, because these jurisdictions were identified as having more experience with the concept. Given the newness of micro-suites, and the lack of formal scientific study, the analysis relied heavily on non-academic sources – this included news reports, third-party reports, institutional websites, zoning/code documents, and similar, to piece together the overall experience from different perspectives.

The analysis proceeded through two lenses. The first simply tried to document a short case study summarizing the experience of the different jurisdictions. The second synthesized that experience across a common set of themes, including:

- Type of micro-suite allowed
- Ensuring livability, health and well-being
- Roll-out of micro-suite developments
- Mix of housing and ensuring long-term viability
- Incentivization for developers
- Process for engagement with the community
- Ensuring affordability
- Study of impacts
- Minimum area requirements
- Minimum parking requirements
- Integration with community housing

⁷⁸ See Case Study 1.

⁷⁹ Note that the micro-suite definition is tricky here. There are co-housing examples in Ontario that could fall into this category. For example, Abbey Field Society provides housing for seniors where, in some cases, they occupy different suites in a more-or-less conventional home and share communal spaces. See: www.abbeyfield.ca/houses/abbeyfield-toronto-lakeside-house/. There are also cases where several individuals communally own a building and live in much the same way. See: CBC Radio, A new type of family: six

6.2 Type of Micro-suite Allowed

In the context of multi-unit buildings there have been two types of micro-suites used in different jurisdictions. The first type is essentially a micro-sized studio apartment unit. It has also been termed a small efficiency dwelling unit (SEDU) or a Micro Dwelling Unit (MDU). It contains everything a normal apartment would have, just shrunk down to a lower square footage.

The second is a type of co-housing unit. In Seattle, where it was first introduced, the official term is “congregate housing.”⁷⁸ Each suite is a separately leased micro-sized studio apartment equipped with a kitchenette, rather than a kitchen, and a bathroom. Several suites are serviced by a large communal kitchen. It is something in between a conventional-looking apartment and a rooming house, or perhaps close to a student dormitory.

Congregate housing has the potential for the smallest footprints (as small as 140 ft² in Seattle), greatest density, and therefore, the deepest levels of affordability. A congregate housing boom began in Seattle in 2009 when developers were able to make use of, what critics have called, a “loophole” in the zoning bylaw. This was followed by fierce opposition from community groups surrounding the placement of congregate housing in conventional low-density residential neighbourhoods, and then a series of incremental regulation changes which led to an effective moratorium.

To the author's knowledge there have been no new congregate housing developments (of the type deployed in Seattle) in Canada⁷⁹ and all micro-suites in multi-unit buildings would fall under the category of SEDUs/MDUs. It is still feasible that Toronto could pilot this new form of housing, but the Seattle experience shows that a more thoughtful roll-out would be required.

housemates on the highs and lows of communal living, Oct 11, 2019; Accessed online Oct 2019: www.cbc.ca/radio/tapestry/friendship-1.5316964/a-new-type-of-family-six-housemates-on-the-highs-and-lows-of-communal-living-1.5317053. These are important trends worth noting, but they are moving further away from the micro-suite concept as it is being explored in this study – where individuals or couples own or rent a distinct suite within a building.

Case Study 1: Community Opposition in Seattle

Congregate housing in Seattle provides a useful micro-suite case study. Seattle is a growing city of approximately 730,000.⁸⁰ In the recent years it has flooded the rental market with new supply and now has high vacancy rates and declining (albeit still high) rents.⁸¹ Previously low vacancies and affordability issues led to a boom in congregate housing, a new type of micro-suite.

Congregate housing is similar in concept to a rooming house or even some university dormitories. In Seattle, individual congregate housing units are as small as 140 ft² and are purpose-built rentals.⁸² Each suite is a very small studio apartment equipped with a kitchenette and bathroom. Several suites are serviced by a large communal kitchen.

Seattle experienced a congregate housing boom starting in 2009 when developers were able to utilize what some termed as a “loophole” to form the new type of housing while avoiding review that would normally be part of the process for new apartment buildings.

The loophole was that up to seven separately-leased congregate housing suites which share a common kitchen could be defined within the existing zoning bylaw as a single dwelling, and provided the developments contained eight or fewer dwellings, they could avoid community review and environmental impact assessments.⁸³

Effectively, a conventional apartment building with nine suites would be subject to much more stringent review than a congregate housing development with 56 suites. The developers could then apply for tax exemptions using the quantity of separately-leased suites⁸⁴ rather than the number of dwellings, but this loophole was eventually closed.

David Neiman, a Seattle-based architect, provides a timeline of the boom and bust of congregate-housing from a developer's point of view. He argues that City policies incrementally “killed” an innovative housing solution that provided a much-needed affordable option for those looking to live independently and enjoy city amenities.



Figure 5. Example street view of congregate housing in Seattle under the aPodments® brand (Photo Credit: Google Maps).

The important factors cited by Neiman included a mandatory review process for all congregate housing developments implemented in August 2014, seen by developers as overly onerous, and more restrictive zoning introduced in 2014 preventing congregate housing from being implemented where other types of multi-family development were allowed (and where congregate housing made economic sense for tenants and developers). He argues that these and other amendments essentially led to a moratorium on congregate housing.

Micro-suites were still an option in the form of small efficiency dwelling units (SEDU) – essentially small studios with a full kitchen (and no communal kitchen) - but amendments and other factors served to incrementally reduce their development as well.

⁸⁰ Seattle Office of Planning and Community Development. Population & Demographics. Accessed online Oct 2019: www.seattle.gov/opcd/population-and-demographics

⁸¹Joannah Connolly. Opinion: How Seattle reversed its rental housing crisis. Times Colonist. July 9th, 2018. Accessed online Oct 2019: www.timescolonist.com/real-estate/opinion-how-seattle-reversed-its-rental-housing-crisis-1.23362308

⁸² David Neiman. “How Seattle Killed Micro-Housing.” Sightline Institute, Sept. 6, 2016. Accessed online Jun 2019: www.sightline.org/2016/09/06/how-seattle-killed-micro-housing/.

⁸³ Seattle Times Editorial. Seattle should impose controls on ‘aPodments’ and conduct larger housing review. Seattle Times. April 28, 2013. Accessed online Jun 2019: old.seattletimes.com/html/editorials/2020869474_editapodmentsxml.html

⁸⁴ Ibid.

Neiman points to restrictions that make the stated minimum square footage of 220 ft² impossible to achieve in practice; restrictive changes to the City's geographic areas that are part of the "frequent transit network" (developments on this network may be exempt from off-street parking requirements)⁸⁵; changes that excluded SEDUs from multi-family tax exemptions (MFTEs); and changes to building code interpretations which ultimately require more square footage.

Neiman argues that these changes effectively turned micro-suites into more conventionally sized studio apartments which resulted in fewer housing units and significantly greater rents.

An important factor motivating the City's decision-making was the strength of the opposition from local residents which has been well-documented by journalists.^{86, 87} Several community groups organized around the issue of the growth of congregate housing developments, including Reasonable Density Seattle, Harvard Avenue Neighbors, Seattle Speaks Up and Capitol Hill Coalition.⁸⁸

They voiced a number of criticisms. The thrust of their criticism has been characterized succinctly as "... greedy developers shoehorn[ing] downtown-style living into single-family neighborhoods and rip[ping] off residents with luxury-level premiums for borderline inhumane housing."⁸⁹

Proponents have characterized the criticism as not-in-my-backyard-ism (NIMBYism), arguing that "micro units are green, affordable units for young, low-income, and mobile residents that act as entry points into a dense, walkable, and flexible urban environment."⁹⁰ Regardless of the criticism's truth, it stands that community opposition can significantly impact decision-making.

Highlights from the Seattle experience:

- Demand for congregate housing was high and it provided much needed affordable housing for those content with a smaller space.
- The rapid dissemination and siting of congregate housing in communities that did not want them, allowed by the existing bylaw "loophole," was disruptive to residents. It meant that the relationship between the community, developers and the City started off poorly and only digressed further.
- Community groups effectively lobbied the local government for a moratorium on congregate housing.
- The mandatory review process was sufficiently onerous to lead developers away from congregate housing entirely. Note that an alternative approach has been proposed.⁹¹

As is the case in many cities, Seattle is trying to balance the conflicting demands of affordability, intensification and the preservation of existing neighbourhoods. It seems feasible that better siting of certain developments and a higher level of community involvement earlier on may have led to better outcomes.

⁸⁵ Neiman claims this change was due to a micro-housing opposition group challenging the city in court that the criterion of 15-minute transit service for a given location to be labelled as FTS was not worded as a 15-minute *average*, such that if there was a space of time lasting 16 minutes at any point during the day due to things like personnel changes or breaks then the location would not be FTS. See: neimanarchitects.blogspot.com/2016/07/the-war-against-micro-housing-is-over.html

⁸⁶ Erica C. Barnett. Microhousing Opponents: They Shouldn't Be Allowed to Live Like That. The Seattle Met. June 25 2019. Accessed online Jun 2019: www.seattlemet.com/articles/2014/6/25/the-anti-logic-of-microhousing-opposition-june-2014

⁸⁷ Dominic Holden. The Fight Against Small Apartments. The Stranger. May 8, 2013. Accessed online Jun 2019: www.thestranger.com/seattle/the-fight-against-small-apartments/Content?oid=16701155

⁸⁸ Ibid.

⁸⁹ Ben Crowther. Micro Housing Part 3: Arguments in Opposition. The Urbanist. April 23, 2015. Accessed online Jun 2019: www.theurbanist.org/2015/04/23/micro-housing-part-3-arguments-in-opposition/

⁹⁰ Ben Crowther. Micro Housing Part 2: Arguments in Opposition. The Urbanist. April 23, 2015. Accessed online Jun 2019: www.theurbanist.org/2015/04/22/micro-housing-part-2-arguments-in-favor/

⁹¹ Essentially, a more costly formal review process is only triggered when the developer and community groups are unable to come to another arrangement whereby the concerns of the community are adequately addressed – possibly with the developer providing some type of additional value to the community to compensate for the real or perceived loss of value (to community members) that comes with the increased density. See: Patrick Carter. Micro-Housing in Seattle: A Case for Community Participation in Novel Land Use Decisions. Seattle University Law Review. Accessed online Jun 2019: digitalcommons.law.seattleu.edu/sulr/vol39/iss3/16/

6.3 Ensuring Livability, Health and Well-being

Although the limited research available on the health and well-being of tenants in micro-suites⁹² does not point to any specific issues, concerns still exist, especially considering the negative legacy of tenement housing.

Among the jurisdictions considered, Vancouver provides the clearest guidelines aimed at ensuring livability in micro-suites.⁹³ Considerations are provided around light, ventilation, noise, living and sleeping spaces, bathrooms, kitchens, in-suite storage, outdoor space, and amenity space.

The design factors which promote livability and well-being appear to be well-known. For example, Carmel Place in New York City incorporates many of the same factors considered in the Vancouver guidelines.⁹⁴ It is feasible that any jurisdictions considering micro-suite developments could put in place similar guidelines to help ensure the livability of the units and tenant well-being.

Overcrowding in micro-suites, and the resultant impact on health and well-being, has also been voiced as a concern although it has not seemed to be an issue in any of the jurisdictions considered. It's important to note that micro-suites are not a magic bullet for housing affordability, but rather one potential part of a broader suite of measures. It's therefore important that affordable options for families are made available as well and this would mitigate the potential for overcrowding.

The cold-climate of Toronto, and other Canadian cities, provides unique challenges for the well-being of occupants when compared to the warmer climates considered in this study. The City becomes less accessible during the winter and more time is spent indoors.

InDwell is a Hamilton Ontario based not-for-profit private community housing provider that operates many buildings incorporating micro-suites serving low-income individuals. They provide a useful example of micro-suites deployed in a cold-climate.⁹⁵

Through years of experience, they've developed many useful insights on the design of micro-suites, and buildings, to enhance the experience of tenants. Their experience is that micro-suites can be used to provide high-quality housing while maximizing the number of individuals served given space and cost constraints.

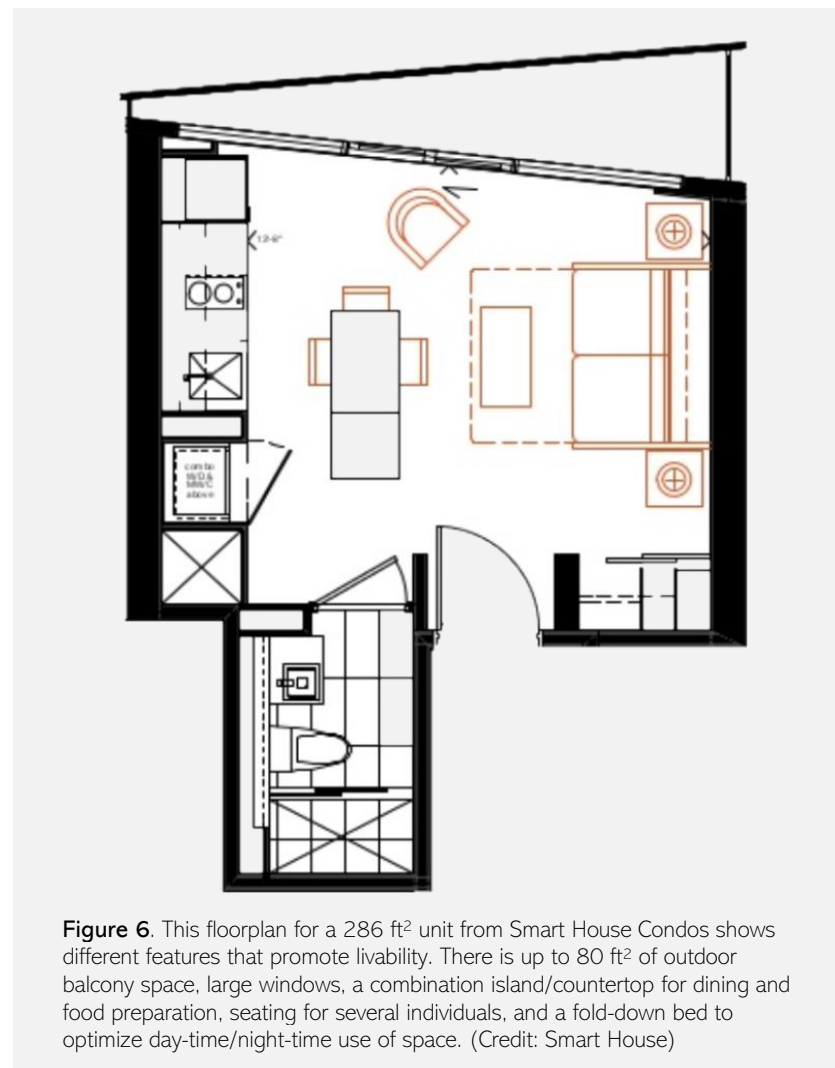


Figure 6. This floorplan for a 286 ft² unit from Smart House Condos shows different features that promote livability. There is up to 80 ft² of outdoor balcony space, large windows, a combination island/countertop for dining and food preparation, seating for several individuals, and a fold-down bed to optimize day-time/night-time use of space. (Credit: Smart House)

⁹² See Section 7.2.

⁹³ See Case Study 2.

⁹⁴ See Case Study 4.

⁹⁵ See Case Study 3

Case Study 2: Pilot in Vancouver Downtown Eastside

Micro-suite developments have been incentivized by the British Columbia government through a policy which saw development cost charges (DCCs) waived for the construction of units less than 29 m² (313 ft) – what they call Micro Dwelling Units (MDU).⁹⁶

According to the Province, MDUs are exempt “because these units generally use existing infrastructure, are more energy efficient and are more affordable.”⁹⁷ DCCs are used by municipalities to offset the capital cost of providing city infrastructure, like roads, sewers, and water, to new developments.

BC municipalities vary in their level of acceptance and overall approach to MDUs. Metro Vancouver is home to close to 2.5 million residents and has grown by 6.5% between 2011 and 2016.⁹⁸ The problem of affordability in Vancouver continues to deepen and is even worse than in Toronto.⁹⁹ Despite a keen interest from developers to construct more MDUs to meet demand,¹⁰⁰ Vancouver has taken a more measured approach when compared to nearby municipalities.

The minimum square footage for a dwelling in most of the city is 398 ft².¹⁰¹ However, Vancouver is permitting MDUs as small as 250 ft², with conditions, in the Downtown Eastside.¹⁰² A notable building is the Burn's Block Development, a former SRO Hotel.¹⁰³ There are 30 units, all less than 291 ft².¹⁰⁴

Another notable building is The Anjok on 288 East Hastings, which was completed in 2018.¹⁰⁵ It consists of 60% non-market community housing micro-dwelling units and 40% secured market rentals.¹⁰⁶ It was the first project¹⁰⁷ approved to meet the 60/40 zoning policy (passed in 2014) that encourages the development of social housing units and secured rentals through bonus density allowances.¹⁰⁸ This building is an example of the recent scaling up of MDUs being used to boost the supply of community housing.¹⁰⁹

Other Downtown Eastside community housing projects utilizing MDUs include the redevelopment of Roddan Lodge, an existing SRO hotel, which broke ground in early 2019,¹¹⁰ and the development on 177 West Pender.¹¹¹ Both are mid-rises with 213 and 90 units, respectively.

In Vancouver, developers of MDUs must comply with guidelines providing by the City covering many aspects of livability, affordability and flexibility.¹¹² Highlights of those guidelines are provided below.

- **Light and Ventilation**

- Minimum of two operable vents placed far apart
- Considerations to promote daylighting
- Higher ceilings
- Reflective light shelves
- Strategy for natural light to reach rear of unit
- Open balconies or sun decks

⁹⁶ Local Government Act; Section 561; Subsection 7 (a). Accessed online Oct 2019: www.bclaws.ca/civix/document/id/complete/statreg/r15001_14

⁹⁷ Government of British Columbia Website. Incentives for Housing. Accessed online Jun 2019: www2.gov.bc.ca/gov/content/housing-tenancy/local-governments-and-housing/policy-and-planning-tools-for-housing/incentives-for-housing

⁹⁸ Statistics Canada. Greater Vancouver Census Profile, 2016. Accessed online Jun 2019: www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CD&Code1=5915&Geo2=PR&Code2=47&Data=Count&SearchText=Greater%20Vancouver&SearchType=Begins&SearchPR=01&B1=All&TABID=1

⁹⁹ Royal Bank of Canada Economic Research. Housing Trends and Affordability. March 2019. Accessed online Jun 2019: rbc.com/newsroom/assets-custom/pdf/house-mar2019.pdf

¹⁰⁰ Kent Spencer. Micro-suites in Vancouver: Small-time living or living small? Vancouver Sun. February 13, 2017. Accessed online Oct 2019: vancouversun.com/news/local-news/micro-suites-in-vancouver-small-time-living-or-living-small

¹⁰¹ City of Vancouver. Zoning and Development Bylaw. Section 10.21.2. (a). April 2015.

¹⁰² City of Vancouver. Downtown-Eastside/Oppenheimer Official Development Plan. Section 6.2.1 (e). Accessed online Oct 2019: bylaws.vancouver.ca/odp/odp-downtown-eastside-oppenheimer.pdf

¹⁰³ Adele Weder. Living in 226 square feet on Vancouver's east side. The Globe and Mail. February 9th, 2012. Accessed online Oct 2019: www.theglobeandmail.com/life/home-and-garden/architecture/living-in-226-square-feet-on-vancouvers-east-side/article545555/

¹⁰⁴ Ibid.

¹⁰⁵ BC Housing. Webpage for 288/292 East Hastings. Accessed online Jun 2019: www.bchousing.org/partner-services/major-projects/288-east-hastings

¹⁰⁶ Brian Morton. New project provides 'affordable housing' to Downtown Eastside. Vancouver Sun. Jan 25th, 2016. Accessed online Oct 2019: www.vancouversun.com/business/project+provides+affordable+housing+downtown+eastside/11675550/story.html

¹⁰⁷ Ibid.

¹⁰⁸ City of Vancouver. Downtown-Eastside/Oppenheimer Official Development Plan. Section 4.5.1 (a). Accessed online Oct 2019: bylaws.vancouver.ca/odp/odp-downtown-eastside-oppenheimer.pdf

¹⁰⁹ Justin McElroy. Vancouver unveils new housing strategy for the next decade. CBC News. Nov 23, 2017. Accessed online Oct 2019: www.cbc.ca/news/canada/british-columbia/vancouver-housing-strategy-reset-report-1.4416669

¹¹⁰ Alissa Reed. Site cleared at 124 Dunlevy. Skyrise Vancouver. Jan 7/2019. Accessed online Jun 2019: vancouver.skyrisecities.com/news/2019/01/site-cleared-124-dunlevy-ave

¹¹¹ Alissa Reed. 177 West Pender Project Approved by City Council. Skyrise. Accessed online Oct 2019: vancouver.skyrisecities.com/news/2017/12/177-west-pender-project-approved-city-council

¹¹² City of Vancouver. Micro Dwelling Policies and Guidelines. Land Use and Development Policies and Guidelines Planning, Urban Design and Sustainability Department. Adopted by City Council on March 15, 2014 Amended October 31, 2017. Accessed online Oct 2019: guidelines.vancouver.ca/D015.pdf

- **Noise**
 - Mitigating noise transfer must be considered in placement of vents, balconies, windows, etc.
- **Living/Sleeping Space**
 - Large enough to accommodate fold-down bed
 - Daylighted by large window
 - Not enclosed from remainder of space
 - Consideration for day and night-time use of spaces (hide-a-beds, fold-down tables, etc.)
- **Bathroom**
 - Must be physically separated from rest of unit by partitions and a door
 - Must include shower (and/or bath), toilet and wash-basin
- **Kitchen**
 - Includes ventilation, sink, stove, refrigerator (with minimum 12 ft³ capacity), stove, and sufficient counter-space
 - Kitchen and dining area sufficient for two people standing or sitting side-by-side
- **In Suite Storage**
 - Preference for in-suite open and closed shelving and/or loft space in addition to accessible storage outside of the unit
- **Outdoor Space**
 - 4.5 m² outdoor space per micro-suite, either shared or private
 - Considerations for privacy, views and exposure to sunlight
 - Consideration for large operable windows or Juliet balconies to provide a feeling of openness to the exterior
- **Amenity Space**
 - Building should include amenity space like lounge areas or meeting rooms

- **Flexibility for Future Use**
 - Consideration for routing of utility services to allow combining of units to meet future housing needs
- **Unit Type and Distribution**
 - Mix of MDUs and larger studios, 1-bedroom, and 2-3 bedrooms is encouraged
 - Flexibility to meet housing needs of local area (for example, higher proportion of MDUs when replacing an SRO hotel)
- **Affordability**
 - Rents should be below market compared to other studios or one-bedrooms in the area
 - Affordability targets may be applied
 - Rental amounts to be secured in housing agreements

It follows that there are several points worth noting about the roll-out of micro-suites in Vancouver. The City:

- has started by permitting MDUs only in a segment of the City;
- provided formal design guidelines aimed at ensuring livability and occupant well-being;
- put in place measures to ensure affordability;
- put in place measures to ensure there is built-in flexibility to help meet future housing needs; and
- incorporated micro-suites into community housing.

Case Study 3: Indwell's Cold-climate Non-market Micro-suites¹¹³

Indwell provides supportive community housing to vulnerable and low-income individuals. They are based in Hamilton, ON, but they have approximately a dozen buildings in their portfolio that also span Woodstock, Simcoe and London.¹¹⁴ There are also several more projects in the pipeline,^{115,116} including a development in Mississauga.¹¹⁷

Their primary goal is to support individuals towards health, wellness and belonging. With limited space and funding, Indwell has embraced the micro-suite concept to help the maximum number of people. They operate hundreds of units below 400 ft², many of which are in the 250 to 350 ft² square range.¹¹⁸

Their buildings typically have 40- to 60-units and this is intentional. They've found that this is good size to foster a sense of community. At that scale, they've also found that buildings comprised almost entirely of studio apartments works well for the tenants and the community, but for larger buildings, a mix of unit sizes is needed. Indwell emphasizes the importance of good design.

They obtain useful insights through focus groups with residents, and employees have occupied units temporarily to understand how unit design impacts livability. Through these efforts, they've identified features that promote maximum livability and wellness in small units.

Their units have a full kitchen, including a 24" fridge with 11 - 12 ft³ of storage. Space-saving fridges, like those mounted underneath countertops, have not adequately met tenant needs. Units typically also have a 24" range, although in some cases, this is replaced by a two-burner cooktop. There is ample drawer and cabinet space, designed to maximize multi-use functionality, and at least 6 ft of counter space.

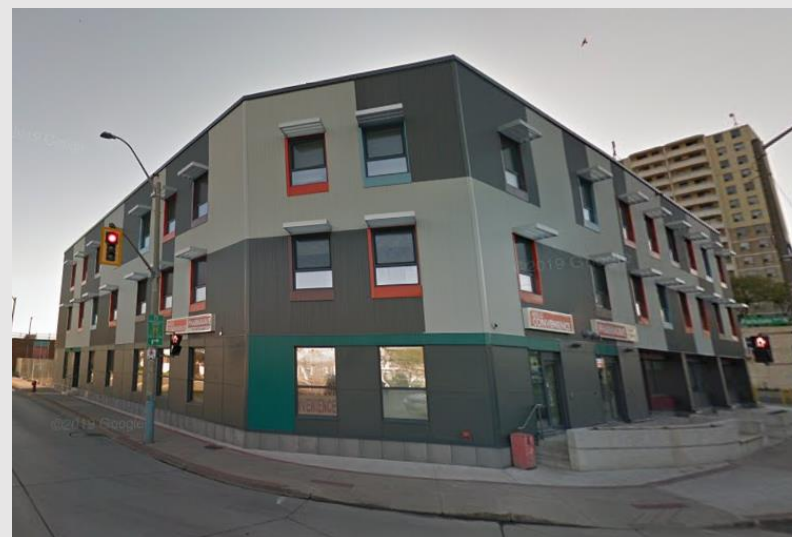


Figure 7. Parkdale Landing in Hamilton consists of 57 small studio apartments and was completed by Indwell in 2018. It was designed to meet Passivehaus standards, resulting in drastically lower utility bills. (Credit: Google Maps)

A fold down bed fixes the layout of the room and Indwell has found that there is psychological benefit to giving tenants choice over the room's layout. Their units allow for a bed to be oriented in different ways.

As a community housing provider, they are not installing many of the high-end finishes used to maximize rents in market-rate luxury apartments – but they do see the value in *not* defaulting to the lowest-cost options. By avoiding base-grade materials and finishes in the smaller details, cost premiums are manageable, and tenants have increased pride in their units.

¹¹³ The content of this case study is based on an interview with Graham Cubitt, Director of Projects and Development at Indwell, conducted on Sept. 10th, 2019.

¹¹⁴ See indwell.ca.

¹¹⁵ Kelly Bennett. Transforming a derelict tavern from a 'home of last resort' to a place people want to live. CBC News. 03/08/2017. Accessed online Sep 2019: www.cbc.ca/news/canada/hamilton/headlines/transforming-a-derelict-tavern-from-a-home-of-last-resort-to-a-place-people-want-to-live-1.4013878

¹¹⁶ Desmond Brown. How this charity is addressing Hamilton's housing crisis, 1 derelict building at a time. CBC News. July 21st, 2018. Accessed online Sep 2019: www.cbc.ca/news/canada/hamilton/indwell-affordable-housing-former-royal-oak-dairy-1.4755594

¹¹⁷ See: Maryam Mirza. New development in Mississauga to provide affordable housing and supports programs for people with mental or physical disabilities. Aug 9th, 2018. Mississauga.com. Accessed online Sep 2019: www.mississauga.com/news-story/8795650-new-development-in-mississauga-to-provide-affordable-housing-and-supports-programs-for-people-with-mental-or-physical-disabilities/

¹¹⁸ As an example, one of their units can be seen in: CBC News. Here's the secret to living in a 390-square-foot apartment. July 24th, 2018. Accessed online Sep 2019: www.cbc.ca/news/canada/hamilton/micro-dwellings-1.4758636

Amenities within the building are key. They are typically designed with 2 - 3 m² of indoor amenity space per unit, which may include a servery (i.e. a communal kitchen), a computer lounge or other flexible space. This allows tenants to interact informally over coffee or through events like a potluck, and overall this fosters a sense community. The indoor amenity space is also important given the cold-climate.

While there are many examples of micro-suites housing more affluent individuals in warmer climates, where “the city is the living room,” Indwell provides an important example of micro-suites in a cold-climate successfully serving low-income individuals.

Storage space is another important design consideration. At a unit size of 250 ft², they've found that an external locker is essential for seasonal-use items but at 350 ft², it's possible to include that storage space in the unit itself. Indwell has also made some counter-intuitive conclusions around colour schemes. Conventional wisdom is that lighter colours are better in small spaces, but they've found that the incorporation of dark accent walls in combination with lighter colours provides a greater sense of depth.

Aside from providing useful design insights, Indwell is also a model for environmental sustainability. Their Parkdale Landing building is designed to Passive House standards. Passivehaus is the most rigorous building energy standard, requiring that the building consumes a small fraction of the energy used by comparable conventional buildings. Their decision to choose Passivehaus design was twofold.

Firstly, there is the moral imperative of energy conservation and carbon mitigation in the context of global climate change. Secondly, it made good business sense. Indwell both develops *and then operates* the building for its useful lifetime. It follows that they must live with their design decisions in the long-term. In other cases, it's often possible for developers to simply pass on the added costs associated with inefficient design to the future owners.

Indwell is candid about their experience with Passive House design, cautioning that the learning curve was steep but also, importantly, that it wasn't endless. They found that the biggest design challenge was the management of thermal bridging (i.e. those points within a building envelope where heat is more easily transferred between the interior and exterior). Airtightness, windows, and doors, all posed much less of a challenge. It was also a challenge for contractors and tradespeople to familiarize themselves with this form of construction – particularly around scheduling of jobs. At the end of the learning curve, Indwell estimates that Passivehaus design added a relatively small premium (3 to 5%) on to the total cost of construction and for this they credit a strong design team.

In terms of barriers, they have encountered issues related to bylaws and zoning, the largest of which is a restrictive minimum area requirements in some jurisdictions. However, for Indwell, a greater challenge is the same one facing many in the industry: the high-cost of construction. In the current context, work is plentiful for contractors and tradespeople and this ultimately serves to drive up costs. It also may stifle innovation. Indwell does see potential for micro-suites to make a broader impact on affordability in unsubsidized market units, but notes that the landscape is complex. Given the high cost of construction, it's difficult to construct affordable market units to begin with, but even if that was achievable, developers sell or rent their units at prices that the market is willing to pay. Unfortunately, that is currently more than many can afford. Affordable market-rate micro-suites may then require a change in market forces, the regulatory environment, or a paradigm shift on the part of developers.

Overall, Indwell provides an important example for micro-suites in a cold-climate. Concern for tenant well-being has been an important barrier for micro-suites in other jurisdictions but, in contrast, Indwell has used micro-suites to *enhance* well-being, and to do so across the largest segment of individuals possible. They've accomplished this through careful attention to design and learning from experience. Importantly, they've also shown that, with the right design team, deep levels of energy and carbon reductions are possible for relatively small cost premiums.

6.4 Roll-out of Micro-suite Developments

Of the jurisdictions considered, New York was the most conservative in implementing new micro-suites by starting with a single pilot building. The design competition began in 2012 and the building was completed by 2016. This gave the City a degree of experience with the micro-suite concept in new builds. This was followed by the Zoning for Quality and Affordability amendment which was implemented in 2016. It removed the previously existing 400 ft² minimum area requirement – allowing micro-suites to be implemented in developments with a mix of unit sizes.¹¹⁹

Vancouver also had a very measured roll-out of micro-suites after the Province of BC decided to incentivize micro-suites by removing development cost charges. Implementation started in a single downtown neighbourhood with the renovation of existing SROs. Despite a keen interest from developers to construct more micro-suites to meet demand the City is waiting until they have the opportunity for more detailed study of the existing development before further action.¹²⁰ Boston is also conducting a pilot,¹²¹ as is San Francisco.¹²²

Kelowna, BC, had fewer restrictions on the siting of micro-suites. It started with a broad-scale roll-out across the City, including single-family residential neighbourhoods, before later being limiting development to the town centres and areas surrounding the university.¹²³

The boom of congregate housing in Seattle was not planned by the City.¹²⁴ Rather, it was the result of an existing bylaw loophole. The boom was followed by a bust. A number of developments were permitted prior to the City receiving significant community backlash which caused them to incrementally restrict development until it stalled entirely. Importantly, Seattle was the only jurisdiction where the more broadscale roll-out of micro-suites was not first proceeded by a conscious effort from the local municipal government to explore micro-suites.

6.5 Mix of Housing and Ensuring Long-term Viability

Some critics of micro-suites have concerns that they are a fad, and that these developments may become stranded. In general, this may be in contrast with current and projected trends. The number of single-person households is already large and continues to outpace other demographics, cities will continue to become denser moving forward, and affordability issues will persist.¹²⁵

However, the demographics of neighbourhoods can change – and micro-suites are a niche housing form factor that is not suitable for everyone, nor for every stage of life. That is, in part, why many jurisdictions are encouraging a mix of unit sizes within developments incorporating micro-suites.

For example, the recent Zoning for Quality and Affordability amendment in New York City relaxed the minimum 400ft² square requirement and instead focuses on density factors, provided the minimum room sizes are adherent to the Building Code, Housing Maintenance Code and Multiple Dwelling Law. The density factors would allow some micro-suites but ultimately prevent a developer from building a fully micro-suite development.¹²⁶

A mix of unit sizes is also encouraged in Vancouver but with flexibility build in for certain developments (like renovation of an SRO hotel). Specific concerns around the long-term viability of micro-suites can also be alleviated through design. As an example, the guidelines put in place by Vancouver request that developers consider the routing of utility services to allow combining of units to meet future housing needs.¹²⁷

In San Francisco, developers have preferred fully micro-suite developments. There are some market rental and ownership condominiums consisting fully of micro-suites and the approach has been successful for dedicated housing application like off-campus student rental housing.¹²⁸

Kelowna has also allowed developments consisting fully of micro-suites.¹²⁹

¹¹⁹ See Case Study 4.

¹²⁰ See Case Study 2.

¹²¹ See Case Study 8.

¹²² See Case Study 6.

¹²³ See Case Study 5.

¹²⁴ See Case Study 1.

¹²⁵ See Section 1.1.

¹²⁶ See Case Study 4.

¹²⁷ See Case Study 2.

¹²⁸ See Case Study 6.

¹²⁹ See Case Study 5.

Case Study 4: Micro-suite Pilot Building in New York

New York City is home to 8.4 million residents¹³⁰ and is facing significant erosion of housing affordability. For example, between 2005 and 2017, the number of apartments with rents less than \$900/month (in 2017 dollars) decreased by 425,000.¹³¹ More than half of these units had rental increases between \$1,051 and \$1,650 per month.¹³² At the same time, the number of units with rents greater than \$2,700 per month doubled.¹³³

This is indicative of a city-wide shift away from lower-cost rentals. There are a variety of reasons motivating the shift, for example new supply not keeping pace with demand, new supply not being affordable, and high-rent vacancy deregulation when a tenant does not renew a lease, allowing the suite to leave rent regulation.¹³⁴

In 2014, the City released its Housing New York Plan¹³⁵ to address the affordability crisis and it was updated in 2017.¹³⁶ but a complete discussion of the affordability issues, and the City's plan for tackling them, is beyond the scope of this report.

New Yorkers have a long history of micro-sized living space and examples of the existing stock of micro-suites has been well-documented in media reports.^{137,138} These were constructed prior to 1987 when a minimum square footage of 400 ft² was introduced to the zoning bylaw as part of the Quality Housing Program.

More recently, the Zoning for Quality and Affordability amendment¹³⁹ relaxed the 400 ft² square requirement and instead focuses on density factors, provided the minimum room sizes are adherent to the Building Code, Housing Maintenance Code and Multiple Dwelling Law. However, the density factors would ultimately prevent a developer from building a fully micro-suite development.¹⁴⁰

The most notable example of micro-suites, relevant to this work, come from the adAPT NYC Competition run by the City in 2012/2013. Mayoral overrides waived the 400 ft² requirement, as well other requirements, and the winning bid from nArchitects worked extensively with the City to realize the project which was completed in 2016 and named Carmel Place.

The development consists of 55 units in total, averaging 286 ft². The building used modular construction techniques, with modular units being constructed offsite and erected at the building location over a two-week period.¹⁴¹

Onsite amenities promote the livability of the space. They include a community room, green roof, rooftop terrace, fitness centre, seating alcoves, bike storage, retail space, additional tenant storage, den/study space, laundry facilities and a patio adjacent to the building.¹⁴²

Units feature 8' tall sliding windows and Juliet balconies, a large storage loft, full bathroom (with shower), 9'-8" ceilings, additional storage closet, convertible furniture including queen-size fold-down bed, conventional fridge, pantry storage, an electric stove, a dishwasher, and other design features aimed at maximizing the efficient use of space and the feeling of volume.¹⁴³ The building consists of 40% non-market affordable housing and 60% market rate rentals. Approximately 60,000 people applied for the affordable housing units.¹⁴⁴ Rental rates for the market units are comparable (or greater than) the median price for much larger studios.

There appears to be no formal study on the impacts of Carmel Place but anecdotal reports from tenants are positive.^{145,146,147} While tenants do want more space, and may not see this as their permanent living arrangement, micro-living is not viewed as a hardship and it appears to provide a better alternative to their other living options.

¹³⁰ United States Census Bureau Quick Facts: New York City, New York. Accessed online Jul 2019: www.census.gov/quickfacts/newyorkcitynewyork

¹³¹ Scott M. Stringer. The Gap is Still Growing: New York City's Continuing Housing Affordability Challenge. September 25th, 2018. New York City Comptroller Website. Accessed online Jul 2019: comptroller.nyc.gov/reports/the-gap-is-still-growing-new-york-citys-continuing-housing-affordability-challenge/

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ City of New York. Housing New York: A Five-Borough, Ten-year Plan. 2014. Accessed online Jul 2019: www1.nyc.gov/assets/hpd/downloads/pdf/housing_plan.pdf

¹³⁶ City of New York. Housing New York 2.0. 2017. Accessed online Jul 2019: www1.nyc.gov/assets/hpd/downloads/pdf/about/hny-2.pdf

¹⁴¹ nArchitects Website. Accessed online Jul 2019: narchitects.com/work/carmel-place/

¹⁴² Ibid.

Carmel Place has not been replicated in New York City and given the recent bylaw amendments, it is likely that future buildings will not consist wholly of micro-suites.

Some important themes from the New York experience include:

- high levels of interest;
- high levels of livability appear possible with effective design;
- tenants don't view micro-living as a hardship (when done well) and see it as a better alternative to other options;
- tenants may see it as a housing solution for a certain stage of life, rather than a permanent option; and
- micro-suite market rentals don't *necessarily* achieve significant affordability improvements.



Figure 8. The micro-suites at Carmel place appear to achieve a high level of livability through ample natural light, thoughtful storage and flexible use of space. Note that kitchen and bathroom space is present but behind the camera. (Credit: nArchitects)

¹³⁹ NYC Planning. Housing New York: Zoning for Quality and Affordability Overview. June 2016. Accessed online Jul 2019: www1.nyc.gov/assets/planning/download/pdf/plans-studies/zqa/adoption-overview.pdf?r=1

¹⁴⁰ Emily Nonko. Is there a future for micro housing in New York City? Curbed, New York. Sept 16, 2019. Accessed online 07/02/2019: ny.curbed.com/2016/9/19/12970542/micro-housing-nyc-future-studio-apartments

¹⁴¹ nArchitects Website. Accessed online Jul 2019: narchitects.com/work/carmel-place/

¹⁴² Ibid.

¹⁴³ Ibid.

¹⁴⁴ Ronda Kaysen. Leasing Begins for New York's First Micro-Apartments. New York Times. Nov 20 2015. Accessed online Jul 2019: www.nytimes.com/2015/11/22/realestate/leasing-begins-for-new-yorks-first-micro-apartments.html?_r=0®ister=google

¹⁴⁵ Amy Plitt. What it's really like to live in NYC's first micro-suite building. Curbed New York. Sept 22nd 2016. Accessed online Jul 2019: ny.curbed.com/2016/9/22/13019200/nyc-studio-apartment-carmel-place-house-calls

¹⁴⁶ Leanna Garfield. Manhattan's first micro-apartments just won a prestigious design award — here's what it's like to spend a night in one. Business Insider. Jan 17 2017. Accessed online Jul 2019: www.businessinsider.com/what-its-like-to-live-in-new-yorks-micro-apartments-at-carmel-place-2017-1

¹⁴⁷ Vanessa Quirk. Inside Carmel Place: New York City's First Micro Housing Building. Audio Piece. Metropolis Magazine. Feb 10 2017. Access online Jul 2019: www.metropolismag.com/architecture/residential-architecture/inside-carmel-place-new-york-citys-first-micro-housing-building/

6.6 Incentivization for Developers

Exemption from development cost charges in British Columbia appeared to be a strong incentive for developers. However, the lost revenue for some municipalities was significant. They mitigated the loss by increasing charges for neighbouring developments and scaling back on other measures – like tax incentives for purpose-built rentals – which some claim allowed micro-suite developments to “double-dip.”¹⁴⁸

In New York, developers were incentivized to submit design proposals for the adAPT NYC micro-suite pilot in part because it was a highly-publicized and prestigious competition.¹⁴⁹

Vancouver has been more measured in their roll-out of micro-suites in comparison with neighbouring jurisdictions. Through their 60/40 zoning policy, the City has effectively made the opportunity to develop micro-suites an incentive in itself. The policy provides bonus density allotments, which can be used to construct micro-suites, that encourages the development of social housing units and secured rentals. Uptake with that policy appears to be slow. It was implemented in 2014 and the first building to utilize it, The Anjok on 288 East Hastings, was completed in 2018.¹⁵⁰

6.7 Process for Engagement with the Community

The Seattle experience with congregate housing is a strong example on the consequences of insufficient community engagement for new micro-suite developments in low-density neighbourhoods.¹⁵¹

Developers were able to utilize an existing zoning bylaw “loop-hole” to implement high-density micro-suite developments in communities that not adequately notified or prepared for the development.

Community groups lobbied the local government to include a mandatory community review process. Developers claimed the review process was overly onerous and co-opted as a stall tactic. Combined with other factors, this effectively lead to a moratorium. It's important to note that this is an extreme example and **such vehement opposition was not seen in any other jurisdiction.**

Proponents of congregate housing contend that the backlash was simply NIMBYism, but other experts have observed that in some of these cases there was a real loss of value to local residents.

Experts argue that there ought to have been a process in place for residents to have their concerns adequately addressed and, if need be, for developers to compensate residents for the loss of value by adding value to the community in some other way (for example, through the addition park space or contributions to other community amenities).

¹⁴⁸ See Case Study 5.

¹⁴⁹ See Case Study 4.

¹⁵⁰ See Case Study 2.

¹⁵¹ See Case Study 1.

6.8 Ensuring Affordability

An important observation from the jurisdictional scan is that micro-suites do not in-and-of-themselves ensure affordability when the units are market rentals. They can be accompanied by premium finishes and be in trendy areas – both of which can drive up costs. In some cases, micro-suites have rented at the same rate as much larger conventional studio apartments. Carmel Place in New York is an excellent example of this, with a recent micro-suite listing asking \$2,850/month.¹⁵²

It follows that other measures have been needed to ensure affordability. Carmel Place consisted of 40% subsidized affordable housing and 60% market rental units. The rental rates of subsidized was significantly below market value and demand was so high that 60,000 applications were received for 22 subsidized units.¹⁵³ Micro-suite community housing has been deployed elsewhere – including Hamilton, ON,¹⁵⁴ Vancouver,¹⁵⁵ as well as other BC municipalities.¹⁵⁶

The development guidelines provided by Vancouver stipulate the rents should be below market value compared to other studios or one-bedroom in the area, and also that affordability targets may be applied and rental amounts may be secured in housing agreements.¹⁵⁷

The deepest levels of affordability may have been achieved in the Seattle congregate housing units and this is primarily because these units drove down the square footage to greatest degree – with some units as small as 140 ft² – by incorporating shared kitchen space. One Seattle architect argued that congregate housing micro-suites could rent at \$900 when conventional studios were renting much higher, at \$1,400.¹⁵⁸

In heated real estate markets, market ownership units have been reported to be subject to a high degree of speculation which can drive up ownership costs and prevent units from actually housing anyone. In BC, speculation taxes have been used to deter unoccupied units.¹⁵⁹

¹⁵² City Realty. Carmel Place, 335 East 27th Street, #9C. Listed Oct 2, 2019. Accessed online Oct 2019: www.cityrealty.com/nyc/murray-hill/carmel-place-335-east-27th-street/apartment-9C/HSGPJoQllrz

¹⁵³ See Case Study 4.

¹⁵⁴ See Case Study 3.

¹⁵⁵ See Case Study 2.

6.9 Study of Impacts

Another common theme across all jurisdictions is that micro-suites are sufficiently new that there is minimal formal scientific study that provides insights on the actual benefits and impacts for communities – either in existing developments or projecting into the future. It is for this reason that this study has had to rely primarily on non-academic sources.

This is a barrier because it leaves unanswered questions and concerns to jurisdictions interested in implementing micro-suites, causing them to proceed with a high degree of caution.

For example, there are concerns around

- the health and well-being of tenants;
- the overall impacts removing affordable already-existing SROs units from the market in favour of higher-end micro-suites;
- impacts of increased density on infrastructure;
- whether or not they will provide housing that is more affordable;
- how they impact the rental rates of other units;
- and a number of other factors.

Conversely, the benefits are also not studied, and this prevents a fair assessment of the opportunity. Potential benefits may include:

- *improvements* in health and well-being;
- removal of individuals from unsafe illegal rooming houses;
- freeing up of larger 2- or 3-bedroom units for families;
- positive economic impacts from attracting young professionals and companies to the City;
- energy conservation;
- reduced commuting times;
- reduced congestion; and
- reduced carbon emissions.

¹⁵⁶ See Section 6.12.

¹⁵⁷ See Case Study 2.

¹⁵⁸ David Neiman. "How Seattle Killed Micro-Housing." Sightline Institute, Sept. 6, 2016. Accessed online Jun 2019: www.sightline.org/2016/09/06/how-seattle-killed-micro-housing/

¹⁵⁹ See Case Study 2.

Case Study 5: Micro-suite Boom in Kelowna

As discussed in the Vancouver Case Study, micro-suites developments have been incentivized by the British Columbia government through a policy which saw development cost charges (DCCs) waived for the construction of units less than 29 m² (313 ft).¹⁶⁰

Kelowna is approximately 400 km to the east of Vancouver. It has a much smaller population than Vancouver, approximately 200,000¹⁶¹, but has faced many of the same housing issues – including extremely low vacancy rates¹⁶² and rapidly increases property values.¹⁶³

Increased demand for micro-suites in Kelowna has been described by city staff as “overwhelming.”¹⁶⁴ The concept is new to the City but, as of June 2016, there were more than 500 units less than 314 ft² under construction¹⁶⁵, sited around the city’s town centres and university campus.¹⁶⁶

The loss of revenue from DCCs was substantial for the first micro-suite developments through the pipeline, and the City began considering changes to mitigate that loss – specifically the reduction of other tax incentives for micro-suites designed to be rentals – noting that the DCC exemption was a sufficient incentive on its own.¹⁶⁷

A notable micro-suite development in Kelowna is Cambridge House, a 5-storey building with 192 market condominium units composed mostly of studios that are 313 ft².¹⁶⁸ Estimates put the number of investment properties (as opposed to owner-occupied units) in the building units at 50%,¹⁶⁹ or even 75%.¹⁷⁰

The developer, K West Homes, has noted that units changed hands about 40 times prior to registration¹⁷¹, and that trend continued after¹⁷² – suggesting a high amount of speculation. Note that a speculation tax was introduced by the Province, starting in 2019, to help ensure investment properties are occupied by renters.¹⁷³

A few years after registration, the Cambridge House development has received some criticism. There is dissatisfaction among some residents that claim the parking and other on-site services are insufficient for the quantity of residents.¹⁷⁴

There is also criticism that the development is not actually providing more affordable rental housing, with claims that rents are comparable to one-bedroom units.¹⁷⁵ However, in summer 2018, the asking price for some micro-suites sold in the complex was less than \$200,000¹⁷⁶ (compared to the 2019 Q1 median condo price of \$447,260 in Kelowna¹⁷⁷) showing that the purchase price for some units is still well below the median in the area.

The development on 2127 Ethel St.¹⁷⁸ (Fig. 10) is also worth noting because it showcases that micro-suites can be effectively done as infill and in relatively small buildings. It is a simple, traditional and aesthetically-pleasing 2-story stacked town that integrates well into the surrounding residential neighbourhood. It consists of 24 units that are less than 320 ft². This development was approved prior to the ruling that micro-suites should be limited to the town centres.¹⁷⁹

¹⁶⁰ Local Government Act; Section 561; Subsection 7 (a). Accessed online Oct 2019: www.bclaws.ca/civix/document/id/complete/statreg/r15001_14

¹⁶¹ Statistics Canada. 2016 Census Data. Accessed online Jun 2019: www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CMA&Code1=915&Geo2=PR&Code2=47&Data=Count&SearchText=Kelowna&SearchType=Begin&SearchPR=01&B1=All

¹⁶² Vacancy rates increased from a very low 0.2% to a more reasonable 1.9% between October 2017 and November 2018 due to the increase in housing supply which surpassed demand. See: Dylan McCullough. Average rental price and vacancy rates for Canadian cities released. Kelowna Now. Nov. 28, 2018. Accessed online Jun 2019: www.kelownanow.com/watercooler/news/news/Kelowna/Average_rental_vacancy_rates_and_prices_across_Canada_released/#fs_74880

¹⁶³ Between 2017 and 2018 property values in Kelowna increased by 17%. See: Dylan McCullough. Central Okanagan sees big property value increase in 2018 BC Assessment. Jan 2, 2018. Accessed online Jun 2019: www.kelownanow.com/watercooler/news/news/Real_Estate/2018_BC_assessments_shows_big_increase_Okanagan_property_values/

¹⁷¹ Carli Berry. Small homes, small benefits: Speculators eye up Kelowna’s micro suite pool. Kelowna Capital News. Nov. 23, 2018. Accessed online Jun 2019: www.kelownacapnews.com/news/small-homes-small-benefits-speculators-eye-up-kelownas-micro-suite-pool/

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ Caitlin Clow. Cambridge House strata council says no room for retail. Kelowna Capital News. May. 23, 2019. Accessed online Jun 2019: www.kelownacapnews.com/news/cambridge-house-strata-council-says-no-room-for-retail/

¹⁷⁵ Carli Berry. Rent isn’t cheaper in a Kelowna micro suite. Kelowna Capital News. Nov. 24, 2018. Accessed online Jun 2019: www.kelownacapnews.com/news/rent-isnt-cheaper-in-a-kelowna-micro-suite/

Highlights from the micro-suite experience in Kelowna include:

- High volume of applications from developers for the construction of micro-suites
- High demand from renters and potential owners with developments quickly selling out
- Speculation and investment properties for the market units
- Initial incentives for micro-suite developments may have been overly generous causing the City to consider scaling back
- Some developments were approved prior to regulations limiting the developments to certain areas of the city
- Different form factors are possible, including stacked towns that integrate well into existing neighbourhoods to more conventional looking large MURBs
- Amenities may have been insufficient in some developments to meet needs of some tenants



Figure 9. The 24-unit stacked townhouse micro-suite development on 2127 Ethel St. was constructed on a vacant lot and integrates well into the surrounding neighbourhood (Credit: Google Maps).

¹⁶⁹ Carli Berry. Small homes, small benefits: Speculators eye up Kelowna's micro suite pool. Kelowna Capital News. Nov. 23, 2018. <https://www.kelownacapnews.com/news/small-homes-small-benefits-speculators-eye-up-kelownas-micro-suite-pool/>

¹⁷⁰ Carli Berry. Rent isn't cheaper in a Kelowna micro suite. Kelowna Capital News. Nov. 24, 2018. <https://www.kelownacapnews.com/news/rent-isnt-cheaper-in-a-kelowna-micro-suite/>

¹⁷¹ Carli Berry. Small homes, small benefits: Speculators eye up Kelowna's micro suite pool. Kelowna Capital News. Nov. 23, 2018. Accessed online Jun 2019: www.kelownacapnews.com/news/small-homes-small-benefits-speculators-eye-up-kelownas-micro-suite-pool/

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ Caitlin Clow. Cambridge House strata council says no room for retail. Kelowna Capital News. May. 23, 2019. Accessed online Jun 2019: www.kelownacapnews.com/news/cambridge-house-strata-council-says-no-room-for-retail/

¹⁷⁵ Carli Berry. Rent isn't cheaper in a Kelowna micro suite. Kelowna Capital News. Nov. 24, 2018. Accessed online Jun 2019: www.kelownacapnews.com/news/rent-isnt-cheaper-in-a-kelowna-micro-suite/

¹⁷⁶ Ibid.

¹⁷⁷ Dylan McCullough. House prices rebound to start the year in Kelowna. Kelowna Now. Apr 4, 2019. Accessed online Jun 2019: www.kelownanow.com/watercooler/news/news/Real_Estate/House_prices_rebound_to_start_the_year_in_Kelowna/

¹⁷⁸ See the development webpage at worman.ca/micro-suites.

¹⁷⁹ Alistair Waters. Micro-suites put in their place by Kelowna council. Kelowna Capital News. Oct 13, 2015. Accessed online Jun 2019: www.kelownacapnews.com/opinion/micro-suites-put-in-their-place-by-kelowna-council/

Case Study 6: Micro-suites in San Francisco

New MURB micro-suite developments started earlier in San Francisco than in other jurisdictions. For example, in 2006, a building formerly used as a Methodist book publisher was converted to 60 condominiums from 260 to 500 ft² in a development called The Book Concern.¹⁸⁰ In 2008, this was followed by another major development, Cubix Condos, featuring 98 studios from 250 to 350 ft².¹⁸¹ Cubix has no on-site parking.¹⁸²

At the time of these developments the San Francisco Building code allowed units as small as 220 ft² in addition to the area required for closets and bathrooms. However, the California Building Code allowed smaller units. In 2012, the San Francisco Building Code was amended to allow market units with a *total area* (including closets, living space, bathroom, etc.) as small as 220 ft².¹⁸³ This began as a trial with the City stating they would allow 375 units under the new regulation, reviewing the results after 325 were constructed.¹⁸⁴ Results are not yet available to the authors' knowledge. Some of the arguments put forth in favour of the smaller unit sizes included that:¹⁸⁵

- it would allow the more cost-effective creation of transitional housing for the homeless (with San Francisco having a very high homeless population);
- it would more cost-effectively meet the needs of students (of which there are 125,000 attending post-secondary in the City) relieving the pressure on units capable of housing families;
- it would more cost-effectively house low-income and special needs individuals, as well as facilitate the conversion of underutilized tourist hotels.

Detractors argued that the units will cater almost exclusively to young higher-income tech workers and continue to drive up rents, while not providing options for families.¹⁸⁶ They also argue that spaces this small may not be healthy and this sets a concerning precedent.¹⁸⁷

One of the first buildings including units build under the new regulations, completed in 2015, was The Panoramic on 1321 Mission St.¹⁸⁸ from developer Panoramic Interests.¹⁸⁹ An existing vacant building, formerly a furniture store, was demolished to allow the dense mixed-use development featuring 120 micro-studios (averaging approximately 275 ft²) and 40 larger suites. The Panoramic has no on-site parking.¹⁹⁰

On-site amenities include a lounge on each floor, roof deck green-space and entertainment areas, café and wine bar, bike parking and repair stations, as well as other features. The building contains only one parking space to be used for a car share vehicle. It has been master-leased to the California College of Arts¹⁹¹ and consists entirely of student housing units, which are not included in 375 unit cap.¹⁹²

Official numbers on the extent of micro-suite development in San Francisco are not publicly available. In terms of the market-rate developments, a 2015 study noted one condominium development in addition to The Panoramic and a handful of other buildings in various stages of completion.¹⁹³

It follows that micro-suite development has not been rapid. Patrick Kennedy, from Panoramic Interests, has argued that the regulatory complexity within San Francisco has pushed developers to neighbouring jurisdictions like Oakland or Berkeley.¹⁹⁴ The City reports they are currently taking measures to streamline the process.¹⁹⁵

¹⁸⁰ Kathleen Pender. Tiny living: What it's like after the honeymoon period. San Francisco Chronicle. June 25 2016. Accessed online Jul 2019: www.sfchronicle.com/business/networth/article/Tiny-living-What-it-s-like-after-the-honeymoon-8324266.php#photo-10424919

¹⁸¹ Ibid.

¹⁸² Zumper. 766 Harrison St. Accessed online Oct 2019: www.zumper.com/apartments-for-rent/27314364/studio-soma-san-francisco-ca

¹⁸³ See 2016 San Francisco Building Code Section 1208.4. Accessed online Aug 2019: [library.amlegal.com/nxt/gateway.dll/California/sfbuilding/sanfranciscobuildinginspectioncommission?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:sanfrancisco_ca\\$sync=1](http://library.amlegal.com/nxt/gateway.dll/California/sfbuilding/sanfranciscobuildinginspectioncommission?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$sync=1)

¹⁸⁴ Lori Preuit. Minimum Living Space in SF is Now 220 Sq. Feet. NBC Bay Area. Nov 20th, 2012. Accessed online Aug 2019: www.nbcbayarea.com/news/local/Minimum-Living-Space-in-SF-Now-220-Sq-Feet-180257571.html

¹⁸⁵ Malia Wollan. San Franciscans Divide Over Pint-Size Apartments. New York Times. Sept 26th, 2012. Accessed online Aug 2019: www.nytimes.com/2012/09/27/us/micro-suite-apartment-proposal-divides-san-francisco.html

¹⁸⁷ Ibid.

¹⁸⁸ See: San Francisco Planning Department Executive Summary Hearing Date January 10th, 2013, Case No. 2011.0312 CEK/VX. Accessed online Aug 2019: commissions.sfplanning.org/cpcpackets/2011.0312CEK/VX.pdf

¹⁸⁹ An overview is provided at: Panoramic Interests. CITYSPACES@ 1321 The Panoramic. Accessed online Aug 2019: www.panoramic.com/cityspaces-location/mission-san-francisco/

¹⁹⁰ Panoramic Residences Website. Accessed online Oct 2019: www.panoramiclivingsf.com/page-faq.html

Also of note within the San Francisco context, as well as the surrounding area, is growing interest towards modular prefabricated micro-suites, specifically applied in the context of non-market community housing. In 2017, the City tendered an RFQ for a supportive housing development, constructed using modular techniques, to replace an existing parking lot.¹⁹⁶ The contract was ultimately awarded to Mercy Housing in partnership with Episcopal Community Services (ECS).¹⁹⁷

The size of the housing was not specified within the RFQ. However, modular prefabricated micro-suite options are available. Panoramic Interests has developed a modular micro-suite they are calling the MicroPAD (portable accessory dwelling). It is a 160 ft² fully furnished studio apartment with kitchen, bath, storage and convertible bed, in a stackable steel container.¹⁹⁸

They have proposed the MicroPAD as a solution to homelessness in the City. They claim that modular pre-fabricated units allow them to reduce construction costs by 40%, shorten construction times, and better use existing space. Panoramic has proposed to construct the units and then lease them to the City but no agreement has yet been achieved. Panoramic claims the main barrier is opposition from “certain elements of organized labour” which would prefer to see the units fabricated locally instead of overseas.¹⁹⁹ They’ve finished a development using a larger version (~300 ft²) of the MicroPAD in neighbouring Berkeley to be used as graduate student housing.²⁰⁰

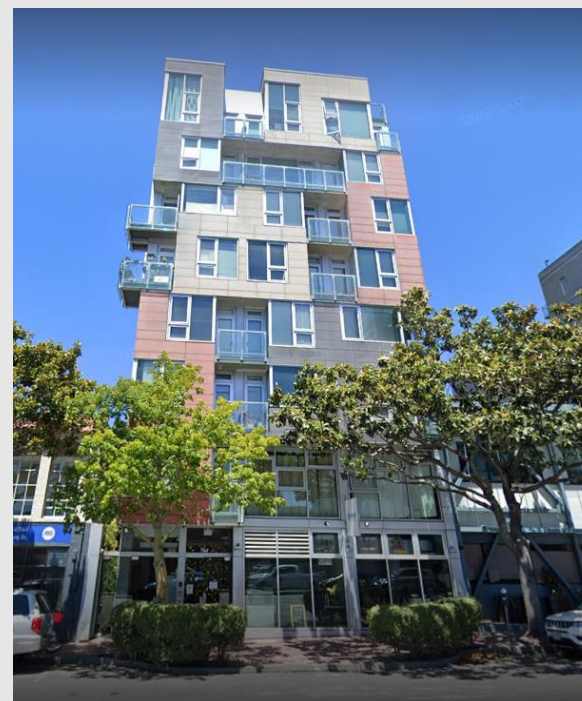


Figure 10. Cubix Condos was completed in 2008. It features 98 studios from 250 to 350 ft². (Credit: Google Maps).

¹⁹⁰ Panoramic Residences Website, Accessed online Oct 2019: www.panoramicdivingsf.com/page-faq.html

¹⁹¹ Blanca Torres. Prolific developer strikes again with more student housing projects in San Francisco and Berkeley. San Francisco Business Times. June 5th, 2018. Accessed online Jul 2019: www.bizjournals.com/sanfrancisco/news/2018/06/05/panoramic-interests-student-housing-san-francisco.html

¹⁹² The Executive Summary for the planning meeting (referenced above) states student housing is not included in the cap.

¹⁹³ Gabbe, C. J. (2015). Looking through the lens of size: Land use regulations and micro-apartments in San Francisco. Cityscape, 17 (2). Accessed online Aug 2019: scholarcommons.scu.edu/cgi/viewcontent.cgi?article=1041&context=ess

¹⁹⁴ Julie Littman. Some Developers 'Terrified' Of Entering San Francisco's Development Process, But City Is Working To Improve It. Bisnow. Accessed online Aug 2019: www.bisnow.com/san-francisco/news/construction-development/san-francisco-policy-87227

¹⁹⁵ Ibid.

¹⁹⁶ San Francisco Mayor's Office of Housing and community Development. 1064-1068 Mission St RFQ. Accessed online Aug 2019: sfmohcd.org/1064-1068-mission-st-rfq

¹⁹⁷ Joshua Sabatini. Homeless housing project slated for completion by August 2021. San Francisco Examiner. June 20th, 2019. Accessed online Aug 2019: www.sfxaminer.com/the-city/homeless-housing-project-slated-for-completion-by-august-2021/

¹⁹⁸ Panoramic Interests, MicroPAD Brochure. Accessed online Aug 2019: www.panoramic.com/wp-content/uploads/2016/11/MicroPAD-Exec-Summary-Revised-11-29-2016-Rev-3.pdf

¹⁹⁹ Scott Beyer. America's Progressive Developers, San Francisco Edition: Patrick Kennedy. Forbes. Mar. 31st, 2018. Accessed online Aug 2019: www.forbes.com/sites/scottbeyer/2018/03/31/americas-progressive-developers-san-francisco-edition-patrick-kennedy/#503baba84722

²⁰⁰ Adele Peters. Can these pre-fab modular apartments help house the homeless? Fast Company. 08/22/2019. Accessed online Aug 2019: www.fastcompany.com/90219330/can-pre-fab-shipping-container-apartments-house-the-homeless

Case Study 7: Modular Prefab Micro-suites In British Columbia

There were an estimated 3,605 individuals found to be experiencing homelessness in Metro Vancouver in 2017, and this represented a 30% increase from 2014 despite an average population growth of only 6.5%.²⁰¹ To begin to address the homelessness crisis, the BC government committed \$66 million to create 600 modular housing units in Vancouver to be used as transitional housing.²⁰² This was part of a broader effort to generate 2,000 units provincially.²⁰³ As of February 2020, The Vancouver Affordable Housing Agency (VAHA) website shows 606 units approved or currently under construction.²⁰⁴ This is across 20 buildings – 11 of which are now listed as complete (as of February 2020).²⁰⁵ The benefits of temporary modular housing for this application from the City's perspective are:²⁰⁶

- it can be constructed in ~3 months on underused sites across the city;
- it can provide immediate relief to hundreds of people without a home;
- it can provide the right supports until permanent housing is available; and
- it can be relocated and reconfigured to fit different sites.

As an example, Margaret Mitchell Place is a recently completed building by manufactured housing builder Horizon North for VAHA. The building consists of 52 units at 320 ft² each (slightly larger for the units designed to be wheelchair accessible). Note that units in other VAHA buildings are as small as 250 ft². Each modular unit is a studio apartment with combined living/sleeping, a kitchenette, bathroom, and individual heating system. The completed building also contains additional amenity space to encourage social interaction and meeting rooms to support the tenants. The modular units were factory built in Kamloops BC and transported to Vancouver. Design started in 2018 Q1; manufacturing in Q2; and on-site construction started and completed in Q3.²⁰⁷

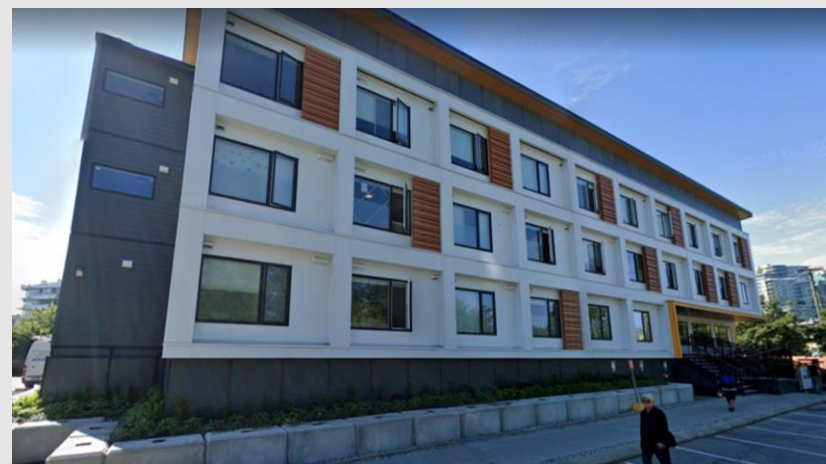


Figure 11. M. Mitchell Place in Vancouver provides immediate housing relief to vulnerable individuals. It consists of 52 modular prefabricated micro-suites at 320 ft² each. (Credit: Google Maps)

Construction costs on a per unit area basis for this style of construction were reported to be comparable to conventional wood-frame construction for low-rise buildings in the area.²⁰⁸ However, this metric can be misleading. The most expensive rooms in any dwelling, the kitchen and the bathroom, are needed regardless of the unit size. If a micro-sized unit constructed from modular techniques can achieve comparable cost on a per unit area basis versus conventional sized units built with conventional techniques, then that means the modular construction technique is less costly overall and more units can be achieved for the same cost.

²⁰¹ BC Non-Profit Housing Association and M. Thomson Consulting. 2017 Homeless Count in Metro Vancouver: Final Report. September 2017. Accessed online Feb 2020: stophomelessness.ca/wp-content/uploads/2017/11/2017MetroVancouverHomelessCount_Nov2017.pdf

²⁰² City of Vancouver Website. Temporary Modular Housing. Accessed online Feb 2020: vancouver.ca/people-programs/temporary-modular-housing.aspx

²⁰³ BC Housing Website. Rapid Response to Homelessness. Accessed online Feb 2020: www.bchousing.org/projects-partners/Building-BC/RRH-program

²⁰⁴ VAHA Website. Accessed online Feb 2020: vaha.ca/projects/

²⁰⁵ Units listed as complete on the VAHA website (vaha.ca/projects/) include 7430 & 7460 Heather Street (Reiderman Residence) with 39 units; 525 Powell Street (Aneki House for Women) with 39; 4480 Kaslo Street (Sarah Ross House) with 52 units; 2132 Ash Street (M. Mitchell Place) with 52 units; 137 East 37th Avenue (Ittli Mountain) with 46 units; 610 and 620 Cambie Street with 98 units; 5077 and 5095 Heather Street with 98 units; 265 West 1st Avenue with 52 units; 258 Union Street with 52 units; and 220 Terminal Avenue with 40 units. Units are 250 to 320 ft².

²⁰⁶ These benefits are taken nearly verbatim from the City of Vancouver website. Accessed online Feb 2020: vancouver.ca/people-programs/temporary-modular-housing.aspx

²⁰⁷ Horizon North Blog. Modular Built Units Provide Affordable Living for Vulnerable Citizens. Oct 3rd, 2018. Accessed online Feb 2020: www.horizonnorth.ca/modular-affordable-housing/

²⁰⁸ CMHC. Housing Research Report: Evaluation of a Movable, Modular Affordable Housing Project. Accessed online Feb 2020: heppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/st/project/archive/research_2/evaluation-of-a-movable-modular_ahp_.pdf



Figure 12. (Top) Example layouts of modular housing units at 220 Terminal Ave. (Bottom) Interior of unit at 220 Terminal Ave. (Credit: Horizon North)

Modular constructions techniques allowed City to cost-effectively make significant progress towards reducing homelessness in a short amount of time. However, their implementation has not been without its challenges. News reports documented that much of the feedback from local residents regarding proposed new modular developments in their neighbourhoods was negative, with security as a primary concern. In some neighbourhoods, the opposition was nearly unanimous. The proximity to schools and the safety of children were commonly mentioned factors.²⁰⁹

Proponents argue that homeless individuals themselves that are the most likely victims of violence and discrimination and this highlights the importance of finding them immediate housing options. To address the concerns around safety and other issues, community advisory committees were established as part of the development process. Student groups (whose safety was the point of concern) have organized to *support* the developments. They argued that it was NIMBYism and discrimination that was motivating the opposition.²¹⁰ It's also important to note that not all feedback has been negative. Community members have also gathered to welcome their new neighbours in these buildings.²¹¹ It follows that there are both proponents and detractors within the community. Success can be fostered by addressing the concerns of detractors while also harnessing the support of proponents.

Tenant experience in one of the modular buildings was evaluated using surveys conducted one year after occupancy. The study evaluated the building on 220 Terminal Ave, which opened in February 2017 and consists of 40 modular units with an area of 250 ft² each. Overall, 84% of survey respondents indicated that they were satisfied or very satisfied with their housing and no respondents were unsatisfied or very unsatisfied.²¹² The Vancouver experience with temporary modular housing is an important case study that demonstrates how small housing forms can be utilized to rapidly respond to homelessness in a way that is cost-effective and achievable within the cityscape. This solution is no being deployed in Toronto, with 110 units planned for completion by September 2020, and 250 unit it total.

²⁰⁹ Saša Lakić. Documents show mixed response to temporary modular housing across Vancouver. Vancouver Courier. March 14, 2018. Accessed online Feb 2020: www.vancourier.com/news/documents-show-mixed-response-to-tempora-vancouver.ca/people-programs/temporary-modular-housing-neighbours-meeting-neighbours-ry-modular-housing-across-vancouver-1.23201956

²¹⁰ Anna Dimoff. Marpole students raise voices in support of neighbourhood modular housing. CBC News. Nov 15, 2017. Accessed online Feb 2020: www.cbc.ca/news/canada/british-columbia/marpole-students-raise-voices-in-support-of-neighbourhood-modular-housing-project-1.4404509

²¹¹ City of Vancouver Website. Neighbours Meeting Neighbours. Accessed online Feb 2020: vancouver.ca/people-programs/temporary-modular-housing-neighbours-meeting-neighbours

²¹² CMHC. Housing Research Report: Evaluation of a Movable, Modular Affordable Housing Project. Accessed online Feb 2020: heppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/archive/research_2/evaluation-of-a-movable-modular_ahp_.pdf

6.10 Minimum Area Requirements

Minimum square footage requirements are put in place for different reasons, among them is to ensure the health and well-being of tenants and the livability of units. However, some micro-suite advocates point to the fact that historical minimum square footage requirements can be arbitrary and not actually based on evidence.

Notably, recent National Healthy Housing Standard, prepared by the National Centre for Healthy Housing and the American Public Health Association, does not recommend a minimum overall square footage for a dwelling – only minimum size for rooms within a dwelling.²¹³

For the jurisdictions considered in this study:

- After their pilot micro-suite building which had units averaging 286 ft², New York City recently removed their requirement of 400 ft² minimum area.²¹⁴
- Vancouver has a minimum area requirement of 398 ft² which was relaxed to 250 ft² for their Downtown Eastside micro-suite pilot.²¹⁵
- Seattle initially allowed congregate housing units as small as 140 ft² but this was changed incrementally until only more conventional studios were allowed.²¹⁶
- San Francisco Building code allowed units as small as 220 ft² in addition to closets and bathrooms. However, the California Building Code allowed smaller units. In 2012, the San Francisco Building Code was amended to allow market units with a *total area* (including closets, living space, bathroom, etc.) as small as 220 ft² as part of a micro-suite pilot.²¹⁷
- The Boston City Living Pilot (See Case Study 8) specified maximum, rather than minimum, areas at 450 ft².²¹⁸

²¹³ National Center for Healthy Housing & American Public Health Association. (2014, May 16). *National healthy housing standard*. Columbia, MD: National Center for Healthy Housing. Accessed online Oct 2019: nchh.org/resource-library/national-healthy-housing-standard.pdf

²¹⁴ See Case Study 4.

²¹⁵ See Case Study 2.

²¹⁶ See Case Study 1.

²¹⁷ See Case Study 6.

6.11 Minimum Parking Requirements

A key factor that can impact the affordability of micro-suite units is the parking requirements. One of the main arguments for micro-suites is that they are a solution for dense urban areas that allow individuals access to city amenities – one of which is public transit – which immediately suggests that reduced parking requirements are reasonable.

The Boston City Living Pilot has taken the most interesting approach to transportation and parking of the jurisdictions considered. The City was clear that on-street parking permits were *not* available for micro-suite developments. Off-street parking requirements are first determined based on the proximity of the development to a transit stop.²¹⁹

A number of different options are then available whereby the developer can satisfy those requirements. The options vary from additional bicycle parking/storage, bike share station, car share stop, shuttle service, subsidized transit for residents, as well as a host of other options. There also points for adding unbundled parking spots. The rationale is: if affordability is the goal – why force individuals to pay for parking they may not need?

In Seattle, parking requirements for micro-suites were also reduced when the developments occurred on the frequent-fast-transit network where the location was serviced by transit at least every 15 minutes.²²⁰

Cubix Condos in San Francisco, consisting of 98 micro-suites, was constructed with no on-site parking. The Panoramic, another primarily micro-suite development in San Francisco, also has no on-site parking but it is being used only for students and interns.²²¹

Micro-suite developments in BC municipalities have also been constructed with no parking.²²² Notably, the limited parking has been voiced as an issue for residents in Kelowna but it is not a dense urban centre to the same extent as other jurisdiction considered in this study.²²³

²¹⁸ See Case Study 8.

²¹⁹ Ibid.

²²⁰ See Case Study 1.

²²¹ See Case Study 6.

²²² Willem Thomas. Is it time for Vancouver to allow more micro-lofts? Vancouver Magazine. July 13, 2019. Accessed online Oct 2019: www.vanmag.com/vancouver-micro-lofts

²²³ See Case Study 5.

Case Study 8: Transportation Management in Boston Pilot

The two-year Compact Living Pilot in Boston was announced in October 2018.²²⁴ It allows eligible developments to incorporate units that are smaller than the current city-mandated restrictions. City officials say that this is in line with a high-level of developer interest in smaller housing forms.²²⁵ Affordability is a key goal, but also important is the gap between demand and supply. In Boston, 69% of households contain 1 or 2 occupants while studio and 1-bedrooms represent only 33% of supply.²²⁶

The work preceding the pilot helped formulate the guidelines. Uniquely, a 385 ft² mobile model unit was created,²²⁷ called the Urban Housing Unit, and presented to the community for feedback. The City received responses from 2,000 community members.

Some developments are now reportedly in the pipeline.^{228,229} The pilot covers new developments containing 10 or more units. It allows both congregate housing and SEDUs (according to the definitions in Case Study 1). Developers must comply with the Compact Living Guidelines and designs are reviewed by the City. The guidelines cover three categories: unit interior, shared space, and transportation.

Unit Interior

In formulating the guidelines for the unit interior, the City has often not provided precise requirements and has left much up to the developer to justify how their design is in line with the goals of the pilot. The guidelines specify a maximum (rather than a minimum) square footage. The maximum square footage for studios is 450 ft². The Unit Interior guidelines are further broken down into three categories: function, storage and daylight.

The City requires that there is sufficient space to accommodate normal living activities. Furniture plans are included with the developer's submittals, as well as detailed information on clearances. If the design requires specialized furniture, it must be provided with the unit.

Cooking areas require more than 4 ft² of contiguous food preparation surface area and include cooking appliance(s) with ventilation, as well as a refrigerator, sink, and cabinet storage. Full kitchen's are not explicitly required but must be included in shared space when not included in individual units.

The guidelines require ample storage for all essential items as well as supplemental storage, if needed, for larger or seasonal items. Creative storage solutions are encouraged. Ceilings are preferably at 9ft tall, with windows at 6 ft tall and having an area equivalent to 15% of the habitable floor area. Creative solutions to maximizing daylight are encouraged.

Shared Space

Smaller dwelling units require increased shared space and The City has provided a formula for calculating shared space requirements. Shared space should be both inside and outside, accessible to everyone, along a common path of travel, with indoor and outdoor spaces being ideally adjacent to one another. Importantly, the shared space should foster community and social interaction. A plan for managing the space to achieve that goal should be included.

Transportation

One of the most notable aspects of the City's approach compared to other jurisdictions is the approach to transportation demand management (TDM). The TDM policy is aimed at avoiding the cost of unnecessary over supply of parking and encouraging other forms of transit that reduce congestion and promote sustainability.

²²⁴ City of Boston. Boston Compact Living Pilot. October 11th, 2018. Accessed online Jul 2019: www.boston.gov/sites/default/files/compact_living_guidelines_181012.pdf

²²⁵ Jordan Graham. Micro Apartments Heading to Boston. Boston Herald. Oct 12th, 2018. Accessed online Jul 2019: www.bostonherald.com/2018/10/12/micro-apartments-heading-to-boston/

²²⁶ City of Boston. Compact Living Pilot Webpage. Accessed online Jul 2019: www.boston.gov/departments/new-urban-mechanics/housing-innovation-lab/compact-living

²²⁷ Megan Turchi. 385-square-foot 'urban housing unit' will be on display at City Hall Plaza. Real Estate by Boston.com and Globe.com. August 9th, 2016. Accessed online Jul 2019: realestate.boston.com/news/2016/08/09/urban-housing-unit-will/

²²⁸ Tim Logan. Developer revises plans for Dot Block project. The Globe. February 1st, 2019. Accessed online Jul 2019: www.bostonglobe.com/business/2019/02/01/developer-revises-plans-for-dot-block-project/b7ZXP2WlrALb9NyixZH9NI/story.html

²²⁹ Meeting on Thursday to discuss lower-cost studio apartments proposed for Fields Corner. Dorchester Reporter. April 10th, 2019. Accessed online Jul 2019: www.dotnews.com/2019/small-lower-cost-studios-proposed-fields-corner

Residents of Compact Living Units cannot obtain on-street parking permits and this should be made clear to them prior to lease or purchase. The maximum per unit parking allowed is a function of the distance from a transit stop – it's 0.25 if the unit is within 0.25 miles, it's 0.5 if the unit is between 0.25 and 0.5 miles, and it's 0.75 beyond 0.75 miles.

The number of parking spaces in a development is then used to set a target number of TDM points. The developer then chooses different TDM strategies, each with an associated number of points, to satisfy the target. Example TDM measures include:

- additional bicycle parking;
- bicycle share stations;
- on-site bicycle maintenance;
- unbundled parking (i.e. parking spaces not automatically included with unit);
- on-site car share parking;
- shuttle service to major hubs;
- subsidized transit;
- delivery supportive amenities; and
- on-site childcare.

Overall, the Compact Living Pilot is still too new to draw firm conclusions but it remains a notable micro-suite program worth future evaluation. One of the most interesting aspects of the pilot is the approach transportation demand management which acknowledges the changing transportation landscape within modern cities.



Figure 13. Rendering of a proposed building at 141 Westville St. in Boston with units 260 to 280 ft² as part of the Compact Living Pilot.²³⁰

²³⁰ Image from: Project Notification Form - 141 Westville Street Dorchester, MA. April 1st, 2019. Accessed online Jul 2019: www.bostonplans.org/getattachment/79f263d9-4b5a-4f8c-983b-b74611fe69fe

6.12 Integration with Community Housing

A notable trend amongst the different jurisdictions is the use of micro-suites for non-market community housing. Carmel Place in New York City is 40% non-market units. They reportedly received 60,000 applications for just 22 spots.²³¹

A notable development from Burnaby BC is MacKay Apartments, developed by the Fair Haven Homes Society which runs low-cost housing for seniors.²³² The development is a four-storey non-market rental building that consists of 145 units, 113 studios and 32 one-bedrooms, for low- to moderate income 55+ seniors. Some studios are as small as 350 ft².²³³

There also notable examples in Vancouver. The Anjok on 288 East Hastings consists of 60% non-market community housing micro-dwelling units and 40% secured market rentals.²³⁴ The Ming Sun development on the Downtown Eastside is also being redeveloped into non-market micro-suite units.²³⁵

A notable policy in BC has seen the purchase of existing SRO hotels for redevelopment as community housing.²³⁶ The SRO Renewal Initiative from The Government of BC involved the purchase and renovation of 13 single-room occupancy (SRO) hotels in Vancouver for the purpose of providing non-market community housing to 900 individuals. Buildings were purchased from 2007 to 2009 and renovations completed in 2017. This was a \$147 million investment from the Province, with an additional \$29.1 million from the Federal Government.

The redevelopment of SRO hotels to provide market rental has been met with opposition because critics argue that it is effectively removing low-cost housing options for vulnerable individuals while replacing them with higher-cost units – in some ways achieving the opposite outcome (i.e. removing affordable housing units) that was intended.²³⁷

InDwell (Case Study 3) provides an excellent example of micro-suite community housing in Ontario.

6.13 Summary

In the jurisdictions considered, there has been high demand for micro-suites and high demand from developers to provide them. It has emerged intentionally from government subsidy or pilot projects, but also spontaneously through existing bylaw “loopholes.” Micro-suites have been used as non-market community housing, supportive housing for vulnerable demographics, secured market rentals, and market ownership units. It has housed seniors, students, and working professionals across a range of age and income groups.

It’s clear that most jurisdictions are still in the learning phase regarding how micro-suites best integrate with their cityscape. The greatest barriers likely have to do with the newness of this housing form which creates uncertainty. A common concern is the livability of micro-suite units and the well-being of tenants. Community and market impacts, whether positive or negative, are not fully known.

However, it’s important to note that the design principles which foster livability and well-being appear to be well-known and have been implemented in micro-suite developments that serve as positive examples. They’ve also been used to generate formal design guidelines in certain jurisdictions.

A key issue that any jurisdictions must resolve is the fact that “micro” does not necessarily imply “affordable.” In fact, simply developing micro-suites with no other measures to ensure affordability could result in units that are no more affordable (or only marginally so) than the studio apartments already available on the market, and the intended outcome of affordability may not be achieved.

Several approaches to ensuring affordability have emerged from the jurisdictional scan: (1) incorporate them in non-market community housing; (2) make their development contingent on housing agreements that guarantee below market rents; (3) modular construction techniques; and (4) make them very small.

Overall, there is a general recognition that micro-suites have a role to play in the denser cities of the future – but there is not yet consensus on best practices.

²³¹ See Case Study 4.

²³² Burnaby Now. Affordable housing project for seniors opens in South Burnaby. Apr 13th, 2019. Accessed online Oct 2019: www.burnabynow.com/news/affordable-housing-project-for-seniors-opens-in-south-burnaby-1.23790755

²³³ Global News. Micro suites offer affordable alternative to Lower Mainland seniors. Mar 19th, 2019. Accessed online Oct 2019: www.globalnews.ca/news/5074525/micro-suites-offer-affordable-alternative-to-lower-mainland-seniors/

²³⁴ Brian Morton. New project provides ‘affordable housing’ to Downtown Eastside. Vancouver Sun. Jan 25th, 2016. Accessed online Oct 2019: vancouversun.com/news/local-news/new-project-provides-affordable-housing-to-downtown-eastside

²³⁵ Naoibh O’Connor. Social housing development to replace Ming Sun building. Vancouver Courier. November 27, 2018. Accessed online Oct 2019: www.vancourier.com/news/social-housing-development-to-replace-ming-sun-building-1.23511572

²³⁶ See B.C. Housing Website. Vancouver – SRO Renewal Initiative. Accessed online Oct 2019: www.bchousing.org/projects-partners/development-projects/sro-renewal

²³⁷ City Hall Watch. Burns Block – Anything but Affordable? Dec 21, 2011. Accessed online Oct 2019: cityhallwatch.wordpress.com/2011/12/21/the-new-burns-block-burning-affordable-housing-promises/

7 Literature Review

7.1 Overview

The literature review component of this study evaluated articles in academic and industry publications. The aim was twofold:

1. to understand the experience and needs of potential and current micro-suite renters and
2. to identify barriers to micro-suite deployment.

Unfortunately, literature was not available on other important research questions concerning the impact of micro-suite on communities. This is an important gap that should be filled in future work.

7.2 Renter Experience and Needs

This section focuses on the information available from more rigorous scientific studies regarding tenant experience in micro-suites. The available studies included:

- *The Macro View on Micro Units* from the Urban Land Institute (ULI), published in 2014²³⁸
- *Research Study Exploring Best Practices and Lessons Learned with Small Market Units* by Heather Evans Consulting, Margaret Forbes, and Louise Godard, published in 2015²³⁹
- *Residents' Satisfaction with Mini-Suite Housing: A Case Study of 600 Drake* by Sidjak C.T., a Master's Thesis published in 1995²⁴⁰

The best data on tenants in micro-suites comes from the ULI study. It incorporated online survey components both for conventional renters and micro-suite renters. In total, there were 3,407 responses from renters in conventional units (of 37,000 contacted), and 110 responses from renters in micro-suites (of 422 contacted).

Primary data on tenant experience also comes from Evans, Forbes and Godard. While their study incorporated different levels of analysis of small market housing in BC, most relevant to this section is the focus group and online surveys they administered. It included 15 residents of "small market housing" including micro-suite rentals. It also included results from consultations with industry stakeholders like developers and market analysts.

In his Master's Thesis, C.T. Sidjak provides an excellent case study of a specific building incorporating primarily market rental micro-suites. As part of his study, he administered surveys to residents of the building 600 Drake in Vancouver and received 56 replies from tenants. Surveys were administered less than a year post-occupancy. The building contains 192 units, with 64% being less than 320 ft² (some as small as 281 ft²). The remainder of this section seeks to answer specific questions about micro-suite tenants.

²³⁸ Urban Land Institute. *The Macro View on Micro Units*. 2014. Accessed online Aug 2019: uli.org/wp-content/uploads/ULI-Documents/MicroUnit_full_rev_2015.pdf

²³⁹ Heather Evans Consulting, Margaret Forbes and Louise Goddard. *Research Study Exploring Best Practices and Lessons Learned with Small Market Units*. 2015. Accessed online Aug 2019: www.reibc.org/Library/Documents/Report_and_Appendices_-_Research_Study_Exploring_Best_Practices_and_Lessons_Learned_with_Small_Market_Units_Final_report_Jan_30_2015_.pdf

²⁴⁰ Craig Thomas Sidjak. *Residents' Satisfaction with Mini-Suite Housing: A Case Study of 600 Drake*. University of British Columbia Master's Thesis in School of Community and Regional Planning. 1995. Accessed online Aug 2019: open.library.ubc.ca/ciRcle/collections/ubctheses/831/items/1.0086752#downloadfiles

What is the interest level in micro-suites amongst potential renters?

The ULI study found that 24% renters in conventional units are probably or definitely interested in renting micro-suites.²⁴¹ The interest level doubled, with nearly half expressing interest, for single respondents that were under the age of 34, earning less than \$40k, and living with roommates.²⁴² The factors which would motivate conventional renters to choose micro-suites (in order of importance) were cost, desired location, and the ability to live alone.²⁴³

Table 1. Renters in conventional units would choose a micro-suite in exchange for these factors.²⁴⁴

Ranking Areas	1 st or 2 nd -rank mentions	1 st -rank mentions
Lower rent compared with conventional studios	73%	53%
Desired location/neighbourhood	44%	23%
Reduced utility costs	35%	7%
Ability to live alone (i.e. without roommates)	28%	12%
Shorter commute to work	19%	8%
Minimal apartment upkeep, cleaning, etc.	10%	3%
Neighbours with a similar lifestyle	8%	3%
More community amenities/shared spaces	7%	2%
Proximity to public transportation	6%	3%

Market analysts and developers informing the study of Evans, Forbes and Goddard, stated that the demand for small units was very high in Vancouver and Victoria, both for rentals and ownership.²⁴⁵

Who is renting in micro-suites?

Sidjak included demographic questions in his surveys. This is his description of a typical resident at 600 Drake:

*"A typical resident of 600 Drake is under 40 years of age, single and holds a post-secondary degree. This resident walks or takes public transit to a service sector job in Downtown Vancouver. Their leisure time is divided between many recreational, entertainment and social activities, most of which take place outside their home."*²⁴⁶

While this is the typical resident, it's worth noting that 26% resident were over 40, and 11% were over 60 - pointing to the fact that micro-suites are not exclusively for the young people.²⁴⁷ Previous examples provided in this work have shown that micro-suites have been used for non-market community housing for seniors.²⁴⁸

The sense from the interviews, surveys and focus group from Evans Forbes and Goddard is that the question may be less about "who" than it is about "when." The units are primarily young people just getting into the market, but also by older individuals scaling down later in life.²⁴⁹

However, one stakeholder identified that it is perhaps an incorrect pre-conception that single people are young and transient will eventually settle down with a family.²⁵⁰ Many will remain single and this housing form factor could serve them throughout their lives.

²⁴¹ Pg. 17 of ULI (2014).

²⁴² Ibid.

²⁴³ Ibid.

²⁴⁴ Ibid.

²⁴⁵ Pg. 25 of Heather Evans Consulting, Margaret Forbes and Louise Goddard (2015).

²⁴⁶ Pg. 62 - 63 of Sidjak (1995).

²⁴⁷ Pg. 58 Chart 2 of Sidjak (1995).

²⁴⁸ For example, McKay Apartments in Burnaby B.C. was developed by the Fair Haven Homes Society and consists of low-cost micro-suites for seniors.

²⁴⁹ Pg. 21 - 23 of Heather Evans Consulting, Margaret Forbes and Louise Goddard (2015).

²⁵⁰ Pg. 22 of Heather Evans Consulting, Margaret Forbes and Louise Goddard (2015).

Why have people chosen micro-suites?

In the ULI study, most micro-suite renters did not set out to specifically lease a micro-suite.²⁵¹ They ended up renting a micro-suite for the same key factors that would motivate conventional renters: cost, location and ability to live alone. 97% of micro-suite renters ranked location as 4 or 5 (out of 5) as a priority in leasing a micro-suite. This was further broken down into proximity to work/school (78%), proximity to neighbourhood amenities (73%), and proximity to public transportation (62%). 86% ranked price as 4 or 5. 71% ranked the ability to live alone as 4 or 5.²⁵²

Table 2. The priorities of survey respondents were ranked on a scale of 1 to 5.²⁵³

Lease decision factors	Percent 4s or 5s
Location	97%
Price	86%
Proximity to work/school	78%
Proximity to neighbourhood amenities	73%
Ability to live alone	71%
Proximity to public transportation	62%
Internet/wifi services	54%
Quality of finishes	52%
Floor plan/layout	42%
Assigned parking	32%
Common areas/amenities	32%
Sustainability practices	29%
Sense of community	27%
Pets allowed	26%
In-unit storage	25%
Visitor parking	21%
Neighbours with similar lifestyles	20%

The interviews, surveys, and focus group from Evans, Forbes and Goddard echoed similar sentiments. People are typically not after a small space specifically, rather, it is a means to these other goals of affordability, location and living alone.²⁵⁴

What amenities are most important?

The ULI study asked renters in conventional units what amenities would matter most if they were to live in a micro-suite. The amenities which were ranked as 4 or 5 (out of 5) by more than 75% of respondents were: a grocery store, a building laundry room (or in-suite washer dryer), storage space, a full-size refrigerator, a full-size sink, and a four-burner stove.²⁵⁵

Table 3. The importance of amenities if switching to a micro-suite.²⁵⁶

Type	Amenity	Percentage 4s or 5s
Neighbourhood	Grocery store	88%
Neighbourhood	Restaurants/bars	68%
Neighbourhood	Gym	56%
Neighbourhood	Entertainment	53%
Neighbourhood	Retail Centres	52%
Neighbourhood	Cafes	49%
Neighbourhood	Recreation	46%
Neighbourhood	Public transit	41%
Building	Laundry room	83%
Building	Assigned parking	72%
Building	Visitor parking	72%
Building	Fitness centre	70%
Building	Roof/outdoor space	62%
Building	Pool	56%
Building	Living room on each floor	43%
Building	Central lounge	26%
Building	Bike rack	23%
Building	Communal kitchen	19%
Unit	Washer and dryer	86%
Unit	Built-in closets and doors	82%
Unit	Storage space	81%
Unit	Full-size refrigerator	77%
Unit	Full-size kitchen sink	75%
Unit	Four-burner stove	75%
Unit	Dishwasher	71%
Unit	Bathtub	61%
Unit	Space partitions	53%
Unit	High ceilings (9 ft+)	49%
Unit	Over-sized windows	49%
Unit	Flat-screen TV	42%
Unit	Juliet Balcony	41%

²⁵¹ Pg. 18 of ULI (2014).

²⁵² Pg. 19 of ULI (2014).

²⁵³ Ibid.

²⁵⁴ Pg. 22 – 24 of Heather Evans Consulting, Margaret Forbes and Louise Goddard (2015).

²⁵⁵ Pg. 18 of ULI (2014).

²⁵⁶ Ibid. Note that some have been omitted to fit on this page.

How satisfied are micro-suite renters?

The ULI study compared the satisfaction of renters in micro-suites to that of renters in conventional units. The satisfaction of tenants in conventional units was quantified via the Kingsley Index which is based on data from more than 100 companies, including 7 of ten largest apartment managers in the U.S. Overall tenant satisfaction in micro-suites is comparable to that in conventional apartments. While micro-suite renters do perceive significantly less value for money, other factors like the location, community amenities and apartment features & finishes, all left micro-suite renters more satisfied.

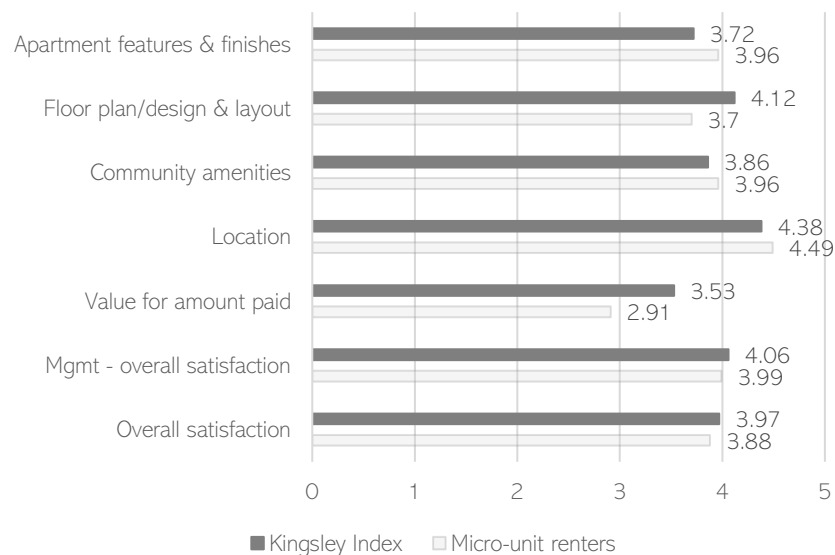


Figure 14. The ULI study showed comparable levels of satisfaction between renters in conventional rentals and micro-suites across most categories.²⁵⁷

C.T. Sidjak surveyed the residents of 600 Drake about their level of satisfaction with their micro-suite; 59% reported that they were either satisfied or very satisfied, 25% reported that they were neither satisfied nor unsatisfied, and 16% reported being unsatisfied.²⁵⁸

²⁵⁷ Pg. 19 of ULI (2014).

²⁵⁸ Pg. 70 Chart 17 of Sidjak (1995)

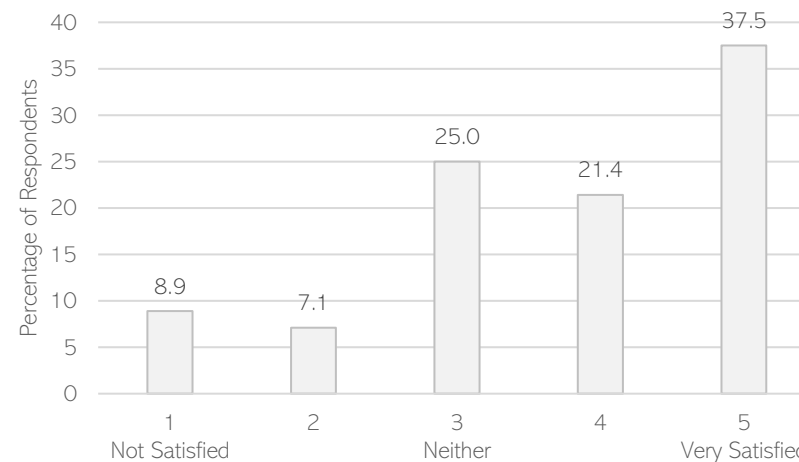


Figure 15. The survey of residents at 600 Drake in Vancouver show that most residents are satisfied with their micro-suite while a small minority are unsatisfied.

Evans, Forbes and Goddard found that overall the experience of residents was positive but they also cautioned it is not for everyone, nor every stage of life.²⁵⁹

These studies agree that the large majority of tenants in micro-suites report being satisfied overall with their units. This is also in agreement with anecdotal evidence from other sources. However, there are a few things worth noting.

Firstly, in all cases, the tenants were simply asked if they were satisfied. This is expedient for study purposes but it is not a rigorous assessment of health and well-being. Secondly, many of the specific factors which have fostered or impeded satisfaction (and the degree to which they've done so) are not fully clear. Lastly, the respondents freely chose micro-suites and the researchers did not conclude that any group of individuals from the general public would have the same experience.

Based on these studies, it's also worth noting there is no evidence that living in micro-suites has substantially impacted the health or well-being of tenants in a negative way. This is important because this factor is often cited as a primary concern from decision-makers and critics.

²⁵⁹ Pg.43 of Heather Evans Consulting, Margaret Forbes and Louise Goddard (2015).

Summary of Tenant Experience and Needs

The existing studies on current and potential micro-suite tenants shows:

- they are generally satisfied with their micro-suite;
- a notable fraction of renters in conventional units would consider micro-suites given certain trade-offs;
- they are predominantly single and under 40 but may also be in later stages of life;
- they choose micro-suites because of affordability, location and the ability to live independently (i.e. without roommates), and not typically because they actually prefer something smaller;
- the amenities they value most are the more practical ones that make day-to-day living easier – like a local grocery store, in-suite or in-building laundry, full kitchen with conventionally sized appliances, storage space, etc.
- Design features intended to enhance livability and well-being, like large windows, a Juliet balcony, high ceilings, as well as communal lounge and living space, were important to approximately half of potential micro-suite renters.

While these are useful insights, it's also important to note that the literature in this area is limited and these findings are not necessarily broadly applicable across all jurisdictions or micro-suite developments

7.3 Micro-suite Barriers in the Academic Literature

C. J. Gabbe²⁶⁰ evaluated micro-suite regulatory barriers in San Francisco and grouped them under three categories: (1) regulations that limit the density of development; (2) regulations that impose design and performance standards; and (3) regulations that shift costs from the locality to the developer.

Under the first category are parking requirements, outdoor open space requirements and indoor common space requirements. These disproportionately impact micro-suite developments due to their greater density and the fact that requirements are on a per-unit basis. Effectively, more parking and more open space is required for a micro-suite development than in a conventional development and this can drive up rents to the point where micro-suites are no longer economically feasible. Micro-suites developments also have indoor common space requirements that are not in place for conventional developments.

Under the second category, the primary barrier is unit-mix requirements. In San Francisco, micro-suite development has primarily occurred in zones without such requirements and in buildings with predominantly micro- or small units. The City also has policy that requires a certain percentage of family-sized units (2-bedrooms or greater). Gabbe notes that the literature is unclear on whether this approach to promoting family-sized units is more effective than the production of smaller units to alleviate pressure on the existing stock.

Under the last category, the primary barrier is inclusionary zoning policies which requires a certain percentage of units be available at below-market rent or an additional fee be paid. The issue is again based on how the policy is applied on a per-unit basis. Denser buildings of the same gross floor area as conventional buildings would end up paying proportionally more in fees.

Gabbe suggests potential solutions: removal of minimum parking in medium- and high-density zones; open space requirements based on area rather than units; more equitable common space requirements; lower in-lieu inclusionary zoning payments for micro-suites; as well as other suggestions.

T. Iglesias²⁶¹ defined the primary regulatory and policy issues relevant to micro-suites as (1) defining and articulating micro-suites as a dwelling type and (2) setting zoning ordinances and planning policies accordingly.

While the first point is more-or-less straightforward, the second entails a number of other factors. The most general of them is that if micro-suites are intended to meet a certain housing need, then planning, zoning, and other fiscal policies need to be in place to support that goal. Factors to consider include:

- which zones to allow micro-suites in and whether they are allowed by right or require a special permit;
- allowable density and need to up-zone density where micro-suite developments will occur;
- design standards including: minimum allowable area, height standards, bulk standards, setbacks, lot coverage, size of common areas, required amenities, parking, landscaping and exterior requirements, permissible construction forms, etc.
- consistency with residential habitability standards;
- revisions of design review procedures and standards where necessary;
- affordability requirements; and
- exactions (where necessary) on developers to support additional infrastructure.

These are not framed as barriers per se, but the point is clear that micro-suites do require a degree of special consideration within planning and zoning documents. The extent to which any given municipality has (or does not have) a plan will impact the pace and overall impact of micro-suite development.

J. Infranca²⁶² looked at the regulatory challenges of micro-suites in five different U.S. cities: New York, Washington D.C., Seattle, Denver and Austin. Some of the issues he found included:

- parking requirements

²⁶⁰ C. J. Gabbe. Looking through the lens of size: Land use regulations and micro-apartments in San Francisco. *Citiescape*, 17(2). Accessed online Aug 2019: pdfs.semanticscholar.org/08a0/65d8ceb83795212a63bc916c2de9f4af43c2.pdf

²⁶¹ Iglesias, Tim, The Promises and Pitfalls of Micro-Housing (November 1, 2014). *Zoning and Planning Law Report* 37.10 (2014): 1-12; Univ. of San Francisco Law Research Paper No. 2015-02. Accessed online Aug 2019: works.bepress.com/tim_iglesias/29/

²⁶² John Infranca. Housing Changing Households: Regulatory Challenges for Micro-suites and Accessory Dwellings. 25 *Stanford Law and Policy Review*, 52 note 76. (2014). Accessed online Aug 2019: papers.ssrn.com/sol3/papers.cfm?abstract_id=2339136

- per-unit parking requirements can make micro-suites unprofitable;
- minimum square footage requirements
 - directly restricts unit size;
- limitations on number of units that can be developed in addition to limitations on floor area allowed
 - such limitations make it more profitable to produce larger units that will produce greater rents;
- financing for developments:
 - demand for micro-suite buildings is not yet clearly established and this can impact financing agreements; for example, lenders may perceive a greater degree of risk, they may undervalue the development and they may make other demands (like parking) that can drive up the costs;
- height and setback requirements:
 - possible for these to impede modular prefabricated construction which may be less dimensionally flexible.

He recommends that cities rethink parking – either eliminating requirements in certain districts or reducing them for areas in proximity to transit or with strong walk scores. He also recommends that cities replace regulations imposing higher unit sizes and maximum allowable numbers of units with clear regulations around common spaces in micro-suite developments. He suggests that encouraging a mix of unit sizes and designing units such that they could be reconfigured in the future could mitigate many concerns.

T. Geffner²⁶³ conducted a literature search on existing barriers to micro-suites. He generalized the barriers under three headings:

1. Unfamiliarity leads to caution
2. Unfamiliarity leads to opposition
3. Unfamiliarity leads to regulatory barriers

According to Geffner, a primary issue under the first subheading is difficulties in securing institutional development capital to fund micro-suite developments. Such developments are perceived as riskier, possibly leading developers to incorporate fewer micro-suites in their buildings.

Under the second heading, Geffner is referring primarily to opposition from the local community, capable of limiting, stalling or even preventing micro-suite developments entirely. Some of the most common points of criticism, whether justified or not, are:

- the size of micro-suites makes them unhealthy and/or unsafe;
- micro-suite developments may clutter on-street parking;
- micro-suites will house undesirables and deteriorate into slums; and
- micro-suites have a high cost per unit area which could lead to inflated rents in conventional rentals .

Under the third heading, Geffner's literature search identified a number of regulatory barriers impacting micro-suites: density regulations, parking requirements, unit size limitations, open space mandates and unit mix requirements.

A. Renn and A. Armlovich²⁶⁴ looked at opportunities and challenges of micro-suites, specifically in the context of Seattle and New York City. They noted the overall density cap in New York City that limits the number of micro-suites. They also noted that much of Seattle is zoned for single-family homes, not allowing even more traditional apartment buildings. Regulations like these show that even if micro-suites are permitted in theory, various regulatory factors would limit or prevent their construction in practice.

They also note some primary criticisms of micro-suites; chiefly among them is the perception of individuals that will be living in these developments. One factor that creates confusion is that this type of housing can serve different demographics. Perceptions from local residents may be that this housing is for less desirable individuals from different segments of society but it could just as well serve middle-class working professionals. It follows that any policy aimed at affordability in the middle class may be subject to misconceptions about the residents.

They suggest that the opposition and strength of these negative perceptions is related to where the developments are located. In wealthier neighbourhoods, existing residents may view micro-suites as a problem because they expect the neighbourhood to be housing other “upper-class” individuals. The authors suggest that the likelihood of micro-suites being perceived as a threat would be much

²⁶³ Thomas Geffner. Towards a Smaller Housing Paradigm: a Literature Review of Accessory Dwelling Units and Micro Apartments. Portland State University Honours Thesis. 2018. Accessed online Aug 2019: pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1636&context=honorstheses

²⁶⁴ A. Renn and A. Armlovich. Microunits: A Tool to Promote Affordable Housing. Essay in “Retooling Metropolis” Policy Research Document by Manhattan Institute. 2016. Accessed online Aug 2019: media4.manhattan-institute.org/sites/default/files/Retooling_Metropolis_2016.pdf#page=35

lower in high-density cosmopolitan inner-city areas but also in low-density commercial and industrial areas of inner-suburbs.

They suggest that targeted rezoning (i.e. specially selected areas of a city where micro-suites are permitted) could be a reasonable compromise that eventually improves public perception to the extent where it becomes acceptable to a greater number of neighbourhoods.

M. Potikyan²⁶⁵ sought to evaluate the trends which have influenced the growth of micro-suites in San Francisco and L.A. Part of the analysis looked at barriers as well. These included:

- minimum unit size requirements;
- provisions around common space;
- off-street parking requirements;
- unit-mix requirements;
- maximum densities allowable on lots; and
- developers' access to capital.

²⁶⁵ M. Potikyan, *Advantages and Opportunities of Developing and Investing in Micro-suites*, Master's Theses, MIT, 2017. Accessed online Aug 2019: dspace.mit.edu/handle/1721.1/108883

8 Potential Micro-suite Barriers and Actions

8.1 Overview

This section synthesizes the results from all previous section to identify barriers and potential solutions. One researcher has suggested that the primary challenges to broader micro-suite development are rooted in unfamiliarity with the concept and this may result in caution, opposition and regulatory barriers.²⁶⁶ This study has adapted those categories. Barriers are listed below:

Caution

- Concerns over health, well-being and equity
- Lack of information on impacts
- Concern over long-term viability of micro-suite developments
- Development financing

Opposition

- Community opposition

Regulatory Barriers

- Minimum parking requirements
- Restrictive minimum unit size requirements
- Open and common space requirements
- Unit-mix requirements
- Zoning

This section treats the barriers and potential actions arising from the literature review and jurisdictional scan from a general perspective. The implication of each for Toronto specifically are in Section 9.

8.2 Caution

8.2.1 Concerns over health, well-being and equity

Description

Reluctance on the part of city officials to embrace micro-suite over fears of the health and well-being of tenants. Included in this is the issue of equity, in that a micro-suite is more livable to those with higher incomes because they can entertain themselves outside of the home. Also included is the fear that micro-suites may foster overcrowding where multiple individuals, or a family, occupy a single micro-suite unit designed for one or two individuals.

Findings from Literature Search and Jurisdictional Scan

Actual instances of overcrowding in micro-suites were not found and the limited research available on tenant experience in micro-suites has found tenants to be satisfied living in their units. The additional impact of a cold-climate on the quality of life in micro-suites has not been specifically studied but anecdotal evidence from an Ontario community housing project shows promise for the concept. Concerning equity, a key reason that individuals have chosen micro-suites is the freedom to live independently without roommates and, in this sense, micro-suites may promote equity by offering safe, affordable, and independent living to a greater number of individuals. The design principles which promote well-being in micro-suites are well-known and it is possible to enforce design guidelines. However, research shows that potential occupants are most interested in affordability, location, and the freedom to live alone, as well as building and unit amenities that make day-to-day tasks like cooking and laundry easier. The research team suggests that additional design requirements aimed at enhancing livability should be closely evaluated if they significantly impact the key criterion of affordability.

Potential Actions

1. Provide design guidelines for micro-suite developments.
2. Commission formal study of tenants in existing Ontario micro-suites.
3. Undertake different measures aimed at improving affordability across the housing spectrum (for individuals and families) to mitigate concerns around overcrowding in micro-suites.

²⁶⁶ Thomas Geffner. Towards a Smaller Housing Paradigm: a Literature Review of Accessory Dwelling Units and Micro Apartments. Portland State University Honours Thesis, 2018. Accessed online Aug 2019: pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1636&context=honorsthesis

8.2.2 Lack of information on impacts

Description

Formal scientific study on micro-suites is limited. The concept is still new, with many of the major advances in North American cities happening over the last decade. This introduces caution on the part of planners.

Findings from Literature Search and Jurisdictional Scan

It's useful to clearly articulate what is known and not known about micro-suites. The important things that we know about micro-suites have to do with the individuals renting/owning them (wants, needs, level of satisfaction, etc.), how to design them to maximize livability and well-being, major barriers, and their potential for achieving affordability. The important things that we don't know well (or least upon which there is little consensus) have to do with broader long-term community impacts, impacts on city services, and specific details regarding the regulatory/policy measures needed. For example:

- Micro-suites may relieve the pressure on the existing rental stock of larger units suitable for families but research is needed.
- Negative impacts are not fully clear (i.e. Will they be used as vacation rentals? Will they deteriorate the quality of neighbourhoods?)
- The design features which optimize livability are well-known but the best approach to incorporating these in deeply affordable market rental units is not well-known. There are market micro-suite examples that have not actually produced deep levels of affordability.
- It is known that micro-suites need a tailored approach for parking, common space, open space, unit-mix and other requirements. Different approaches are being tested but this also shows that there is not yet consensus on the best strategy.

Potential Actions

1. Additional scientific study on community and rental market impacts.
2. Continued knowledge sharing with other jurisdictions.
3. Build capacity by first targeting the more straightforward opportunities. Examples from the literature and jurisdictional scan include off-campus student rentals, conversion of SRO hotels into non-market micro-suite community housing, and the use of modular micro-suites to provide immediate housing relief to vulnerable demographics.

8.2.3 Concern over long-term viability

Description

Micro-suites, and specifically developments consisting fully of micro-suites, are rigid in the demographics they serve and demographics change over time. There is risk that cities will be left with a legacy of unwanted micro-suite development.

Findings from Literature Search and Jurisdictional Scan

Demographic trends suggest that micro-suites do have a future (to at least some extent) in large metropolitan cities like Toronto. The population is increasing and will continue to do so at a fast pace, real estate is increasingly unaffordable and there is minimal land available, the number of people living alone is increasing, and a significant portion of individuals currently living roommates would prefer to live alone. However, demographic changes at a neighbourhood level may be more pronounced and the risk of future unwanted developments at this granularity may be real. This risk can be mitigated in different ways. For example, only allow micro-suites in buildings with a mix of other unit sizes example (past a certain size of building), encourage builders to design buildings with potential for the merging of micro-suites in the future, deployment of purpose-built micro-suite developments for applications like student or community housing, and the use of micro-suites as infill in small-scale developments.

Potential Actions

1. Require a certain mix of unit sizes in buildings (past a certain size of building).
2. Encourage flexible building design that may allow for merging of micro-suites in the future.
3. Consider micro-suites as a more cost-effective option in certain purpose-built applications like off-site student rentals or community housing.
4. Consider micro-suites for infill in small-scale developments.

8.2.4 Development financing

Description

Micro-suites are a new form of housing and has therefore been perceived as riskier by institutional lenders that finance developments. This may prevent development or limit the number of micro-suites in a development. It may also require that the developer incorporate features into the building (like increased parking spots) that will overall decrease affordability.

Findings from Literature Search and Jurisdictional Scan

While this has been mentioned as an issue within the literature search and jurisdictional scan, no specific solutions have been offered to the author's knowledge. It may diminish in time as awareness and knowledge surrounding this new housing form increases.

8.3 Opposition

8.3.1 Community opposition

Description

Community opposition can stall, limit or entirely prevent micro-suite developments.

Findings from Literature Search and Jurisdictional Scan

Congregate housing in Seattle faced vehement opposition from community groups, enough to halt development entirely, but this was not seen for micro-suites in other jurisdictions. It is also worth noting there was a low level of community resistance for temporary modular micro-suites in Vancouver, but not enough to limit development. The opposition largely surrounds development in low-density residential neighbourhoods. There is concern about the "type" of individuals occupying micro-suites, safety, a degradation of the character of neighbourhoods, an overwhelming of services, a lack of consultation with residents and overall, a perceived loss of value and quality of life. Some concerns are due more to a lack of understanding while others may represent real potential impacts. Researchers have suggested that opposition would be much lower in high-density cosmopolitan inner-city areas and low-density commercial and industrial areas of inner suburbs.

Potential Actions

1. Targeted rezoning for micro-suites (i.e. specially selected areas of a city where micro-suites are permitted).
2. Incorporate micro-suites in neighbourhood-level planning studies to identify opportunities where acceptance would be higher.
3. Develop a process for communication between micro-suite developers and community groups (like community advisory committee meetings).
4. Provide education on the multiple benefits of micro-suites and compact community designs in terms of smaller carbon footprint, reduced commuting times, more land available for parks/greenspace, etc.
5. Communications that help share positive experiences of people who live in micro-suites (similar the "tiny house" movement²⁶⁷).
6. Developers may add value to the community (i.e. park, donation to community centre, etc.) to compensate for real or perceived losses.
7. Additional scientific study on community impacts.

²⁶⁷ There are many examples of this – like the "Tiny House Blog" online or the "Living Big in a Tiny House" channel on Youtube.

8.4 Regulatory

8.4.1 Minimum parking requirements

Description

Parking requirements are often specified on a per-unit basis and may add cost disproportionately to micro-suite developments based on their greater density. This can push development cost past the point of economic feasibility. Furthermore, when parking is not actually needed by occupants as might be the case in a dense urban environment, regulations that require the bundling of parking spaces with micro-suite units erodes affordability unnecessarily.

Findings from Literature Search and Jurisdictional Scan

The different jurisdictions, and developments within the jurisdictions, varied in the approaches to parking. There were examples of micro-suite developments with no off-street parking at all and other examples of different approaches to reduce the amount of off-street parking.

Potential Actions

1. Consider approaches to unbundle parking from micro-suite units.
2. Encourage micro-suite developments near transit corridors.
3. Reduce or remove minimum parking requirements for micro-suite developments in higher-density zones.
4. Consider parking requirements within a point system considering proximity to public transit and other building amenities like a bikeshare station, bike parking, carshare spaces, etc.
5. Given the expenses that are avoided, mortgage lenders may consider increased financing for individuals living in a location with high bike, walk, and transit scores, and do not own a car

8.4.2 Minimum unit sizes

Description

Minimum unit sizes explicitly restrict the size of units and, in some jurisdictions, they prohibit micro-suites entirely.

Findings from Literature Search and Jurisdictional Scan

Some micro-suite advocates point to the fact that historical minimum square footage requirements can be arbitrary and not actually based on evidence. In certain jurisdictions, micro-suite pilot projects have required overrides for minimum suite size requirements. This includes overrides for a pilot building (New York), a neighbourhood-level pilot study (Vancouver), or for a limited number of buildings (San Francisco). Notably, in New York City, the additional restrictions for suite size put in place by the local government were removed after having piloted a micro-suite building.

Potential Actions

1. Remove or reduce more restrictive minimum unit size requirements put in place by the local government for a pilot building, a neighbourhood level pilot study, or a limited number of buildings.

8.4.3 Open and common space requirements

Description

Open and common space requirements become barriers for micro-suite deployment because they increase the cost and therefore, the economic feasibility, of micro-suite developments. Such requirements are also often specified on a per-unit basis such that a micro-suite development of the same floor area will require more open and/or common space than a conventional development – and proponents have argued that this is unfair.

Findings from Literature Search and Jurisdictional Scan

The key aspect of micro-suites that is of interest to individuals and local governments is **affordability**. However, to safeguard tenant well-being, local governments use (in part) open and common space requirements. This typically means that the development becomes less affordable because there are effectively fewer units that can be constructed. Tenant well-being and affordability are therefore at odds to a certain extent and regulations should strive to encourage an optimal balance. Housing providers that do have significant common and/or open space in their buildings have noted that it is an important part of building a sense of community, which can be especially important in non-market units housing more vulnerable demographics – and also more important in a cold-climate. At the same time, research on potential micro-suite occupants has shown that, while outdoor space is higher on the list of desired features, building common space features like a communal lounge, kitchen or living room on each floor, are lower down. The study team is not aware of any research evaluating common and open space requirements and their resultant impact on affordability and tenant well-being in micro-suites. Best practices are therefore not established. However, it is still possible to amend existing regulations to ensure that micro-suites are at least not disproportionately affected when compared to conventional units.

Potential Actions

1. Open and/or common space requirements based on *area* rather than number of units.
2. Further scientific study on the impact of open and common space requirements and their resultant impacts on affordability and tenant well-being.

8.4.4 Unit mix requirements

Description

Developments consisting *fully* of micro-suites may be easier and less expensive for a developer to construct in some cases. Requiring a mix of unit sizes within a building may therefore increase the cost of development and decrease the affordability of the units.

Findings from Literature Search and Jurisdictional Scan

In some jurisdictions, researchers have noted that micro-suite development has occurred in zones without such requirements and in buildings with predominantly micro- or small units – suggesting that this can be a notable barrier for micro-suite development. Others have noted that it is ultimately a matter of scale. A building with have 40- to 60-units (all micros) can work well in a community, but for larger buildings, a mix of unit sizes is needed. Micro-suite design guidelines have encouraged (but perhaps not firmly required) a mix of unit sizes. This may allow more flexibility for developers in cases where a building or site is especially amenable to fully (or mostly) doing micro-suites – like the renovation of an SRO hotel.

Potential Actions

1. Allow developments consisting of fully or mostly of micro-suites up to a certain number of units, while requiring a mix of unit sizes for larger buildings.

8.4.5 Zoning

Description

The zoning bylaw may explicitly not allow multi-family buildings in large areas of a city and this prevents the deployment of micro-suites in those areas.

Findings from Literature Search and Jurisdictional Scan

The jurisdictional scan considered different approaches used to pilot micro-suites – whether via a single building, a single neighbourhood, or a limited number of buildings/units across different neighbourhoods. This required overrides or amendments to the zoning bylaw, typically to circumvent restrictive minimum unit size requirements, but the areas in which the micro-suites were implemented were already zoned for multi-family buildings. In this sense, the given zone in which a pilot project took place was not a barrier – at least not initially – but it's also clear that explicitly not allowing multi-family buildings in large areas of a city is a barrier for micro-suite deployment.

The exception was Seattle. The zoning bylaw had a loophole where new forms of high-density micro-suite buildings could be placed next to semi-detached and detached homes without any notice to the community. As discussed in Case Study 1, that did not end well. Like Seattle, much of Toronto is zoned primarily for detached and semi-detached homes (the so-called “Yellow Belt”) – and there is a tension between, on one hand, preserving the existing character of neighbourhoods, and on the other, the need to increase density, diversify the housing mix, and improve affordability.

In Ontario, there are different initiatives both provincially and municipally to increase housing supply and to diversify the housing mix in traditionally low-density zones by removing regulatory barriers for secondary suites within a primary dwelling and a secondary suite that is ancillary to a primary dwelling (included in this is laneway housing). However, a discussion of these options was beyond the scope of this study.

At this time, the authors are unable to speculate on the future role of multi-unit micro-suite developments in these zones.

8.5 Summary of Barriers and Potential Actions

Table 4. Summary of barriers for micro-suite deployment from literature search and jurisdictional scan

Category	Barrier	Description
Caution	Concerns over health, well-being and equity	Reluctance on the part of city officials to embrace micro-suite over fears of the health and well-being of tenants. Included in this is the issue of equity, in that a micro-suite is more livable to those with higher incomes because they can entertain themselves outside of the home. Also included is the fear that micro-suites may foster overcrowding where multiple individuals, or a family, occupy a single micro-suite unit designed for one or two individuals.
	Lack of information on impacts	Formal scientific study on micro-suites is limited. The concept is still new, with many of the major advances in North American cities happening over the last decade. This introduces caution on the part of planners.
	Concern over long-term viability	Micro-suites, and specifically developments consisting fully of micro-suites, are rigid in the demographics they serve and demographics change over time. There is a perceived risk that cities will be left with a legacy of unwanted micro-suite development.
	Development financing	Micro-suites are a new form of housing and has therefore been perceived as riskier by institutional lenders that finance developments. This may prevent development or limit the number of micro-suites in a development. It may also require that the developer incorporate features into the building (like increased parking spots) that will overall decrease affordability.
Opposition	Community Opposition	Community opposition can stall, limit or even entirely prevent micro-suite developments.
Regulatory	Minimum parking requirements	Parking requirements are often specified on a per-unit basis and may add cost disproportionately to micro-suite developments based on their greater density. This can push development cost past the point of economic feasibility. Furthermore, when parking is not actually needed by occupants as might be the case in a dense urban environment, regulations that require the bundling of parking spaces with micro-suite units erodes affordability unnecessarily.
	Minimum unit sizes	Minimum unit sizes explicitly restrict the size of units and, in some jurisdictions, they prohibit micro-suites entirely.
	Open and common space requirements	Open and common space requirements become barriers for micro-suite deployment because they increase the cost and therefore, the economic feasibility, of micro-suite developments. Such requirements are also often specified on a per-unit basis such that a micro-suite development of the same floor area will require more open and/or common space than a conventional development – and proponents have argued that this is unfair.
	Unit mix requirements	Developments consisting fully of micro-suites may be easier and less expensive for a developer to construct in some cases. Requiring a mix of unit sizes within a building may therefore increase the cost of development and decrease the affordability of the units.
	Zoning	The zoning bylaw may explicitly not allow multi-family buildings in large areas of a city and this prevents the deployment of micro-suites.

Table 5. Potential actions to address barriers identified in literature search and jurisdictional scan

Category	Potential Actions
Caution	1. Provide design guidelines for micro-suite developments.
	2. Commission formal scientific study of tenant experience in existing Ontario micro-suites.
	3. Undertake different measures aimed at improving affordability across the housing spectrum to mitigate concerns around overcrowding in micro-suites.
	4. Commission formal scientific study on the community and rental market impacts of micro-suites.
	5. Continue knowledge sharing with other jurisdictions as the various micro-suite pilots progress.
	6. Build capacity by first targeting the more straightforward opportunities: off-campus student rentals, conversion of SRO hotels into non-market micro-suite community housing, and immediate housing relief to vulnerable demographics.
	7. Require a certain mix of unit sizes in buildings in buildings greater than a specified minimum size
	8. Encourage flexible building design that may allow for merging of micro-suites in the future.
	9. Consider micro-suites as infill in small-scale developments.
Opposition	1. Targeted rezoning for micro-suites (i.e. specially selected areas of a city where micro-suites are permitted)
	2. Incorporate micro-suites in neighbourhood-level planning studies to identify opportunities where acceptance would be higher
	3. Develop a process for communication between micro-suite developers and community groups that is not overly onerous to developers
	4. Provide education on the multiple benefits of micro-suites and compact community designs
	5. Communications that help share positive experiences of people who live in micro-suites
	6. Where necessary, developers can provide additional value to the community (i.e. park, donation to community centre, etc.) to compensate for real or perceived losses
Regulatory	1. Consider approaches to unbundle parking from micro-suite units.
	2. Encourage micro-suite developments near transit corridors.
	3. Reduce or remove minimum parking requirements for micro-suite developments in higher-density zones
	4. Consider parking requirements within a point system considering proximity to public transit and other building amenities like a bikeshare station, bike parking, carshare spaces, etc.
	5. Mortgage lenders may consider increased financing for individuals living in a location with high bike, walk, and transit scores, and do not own a car
	6. Open and/or common space requirements based on <i>area</i> rather than number of units.
	7. Further scientific study on the impact of open and common space requirements and their resultant impacts on affordability and tenant well-being.
	8. Allow developments consisting of fully or mostly of micro-suites up to a certain number of units, while requiring a mix of unit sizes for larger buildings.

9 Micro-suite Barriers and Toronto Context

9.1 Literature Search and Jurisdictional Scan Considerations

Table 6 discusses details about the Toronto context in reference to the barriers identified in the literature search and jurisdictional scan. The most significant barrier in other jurisdictions – restrictive minimum area requirements – are not a barrier in Toronto. Without this barrier present within the City, several new market-ownership buildings have incorporated micro-suites (see Table 7).

However, other regulatory barriers are likely present and serve to impact overall deployment and affordability. Similar to other jurisdictions, open- and common-space requirements are based on the number of units. This means that micro-suites require proportionally more of the buildings to be used for functions other than housing, increasing costs. Outside the downtown core, parking requirements for most of the city are significant and also add notable cost.

Large swaths of the City are zoned for detached and semi-detached housing, and this excludes the multi-unit micro-suite buildings considered in this study. However, it's worthwhile to note that density is increasing with recent changes like By-Law 810-2018, allowing laneway housing in certain areas of the City. Moving forward, recent changes to the Planning Act will increase density further, in some cases by allowing up to three units on a single residential lot (including a secondary suite within a primary dwelling, and another suite ancillary to it).

Lastly, unit mix requirements have been mentioned as a barrier in other jurisdictions. In Toronto, at least 25% of units should be larger units (2+ bedrooms) in developments with more than 20 units. However, it is worth noting that there are positive local examples of community housing buildings, with 40 – 60 units, comprised entirely of micro-suites.²⁶⁸ This suggests that the 20 unit cut-off could be relaxed conditionally for micro-suites developments offering affordability and other co-benefits.

9.2 Micro-suites Currently in Toronto

This study did not incorporate detailed market analysis – but it was worthwhile to look at example buildings in Toronto to answer key questions. Table 7 shows four new developments – all of which are market-ownership condominiums with micro-suites frequently purchased by owners and leased to renters.

Firstly, are they affordable to rent? The CMHC describes housing as being “affordable” when it costs less than 30% of pre-tax income. Based on the monthly rents, micro-suites in Karma Condos and Smart House are affordable to a single renter earning more than approximately \$70k/year. The median income from the latest census for full-year full-time workers in Toronto was \$47,420.²⁶⁹ It follows that these units would not be considered “affordable” to a large majority of full-time workers in the City. Even the in a lower demand area like Downsview, micro-suites rents would not be affordable to the majority of workers.

Secondly, are they *more* affordable to rent than conventional studios? In 2018, the average for new leases in studio apartments in Toronto was \$1,720.²⁷⁰ Rentals rates for new leases in Karma Condos and Smart House were slightly above this, and those for The 2800 Condos in Downsview were slightly below – showing the difference in demand for the respective locations. It follows that the micro-suites in these buildings do not seem to offer more affordable rental alternatives.

Thirdly, are they more affordable to *own* than conventional studios? In 2018, the average sale price for studio condos in the City was \$384k.²⁷¹ This is near the sale price of micro-suites from Karma Condos. However, The 2800 Condos offers sale prices approximately 30% below this average. The 2800 Condos is a useful case study. In January 2019, a micro-suite with no parking and a floor area of 310 ft² sold for \$267k.²⁷² Assuming 20% down, 2.75% interest, 25 year amortization and 135 \$/month condo fee (from the listing), the monthly cost of ownership is \$1,120. This is affordable to an individual making

²⁶⁸ See Case Study 2 for Indwell based in Hamilton, ON.

²⁶⁹ Statistics Canada. 2016 Census Profile for Toronto.

²⁷⁰ This is the average studio rental rate for the City of Toronto as of Q2 2018 from Urbanation Inc. Accessed online Feb 2020: www.urbanation.ca/news/229-greater-toronto-area-condo-rental-rates-shoot-another-112-cent

²⁷¹ From zolo.ca Toronto Real Estate Trends Housing Market Report for October 2019 (looking at one year ago). Accessed online Oct 2019: www.zolo.ca/toronto-real-estate/trends

²⁷² MLS # W4344140. This list, Unit 705, is 310 ft² according to the floorplans available from the developer Quadcam. See: quadcam.ca/pdf/fp/2800/Quadcam-the2800-SA.pdf

approximately \$45k per year. Based on the median income provided above, this unit would be affordable to the majority of full-time workers in the City. Note that Table 7 shows that the same unit was leased for much greater at \$1,550/month.

Looking at other units in the same building, in February 2019, a larger studio (371 ft²) with no parking sold for 312k\$.²⁷³ In March 2019, a 1-bedroom unit with a parking space sold for \$450k.²⁷⁴ It follows that the smallest micro-suite with no parking was 40% less expensive than the 1-bedroom with a parking space, and approximately 15% less expensive than a larger (albeit, still small) studio.

There is often skepticism that micro-suites can obtain much higher-levels of affordability because there is the same number of kitchens and bathrooms, and this is where much of the cost is expended. However, this example from The 2800 Condos shows that a micro-suite *can* obtain much deeper levels of affordability in Toronto when compared to larger studios and 1-bedroom units but it is not always (or even, commonly) the case.

The greatest opportunity for affordability is when the unit is not bundled with parking and when it is located in a location with lower demand (still with good walk, transit, and bike scores) – and also, when it is purchased and occupied by the owner rather than rented on the secondary market (at which point the affordability seems to erode). There may also be potential for micro-suites to remain affordable as purpose-built rentals, where it would be easier to safeguard affordability than in the secondary market.

This is a small number of buildings, so conclusions are preliminary. The data *does* indicate potential for micro-suites to promote affordability – just not as rentals in market-ownership condominiums where they are often deployed (at least not in the current market). It follows that the opportunity for micro-suites to promote affordability is real but currently, that opportunity is not realized in the existing stock of micro-suites within the City.

²⁷³ MLS # W4326907.

²⁷⁴ MLS # W4328760.

Table 6. Barriers identified in the literature search and jurisdictional scan applied to Toronto context

Barriers	Toronto Context
Caution Concerns over health, well-being and equity Lack of information on impacts Concern over long-time viability of units Development financing	<p>Whether concerns exist or not, it would seem that they have not actually resulted in a barrier for the Toronto context. Toronto has neither actively encouraged the development of micro-suites (as other jurisdictions have) nor have they discouraged them. For example, micro-suite units are now available in several new market ownership condominiums.</p> <p>Lack of information on impacts is not helpful for progress. The total benefits of micro-suites to the City as a whole have not been adequately articulated and backed by scientific analysis.</p>
Opposition Community opposition	<p>The level of community opposition to a development can be clear from local media coverage. In the case of Toronto, the research team could not uncover any evidence of notable community opposition to the new micro-suite units on the market. In the jurisdictional scan, opposition became an issue when micro-suite developments occurred in low-density areas dominated by detached and semi-detached homes. In contrast, the micro-suites available in Toronto are in large high- and mid-rise buildings in higher density areas.</p>
Regulatory Minimum parking requirements Minimum unit sizes Open and common space requirements Unit-mix requirements Zoning	<p>Toronto does not have additional minimum area requirements over and above the requirements of the Ontario Building Code (which are not very restrictive in terms of the allowed area). The Toronto Municipal Code does provide habitability standards where a certain area is required based on the number of occupants but they are also not very restrictive when applied to micro-suites housing one or two individuals.</p> <p>Parking requirements for dwelling units in an apartment are laid out in Table 200.5.10.1 of City of Toronto Zoning Bylaw 569-2013. The minimum number of required parking spaces depends on the policy area and rates are applied per unit. In Policy Areas 1 (Downtown), 2, 3, and 4, it is 0.3, 0.6, 0.6 and 0.7 spaces per studio unit, respectively and for all other areas of the City it is 0.8. It follows that parking requirements can be significant. In terms of added costs, a parking space in the downtown can add \$69k²⁷⁵ while in areas with less demand, \$36k.²⁷⁶</p> <p>Sections 10.10.40.50 and 15.10.40.50 of the Zoning Bylaw covers indoor and outdoor amenity space requirements for residential and residential apartment zones. Requirements are determined based on the numbers of units: "an apartment building with 20 or more dwelling units must provide amenity space at a minimum rate of 4.0 square metres for each dwelling unit, of which: (A) at least 2.0 square metres for each dwelling unit is indoor amenity space; (B) at least 40.0 square metres is outdoor amenity space in a location adjoining or directly accessible to the indoor amenity space; and (C) no more than 25% of the outdoor component may be a green roof."</p> <p>Unit mix requirements apply to buildings with 20 or more units and are defined within the City's Growing Up Guidelines. They require that at least 25% of the units are large. This is likely not an overly onerous requirement on developers, but it is worth noting that there are positive local examples of community housing buildings, with 40 – 60 units, comprised entirely of micro-suites. This suggests that the 20 unit cut-off could be relaxed for micro-suites developments offering affordability and improved environmental sustainability. It is also possible to encourage flexible design that allows reconfiguration of micro-suites into larger units.</p> <p>A large swath of the city is zoned for low-density detached and semi-detached housing. Informally termed the "Yellow Belt" (Neighbourhoods in the Official Plan) this area is 1.8 times the total area of all other residential zones. Multi-unit buildings have not been allowed in these areas. Experts have argued that this constrains the supply and diversity of housing in these amenity-rich areas and promotes socio-economic inequality.²⁷⁷ Recent policy changes like the Official Plan Amendment 320 have attempted to promote gentle density in these areas but experts have argued that these are ineffective in practice. In July of 2019, Toronto City Council voted unanimously "to direct the Chief Planner and Executive Director of City Planning to report to the Planning and Housing Committee in the fourth quarter of 2019 on options and a timeline to increase housing options and planning permissions in areas." See Section 4.7.</p>

²⁷⁵ Estimate is from the TalkCondo website for Smart House Condos. Accessed online Oct 2019: www.talkcondo.com/toronto/smart-house-condos/

²⁷⁶ Estimate is from the TalkCondo website for The 2800 Condos. Accessed online Oct 2019: www.talkcondo.com/toronto/the-2800-condos/

²⁷⁷ mapTO Website. The Yellowbelt. Accessed online Oct 2019: www.mapto.ca/maps/2017/3/4/the-yellow-belt

Table 7. Example buildings incorporating micro-suites in different areas of Toronto

Name	Location	Completion Date ²⁷⁸	Minimum Area ²⁷⁹ (ft ²)	Storeys ²⁸⁰	Total # of Units ²⁸¹	Total # Micros (<350 ft ²)	Micro Rental Rate (\$/month 2019)	Micro Resale Price (\$ in 2018-19)	Walk Score ²⁸²	Transit Score	Bike Score
Karma Condos	15 Grenville (Bay St. Corridor)	2016	277	50	495	25 ²⁸³	1,785 to 1,850 ²⁸⁴	370k to 385k ²⁸⁵	99 Walker's Paradise	100 Rider's Paradise	71 Very Bikeable
Smart House	215 Queen St. W	2018	289	25	256	36 ²⁸⁶	1,690 to 2,100 ²⁸⁷	No data	99 Walker's Paradise	100 Rider's Paradise	95 Biker's Paradise
Art Shoppe Lofts + Condos	2131 Yonge St. (Near Eglinton)	2019	321	28	624	>15 ²⁸⁸	No data	No data	99 Walker's Paradise	94 Rider's Paradise	72 Very Bikeable
The 2800 Condos	2800 Keele St. (Downsview)	2017	310	11	237	8 ²⁸⁹	1,550 to 1,600 ²⁹⁰	267k ²⁹¹	76 Very Walkable	69 Good transit	50 Bikeable

²⁷⁸ Completion dates were obtained from the BuzzBuzzHome website. Accessed online Oct 2019: www.buzzbuzzhome.com

²⁷⁹ Min floor areas were determined by evaluating the condo floorplans available on the TalkCondo website. Accessed online Oct 2019: www.talkcondo.com

²⁸⁰ Number of storeys was obtained from the BuzzBuzzHome website. Accessed online Oct 2019: www.buzzbuzzhome.com

²⁸¹ Total number of units was obtained from the BuzzBuzzHome website. Accessed online Oct 2019: www.buzzbuzzhome.com

²⁸² Walk, transit and bike scores are available from walkscore.com.

²⁸³ The floorplan for the 277 ft² micro-suite indicates one unit per floor from the 5th to 29th floor. An equal number of 352 ft² studios are available but this wasn't included in the total. Floorplans viewed via talkcondo.com accessed online Oct 2019: www.talkcondo.com/toronto/karma-condos/

²⁸⁴ Historical rental rates based on MLS listings are available from Condos.ca. This range covers rentals for units 2904, 2504, 1204, 704, and 2004 in approximately the last year, with some units being posted more than once in that time period. MLS ID #s are C4530129 (Leased for \$1,850/month in July 2019), C4472561 (Leased for \$1,785/month in June 2019), C4444949 (Leased for \$1,795/month in June 2019), C4379134 (Asking \$1,795 but terminated), C4327188 (Asking \$2,100 initially, then reduced to \$2,000 and expired in November 2019).

²⁸⁵ Historical sale prices based on MLS listings are available from condos.ca. This range covers rentals for units 2804 and 1904. MLS ID #s are C4212447 and C3976934. Accessed online Oct 2019: www.condos.ca

²⁸⁶ The floor plans for the building were accessed through the Talk Condo website. There is a 289 ft² unit (Suite 11) from floors 6 to 20 (one per floor) and 305 ft² unit (Suite 06) from floors 5 to 25 (one per floor). There are also units 350, 370 and 380 ft² (estimated 62 of these units in total) but these were not included in the total provided in the table because they begin to approach more conventional studio apartments. Note that the naming conventions between the actual building and the data available on the TalkCondo website seem to have changed in that the relevant micro-suite are 06 and 07, and not 11 – this was clear from the MLS listings accessed through condos.ca. Accessed online Oct 2019: www.talkcondo.com/toronto/smart-house-condos/

²⁸⁷ Historical rental rates based on MLS listings are available from condos.ca. This range covers rentals for units 906, 2106, 1806, and 1007. MLS ID #s are C4531111, C4345089, C4360054, and C4365198.

²⁸⁸ Floor plans were reviewed using CondoNow website accessed online Feb 2020: condonow.com/Art-Shoppe-Lofts-Condos/Floor-Plan-Price. Floorplans 321, 339, L-SA, L-SB, L-SC, L-SD, L-45, and, T-SA are all below 350 ft². In some cases, floorplans do not provide then number of units and, in other cases, the floorplans are duplicates (e.g. 321 and T-SA are the same unit). A best guess is that there are >15 units below 350 ft² in this building.

²⁸⁹ The floor plans for the building were accessed through the Quadcam Development Group website. There is one 310 ft² unit per floor from floors 4 to 9, and a 338 ft² unit on floor 2 and 3. Accessed online Oct 2019: quadcam.ca/2800-condominiums-floorplans-bachelor.php

²⁹⁰ Historical rental rates based on MLS listings are available from condos.ca. This range covers rentals for units 705, 805, and 905. MLS ID #s are W4470365, W4401580, and W4376174. Accessed through condos.ca Oct 2019: condos.ca

²⁹¹ Unit 705. Sold Jan 2019 for \$267k asking \$265k. MLS# W4344140. Information accessed through condos.ca Oct 2019: condos.ca/toronto/the-2800-condos-2800-keele-st/unit-705-W4344140

9.3 Toronto Demographics and Rental Market Supply

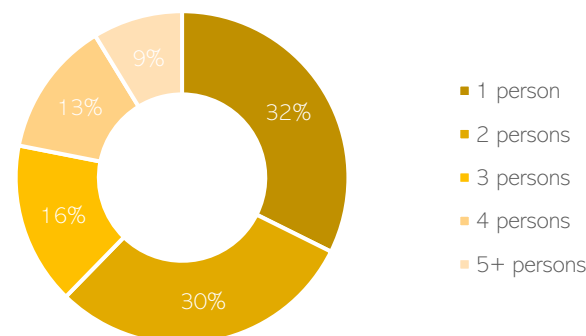
A brief overview of the Toronto rental market is helpful. Key trends are below. They portray a hot rental market constrained by high demand and low supply.

- The Toronto population grew 4.5% between 2011 and 2016.²⁹²
- The high cost of ownership and tougher borrowing criteria has kept demand for rental housing strong.²⁹³
- Vacancy rates for rental housing are near record lows.²⁹⁴
- The supply of purpose-built rental housing is increasing but not keeping pace with demand.²⁹⁵
- A third of condominiums in Toronto are rented out²⁹⁶ (comprising ~17.4% of the total rental market supply).²⁹⁷ The secondary condo rental market provides important relief to the rental sector but high cost of ownership drives buyers to make condo purchases (rather detached or semi-detached homes) – removing rental units from the secondary market.²⁹⁸
- Rentals in the City are divided nearly equally between primary (purpose-built rentals) and secondary markets but the proportion of the market provided through primary market is declining.²⁹⁹

In terms of demographic groups, one and two person households are the largest. Two person households encompass a lone parent with one child and also, couples without children, but couples without children is significantly larger. It follows micro-suites may be potentially suitable to most of the two person households.

Studios and 1-bedrooms comprise half of the available rental housing. This is well-matched to their target demographics. The potential of micro-suites is in moving forward, promoting affordability as these demographics grow. The relative proportions of studios could also be encouraged to grow and within that, studio micro-suites could make inroads.

Toronto Household Size



Toronto Rental Unit Types

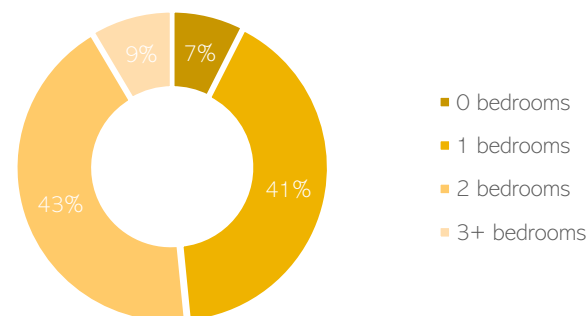


Figure 16. Household size³⁰⁰ and rental mix in Toronto.³⁰¹

²⁹² Statistics Canada. 2016 Census Profile for Toronto.

²⁹³ CMHC. Rental Market Report 2018 for Toronto.

²⁹⁴ Ibid.

²⁹⁵ Ibid.

²⁹⁶ Ibid.

²⁹⁷ The Canadian Centre of Economic Analysis (CANCEA) and the Canadian Urban Institute (CUI) for the Affordable

Housing Office (AHO) of the City of Toronto. Toronto Housing Market Analysis: From Insight to Action. Jan 2019.

²⁹⁸ CMHC. Rental Market Report 2018 for Toronto.

²⁹⁹ The Canadian Centre of Economic Analysis (CANCEA) and the Canadian Urban Institute (CUI) for the Affordable Housing Office (AHO) of the City of Toronto. Toronto Housing Market Analysis: From Insight to Action. Jan 2019.

³⁰⁰ Statistics Canada. 2016 Census Profile for Toronto.

³⁰¹ CMHC. Rental Market Report 2018 for Toronto.

9.4 Towards Affordable Market Micro-suites in Toronto

Toronto currently has a limited supply of micro-suites in high- and mid-rise market ownership condominiums. They have potential as a more affordable option for owner-occupants but when rented on the secondary market that affordability is diminished or lost because the micro-suite units can be rented at rates near or above that for conventional studios.

Recent market and demographic data shows that the City currently has an adequate supply of unit types serving single persons and couples without children – that is why there are actively encouraging the construction of larger units. Moving forward, as the City population grows, and as these demographics grow larger in proportion, there is an opportunity for affordable micro-suites to occupy an increasing share of the studio and 1-bedroom mix. However, if micro-suites are left to the secondary rental market where they currently have been implemented, that opportunity may not be fully realized.

A potential solution may lie in encouraging an appropriate level of micro-suite deployment in purpose-built rentals with rental rates agreed upon in housing agreements. The current examples within Toronto indicate that there is developer interest and furthermore, condo sale prices suggest that developers can, in fact, build micro-suites that are cheaper than conventional studios.

Based on the existing examples, the best opportunities for promoting affordability may lie in areas outside of the in-demand downtown core, but still in highly walkable/bikeable communities with access to the transit network, such that parking can be unbundled from the unit.

Changes to the zoning bylaw may help to promote affordable micro-suites. Specifically, the open- and common-space requirements may instead be based on unit area as opposed to the number of units, and creative solutions for parking may help reduce off-street parking requirements for micro-suite units in walkable communities close to the transit network. Furthermore, the 20-unit cut-off in the Growing Up Guidelines may be relaxed to allow larger fully micro-suite developments offering improved affordability, improved environmental sustainability, and other co-benefits.

³⁰² For example, see the UBC Nano Building. Accessed online Oct 2019: vancouver.housing.ubc.ca/rooms/nano/. Also see Case Study 6, which outlines this approach in San Francisco.

9.5 Other Opportunities Within the City

Additional opportunities for micro-suites within the City are summarized below.

- The City is home to 4 colleges and 4 universities. Dedicated off-campus student housing is an additional opportunity for micro-suites. It may relieve the pressure on rentals that could be used by families, and also help build knowledge around this new housing form.³⁰²
- Non-market community housing is being renewed across the City and micro-suites have potential to house more individuals for lower costs, and in a limited area.
- The City is considering opportunities to add gentle density and promote housing diversity in Neighbourhoods within the City and there are different micro-suite form factors that may blend in well with the existing character of neighbourhoods. However, both the Seattle and Vancouver experience (regarding modular housing for Vancouver) suggest that this would be met with some level of community opposition. Care should be taken to ensure that concerns of community members are addressed.
- Micro-suites are particularly well-suited to refurbishment of SRO hotels within the City although measures are required to ensure that the refurbishment is not negatively impacting affordability.³⁰³
- As a country, Canada has aggressive targets for reducing greenhouse gas emission to mitigate the impacts of the climate emergency, Micro-suites are inherently more energy efficient than other housing forms and could an important approach for promoting the sustainability of new developments.
- As the City continues with initiatives to address homelessness, new modular micro-suite developments may be a useful tool for providing immediate housing relief to vulnerable individuals.

³⁰³ The conversion of Toronto SROs into higher-end units is discussed in: Alexis Mulvenna. SRO: From Single Room Occupancy to Standing Room Only. The Public Policy & Governance Review. November 4, 2014. Accessed online 06/06/2019: ppgreview.ca/2014/11/04/sro-from-single-room-occupancy-to-standing-room-only/

10 Summary and Conclusion

10.1 Overview

Housing costs in Toronto, and many other Canadian jurisdictions, is approaching record levels and urgent action is needed. The concept of “micro-housing” has rapidly grown in popularity across North America in recent years and may provide a cost-effective housing alternative for the growing demographics of people living alone and couples without children.

This desktop study focused on micro-suites in multi-unit buildings. A micro-suite is “a newly constructed housing unit that contains a private bathroom and kitchen or kitchenette, but that is significantly smaller than a standard studio in a given city.” In Toronto, that means units on the scale of 300 ft² and smaller. Micro-suites may better **utilize existing space**, allow for a **greater density** of dwellings, and may be **more affordable** than conventional housing options. They also promote **environmental sustainability** by their inherent energy efficiency, decreasing carbon emissions in response to the climate emergency.

While it is not for everyone, or every stage of life, demand for micro-suites elsewhere has been high. Many are happy to replace “space” with “place,” and the concept has been embraced across different age and income groups by singles and couples looking for independent, clean, safe and affordable housing with easy access to city amenities. In fact, **the limited available research on existing micro-suites shows levels of tenant satisfaction that are comparable to conventional units**. However, while Toronto has permitted micro-suites, it has not embraced the concept to the same level as other jurisdictions.

This study evaluated barriers and opportunities associated with micro-suite deployment in Toronto, and other Canadian cities by extension. It proceeded through a review of planning, policy, and code documents; a literature review and jurisdictional scan, including relevant case studies; and a limited series of consultations with relevant stakeholders.

10.2 Policy Context

Housing policy across all levels of government echoes common themes. Interventions are needed to improve affordability, improve the supply of rental housing, safeguard and expand the current stock of community housing, improve environmental sustainability, encourage a range of different housing types, ensure housing is an integral part of complete communities, guide intensification and density growth in key areas, and promote innovation. Micro-suites are not specifically identified in any of the main policy documents, but it is an innovative housing solution that could directly address these issues.

Several opportunities for micro-suites emerged from the policy review. At the **federal** level, the National Housing Strategy has provided funding to at least four micro-housing projects and there are various initiatives from which micro-suite developments could benefit. The NHS Solutions Lab and Demonstration Initiative are further opportunities to study micro-suites and build knowledge.

At the **provincial** level, the Community Housing Renewal Strategy highlights new commitments to increase the supply and appropriate mix of affordable and adequate housing. Micro-suites have been used in different North American jurisdictions (including in Hamilton, ON) as a cost-effective non-market community housing option.

At the **municipal** level, new opportunities are emerging to increase the mix of housing in areas of the City traditionally zoned for detached and semi-detached housing (informally termed the “Yellow Belt”) and there are micro-suite form factors that could integrate well into these neighbourhoods. Various other initiatives exist to accelerate the development of affordable housing spaces – which could include micro-suites.

10.3 Literature Search and Jurisdictional Scan

It's important to look to other jurisdictions for transferrable lessons. This study considered Seattle, New York City, San Francisco, Boston and British Columbia.

In the jurisdictions considered, there has been high demand for micro-suites, both from tenants and developers. Micro-suites have emerged intentionally from government programs, but also spontaneously without direct government support. They have been used as non-market community housing, supportive housing for vulnerable demographics, secured market rentals, and market ownership units. They have housed seniors, students, and working professionals across a range of age and income groups.

It is clear that most jurisdictions are still in the learning phase regarding how micro-suites best integrate with their cityscape. The greatest barriers have to do with newness and the resulting uncertainty around this housing form. For example, a common concern is the well-being of tenants. Community and market impacts, both positive and negative, are not fully known.

However, it's important to note that **the design principles which foster livability and well-being are well-known and have been implemented in micro-suite developments that serve as positive examples – including examples in a cold Canadian climate.** They have also been identified in formal design guidelines.

A key issue that any jurisdictions must resolve is the fact that "micro" does not necessarily imply "affordable." In fact, simply developing micro-suites with no other measures to ensure affordability could result in units that are no more affordable (or only marginally so) than apartments already available on the market.

There are at least three approaches to ensuring affordability identified in the jurisdictional scan: (1) incorporate them in non-market community housing; (2) make their development contingent on housing agreements that guarantee below market rents; (3) modular construction techniques; and (4) make them very small.

It is also important to note how regulatory requirements for building amenities like parking, open-space, common-space, and unit mix, may impact affordability – and there have been different approaches across the jurisdictions to adapt regulations to promote highly livable and affordable micro-suites that meet the needs of tenants and local government.

10.4 Specific Policy Measures and Initiatives

The different jurisdictions considered within this report adopted different policy measures and initiatives to support the deployment of micro-suites at different scales, and different purposes, within their cityscapes. Notable measures include:

- The Government of BC provided \$291 million, starting in 2017, to generate 2,000 temporary modular housing units (typically sized 250 to 320 ft²) to provide immediate housing relief for vulnerable individuals. The modular housing units were arranged to form low-rise multi-unit buildings on vacant or under-utilized government land.
- The SRO Renewal Initiative from The Government of BC involved the purchase and renovation of 13 single-room occupancy (SRO) hotels in Vancouver for the purpose of providing community housing for 900 individuals. Buildings were purchased from 2007 to 2009 and renovations completed in 2017. This was a \$147 million investment from the Province, with an additional \$29.1 million from the Federal Government.
- The Government of BC waived development cost charges (DCCs) for the construction of units less than 29 m² (313 ft²) – what they call Micro Dwelling Units (MDUs). DCCs are used by municipalities to offset the capital cost of providing city infrastructure, like roads, sewers, and water, to new developments.
- The minimum area of dwelling units for most of Vancouver is 398 ft². However, starting in 2015, the City has been permitting MDUs as small as 250 ft², with conditions, in the Downtown Eastside as a pilot.
- The two-year Compact Living Pilot in Boston was announced in October 2018. Eligible developments may incorporate units that are smaller than the current city-mandated restrictions. The pilot is notable for its unique approach to transportation demand management options aside from off-street parking.
- The adAPT NYC Competition run by New York City in 2012/2013 considered designs for a multi-unit micro-suite building submitted from different design firms. Mayoral overrides waived the 400 ft² minimum area requirement to construct Carmel Place, having 55 units averaging 286 ft². More recently, the Zoning for Quality and Affordability amendment relaxed the 400 ft² requirement and instead focuses on density factors. This allows micro-suites in developments with a mix of unit sizes.
- The San Francisco Building code allows units as small as 220 ft² in addition to closets and bathrooms. In 2012, the San Francisco Building Code was amended to allow market units with a *total area* (including closets, living space, bathroom, etc.) as small as 220 ft². This began as a trial with the City stating they would allow 375 units under the new regulation, reviewing the results after 325 were constructed.

10.5 Micro-suites in the Toronto Context

The most significant barrier in other jurisdictions – restrictive minimum area requirements – are not a barrier in Toronto. Without this barrier present within the City, several new market-ownership buildings have incorporated micro-suites.

Sale price data shows potential as a more affordable option for owner-occupants but when rented on the secondary market (as they often are), affordability is diminished or lost. A limited analysis showed that micro-suite units can be rented at rates on par with conventional studio rentals in the City.

Recent market and demographic data shows that the City currently has an adequate supply of unit types serving single persons and couples without children. Moving forward, as the City population grows, and as these demographics grow larger in proportion, there is an opportunity for affordable micro-suites to occupy an increasing share of the studio and 1-bedroom mix. However, if micro-suites are left to the secondary rental market where they currently have been implemented, that opportunity may not be fully realized.

A potential solution may lie in adopting policies that encourage an appropriate level of affordable micro-suite deployment in purpose-built rentals with rental rates agreed upon in housing agreements.

Based on the existing examples, the best opportunities for promoting affordability may lie in areas that are outside of the in-demand downtown core, but still in highly walkable/bikeable communities with access to the transit network.

Changes to the zoning bylaw may help to further promote affordability in micro-suites. Specifically, the open- and common-space requirements may instead be based on unit area as opposed to the number of units, and creative solutions for parking may help reduce off-street parking requirements for micro-suite units in walkable communities close to the transit network. Furthermore, the 20-unit cut-off in the Growing Up Guidelines may be relaxed to allow larger fully micro-suite developments offering improved affordability and environmental sustainability.

10.6 Other Opportunities Within the City

Additional opportunities for micro-suites within the City are summarized below.

- The City is home to 4 colleges and 4 universities. Dedicated off-campus student housing is an additional opportunity for micro-suites. It may relieve the pressure on rentals that could be used by families, and also help build knowledge around this new housing form.
- Non-market community housing is being renewed across the City and micro-suites have potential to house more individuals for lower costs, and in a limited area.
- The City is considering opportunities to add gentle density and promote housing diversity in Neighbourhoods within the City and there are different micro-suite form factors that may blend in well with the existing character of neighbourhoods. However, both the Seattle and Vancouver experience (regarding modular housing for Vancouver) suggest that this would be met with some level of community opposition. Care should be taken to ensure that concerns of community members are addressed.
- Micro-suites are particularly well-suited to refurbishment of SRO hotels within the City, although measures are required to ensure that the refurbishment is not negatively impacting affordability.
- As a country, Canada has aggressive targets for reducing greenhouse gas emission to mitigate the impacts of the climate emergency, Micro-suites are inherently more energy efficient than other housing forms and could an important approach for promoting the sustainability of new developments.
- As the City continues with initiatives to address homelessness, new modular micro-suite developments may be a useful tool for providing immediate housing relief to vulnerable individuals. Toronto is already implementing this solution.

10.7 Next Steps

Broadly, the most important next steps for Toronto, or any Canadian city interested in micro-suites, are as follows:

1. **Building knowledge** through further scientific study on the following topics can alleviate concerns and inform effective planning:
 - a. tenant experience in existing Ontario micro-suites
 - b. rental market and community impacts
 - c. impacts of common and open space requirements on *both* tenant well-being and affordability
 - d. carbon emission reduction benefits
2. **Conduct micro-suite pilots and build capacity** for in buildings other than high- and mid-rise market-ownership condominiums. Following the approaches of other jurisdictions, it's possible to:
 - a. start with low-hanging fruit opportunities like community housing, off-campus student housing, and immediate housing relief for vulnerable populations
 - b. consider a design competition for a pilot building, a pilot neighbourhood, or pilot a limited number of buildings
3. **Amend regulations and formulate guidelines**, for example:
 - a. consider design guidelines from other jurisdictions
 - b. re-evaluate requirements for parking, unit mix and open/common space for micro-suites
 - c. consider zoning changes to allow micro-suites (or micro-suite pilots) in multi-unit buildings in areas requiring increased housing diversity and affordability
4. **Ensure affordability.** If a broader micro-suite roll-out is encouraged, then measures to ensure affordability would include:
 - a. non-market community housing, housing agreements in secured purpose-built market rentals, modular construction techniques, and very small micro-suites

10.8 Final Thoughts

A key lesson is that micro-suites are not a “magic bullet” for housing affordability. Rather, they have potential to be a constructive part of a broader suite of measures aimed at addressing housing issues.

What's ultimately important is that people have clean, safe, independent, and affordable housing, with access to the City amenities they need both to support their health and well-being, as well as that of the City as a whole. These values are echoed in the Official Plan for Toronto which strives for *“affordable housing choices that meet the needs of everyone throughout their life,”* and furthermore, that *“no person pays more than they can afford for shelter”* and that *“innovative implementation solutions are embraced.”*

Micro-suites are surely an innovative housing solution but, for many decision-makers, they initially solicit a negative reaction – after all, the obvious questions is: *“Why would someone choose to live in something so small??”*

The available research tells us that most individuals don't choose it because it is small, but rather, that size is an acceptable compromise given much less desirable housing alternatives: dependence on parents or other family for housing, living with strangers, living in an unsafe and/or unhygienic illegal rooming house, living in a suburb far from work or city amenities, debt, homelessness, long wait times for community housing, etc.

It follows that where micro-suites lack in size, they are able to satisfy the key housing requirements – at least for what is likely to be a notable segment of the population – but conscious effort from the City is needed to realize this potential. As on micro-suite tenant put it:

“I want you to consider that there are people like me who are happy in a place like this... My unit is lovely, and the building is attractive. I can walk to stores and parks, and I can afford to live there.”³⁰⁴

³⁰⁴ Quote is from Judy Green, 67, congregate-housing tenant in Seattle. Congregate housing is a form of co-housing where individually-leased units are 140 to 200 ft² and several units are serviced by a large communal kitchen. Dominic Holden The Fight Against Small

Apartments. Why Neighborhood Groups Are Uniting to Stop Developers from Building Tiny, Affordable Units. The Stranger. May 8, 2013. Accessed online Oct 2019: www.thestranger.com/seattle/the-fight-against-small-apartments/Content?oid=16701155