Toward a More Flexible Form of Multi-Family Housing? Lock-off Units in Vancouver

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The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

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Abstract

This research study explores the interaction of planning policy and practice in the case of lock-off unit (LOU) policy in Vancouver, based on expert insight and market uptake, to explore the rationale and design process for including LOUs in new multi-family housing development. Using content analysis and qualitative interviews with planners, developers and architects, along with analysis of permit data, the study finds that this form of housing is found primarily in townhouses, with the LOU at the “basement” level, under the primary unit, and there are limited examples of LOUs in an apartment form. The research suggests that the potential flexibility offered by LOUs is closely linked to affordability, with the target market considered to be a couple or young family “upsizing” from a smaller condominium apartment. The design of LOUs is not completely open-ended or user-led, but the flexibility offered by LOUs has a potential role to play in providing a new form of multi-family housing. The findings in this paper will be useful to urban planners, architects and developers, and to policy makers and other participants in the fields of housing policy, planning and design.

Keywords: Lock-off Unit; Multi-family Housing, Housing Affordability; Infill Housing; Housing Diversity; Flexible and Adaptable Design; Affordability by Design
To my friends and family, and most of all, 
to Terry Brown.
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Disclaimer

During the research period, the study author was employed by the City of Vancouver Planning Department but was not involved in planning work related to lock-off unit policy. The analysis and recommendations contained in this thesis are that of the author and do not represent any City of Vancouver position.
# Table of Contents

Approval ....................................................................................................................... ii
Ethics Statement .......................................................................................................... iii
Abstract ......................................................................................................................... iv
Dedication ....................................................................................................................... v
Acknowledgements ....................................................................................................... vi
Table of Contents ......................................................................................................... vii
List of Tables .................................................................................................................. ix
List of Figures ................................................................................................................ ix
List of Acronyms ............................................................................................................ ix

## Chapter 1. Introduction and Research Question ..................................................... 1
1.1. Introduction ........................................................................................................... 1
   1.1.1. Research Question ........................................................................................ 1
1.2. Context .................................................................................................................. 2
   1.2.1. Lock-off Units in British Columbia .................................................................. 4
1.3. Research Rationale ............................................................................................... 4

## Chapter 2. Literature Review ................................................................................ 6
2.1. Complete Communities and Housing Diversity .................................................. 6
   2.1.1. Diversity as a Planning Goal for New Urbanism and Smart Growth ........... 7
2.1.2. Housing Outcomes of Smart Growth and New Urbanism ............................ 8
2.2. Housing Affordability in Canada ........................................................................ 9
   2.2.1. The Role of the Private and Public Sector in Housing Provision .............. 9
2.2.2. Land Use Planning and Housing Affordability ............................................. 11
   2.2.3. Commodification of Housing ....................................................................... 11
2.3. Urban Intensification and Secondary Suites ..................................................... 12
   2.3.1. The Role of Secondary Suites ...................................................................... 13
   2.3.2. Adaptability and Flexibility in Housing ...................................................... 14
   2.3.3. Possibilities for LOUs ............................................................................... 15

## Chapter 3. Data Collection and Methodology ...................................................... 16
3.1. Methodology Overview ....................................................................................... 16
   3.1.1. Nature of the Research ............................................................................... 16
   3.1.2. Researcher Positionality ............................................................................. 17
3.2. Background Research ......................................................................................... 18
   3.2.1. Content Analysis ......................................................................................... 19
   3.2.2. Qualitative Interviews with Planners .......................................................... 21
3.3. Outcomes of Lock-off Unit Policy ...................................................................... 22
   3.3.1. Building and Development Permit Data ..................................................... 23
   3.3.2. Observation Data ....................................................................................... 24
3.4. Qualitative Interviews with Architects and Developers ..................................... 24
List of Tables

Table 1. LOUs in Vancouver ................................................................. 44
Table 2. LOUs Projects, Policy Areas and Zoning ............................... 45

List of Figures

Figure 1. Example Floor Plan for a Lock-off Unit in an Apartment ........... 3
Figure 2. Housing Continuum and LOUs.............................................. 3
Figure 3. Zoning and ODP Amendments to Enable LOUs, 2009 ............... 30
Figure 4. Zoning District Schedule and ODP Areas Allowing LOUs .......... 35
Figure 5. Distribution of Projects with LOUs ........................................ 46
Figure 6. 6318 Ash Street - Townhouses with LOUs at the lane ............... 48
Figure 7. 6318 Ash Street - LOU at the lane ....................................... 48
Figure 8. 591-599 West King Edward Ave - Townhouses with LOUs at the lane ................................................................. 49
Figure 9. 591-599 West King Edward Avenue - LOU at the lane ............. 49
Figure 10. 4573 Slocan Street – Townhouses with LOU in Basement Level ... 50
Figure 11. 4573 Slocan Street – LOU Entrance .................................... 50
Figure 12. 2889 East 41st Ave – Duplex with LOU in Basement Level ....... 51

List of Acronyms

LOU     Lock-off Unit
Chapter 1. Introduction and Research Question

1.1. Introduction

In July 2009, Vancouver City Council approved changes to allow for lock-off units (LOUs, sometimes described as “apartments within apartments” or “basements in the sky”) in selected areas of the city. Through zoning changes and the creation of design guidelines, the City of Vancouver established a legislative framework for the addition of LOUs in a range of multi-family housing types, including apartments, townhouses, and rowhouses. LOUs have since been approved as part of new zoning districts in Norquay (2013), Marpole (2014) and Joyce-Collingwood (2016) with the stated goal of providing “flexible housing choices”.

1.1.1. Research Question

As the cost of housing continues to rise in Vancouver\(^1\) and the surrounding area, policy makers are under continuing pressure to identify solutions and respond to the need for housing that meets the need of low- and middle-income residents\(^2\). This research project explores the implementation and market response to a piece of policy intended to introduce a new housing form in the City of Vancouver.

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\(^1\) As of March 2017, the Real Estate Board of Greater Vancouver’s benchmark price for single-family homes in Vancouver East was $1.45 million, with a Vancouver West benchmark price of $3.46 million (Real Estate Board of Greater Vancouver, 2017, for additional information on the benchmark price and methodology, see http://www.rebgv.org/MLS-home-price-index-explained).

\(^2\) At the time of writing, the City of Vancouver is revisiting its *Housing and Homelessness Strategy* to address the issues of affordability (Bula, 2017a; City of Vancouver, 2017a), which “have grown from being only experienced by the most vulnerable to and increasing number of households” (City of Vancouver, 2017a).
My research project is intended to evaluate the results of lock-off unit policy through the question:

What are the outcomes of lock-off unit policies in the city of Vancouver and have they provided a flexible and adaptable form of multi-family housing?

The objective of this project is to understand how LOUs have been incorporated into multi-family housing in Vancouver. Sub-questions that will be asked include: where are LOUs being constructed in Vancouver? Why has this housing form been included – or not included – in new development? Are architects and developers considering the idea of flexible and adaptable housing in the design, construction and marketing of these buildings?

City of Vancouver documents reference flexibility and adaptability in relation to LOUs (City of Vancouver, 2009) but do not include specific definitions for either term. For the purposes of this research project, the definitions established by Schneider and Till will be used, with adaptability describing spaces that are “capable of different social uses” and flexibility describing spaces which are “capable of different physical arrangements” (Schneider and Till, 2006).

1.2. Context

LOUs are a type of secondary suite: a small, self-contained dwelling unit with its own bathroom, kitchen and front door, part of a larger – or “principal” – unit, as shown Figure 1. In the same way that a basement suite cannot be subdivided (stratified) and sold separately from the main house, a lock-off unit is legally attached to the main apartment, rowhouse or townhouse. Smaller than a typical apartment, permitted to be 19 sq. m (205 sq. ft.) under certain circumstances, LOUs provide a rental unit that may be better suited to a single resident than to accommodating family housing. A connecting door allows the LOU and principal unit to be used as either one larger unit, or two separate units, each with their own entrance, bathroom and kitchen space.
The idea of the “housing continuum” is often used as a way of conceptualizing the spectrum of housing types. LOUs, along with the townhouses or apartments they connect to, provide a form of market housing, whether market rental or market ownership (see Figure 2).

**Figure 1.** Example Floor Plan for a Lock-off Unit in an Apartment

**Figure 2.** Housing Continuum and LOUs

Source: Adapted from City of Vancouver (2012).
1.2.1. **Lock-off Units in British Columbia**

First introduced to British Columbia in 2002, at Simon Fraser University’s Burnaby Mountain UniverCity development (City of Vancouver, 2009a), the idea for LOUs came from resort architecture. In that setting, a hotel complex might have two rental suites, each with their own front door, as well as an internal door allowing the two to be connected and used by the same group of guests (Geller in Paulsen, 2009).

Lockoff units were introduced into new development in UniverCity to provide a “mortgage helper” in the new apartments, as well as a potential source of rental homes for students attending the university (Bula, 2009; Geller in Paulsen, 2009). Described an effective solution to affordability issues at UniverCity (Bula, 2009; Geller in Paulsen, 2009; Steele & Hermiston, 2013) this housing form has been explored by the City of North Vancouver as well as the City of Vancouver, but has yet to be introduced to City of Burnaby zoning beyond the lands developed by the SFU Community Trust.

1.3. **Research Rationale**

With the ability to add a secondary suite and laneway house as a “mortgage helper” or residence for family members, single-family housing in Vancouver has the potential to offer long-term financial flexibility and physical adaptability in comparison to a typical apartment or townhouse unit. As the cost of single-family homes continues to rise\(^4\), this option has become increasingly out of reach for many Vancouver residents. Multi-family housing, in the form of either apartments or townhouses, offers a comparatively affordable housing option but without the same potential for flexibility and adaptability over time.

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\(^3\) A mortgage helper is a self-contained suite that can be rented out by the owner of the property, who typically lives in the main unit. For example, a basement suite that provides a mortgage helper, in the form of rental income, for the owner of a single-family house.

\(^4\) $2.23-million in May 2015, up 19.2 per cent from $1.87-million in May 2014 (Real Estate Board of Greater Vancouver in Stueck, M, 2015)
Growth in Vancouver's housing stock over the past twenty-five years has been primarily in apartments, currently representing approximately 60% of housing units in Vancouver (Statistics Canada 2001-2011 Census, in City of Vancouver, 2015). While residential intensification, in the form of medium- and high-density housing, supports many of Vancouver's sustainability and transportation goals, increased housing costs and smaller unit sizes represent a particular challenge for families in the city (City of Vancouver, 2015; Stueck, 2015).

As Vancouver, like many other cities, explores new housing types in a relatively dense urban context, it is important to understand whether new policies are delivering new forms of housing, and how effectively that housing meets residents’ needs. This research, which focuses on the market response to new housing policy, would be of interest to urban planners and policy makers, as well as architects and developers, who are interested in understanding whether LOUs are an effective housing option for providing flexibility and adaptability within multi-family housing development.
Chapter 2. Literature Review

To provide a conceptual framework for my research, I have identified three key bodies of literature, situating my question in relation to existing urban studies scholarship and establishing a guide for data analysis. These literature themes are structured into three sections, as follows:

1. Contemporary theories of planning that focus on establishing “complete communities” with a diverse mix of housing types,
2. A review of the debate around how to increase housing affordability in Canada’s urban areas, and
3. Trends towards urban intensification through the addition of secondary suites.

These bodies of literature provide a conceptual frame that will outline:

- the planning rationale for encouraging a mixture of housing types within a neighbourhood - the why,
- the conflict between the provision of more affordable housing types and the provision of adequately-sized housing for families in urban areas - the what, and
- the mechanics of developing housing policy to address this conflict - the how.

This conceptual framework will help me understand how lock-off policy might address the issues of housing diversity and affordability, and will assist me as I review my data for evidence of flexibility and adaptability.

2.1. Complete Communities and Housing Diversity

This literature theme focuses on the notions of “complete communities” and housing diversity as planning goals, exploring the rise of these concepts as central tenets of contemporary planning theory and their implementation in practice.
2.1.1. Diversity as a Planning Goal for New Urbanism and Smart Growth

Reacting against the influence of modernist planning approaches in North America, or the American “ville grise of towers in a parking lot” (Carmona, 2003), Jane Jacobs began chronicling observations of urban life in her neighbourhood, describing cities as “problems of organized complexity” (Jacobs, 1961) where variety in land use, activity, and building type might be desirable (Carmona, 2003; Hodge & Gordon, 2007; Jacobs, 1961). Jacobs connected design directly to diversity (Talen, 2006), identifying “generators of diversity” (Jacobs, 1961) including a mixture of land uses, short blocks, a blend of older and newer buildings, and a “sufficiently dense concentration of people” (Jacobs, 1961; Talen, 2006). Jacobs was not the only activist responding to auto-centric modernist approaches to city planning at that time, but her observations on diversity have been influential on the development of contemporary planning approaches, including New Urbanism and Smart Growth (Perrin & Grant, 2014).

New Urbanism originated as an approach to urban planning in the United States during late 1980s and early 1990s (Carmona, 2003), while never becoming established as a widespread model for planning in North America (Grant & Tsenkova, 2012). The New Urbanist approach encompasses two broader movements: “transit-oriented development” (TOD) and “traditional neighbourhood development” (TND) (Carmona, 2003; Hodge & Gordon, 2007). The 1993 Charter for New Urbanism outlines a series of New Urbanist principles, noting that “neighbourhoods should be diverse in use and population”, with “a broad range of housing types and price levels [bringing] people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community” (Congress for New Urbanism, 1993).

Within Canada, Grant and Bohdanow note that “New Urbanism principles have become increasingly popular in Canadian planning theory and practice” (Grant & Bohdanow, 2008), in both urban and suburban communities. Their 2006 survey of New Urbanist developments in Canada identified 42 communities across Canada’s southern provinces, clustered in fast-growing areas around Toronto, Vancouver and Calgary and less common in areas beyond the “growing edge of the urban periphery” (Grant & Bohdanow, 2008).
Smart Growth, also established in the United States during the 1990s, has its roots as a movement in response to suburban development patterns and the associated environmental impacts (Carmona, 2003). Smart Growth principles support the provision of “housing opportunities and choices for a range of household types, family sizes and incomes” (Smart Growth Network, 2001), with a focus on infill and compact development, and this approach has influenced Canadian planning at the regional and local scales (Alexander & Tomalty, 2002; Bunting, Filion, & Walker, 2010; Grant, 2009; Tomalty, 2005).

2.1.2. Housing Outcomes of Smart Growth and New Urbanism

Both New Urbanism and Smart Growth have been criticized based on their housing outcomes (Grant & Bohdanow, 2008; Grant & Perrott, 2009; Perrin & Grant, 2014; Talen, 2006) although there is recognition that achieving a mix of housing types at the city block or site level is challenging in practice (Grant & Perrott, 2009; Perrin & Grant, 2014; Talen, 2012). Examining the results of New Urbanist planning in Markham, Ontario, Grant and Perrott note the “persistence” of the detached single-family home (Grant & Perrott, 2009, page 282):

Comments made by respondents indicate that developers, councillors and planners interpret the significance of diversity quite differently. For developers, diversity is a variable they acknowledge in their practice. If the community plan requires place diversity, then developers work with the rules to produce a mix of uses, housing types or densities. If the market is weak for components of the physical mix, they push back on the rules. If the market generates interest, then developers respond to that by varying their products appropriately.

Grant and Perrott reference what Talen terms “place diversity” (Grant & Perrott, 2009; Talen, 2006) in a paper exploring the many meanings of the term “diversity” as a planning goal. Talen’s definition of “place diversity” includes:

All forms of social and economic mixing - the combination, in particular places, of people of varying incomes, races, genders, ethnicities, household sizes, lifestyles, and, in addition, non-residential activities comprising different uses and functions of land. (Talen, 2006, page 234)
This definition encompasses land-use mix, and is therefore broader than the concept of housing mix as it relates to lock-off unit policy, but Talen’s question about the role of built form variables is still relevant: is it possible for diversity to thrive better or be sustained longer under certain physical conditions that planners could control? (Talen, 2006). Integrating different kinds of housing is the most direct way to use design to encourage diversity, either through redevelopment with a mixture of housing types, or using infill, by adding a building to a site or another unit within an existing building (Talen, 2006). Design to increase housing diversity may therefore operate at a range of scales, from building, to site, to the neighbourhood level. Talen argues that these strategies allow residents to “improve their standing ‘in place’” noting that age diversity has been increased in neighbourhoods with accessory apartments (Talen, 2006).

Fainstein critiques urban planners’ pursuit of diversity, noting that New Urbanist approaches of “intermixing a variety of building types and levels of affordability…. is not the panacea that some of its supporters assume” (Fainstein, 2005). Strategies to increase housing diversity through the addition of new housing types may lead to gentrification pressures, depending on the demographics of the existing neighbourhood and any new residents (Goodsell, 2013; Lees, 2008; Talen, 2006). However, if the principle of housing diversity is used as part of a guiding framework for infill, rather than a template for large scale urban renewal, Fainstein notes that policies promoting place diversity have the potential to provide for a higher quality of urban life (Fainstein, 2005).

2.2. Housing Affordability in Canada

This literature theme focuses on housing affordability in Canada, exploring the framework in which market housing is provided, as well as the debate about how to provide more affordable forms of market housing in urban areas.

2.2.1. The Role of the Private and Public Sector in Housing Provision

In Canada, the private market is the mechanism by which almost “95 percent of households gain their housing” (Hulchanski, 2005), with less than six percent of
households living in publicly-owned housing. This is in contrast to other Organisation for Economic Co-operation and Development (OECD) countries, with the Netherlands, Austria and United Kingdom having the three highest rates of households living in publicly owned rental housing, at 35 percent, 23 percent and 20 percent respectively\(^5\) (Scalon & Whitehead, 2004) and with Austria, Denmark and Sweden having the highest rates of new social housing production (Tsenkova, 2008). Canada’s declining level of investment in publicly owned housing is the result of a series of economic, demographic and policy changes over the past fifty years (Bunting, Walks, & Filion, 2004; Hulchanski, 2002, 2005). Reflecting on changing post-industrial job markets, Bunting et al argue that globalization has contributed to the housing affordability issue in Canada through the replacement of stable manufacturing jobs with temporary, lower-paying service sector jobs (Bunting et al., 2004). Despite the influence of labour markets, affordability cannot be defined as an income problem alone, and is rather a question of the ratio of household costs – including housing expenditure – to household income (Haffner & Heylen, 2011; Hartell, 2017; Hulchanski, 1995, 2005; Kutty, 2005; Stone, 2006). Under the current market system, developers are unlikely to build affordable housing because it is not considered profitable, either because affordable housing is not financially feasible on a site, or because the provision of market housing is comparatively more profitable (Hulchanski, 2002, 2005). In an active housing market, developers will look for opportunities to maximize profit, building the maximum density on a site and targeting the highest end of the available market for that location (Hulchanski, 2005). This system disadvantages low and middle-income households in two ways: they are largely ignored by the market as it provides opportunities for ownership, and for those renting, they may be displaced either by rising rents, or by redevelopment of existing rental buildings (Bunting et al., 2004; Hulchanski, 2002, 2005).\(^5\) OECD data referenced is from 2004, the last year a comprehensive comparison was released by OECD. While countrywide averages for publicly-owned housing may have shifted over the past decade, the key point referenced by the authors is the reliance on the private market to provide housing in Canada.
2.2.2. Land Use Planning and Housing Affordability

With reduced spending on housing at the Federal and Provincial levels, local governments are under increasing pressure to address the issue of housing affordability. Having limited resources to directly fund new housing, municipalities may instead rely on planning regulation to encourage certain physical forms or tenures of housing (Beer, Kearins, & Pieters, 2006; Moore & Skaburskis, 2004). Affordability in the realm of market ownership or market rental housing may be encouraged through housing on smaller lots, through multi-family housing, and through smaller units (Talen, 2012), all part of the provision of “affordability by design” (Talen, 2010).

For Vancouver, planning policies over the past twenty years have led to a compact, dense downtown core, with much of the city’s former suburban areas remaining single-family residential (Peck, Siemiatycki, & Wyly, 2014; Quastel, Moos, & Lynch, 2013), or, as Lauster describes it, part of the “great house reserve” (Lauster, 2016). Although Vancouver’s single-family zoning has been amended to allow for secondary suites and laneway houses (McClanahan & Associates, 2010), the “great house reserve…still covers some 80 percent of the residential land base, while accommodating substantially less than 40 percent of the population” (Lauster, 2016). Compact residential development may offer a more affordable home ownership option than a single-family house, although a housing market that primarily offers one- and two-bedroom apartments creates challenges for families living in urban areas (Hulchanski, 2002).

2.2.3. Commodification of Housing

This tension, between the need for affordable ownership options, and the need for family housing in cities, may be further compounded by the commodification of housing in Canada’s urban areas (Bunting et al., 2004; Hulchanski, 2005). Purchasing a home is often conceptualized grabbing a rung on a ladder, with the assumption that householder will move “up” the ladder toward the single-family home at the top, as the pinnacle of home ownership. Grant and Scott question the impact of the “property ladder” concept:
At one time producers expected residents to spend a large part of their lives in a single home, but today they describe residents who change homes several times as they navigate (re)productive processes. What happens to attachment to place when houses are viewed as appreciating commodities? To what extent does moving up the housing ladder increase the costs of housing as purchasers add transaction costs to their resale prices? The greater affordability envisioned as an outcome of housing options may diminish as greater housing mobility becomes part of the ownership pattern. (Grant & Scott, 2012, page 153)

Answering these questions is beyond the scope of this research project, but Grant and Scott highlight a valuable area of enquiry, reinforcing the value of providing housing types capable of physically adapting to families’ changing needs over time.

Writing about residential lofts in New York, Zukin describes people who “moved into the… market in two senses: as residents, occupants, or users, to be sure, but also as investors” (Zukin, 1982). While the context is different, Zukin’s observation is also relevant to the introduction of condominium (or strata title) ownership in British Columbia, which provided households with a new ownership option together with “legal architecture for [the] remaking of Vancouver (Harris, 2011). As Grant notes, “condominium living caught on, especially in Canada’s larger cities, so that younger households came to see purchasing a condo as a stepping stone towards eventual ownership of a house” (Grant & Scott, 2012). Where previously a rental apartment might have provided the first step towards homeownership, now condominium ownership provided an entry to the housing market, and as housing costs increased (Moore & Skaburskis, 2004) became the only option for many households.

2.3. Urban Intensification and Secondary Suites

This theme explores trends toward urban intensification through the addition of secondary suites, as well as literature on the possibilities of flexibility and adaptability in housing. In other words, how might land use policy address the tension between providing for housing diversity, including homes for families, and affordable market housing?
2.3.1. The Role of Secondary Suites

Lock-off suites, which are secondary suites within townhouses or apartments, perform a similar function to basement suites in single-family housing: financial flexibility, as a “mortgage helper” rented to tenants; and housing adaptability, as a separate suite for family or with the potential to remove the suite and expand the main dwelling unit. Examples of lock-off suites are limited in urban areas, with no existing scholarship explicitly focused on their use. As a proxy, this literature theme focuses on secondary suites in general, as well as the concept of housing adaptability or flexibility.

Research into zoning regulations and co-residential caregiving⁶ suggests that changing family structures will result in increased need for homes with secondary suites to support intergenerational caregiving (Liebig, Koenig, & Pynoos, 2006). LOUs, which have a minimum size of 26 sq. m (280 sq. ft.) that may be relaxed down to 19 sq. m (205 sq. ft.)⁷, are smaller than the typical basement suite in a single-family home, but may still offer a suitable housing option for seniors seeking independence but proximity to family. As Liebig et al note, existing and future needs for elder care have transformed accessory dwelling units (including laneway homes, basement suites and LOUs) from a policy issue focused on affordable housing, to a family issue and an aging issue (Liebig et al., 2006).

Chapman and Howe observe that the suitability of secondary suites for seniors may vary greatly by community, depending on individual site topography; the provision of this type of housing does not necessarily provide housing that will work for seniors with mobility challenges (Chapman & Howe, 2010). While the same issue of stair access and site topography may hold true for buildings with lock-off suites, it’s also possible that these apartment and townhouse buildings (constructed since 2009 in Vancouver, to meet more recent accessibility standards) could offer a greater level of accessibility in comparison to secondary suites in single-family homes, although the suitability of

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⁶ Co-residential caregiving refers to the shared residency of a person or people providing care and the person(s) receiving care.

⁷ See the City of Vancouver Principal Dwelling Unit Combined with a Lock-off Unit Guidelines for more detail on the minimum unit size and the conditions under which a relaxation may be considered (City of Vancouver, 2009b)
secondary suites for an aging population would also depend on access to transit and local services.

### 2.3.2. Adaptability and Flexibility in Housing

Much of the research on adaptable or flexible housing centres on exploring design solutions to the need for flexibility – in other words, rather than relying on a diversity of housing types in a neighbourhood, flexible housing focuses the potential to reconfigure or adapt a unit to meet a family’s changing needs over time. Friedman and Krawitz argue for the need to build flexible housing that allows residents to subdivide their homes into principal units and secondary rental units, starting with a home that can be reconfigured and adapted as family sizes ebb and flow (Friedman & Krawitz, 2015).

Schneider and Till define flexible housing in two ways: the built-in opportunity for adaptability, being capable of different social uses, and the opportunity for flexibility, being capable of different physical arrangements (Schneider & Till, 2006). Distinguishing between “hard” and “soft” techniques of flexibility, their work describe soft technologies as those which allow for “indeterminacy”, placing user-driven solutions first, akin to the resident-led evolution of Friedman’s “flex houses” over time (Friedman & Krawitz, 2015; Stoa, 2012). “Hard” technologies are those design elements that determine the way a home might be used: they may support flexibility, but they are fixed rather than allowing for open-ended changes over time (Stoa, 2012). With this distinction in mind, LOUs, as the product of a series of deliberate design choices in response to municipal guidelines, could be considered a “hard” technology response to flexibility.

Although Schneider and Till note that the principle of allowing for social and physical change “might appear self-evidently sensible”, they argue that flexibility in housing design has never been fully accepted, and that instead, buildings are designed to correspond only to a specific end user’s needs at a specific point in time (Schneider and Till, 2006). In other words, diversity in housing is typically provided through land use policy, which encourages a range of different housing types, rather than the ability to reconfigure a home over time. This approach, as Grant and Scott note, may have unintended consequences, connected to the commodification of housing, and
introducing the need for increased mobility as families size up and down according to their changing housing needs (Grant & Scott, 2012).

2.3.3. Possibilities for LOUs

This literature review indicates a possibility for LOUs to provide the opportunity to age in place or to facilitate intergenerational living, within a comparatively more affordable housing form than single-family housing. Schneider and Till’s research, together with the work of Friedman and Krawitz, identifies concepts that might be applied to my qualitative interview data, to unpack architects’ and developers’ consideration of adaptability and flexibility in designing and building LOUs. In their work on flexible housing, Schneider and Till note the tension between designing for flexibility, and the tendency toward short-term profitability in new housing development (Schneider and Till in Stoa, 2012). Described as an “obstacle toward a long-term perspective” for housing (Stoa, 2012), this tension may also become apparent as I search for data on the outcomes of lock-off unit policy in Vancouver.
Chapter 3. Data Collection and Methodology

3.1. Methodology Overview

This chapter provides an overview of my data collection and methodology, outlined below and described in further detail in the subsequent sections of this chapter:

- Background research, including:
  - Content analysis; and
  - Qualitative interviews with planners.
- Outcomes of lock-off unit policies, including:
  - Building and development permit data; and
  - Observation data.
- Qualitative interviews with:
  - Architects who have designed buildings with LOUs; and
  - Developers with experience working on buildings with LOUs.

3.1.1. Nature of the Research

Implementation and evaluation can be the most challenging - and often overlooked - aspect of the planning process (Hodge & Gordon, 2007; Loh, 2011; Talen, 1996a, 1996b). Talen suggests that post-policy evaluation requires both quantitative and qualitative data, to begin untangling the question of what change might have resulted from a plan or policy (Talen, 1996a). Following the recommendations of Talen and others, my Urban Studies research uses a mixed-methods approach, first seeking to understand what the outcomes of lock-off policy have been - a primarily quantitative evaluation - and then whether those outcomes have achieved the stated policy goal of providing an adaptable and flexible form of housing - a qualitative evaluation. This paper
attempts to understand the current and potential impact of LOU policy in Vancouver based on expert insight and market uptake.

Distinguishing between planned and unplanned change, Talen notes the need to evaluate both anticipated and unanticipated policy outcomes, suggesting that the most useful approach is to focus on the goals of a policy and explore whether or not those have been achieved (Talen, 1996a). Often, there is a disconnect between the actors involved in implementing a plan, and policy makers may be removed from those influencing the outcomes of a plan or policy (Guyadeen & Seasons, 2015; Patton & Sawicki, 1993).

This research focuses on qualitative interviews with planners, architects and developers, to better understand the market response to lock-off unit policy, and why this housing type is, or is not, being included in new developments. Over the longer-term, owners’ and renters’ perspectives would be critical in understanding how this housing type functions for residents in terms of flexibility and adaptability, but my research question is primarily focused on understanding the market response and uptake for this new housing form.

3.1.2. Researcher Positionality

Before and during this Urban Studies research, I worked as a Planner at the City of Vancouver, but have not been involved in planning work related to LOU policy in Vancouver. This research was conducted independently of my position at the City of Vancouver and any analysis and recommendations are my own and do not represent any City of Vancouver position.

My role as an employee of the City of Vancouver was disclosed to all interviewees as part of the information on the research consent form. The consent form also noted that the research was being conducted in my role as a Master of Urban Studies Candidate, and that primary data collected as part of the research would not be
shared with the City of Vancouver\(^8\). Contact information for all interviewees was obtained through publicly available sources\(^9\) and the City of Vancouver provided permission to use building and development permit data as a secondary source\(^10\), in accordance with procedures approved by SFU's Office of Research Ethics.

My interest in housing policy and plan implementation led me to the subject of LOUs for my Urban Studies research. I approached this topic as someone interested in understanding how cities introduce and encourage new housing forms, and in how architects and developers – and their perceived market preferences – ultimately influence the translation of policy into built form. It is possible that my employment at the City of Vancouver may have influenced potential interviewees in their choice to participate (or not) in the research; however several interviewees mentioned having already shared feedback on LOUs with relevant City staff, and freely shared their experiences with me, whether positive or negative.

### 3.2. Background Research

As part of this research project, it is necessary to understand the process of lock-off unit policy development, including factors that may have influenced the related policy outcomes. This stage of the research also provides an answer to the question: what were the regulatory outcomes of LOU policy? Two phases of background research were undertaken: content analysis and qualitative interviews with planners.

\(^8\) All SFU theses are published online at http://summit.sfu.ca/, so the final research paper would be available to anyone interested in the subject matter.

\(^9\) See sections 3.2 and 3.4 of this chapter for additional information.

\(^10\) See section 3.3 of this chapter for additional information.
3.2.1. **Content Analysis**

A content analysis\(^{11}\) of publicly available documents was conducted with four objectives in mind: (1) to place the policy in context through planning history; (2) to understand the public and other stakeholder feedback shaping policy development; (3) to understand the goals of Vancouver’s lock-off unit policy; and, (4) to identify the geographic areas and form of development parameters\(^{12}\) for LOUs in Vancouver.

Documents identified for content review span the timeframe for lock-off unit policy development in Vancouver (2008-2016), and include higher-level policies that direct staff to explore LOUs as a housing type in Vancouver, as well as documents relating to the introduction of this housing type in different neighbourhoods of the city. The following twenty-four documents were identified for analysis:

1. East Fraser Lands Official Development Plan (City of Vancouver, 2006)
2. Oakridge Centre Policy Statement (City of Vancouver, 2007a)
3. Southeast False Creek Official Development Plan (City of Vancouver, 2007c)
4. EcoDensity: Revised Charter and Initial Actions. (City of Vancouver, 2008b)
5. Regular Council Meeting Minutes. (City of Vancouver, 2008e)
6. Further Staff Proposed Revisions to May 13\(^{\text{th}}\), 2008 EcoDensity Charter and Initial Actions (City of Vancouver, 2008c)
8. Arbutus Centre Policy Statement (City of Vancouver, 2008a)
9. Enabling Secondary Suites within Apartments in Commercial Districts, the Downtown District and Southeast False Creek. (City of Vancouver, 2009a)
10. Principal Dwelling Unit combined with a Lock-off Unit Guidelines. (City of Vancouver, 2009b)
12. The Role of Secondary Suites: Rental Housing Strategy - Study 4. (City of Vancouver, 2009d)
14. Little Mountain Policy Statement (City of Vancouver, 2012b)

\(^{11}\) Content analysis is a research technique for studying artifacts including written, audio, and visual material using a technique called coding, which allows a researcher to organize and establish meaning from the source material (Babbie & Benaquisto, 2014).

\(^{12}\) Form of development parameters would include, but is not restricted to, minimum and maximum sizes for LOUs, parking requirements, restrictions on the number of LOUs in a development (as a percentage of the overall unit count).
15. Norquay Village Neighbourhood Centre Plan Implementation – New Zoning District Schedules. (City of Vancouver, 2013a)
16. Public Hearing Agenda, Minutes and Video - April 9, 2013. (City of Vancouver, 2013b)
17. RM-7 and RM-7N Guidelines. Vancouver, BC, Canada. (City of Vancouver, 2013c)
18. RT-11 and 11N Guidelines. (City of Vancouver, 2013d)
19. Marpole Community Plan. (City of Vancouver, 2014a)
21. RM-8 and RM-8N Guidelines. (City of Vancouver, 2014d)
22. RM-9 and RM-9N Guidelines. (City of Vancouver, 2014e)
23. Joyce-Collingwood Station Precinct Plan (City of Vancouver, 2016b)
24. Grandview Woodland Plan (City of Vancouver, 2016a)

Using latent coding\(^\text{13}\), these municipal plans, policies, Council reports and Public Hearing records were analyzed using NVivo, searching for information related to the four objectives outlined at the beginning of this section. This content analysis data formed the basis for a narrative and timeline outlining the policy development process for LOUs. This was used to situate the policy within the broader context of Vancouver planning and Council priorities of the time, and to understand the stated policy goals and objectives within each neighbourhood, forming the basis for a series of qualitative interviews with municipal planning staff.

Data gathered from these documents was summarized in Microsoft Excel, with an accompanying map, created using GIS software, showing which areas of Vancouver are zoned to allow for lock-off suites. This analysis, based on the manifest content in the documents, provided the foundation for subsequent stages of data collection and analysis, by illustrating where LOUs can be built, together with the related form of development parameters (unit size restrictions, number of LOUs per development, parking requirements, etc.)

\(^{13}\) Content analysis may include two types of coding: manifest coding, which is explicit in the source material, and latent content, which is implicit and requires interpretation on the part of the researcher (Babbie & Benaquisto, 2014).
3.2.2. Qualitative Interviews with Planners

Content analysis is “limited to the examination of recorded communications” (Babbie & Benaquisto, 2014), in this case, official documents produced by municipal government and recorded presentations at Public Hearing meetings of Council. Qualitative semi-structured interviews with municipal planners were used to provide additional context on the process of developing lock-off unit policy, community and development industry feedback, as well as any unintended consequences of the policy.

Qualitative interviews use guiding questions, but remain open to the flow of conversation, allowing the researcher to uncover related lines of enquiry based on interviewee responses (Babbie & Benaquisto, 2014). Questions were based on my document analysis and included: goals of the lock-off unit policy; rationale for parameters, including unit sizes and parking requirements; policy implementation; and unintended consequences. An initial series of six guiding questions is outlined below:

1. What was the general intent and goals for the introduction of LOUs in Vancouver?
2. How did you (and your colleagues) work to establish parameters for LOUs? This would include unit size, parking requirements, and limits on the number of LOUs per building.
3. Do you feel that the policy has been successful overall?
4. What steps were taken by the City to implement the policy?
5. Have there been any unintended consequences as a result of introducing LOUs in Vancouver?
6. Is there anything else you would like to tell me about LOUs?

Planner interviewees were recruited via email, using publicly available contact information posted on the municipal website and in Council reports or other publicly available documentation. A total of 5 expert interviews were conducted, representing individuals involved in the 2009, 2013 and 2014 introduction of LOUs to different areas of Vancouver. Interviews ranged from thirty to sixty minutes in duration. Selected interviewees also had experience evaluating rezoning and development permit applications for projects with LOUs, and were able to speak to both the development and implementation of LOU policy in Vancouver.
A list of interviewees is included below; those listed by name have consented to be identified in the final research paper:\textsuperscript{14}:

1. Interview 1 (Senior Planner, City of Vancouver)
2. Interview 2 (Senior Planner, City of Vancouver)
3. Interview 3 (Neal LaMontagne, former Senior Planner, City of Vancouver)
4. Interview 4 (Paul Cheng, Senior Development Planner, City of Vancouver)
5. Interview 5 (Ann McLean, Senior Development Planner, City of Vancouver)

The majority of the interviews were conducted after the document analysis had been completed. Data from these interviews were transcribed and coded using NVivo using latent coding, in the same way the content analysis was coded. Interview data was also analyzed by comparing it to the content analysis data (see section 3.1.1) to identify any discrepancies between the two – for example, any working principles that may have guided policy development and were mentioned in interviews but not clearly identified in the written documents. Follow-up questions were used as necessary, to clarify any significant discrepancies between the content analysis and qualitative interview data. This information has been summarized in Chapter 4 as part of my background research, providing a foundation for the subsequent research phases outlined below.

\textbf{3.3. Outcomes of Lock-off Unit Policy}

To answer the first part of my research question – what are the outcomes of lock-off unit policies in Vancouver? – I have used a combination of quantitative data and observation data. In Vancouver, lock-off unit policy applies in many areas of the city, rather than being “contained” within a single community plan or neighbourhood, with a variation in the outcomes and different findings for each neighbourhood. Through analysis of building and development permit data, as well as a series of site visits, I have explored the outcomes in each zoning district or neighbourhood of the city.

\textsuperscript{14} All participants provided written informed consent to participate in an interview, with the option of identification by name. Consent was obtained from individuals and not from their employers or affiliated organizations. Interviewees were advised that complete anonymity could not be guaranteed and that there may be a risk of identification given the public profile of their work.
3.3.1. Building and Development Permit Data

For the quantitative part of my research, I used secondary data; specifically, building and development permit data available through a City of Vancouver database that allows for a search based on zoning classification. I received permission to use this database from Planning and Development Services at the City of Vancouver. The permit data itself is considered to be public information. Summary details are posted online for the majority of Vancouver’s active development permit and rezoning applications, at development.vancouver.ca or rezoning.vancouver.ca\textsuperscript{15}.

LOUs are classified as a separate residential land use (noted as “Principal Dwelling Unit combined with a Lock-off Unit” in the Vancouver Zoning and Development By-law) but are not searchable based on this classification. LOUs are instead typically listed in the project description for each permit. Compiling this data required a search of the specific zones allowing LOUs up until the end of 2016 with an individual review to “clean” the data and separate out any new buildings containing LOUs.

Data was summarized using Microsoft Excel, including summary statistics on the total number of LOUs approved and constructed in each area of Vancouver. This information was then geocoded and illustrated in map form, using GIS software, to show the distribution of buildings with LOUs in relation to the areas of the city where this housing form is permitted\textsuperscript{16}. These summary statistics were also analyzed for patterns: for example, are developers proposing the maximum number of LOUs permitted on their site? Are there certain areas of the city where this housing type is allowed under zoning but is not being built? Does the quantitative data indicate different building typologies within the universe of developments containing LOUs – for example, townhouses, rowhouses and apartments?

\textsuperscript{15} There is a more extensive online archive of rezoning applications, which require a Council decision for approval, in comparison to development permit applications, where the data is not permanently archived online at vancouver.ca.

\textsuperscript{16} The geographic area where LOUs are permitted has expanded from 2009-2016, and the policy itself was introduced partway through 2009, so a yearly citywide total would not be an appropriate comparison.
3.3.2. Observation Data

Based on the results of the quantitative analysis, I conducted a series of site visits to observe building typologies for developments containing lock-off suites in different areas of the city. This involved the collection of data (photographs) showing the exterior of the buildings, confirming the typology of buildings with LOUs identified through analysis of secondary permit data (for example, apartment buildings versus townhouse buildings with LOUs).

Site selection was based on the results of my quantitative analysis: with few buildings in each area of the city, it was feasible to visit and photograph each one. Together with the quantitative data analysis (see section 3.2.1), my observation data was reconciled with the permit data in a process of triangulation, confirming the different building typologies containing LOUs. The photographic data were also used for illustrative purposes, along with a map of the documented sites.

3.4. Qualitative Interviews with Architects and Developers

Based on the secondary data and observation data, and related building typologies, I have identified a non-probability, expert sample of architects and developers who have experience working on developments containing LOUs. This sample included projects constructed under zoning (i.e. where new zoning district schedules included LOUs as a new housing type) as well as sites which were rezoned to CD-1 (Comprehensive Development) District (i.e., where a site specific rezoning application was submitted in an area with rezoning policy support for LOUs).

Architect and developer interviewees were recruited via email, with an introduction to the research topic and a request for an interview. Contact names and related information were available from public sources including building marketing material, online summaries of development and rezoning applications, Council reports, Urban Design Panel minutes, architect and developer websites and online portfolios. In some cases it was not possible to find publicly listed contact information for the individual architect or developer associated with a particular project.
Given the total number of buildings with LOUs, it was feasible to contact all architects and developers with publicly available contact information, noting that some architects and developers were involved in more than one project with LOUs. The seven architect or developer interviews included individuals with involvement in over one-third of the total LOU projects in the City of Vancouver, with experience working on both apartment and townhouse developments (i.e. representative of a range of typologies and geographic areas of the city).

A list of interviewees is included below; those listed by name have consented to be identified in the final research paper17:

1. Interview 6 (Ravi Punn, Developer, Boswell Ventures, Vancouver)
2. Interview 7 (Developer, Vancouver)
3. Interview 8 (Taizo Yamamoto, Architect, Yamamoto Architecture, Vancouver)
4. Interview 9 (Architect, Vancouver)
5. Interview 10 (Paul Tang, Developer, Vanwell Homes)
6. Interview 11 (Developer, Vancouver)

Interviews were qualitative and semi-structured, taking a maximum of sixty minutes, with questions focusing on the participant’s experience designing, building, marketing and selling buildings with LOUs. The following guiding questions were used, allowing for other aspects of the development to be discussed by each interviewee:

1. Why did you decide to include LOUs in your development?
2. Were purchasers more or less interested the apartments / townhouses with LOUs? Did they sell more / less quickly?
3. What was the your design process for incorporating LOUs?
4. During the design and planning process, did you consider how these units might be adapted in the future? If yes, how did this influence the design?
5. Do you know how residents were / are using the LOUs? For rental, for family members, etc.
6. Do you know whether the [apartments/townhouses] with LOUs sold more quickly / less quickly?
7. Do you have any information on sales prices? Rental prices?

17 All participants provided written informed consent to participate in an interview, with the option of identification by name. Consent was obtained from individuals and not from their employers or affiliated organizations. Interviewees were advised that complete anonymity could not be guaranteed and that there may be a risk of identification given the public profile of the their work.
8. Would you include LOUs in any future development?
9. Is there anything else you would like to tell me about your development or your experience designing LOUs?

Interviews were recorded and transcribed for thematic coding using NVivo to understand how the concepts of adaptability and flexibility have been considered in the development and design industry’s response to Vancouver’s lock-off unit policy. Coding and memoing, based on the latent content of the interview data, was used to identify themes and key concepts using a coding scheme, developed as part of the iterative process of reviewing the interview data (Babbie & Benaquisto, 2014). Key concepts are summarized in the following chapters of this paper, together with quotes from the interviews.
Chapter 4. Lock-off Unit Policy Development

This chapter presents the results of content analysis and qualitative interviews, to (1) place the policy in context through planning history; (2) understand the public and other stakeholder feedback shaping policy development; (3) understand the goals of Vancouver’s lock-off unit policy; and, (4) identify the geographic areas and form of development parameters\textsuperscript{18} for LOUs in Vancouver. A full list of documents and interviewees is provided in Chapter 3.

LOUs were first approved as a residential land use in Vancouver’s Zoning and Development By-law in 2009. For the purposes of this research, 2009 is used as the start date for permit data collection, but the content analysis contained in this chapter includes a review of earlier documents which reference secondary suites or flex suites.

The City of Vancouver does not have a citywide Official Development Plan or a consolidated citywide plan and the enabling policy for LOUs is not “contained” within a single plan or policy document. Below is a hierarchy of documents relating to LOUs in Vancouver, with the higher-level direction in a plan, vision or policy statement guiding the creation of a zoning district schedule or CD-1 by-law:

- Neighbourhood Plan or Community Vision: Adopted by City Council as a policy document, applies to a defined geographic area of Vancouver, and provides high-level, long-term direction for the future, including land use and built form.

- Major Project Policy Statement: Adopted by City Council as a policy document, generally applies to a large-scale site or sites, providing a master plan or principles to guide future development.

\textsuperscript{18} Form of development parameters would include, but are not restricted to, minimum and maximum sizes for LOUs, parking requirements, restrictions on the number of LOUs in a development (as a percentage of the overall unit count).
• Official Development Plan (ODP): Adopted by City Council as a by-law, providing a greater degree of detail than a policy statement, an ODP may provide a framework for creation of site-specific zoning by-laws and other implementation tools, or a companion set of regulations to a zoning district schedule.

• Zoning District Schedules or CD-1 (Comprehensive Development) by-laws: Adopted by City Council as a by-law, to establish a set of rules for the land use, height and density permitted in a particular area (district schedule) or a particular site (CD-1). District schedule amendments are generally City-led; applications to rezone to CD-1 are generally initiated by an individual landowner.

LOUs could be approved through a development permit or rezoning application in the following scenarios:

• Under existing zoning: if a site is part of a zoning district schedule where LOUs are an allowable residential land use (i.e. an option in that area) then a landowner could submit a development permit application that includes LOUs.

• Following a site-specific rezoning: if a plan or policy statement allows consideration of LOUs, a landowner could submit an application to rezone a site to CD-1 and include LOUs as an allowable land use.

• Through a heritage revitalization agreement: if a site includes a heritage (or potential heritage) feature, a landowner could enter into a heritage revitalization agreement, which would include heritage designation and conservation, and may include variances to the Zoning and Development By-law.

4.1. History and Context for Lock-off Unit Policy

The 2008 Council-approved EcoDensity Charter provided City of Vancouver planning staff with direction to provide a “greener, denser city pattern” with “more housing affordability, types, and choices”. The Charter identified a need to provide affordable housing through introducing a variety of types of new housing in all neighbourhoods, including rental housing: laneway housing and opportunities for secondary suites within existing housing. The EcoDensity Charter noted that the “public has pointed out the critical need” to add more family housing, as well as market rental, but is explicit about the limitations of what can be achieved in terms of affordability: “adding more housing most likely will not reduce the coat of housing from what it is today
[but] it can moderate future price increases from what they would otherwise have been” (City of Vancouver, 2008b).

Council unanimously adopted recommendation EcoDensity Action C-6: More Options for Rental Secondary Suites, on June 10, 2008, directing staff to undertake work and report back to Council (City of Vancouver, 2008e). This led to a 2009 Council decision to introduce a land use definition for a “principal dwelling unit combined with a secondary dwelling unit”, “secondary dwelling unit” and to add a new minimum dwelling unit size, allowing for secondary suites in apartment units (City of Vancouver, 2009a). Zoning changes amended the DD, C-2, C-2B, C-2C, C-2C1 and C-3A District Schedules to add the new housing type, as well as the Southeast False Creek Official Development Plan By-law (City of Vancouver, 2009a, 2009c). Figure 3 illustrates the area of Vancouver where these amendments apply.
As noted in that Council report, the main features of LOUs are that:

- The secondary suite is a self-contained unit, smaller than its principal unit, and with a separate external door into a corridor or outside, and a shared internal door which can be locked off;
- Secondary suites are enabled but not required;
- The suite would have a smaller minimum unit size than otherwise currently permitted and livability guidelines would address aspects such as light, privacy and noise;
- The suite would not be allowed to be separately strata titled from its principal unit; and
• No additional parking would be required above what would otherwise be for principal units of this size, but the suites would require bicycle parking. (City of Vancouver, 2009a, pages 2-3)

Before the 2008 EcoDensity Charter and 2009 zoning amendments, the idea of “flex suites” or flexibility in housing had been explored through major project planning work for the following areas:

• East Fraser Lands: the ODP allows for “housing forms designed with the flexibility to incorporate defined space for potential rental accommodation within a single dwelling unit, in order to contribute to a wider range of housing options available to low and middle income households, and to accommodate households at different stages of the lifecycle” (City of Vancouver, 2006); and

• Oakridge Centre: the policy statement notes that “rezoning applications should include proposals to improve market housing affordability, possibly including opportunities such as ‘flex suites’ or ‘breakaway suites’” (City of Vancouver, 2007a); and

• Arbutus Centre: the policy statement notes that “the proposal should provide affordable housing for 20% of total units, secured as part of rezoning phase…. [and] opportunities for other forms of tenure such as co-operatives, market rental, and flex suites may be considered at that time” (City of Vancouver, 2008a).

These major project areas resulted in policy to support the addition of secondary suites in apartments on a site-by-site basis, but it was not until the 2009 zoning amendments that changes were made to allow “secondary suites in existing apartment and mixed-use zoning districts” (City of Vancouver, 2009a). Planners acknowledged that the idea of LOUs was “not new” - staff became interested in the idea following the work of SFU’s UniverCity development - but there was interest in exporting LOUs to a Vancouver context to allow for more options and flexibility in typology across the city.

The City of Vancouver had a “strong tradition” of supporting accessory units and the creation of policy to support lock-off units was seen as a natural evolution of that...
work, as “relatively low-hanging fruit”. Leading up to that time, Vancouver planners were focused on secondary suites as the primary opportunity to add new rental housing and had been exploring the idea of building code changes requiring new housing to be accessory dwelling unit (ADU) friendly. Secondary suites were not permitted in all RS (Single Family) district schedules until 2004 (City of Vancouver, 2009d) and before that were only allowed in certain single-family areas (City of Vancouver, 2009d).

Purpose-built rental and the private market were the main sources of legal rental units at that time, although the City would introduce the Short-term Incentives for Rental Housing Policy (STIR) in July 2009, in an attempt to encourage more purpose-built rental housing. During the policy development phase, staff made a deliberate choice to exclude LOUs from the RM (Multiple-Dwelling) district schedule areas. These areas of Vancouver contain a significant amount of the city’s purpose-built rental housing stock (McClanaghan & Associates, 2010) and are subject to additional regulation aimed at protecting existing rental units.

Staff were trying to avoid messing with rate of change areas, so there was a deliberate choice not to look at the RM-zones as part of the geographic area where LOUs were introduced [but] staff did think about the possibility of adding LOUs to the RM-zones in the future. At that time, there was a lot more construction happening in the C-zones in

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23 Interview 3
24 Interview 4
25 Interview 3; after exploring the idea, staff acknowledged that it would have been “potentially too onerous” to require all new housing to be ADU-ready, however the exploration of this idea reflects the same interest in future flexibility as can be seen in the pursuit of LOU policy.
26 Interview 4
27 Interview 3
28 These include policies to prevent strata conversion of existing rental buildings, as well as requirement for replacement rental if a site is redeveloped (City of Vancouver, 1986, 2007b; Metro Vancouver Regional Housing, 2012).
29 “Rate of Change” refers to the geographic area covered by the City of Vancouver’s Rental Housing Stock Official Development Plan, or Rate of Change areas, where one-for-one replacement is required, where existing rental housing is demolished to allow for new development with six or more units (City of Vancouver, 2007b).
comparison to the RM-zones, so it made sense to limit the introduction of LOUs to those areas from a spatial perspective.\(^{30}\)

### 4.2. Feedback Shaping Policy Development

Public consultation as part of the EcoDensity Charter process\(^{31}\) resulted in significant feedback on the need for more affordable housing and flexibility to add secondary suites throughout Vancouver (City of Vancouver, 2008b, 2008c, 2008d). The 2009 introduction of LOUs “wasn’t a piece of policy work with a particularly large public profile”\(^{32}\) and the consultation “tagged along” with laneway housing consultation events, with few comments from the public\(^{33}\) during the policy development phase.

Laneway housing and LOUs were reviewed by Council at the same 2009 Public Hearing\(^{34}\), and in contrast to laneway housing, there appears to have been a minimal amount of either public concern or support, with unanimous Council approval for the proposed changes (City of Vancouver, 2009c). Four speakers signed up, with three generally in favour and one opposed\(^{35}\). Speakers raised concerns about the “small” minimum unit size, with no limit to the number of LOUs in a building, along with the unintended consequences of adding more people into an area without increasing infrastructure, for example, community centres (City of Vancouver, 2009c). In response

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30 Interview 3
31 The EcoDensity Charter planning program started in 2006, with consultation during 2007 and 2008 leading to a draft EcoDensity Charter and Initial Actions for Council approval in 2008 (City of Vancouver, 2008b, 2008c). Planners and Council received mixed feedback with some strong neighbourhood resistance in response to the EcoDensity Charter (CBC News, 2008; Smith, 2007, 2008) but there does appear to have been clear feedback from the public on the need for affordable housing and for more rental housing options. See section 4.1 of this chapter for more detail on how the Council-approved EcoDensity Charter led to implementation of zoning changes for LOUs.
32 Interview 3.
33 Ibid.
34 A Public Hearing is a special Council meeting to consider applications to amend the Zoning and Development By-law. Community members can provide written feedback to Council in advance of the Public Hearing meeting, or sign up to speak at the meeting. For more information on Public Hearing procedures, see: vancouver.ca/publichearings.
35 Two pieces of written correspondence were received, one in favour and one opposed, but copies of this correspondence are not publicly available, so the rationale for the support or opposition is unclear.
to those concerns, planning staff noted an interest in providing “options within the zoning” rather than establishing a maximum number of LOUs per site\textsuperscript{36}, “to allow for flexibility”, noting that the introduction of LOUs may not result in more people per unit (City of Vancouver, 2009c).

Vancouver planning staff looked to SFU UniverCity for guidance and input based on their experience with LOUs\textsuperscript{37} and contacted stakeholders in the development industry for input\textsuperscript{38}. There was “a willingness to stretch and test an idea out”\textsuperscript{39} without being “bound by the need for precedent”\textsuperscript{40}. Staff were therefore prepared to move ahead with the policy changes and wait to see what happened\textsuperscript{41}. There were concerns about the long-term livability of the units, but never a feeling that the City shouldn't move ahead with the policy, and it was felt that staff could encourage design solutions to mitigate the smaller size of the units\textsuperscript{42}.

### 4.3. Geography and Parameters

Following the 2009 introduction of LOUs to the Zoning and Development By-law, a series of new community plans were completed, all anticipating additional zoning changes for LOUs. These plans include:

- Norquay Village Neighbourhood Centre Plan: (City of Vancouver, 2010);
- Marpole Community Plan: (City of Vancouver, 2014a);
- Joyce-Collingwood Station Area Precinct Plan (City of Vancouver, 2016b); and
- Grandview Woodland Plan: (City of Vancouver, 2016a).

\textsuperscript{36} See section Appendix B and 4.3 of this chapter for additional information on LOU maximums introduced as part of implementation in other areas of Vancouver.

\textsuperscript{37} Interview 3.

\textsuperscript{38} Ibid.

\textsuperscript{39} Ibid.

\textsuperscript{40} Ibid.

\textsuperscript{41} Ibid.

\textsuperscript{42} Ibid.
At the time of writing, three of these new plans have led to the introduction of new zoning district schedules allowing for LOUs, and work is ongoing in the Grandview Woodland area. Figure 4 illustrates the zoning district schedules and ODP areas where LOUs are permitted. A full summary of the zoning parameters and guidelines for these areas can be found in Appendix B.

**Figure 4. Zoning District Schedule and ODP Areas Allowing LOUs**

As LOUs have been introduced to new areas of the Vancouver, content analysis of planning documents indicates that the focus has shifted from adding LOUs to apartments, to adding them in new forms of ground oriented housing (City of Vancouver, 2009a, 2010, 2014a, 2016a, 2016b). This is consistent with information provided through qualitative interviews – although there has been expansion of the geographic area where...
this type of housing is allowed, that expansion has focused more on ground oriented housing and less on apartments.\textsuperscript{43}

Interview data indicates that parking was a determining factor in establishing a maximum threshold for LOUs in the new Marpole zoning districts: adding more parking requires the need for a second level of underground parking, increasing the cost to the developer and potentially the end purchaser.\textsuperscript{44} For Marpole, planners worked with the existing parameters developed during the 2009 LOU and 2013 Norquay Village work, providing the “option” of LOUs in new zoning that allowed for low-rise apartment and townhouse forms.

Development of the “Principal Dwelling Unit Combined With A Lock-off Unit Guidelines” (City of Vancouver, 2009b) was heavily focused on encouraging livability in LOUs. For planner interviewees, access to light was a critical element of livability: “natural light was important and we also thought that you should be able to see out of the suite – for example, not having a clerestory window\textsuperscript{46} 6 ft. in the air, versus having a window with a sill height 2.5 ft. from the ground”\textsuperscript{47}. It was “important to be able to sit down and see outside, and to see a certain distance”\textsuperscript{48}. The guidelines include a requirement for “a minimum of one large window in an exterior wall equal in area to 15 percent of the total floor area of the unit [which should] provide a direct line of sight to the exterior from at least 50 percent of the floor area of the lock-off unit” (City of Vancouver, 2009b). This requirement drew from the U.S. Green Building Council

\textsuperscript{43} Interviews 2, 3, 4 and 5
\textsuperscript{44} Interview 2
\textsuperscript{45} Interviews 4 and 5
\textsuperscript{46} A clerestory window is a single large window or series of small windows close to the top of an exterior wall, typically above eye level. Clerestory windows can provide natural light to a room, while preserving a degree of privacy, but generally don’t provide inhabitants with views to the outside due to their placement above eye level. The City of Vancouver’s Zoning and Development By-law includes “Horizontal Angle of Daylight” (HAD) regulations, which specify a requirement for unimpeded access to natural light through a minimum clearance from other buildings (City of Vancouver, 2012a), but do not specify a requirement for window placement.
\textsuperscript{47} Interview 4.
\textsuperscript{48} Ibid.
(USGBC) Leadership in Energy and Environmental (LEED) sustainability standards of the time, which allow one point for projects that meet a minimum threshold for daylight and views into habitable areas of a building (Canada Green Building Council, 2010; U.S. Green Building Council, 2008). For daylight access in LOUs, Vancouver planners were “careful about the standards...[we] didn’t want this to be completely subjective, one person’s opinion.”

4.4. Policy Goals

Both the content analysis and planner interviews indicate that affordability and flexibility were the two primary policy goals. Planner interviews indicate that these two goals are seen as being closely linked – the ability to have a rental unit in an apartment or townhouse is believed to be a factor in the eventual affordability of that unit for families. In the words of one interviewee, planners were “looking for a parallel to a single-family home within a multi-family housing development...thinking of the example of a young family whose household needs change over time as they grow, or who could rent out an LOU for income...enabling a housing form which is able to be adjusted to meet household needs over time.” The idea of flexibility is linked to provision of a secondary suite that is connected to the main dwelling unit. Flexibility, as it relates to LOUs, is seen to be the product of a series of deliberate design choices in response to municipal guidelines, closer to the “hard” technology response to flexibility identified by Schneider and Till (Stoa, 2012) than the more open ended, resident-led idea of Friedman’s flex houses (Friedman & Krawitz, 1998).

49 LEED is a checklist-based green building certification program, developed by the USGBC but administered by the Canada Green Building Council (CAGBC) in Canada. Based on the number of points achieved, a building project may achieve the rating level Certified, Silver, Gold or Platinum. See usgbc.org/leed for additional information.

50 Interview 4.
51 Interview 4.
52 Interviews 2, 3, 4 and 5
53 Interview 2
54 Interviews 2, 3, 4 and 5
LOUs are also seen to be a way of providing housing diversity in an area where there was a planning focus on adding new ownership options\textsuperscript{55}, although LOUs were not the main policy focus for meeting Vancouver’s broader rental housing needs, as noted in section 4.1 of this chapter. Adding LOUs was one way to provide new rental housing in a neighbourhood\textsuperscript{56}, although planners noted that the comparatively small scale\textsuperscript{57} of LOUs leads to these units being most suitable for one-person households rather than families\textsuperscript{58}. Although the 2009 Council report notes that “the proposed secondary suites in apartments can increase affordability on two fronts: by providing smaller more affordable rental housing in multi-residential areas; and by assisting homeowners as “mortgage helpers.”” (City of Vancouver, 2009a), affordability as an LOU policy goal appears to have been primarily focused on providing ownership options for families, rather than on affordability as it relates to renter households\textsuperscript{59}.

4.5. Implementation

During the 2009 Public Hearing, Council raised the question of implementation and monitoring (City of Vancouver, 2009c). Staff noted that a formal monitoring program would have workplace resource implications, but that the planning department would keep an eye on the outcomes of the policy (City of Vancouver, 2009c). The issue of limited staff resources was also raised in an interview: “one of the challenges of the work plan at the time is that there wasn’t always time to check back in…staff were prepared to wait and see what happened, with the understanding that if LOUs weren’t happening because of a policy issue, then City staff would be likely to hear feedback”\textsuperscript{60} from the development industry.

\textsuperscript{55} Interviews 3, 4 and 5
\textsuperscript{56} Interview 3
\textsuperscript{57} Generally less than 500 sq. ft. see Chapter 5 for more details.
\textsuperscript{58} Interviews 3 and 4
\textsuperscript{59} Interviews 3 and 4 noted that planning staff were actively engaged in policy work to encourage new purpose built rental housing and laneway housing in other areas of Vancouver – the introduction of LOUs was not seen to be a key element in meeting the broader rental housing needs of the city.
\textsuperscript{60} Interview 3
From the perspective of the policy team, "once briefings and training for staff had been completed, and development services was up to date, LOUs didn’t need the same support as something like laneway housing, so a lighter touch worked"\(^{61}\). The introduction of LOUs was seen to be a success in the sense that the option was made available for developers, architects and builders\(^{62}\) but there is no record of a formal review until 2015-2016, when policy and development planning staff held a workshop to understand some of the barriers to implementation\(^{63}\).

As one interviewee noted, it “takes a long time to see the results and get the feedback loop” following adoption of a plan or zoning change\(^{64}\). Some of the earlier townhouse projects are now complete, or close to complete, and staff have had the opportunity to tour some of the finished suites. Units are generally felt to be livable\(^{65}\) although for the smaller LOUs, two interviewees raised the issue of storage. Storage space – whether built in closets or storage rooms - is not required by the guidelines (City of Vancouver, 2009b) and there have been LOUs approved with no storage available\(^{66}\). City staff also noted the need to think about how to incentivize and encourage LOUs without taking away excludable storage\(^{67}\), for example, adding a “basement” LOU would potentially mean there is less storage or flexible space for use as part of the primary dwelling unit\(^{68}\).

\(^{61}\) Interview 3
\(^{62}\) Ibid.
\(^{63}\) Interview 5, 8 and 11
\(^{64}\) Interview 4
\(^{65}\) Interviews 1, 4 and 5
\(^{66}\) Interviews 4 and 5. In contrast, Vancouver’s “Micro Dwelling Policies and Guidelines” require consideration of in-suite storage in addition to a bulk storage space: “in-suite open and closed shelving units and loft areas in addition to the consideration of accessible and secure storage lockers located outside of the unit” (City of Vancouver, 2014b).
\(^{67}\) Vancouver’s Zoning and Development By-law allows for storage rooms up to 3.7 sq. m (40 sq. ft.) to be excluded from the density calculation for a site, as a way of encouraging developers to add storage rooms, which increase the livability / functionality of an apartment, without the “penalty” of having storage space count towards the maximum permitted density (City of Vancouver, 1997, 2017b). If a unit includes over 3.7 sq. m (40 sq. ft.) of in-suite storage, then the storage space is counted towards the maximum density for a site, creating tension between the storage needs of the primary and accessory units.
\(^{68}\) Interview 2
Planning staff noted the influence of site topography on the success of designing for LOUs\(^69\): sites with a “beneficial slope”\(^70\) from the street down to the lane make it easier to add LOUs at the “basement” level of townhouses facing the lane\(^71\). For sites without a slope, introducing LOUs requires a trade-off between the project cost – there is additional cost in excavating further for underground parking – and maximum zoning height\(^72\). Staff have been exploring how to encourage or incentivize LOUs on sites without a beneficial slope: options would include raising the courtyard\(^73\), with the LOU at grade, level with the street or lane, with the parking behind the LOU and underneath the shared courtyard\(^74\). Another option is for the underground parking to be further below grade, with the LOU a few steps down – similar to a basement suite in a single-family home – and the main townhouse entry a few steps up from street level; however this option leads to a slightly sunken location and “less desirable” rear exposure for the LOU\(^75\).

From a design perspective, the planner interviews point to a series of trade-offs necessary to accommodate both a primary unit and accessory LOU on a site. As one interviewee noted:

“There is always tension around the number of units…lots of developers have welcomed the LOU opportunity [but] they aren’t going to make a judgement call around livability, right now people can rent out pretty much anything and get an income, so it’s up to the City to be vigilant about maintaining a modicum of livability\(^76\).”

The question of retrofitting for LOUs was addressed by planners involved in the 2009 amendments: given the “challenges of getting a strata to ok permits, as well as the

\(^{69}\) Interviews 1 and 5
\(^{70}\) Interview 5
\(^{71}\) Interview 1
\(^{72}\) Interview 5. The zoning doesn’t allow additional height for projects with LOUs.
\(^{73}\) This design exercise assumes a townhouse project with shared courtyard space, all over underground parking, but raising the courtyard above grade can create a challenging transition to neighbouring sites, with a raised townhouse courtyard overlooking the back yard of a single-family home that may not redevelop in the near future.
\(^{74}\) Interview 5
\(^{75}\) Ibid.
\(^{76}\) Interview 4
physical design challenges it was felt that LOU retrofits were unlikely. This was acknowledged in the 2009 Council report (City of Vancouver, 2009b) and by staff at the Public Hearing (City of Vancouver, 2009c). One interviewee raised a question about “future-proofing” given the introduction of LOUs as part of a site-specific CD-1 by-law:

If [a lock-off unit] is seen as a successful or desirable housing form, and the goal is to allow flexibility in the future, then is it desirable to allow for retrofitting by providing for LOUs as a separate residential dwelling use within CD-1 sites? Otherwise a CD-1 text amendment would be needed if someone wanted to retrofit a site.

Based on interview data, City staff have not collected any information on how existing LOUs are being used, whether as units for family, caregivers, rental to unrelated individuals, student rental housing, etc. or whether there have been any strata limitations established for rental. For an early LOU project on Ash Street, planners considered the impact of future strata by-laws on the LOUs: with a total of 35 townhouses, 18 with LOUs, owners with potential rental units are in the majority at the Ash Street development, and could in theory defeat any attempts to introduce rental restrictions through strata by-law amendments. Given the zoning restriction on the proportion of LOUs in most of the district schedules (see Appendix B) there could be the potential for rental restrictions to be established by individual strata councils without this same “built-in” majority, and potential tension with the objective of allowing mortgage helper units in these areas.

One interviewee noted that LOUs in many cases were closer in size to a secondary suite or basement suite. There is no maximum size for an LOU, and LOUs in townhouses tend to be larger, well beyond the minimum LOU size and often beyond the minimum dwelling unit size of 27 sq. m (400 sq. ft.) (City of Vancouver, 2017b). In neighbourhoods where on-street parking is already perceived as an issue by residential

77 Interview 3
78 Interview 1. Amending site-specific CD-1 zoning requires a rezoning application, review, and Council decision at a Public Hearing, in other words, a fairly intensive process.
79 Interview 1
80 Interview 5
81 Ibid.
this could add to existing sensitivity around parking: adding a basement suite, for example, would typically require a parking space (City of Vancouver, 2013e) but an LOU, which could be the same size as a small basement suite, doesn't require an extra parking space. The question of parking hasn't been an issue so far, but there is the potential for a cumulative impact on street parking if there were a concentration of LOUs in a particular area.\textsuperscript{82}

\textsuperscript{82} Interview 5.
Chapter 5. Lock-off Unit Policy Outcomes

This chapter presents an overview of the built form outcomes of lock-off unit policy in Vancouver, including analysis and results of the permit data and observation data (site visits). An overview of the permit data is presented first, followed by an analysis of the geographic distribution and typology of the LOU projects in Vancouver. This is followed by a review of LOU projects that have been completed or are close to completing construction.

Following a summary of the built form outcomes is data provided through seven qualitative interviews with developers and architects working on projects containing LOUs. Most of the interviewees (five of the total seven) have been involved in more than one project with LOUs. A full list of interviewees and qualitative interview questions is included in the research methodology, chapter 3. The group of interviewees includes individuals with experience working on projects under existing zoning, as well as those involving site-specific rezoning, and includes three architects and four developers. Interviews were transcribed and analyzed using NVivo, with the findings summarized below.

5.1. Location and Typology

Development permit data was used to identify all new projects containing LOUs. Table 1 provides an overview of projects with LOUs, including those in process, approved, under construction and completed. In total, there are 128 potential LOUs in 27 projects resulting from zoning and policy changes introduced between 2009 and 2016. “Permit year” refers to the year of permit application; “address” refers to the address at
time of application\textsuperscript{83}, and “zoning” to the existing or approved zoning at the time of development permit application\textsuperscript{84}.

Table 1. LOUs in Vancouver

<table>
<thead>
<tr>
<th>Address</th>
<th>Policy Area</th>
<th>Zoning</th>
<th>Permit Year</th>
<th>LOUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2899 East 41st Avenue</td>
<td>Norquay Village</td>
<td>RT-11N</td>
<td>2013</td>
<td>4</td>
</tr>
<tr>
<td>587 W King Edward Avenue</td>
<td>Cambie Corridor</td>
<td>CD-1 (595)</td>
<td>2014</td>
<td>5</td>
</tr>
<tr>
<td>2111 East 33rd Avenue</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>4</td>
</tr>
<tr>
<td>6010 Oak Street</td>
<td>Oakridge Langara</td>
<td>CD-1 (559)</td>
<td>2013</td>
<td>9</td>
</tr>
<tr>
<td>5805 Wales Street</td>
<td>Victoria-Fraserview</td>
<td>CD-1 (619)</td>
<td>2014</td>
<td>8</td>
</tr>
<tr>
<td>2384 East 34th Avenue</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>2253 East 35th Avenue</td>
<td>Norquay Village</td>
<td>RT-11</td>
<td>2016</td>
<td>2</td>
</tr>
<tr>
<td>375 West 59th Avenue</td>
<td>Marpole Plan</td>
<td>CD-1</td>
<td>2016</td>
<td>5</td>
</tr>
<tr>
<td>6318 Ash Street</td>
<td>Oakridge Langara</td>
<td>CD-1 (481)</td>
<td>2009</td>
<td>18</td>
</tr>
<tr>
<td>5190 Chambers Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2014</td>
<td>1</td>
</tr>
<tr>
<td>5035 Chambers Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2014</td>
<td>2</td>
</tr>
<tr>
<td>5081 Chambers Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>2</td>
</tr>
<tr>
<td>2005 Clarendon Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>4730 Duchess Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>2759 Duke Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>4</td>
</tr>
<tr>
<td>2631 Duke Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2016</td>
<td>4</td>
</tr>
<tr>
<td>4846 Earles Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>2711 Horley Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>3</td>
</tr>
<tr>
<td>2679 Horley Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>2</td>
</tr>
<tr>
<td>7900 Manitoba Street</td>
<td>Marpole Plan</td>
<td>RM-8</td>
<td>2015</td>
<td>8</td>
</tr>
<tr>
<td>4565 Slocan Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2015</td>
<td>6</td>
</tr>
<tr>
<td>4858 Slocan Street</td>
<td>Norquay Village</td>
<td>RM-9AN</td>
<td>2016</td>
<td>15</td>
</tr>
<tr>
<td>2310 Brock Street</td>
<td>Norquay Village</td>
<td>RT-11</td>
<td>2016</td>
<td>4</td>
</tr>
<tr>
<td>5005 Chambers Street</td>
<td>Norquay Village</td>
<td>RM-7</td>
<td>2016</td>
<td>3</td>
</tr>
<tr>
<td>4412 Nanaimo Street</td>
<td>Norquay Village</td>
<td>RM-7N</td>
<td>2016</td>
<td>3</td>
</tr>
</tbody>
</table>

\textsuperscript{83} Exact addressing may vary is a site is consolidated and redeveloped, with a new address range being assigned, or in the case of a corner site, future units may be addressed from the flanking street if required.

\textsuperscript{84} Where a site has been approved by Council for rezoning, a landowner may submit a development permit application after Council approval of the rezoning at Public Hearing, before the individual CD-1 By-law has been assigned.
Source: Based on City of Vancouver permit data, 2009-2016

The majority of the LOU projects to date have been approved under zoning in the Norquay Village area, where new zoning district schedules were approved in 2013: 21 of the 27 LOU projects from 2009-2016. Of these 21 Norquay Village projects, 15 are found in the RM-7 or RM-7N zones. These are smaller-scale projects, typically with fewer than 20 dwelling units, and between one and eight LOUs as part of a townhouse typology.

**Table 2. LOUs Projects, Policy Areas and Zoning**

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Zoning</th>
<th>Total Projects</th>
<th>Total LOUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambie Corridor</td>
<td>CD-1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Marpole Plan</td>
<td>CD-1 &amp; RM-8</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Norquay Village</td>
<td>RM-7 &amp; RM-7N</td>
<td>15</td>
<td>46</td>
</tr>
<tr>
<td>Norquay Village</td>
<td>RM-9AN</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Norquay Village</td>
<td>RT-11 &amp; RT-11N</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Oakridge Langara</td>
<td>CD-1</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>Victoria-Fraserview</td>
<td>CD-1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>27</strong></td>
<td><strong>128</strong></td>
</tr>
</tbody>
</table>

Source: Based on City of Vancouver permit data, 2009-2016

Five projects with LOUs have required rezoning, meaning that a developer or landowner has initiated a site-specific rezoning application with LOUs proposed as one of the dwelling uses in a new CD-1 (Comprehensive Development) District for the site. None of the projects are in the mixed-use “C” zones into which LOUs were introduced in 2009, or in the Downtown District or Southeast False Creek ODP areas. LOUs are limited in terms of apartment typology; to date, only one apartment project has been
approved with LOUs. Figure 5 illustrates the geographic distribution of LOU projects, together with their zoning.

This review of permit data is consistent with the impression of planner interviewees: several noted that there was minimal or no developer interest in providing LOUs in apartment buildings. One interviewee noted that “the feeling among staff was that one of the reasons is that the [apartment] units aren’t that large to begin with – often studio and one-bedrooms, with no requirement to add family units…so it’s challenging to encourage something like a three-bedroom [apartment] with lock-off unit in that context.”

**Figure 5. Distribution of Projects with LOUs**

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85 While stacked townhouses are considered a form of multi-family housing, for the purposes of this research I have considered an LOU to be in an apartment typology if the front door of the LOU leads to a shared apartment hallway, rather than directly outside as would be found in a stacked townhouse.

86 Interview 1, 3, 4 and 5

87 Interview 4
Planner interviews also highlighted a potential east-west divide in terms of market uptake for LOUs: staff noted a limited amount of interest from developers in the Marpole area\textsuperscript{88}, where the market may be more focused on downsizers — i.e. people selling a single-family home and moving into multi-family housing — with potentially lower market interest in LOUs\textsuperscript{89}.

\section*{5.2. Observational Data}

With a small number of LOU projects complete and occupied, it was possible to complete a site visit and observe the exterior of most LOU buildings. Figures 6 to 12 illustrate the units. For sites with lane-fronting townhouses, the LOUs are at or above grade, with private landscaped patio space, providing a sense of privacy and separation from the lane. The other two sites are in the Norquay Village area, where the majority of Vancouver’s LOU projects are concentrated, with the LOU accessed either directly from the street or from the side of the building.

\textsuperscript{88} Interviews 2 and 5  
\textsuperscript{89} Interview 5
Figure 6. 6318 Ash Street - Townhouses with LOUs at the lane

Notes: Redevelopment of site to include six 3-storey buildings containing 35 townhouses and 18 LOUs for a total of 53 dwelling units. Zoning = CD-1. Source: Author.

Figure 7. 6318 Ash Street - LOU at the lane

Notes: Redevelopment of site to include six 3-storey buildings containing 35 townhouses and 18 LOUs for a total of 53 dwelling units. Zoning = CD-1. Source: Author.
Figure 8.  591-599 West King Edward Ave - Townhouses with LOUs at the lane

Notes: Redevelopment of site to include 18 3-storey townhouses and 5 LOUs for a total of 23 dwelling units. Zoning = CD-1. Source: Author.

Figure 9.  591-599 West King Edward Avenue - LOU at the lane

Notes: Redevelopment of site to include 18 3-storey townhouses and 5 LOUs for a total of 23 dwelling units. Zoning = CD-1. Source: Author.
Figure 10. 4573 Slocan Street – Townhouses with LOU in Basement Level

Notes: Redevelopment of site to include 18 principal units and 6 LOUs for a total of 24 dwelling units. Zoning = RM-7. Source: Author.

Figure 11. 4573 Slocan Street – LOU Entrance

Notes: Redevelopment of site to include 18 principal units and 6 LOUs for a total of 24 dwelling units. Zoning = RM-7. Source: Author.
5.3. Rationale for Including LOUs

Developer and architect interviewees indicated a range of factors influencing their decision to include LOUs, reflecting an interest in targeting a certain group of purchasers, an opportunity to take advantage of site topography, and an interest in testing a new form of housing where that option was available.

Affordability emerged as a common influence for the inclusion of LOUs in projects. Six of the seven interviewees noted that the idea of including a mortgage helper was a factor the decision to include LOUs in their development90. One interviewee noted that their decision to include LOUs was “a marketing angle, for the homeowners, because the target market we were looking at was, you know, somebody that couldn’t be in a full on house in Vancouver and also didn’t want to live in a condo any more”91. The inclusion of a legal rental suite was felt to be an advantage by interviewees who

90 Interviews 6,8,9,10,11 and 12
91 Interview 6
perceived the future owners to be people “sizing up” from an apartment to a townhouse\textsuperscript{92} - “for people who can’t afford a three-bedroom unit, if they have a lock-off unit they can be financially capable of eventually owning a three-bedroom unit for themselves”\textsuperscript{93}. Another felt that the market for townhouses in Vancouver was largely driven by people upsizing from a condo rather than downsizing from a single-family house: “my suspicion, and it’s not confirmed, but 80% of the people who buy in a townhouse, they are actually upsizing…I didn’t see any downsizers…maybe the stairs don’t work well for downsizers”\textsuperscript{94}. This was reflected in the comments of another interviewee who felt that LOUs were “more of an upsizing thing rather than downsizing”\textsuperscript{95} and therefore appropriate in a housing form like a townhouse with stairs, which may be less suitable for long-term aging in place, and therefore less desirable to people downsizing and considering long-term mobility needs.

One interviewee did not indicate affordability as a factor in the decision to include LOUs\textsuperscript{96}. In that case, the intended target market development was not perceived to be upsizing from a smaller apartment unit, but rather downsizing from a single-family home\textsuperscript{97}. A limited number of LOUs had been included in a proposed apartment building to gauge the interest in this new form of housing: “we decided to do it on a few… I think due to some feedback from the sales team, it was something that could potentially be desirable”\textsuperscript{98}. The building included “a significant number of larger homes in response to what we feel is a demand…and as such, we wanted to make sure that there was some flexibility across the various types of floor plans”\textsuperscript{99}. When asked if the company would include LOUs in a future project, the interviewee noted “I don’t know that we would necessarily go down that path… one thing that you end up with as well is a larger unit,

\textsuperscript{92} Interview 8, 10, 11 and 12  
\textsuperscript{93} Interview 10  
\textsuperscript{94} Interview 11  
\textsuperscript{95} Interview 8  
\textsuperscript{96} Interview 7  
\textsuperscript{97} Ibid.  
\textsuperscript{98} Ibid.  
\textsuperscript{99} Ibid.
which is usually at a premium location within the building...[and] to a degree probably devalues the home that it's adjacent to."\(^{100}\)

Most of the interviewees indicated that they would consider including LOUs in future projects\(^{101}\) although for some this decision would depend on having a site with topography that supported the inclusion of LOUs\(^{102}\). Almost half of the interviewees noted the influence of site topography on their decision to include LOUs\(^{103}\), with one noting "to build [LOUs] on a flat site, it’s very difficult to make... a livable unit"\(^{104}\). The site needs to be "friendly...because otherwise you end up with a basement suite"\(^{105}\), whereas sloped sites offer an opportunity to "make a unit that’s a step up from...student basement suites"\(^{106}\), where the LOU is at the street or lane level, rather than being partially below grade.

**5.4. Flexibility and Adaptability in Design**

Developer and architect interviewees largely conceived of flexibility in a similar manner to the planner interviewees: that the LOUs provide an option for different uses of the space, and that flexibility – in the form of a potential rental suite - is connected to affordability. At the same time, interview data revealed a need to compromise or explore trade offs between the principal unit and LOU, particularly where the site was flat: “it’s a lot to overcome for a challenging site, because the developer doesn’t want to compromise the individual unit for something like the lock off, [when] they [the developer] can work with what they know”\(^{107}\). In other words, “there is so much demand for just, standard townhouses, that a lot of developers don’t see a need for taking a risk”\(^{108}\)
adding a new housing form may impact the financial feasibility or marketability of a project.

Other interviewees acknowledged that the limitations of the zoning make it hard to design a project with LOUs without some compromise. None of the architect interviewees had been involved in LOUs in an apartment typology, but a couple commented it would be possible, but challenging:

“It’s possible…again, it’s about flexibility. For that young family that has one child, and they can’t afford [a larger unit] maybe there’s modules that can be plugged in as lock offs. The challenge with the apartments is that the depth of the unit, it’s difficult to, what you’re locking off needs to have exterior exposure, so you need to plan it so it gets locked off all the way, it needs another kitchen, another bathroom. So, it’s more of a studio, with open space, it maybe gets more difficult to absorb it into your unit, unless you keep it as a studio, you can attach it to the apartment.”

Another interviewee noted that providing livable units in an apartment typology was likely to be challenging given the constraints of fitting the LOU along with the apartment: “it’s a very small unit…not only that, the width is shallow and the height [floor to ceiling height] is not very high.”

5.5. Permitting and Construction

Interviewees indicated a range of different experiences in terms of permitting and construction for LOUs. Two interviewees involved in early LOU projects felt that the permitting process was time consuming “because a lot of it was in the initial stages, just going back and forth with the City…a lot of the departments weren’t in sync with what was happening in the area.” Another interviewee noted that the permit review process was somewhat slow, but did not feel that adding LOUs to the project led to a
longer review time. Adding LOUs facing the lane was perceived to present some challenges where there were requirements to provide fire access or pedestrian access, which need to be provided on privately owned land. For another interviewee, the addition of LOUs at the lane edge of a townhouse project was “simple” with the addition of the LOU at the lane, along the edge of the underground parking on a sloping site, making it easy to achieve the necessary fire and noise separation between the LOU and main residential unit.

One interviewee raised the issue of regional Development Cost Charges (DCC), as one example where the flexibility of LOUs can lead to additional developer costs. Although the LOU and main unit are counted as one from the perspective of Vancouver’s parking requirements (i.e. there is no “penalty” in terms of the requirement for additional parking), there are requirements for individual electric meters and additional DCCs are charged for each LOU, which was perceived to be “double charging” and adding to costs which the developer would have to pass on to the purchaser.

115 Interview 12
116 Interview 6
117 Interview 11
118 Interview 9
119 This approach takes advantage of placing the LOU next to the parking; the concrete slab forming the roof of the underground parking is then extended to become the “roof” of the LOU, and can provide the fire separation required between the LOU and the primary residential unit by the Vancouver Building By-law, or building code.
120 Interview 9
121 Regional DCCs are collected by the City of Vancouver on behalf of the Greater Vancouver Sewerage and Drainage District, and cover the cost of regional expansion to sewer infrastructure.
122 Interview 11
123 As a comparable unit type, secondary suites and laneway houses would be exempt from DCCs.
124 Interview 11.
5.6. Marketing and Sales

Despite the focus on affordability as part of the rationale for including LOUs, only one interviewee indicated that LOUs were actively included as a feature in the marketing and sale of the units\textsuperscript{125}. For that development, the townhouse units with LOUs (which faced the lane) sold more quickly, although the interviewee had originally estimated that units facing the courtyard or street would be more desirable\textsuperscript{126}. At the time of pre-sale, the units with LOUs were priced at $1.1 or $1.2 million, approximately $100,000 less than the other three bedroom townhouses in the development, although the interviewee noted, “I should price the LOU [townhouse], I think, [at the same price] as the typical townhouse”\textsuperscript{127}.

For the apartment project with LOUs, it was felt that the units with LOUs were potentially “a different type of suite that people can’t necessarily wrap their head around”\textsuperscript{128} and that it may take additional time for the units to sell. There was also a question of “perceived value…if you can have a 2,400 sq. ft. home, versus one that’s 1,700 sq. ft. with a 500 sq. ft. LOU, I think that [the larger unit without an LOU] probably appeals to people more”\textsuperscript{129}. For that project, there was a question of whether the LOU “to a degree, probably devalues the home that it’s adjacent to [and] also is it necessarily bringing the premium that it should”\textsuperscript{130}.

Two developer interviewees, with experience on projects in the Norquay Village area, noted that purchasers were interested in the idea of a rental suite, but had not learned about the LOUs until after discussing the townhouse units with a salesperson\textsuperscript{131}. Marketing and sales material did not feature the LOUs. One interviewee noted that “a lot of the questions were just, does it have its own kitchenette, is it self-sustainable, does it

\textsuperscript{125} Interview 9
\textsuperscript{126} Ibid.
\textsuperscript{127} Ibid.
\textsuperscript{128} Interview 7
\textsuperscript{129} Ibid.
\textsuperscript{130} Ibid.
\textsuperscript{131} Interviews 6 and 10
need to have access to the rest of the townhouse” and the idea of the LOU was presented as an option at the pre-sale stage\textsuperscript{132}. Another noted that potential purchasers learned about the concept in an early LOU project, but were unable to purchase townhouses with LOUs, so are requesting LOUs in the developer’s next project in that area\textsuperscript{133}.

5.7. Residents’ Use of LOUs

The limited number of completed and occupied buildings with LOUs makes it challenging to understand how they are likely to be used by residents. Developer interviews indicated a belief that LOUs were likely to be rented out, with one noting “most of the people use it as a LOU and I think have a tenant to rent it out”\textsuperscript{134} and another estimating that approximately 70\% of future purchasers would “lease the space out as a mortgage helper, because it’s actually a legal suite”\textsuperscript{135}. No information was available on rental rates, although one interviewee estimated that a 480 sq. ft. LOU in a townhouse could rent for between $900 and $1200 per month in an area close to rapid transit\textsuperscript{136}. There was a distinction made between an LOU and a rented condo in the secondary market: a renter might pay more for a new unit with a private entrance, in comparison to a basement in a single-family house, but the rent would need to be less than a laneway house or rented condo\textsuperscript{137}.

\textsuperscript{132} Interview 6
\textsuperscript{133} Interview 10
\textsuperscript{134} Ibid.
\textsuperscript{135} Interview 11
\textsuperscript{136} Ibid.
\textsuperscript{137} Interview 11.
Chapter 6. Conclusion

Based on expert insight and market uptake, this paper explores the interaction of planning policy and practice in the case of LOU policy in Vancouver. Three stages of research were included: content analysis and qualitative interviews with planners, to understand the context and goals of the policy; analysis of permit data and site visits, to understand the built form outcomes; and, qualitative interviews with architects and developers, to explore the rationale and design process for including LOUs in new multi-family housing development.

Diversity in housing is typically provided through land use policy enabling and encouraging a range of different housing types, rather than the ability to reconfigure a home over time. Attempts to provide opportunities for flexible and adaptable housing have been limited by the tendency toward short-term profitability in new housing development. As Brand notes, “all buildings are predictions [and] all predictions are wrong” (Brand, 1995); in other words, homes are typically designed to correspond to a specific end user’s needs at a specific point in time. This approach reinforces the need for households to size up and down according to their changing housing needs, treating housing as a commodity or consumable item.

6.1. Key Findings

Examination of permit data reveals a limited number of LOU projects and that this form of housing is primarily found in ground-oriented housing in Vancouver, with only one development including LOUs in an apartment form. The majority of projects are clustered in the Norquay Village area, with only two LOU projects in the Marpole area. Interviewees noted a potential east-west divide in terms of take up for LOUs. This could indicate two different target markets: where purchasers are perceived to be “moving up” the housing ladder, LOUs are desirable for the ability to provide a mortgage helper; but
where purchasers are perceived to be “downsizing” there is less need for a rental suite to help with affordability.

Both planner and architect/developer interviewees closely linked the concept of flexibility to affordability. The “market” for LOUs was generally conceived as being a couple either about to start a family, or with a young family, potentially sizing up from a smaller strata apartment but not able to afford a townhouse or three-bedroom unit without a mortgage helper. Implicit in this is the assumption that owners of townhouses with LOUs are already homeowners; these are not described as being starter homes. Interviewees outlined a series of common scenarios when discussing the use of LOUs – as a rental unit after upsizing into the townhouse, then the potential to use the unit for either the younger generation (teenagers or young adults) or older generation (parents or grandparents).

From a design perspective, flexibility in LOUs is provided through the use of “hard” design elements (Schneider & Till, 2006), rather than being indeterminate, open-ended or user-led. This is consistent with Schneider and Till’s observations about the challenges of providing opportunities for flexible housing. Working in a highly regulated environment, architects and developers acknowledged a need for trade-offs and compromises when adding LOUs to a townhouse development. Firm height and density limits were perceived to be challenging in terms of including LOUs; interviewees noted an interest in seeing the City of Vancouver allow additional height or density to encourage this new type of housing, or potentially removing the restriction on the number of LOUs in a project.

Interviewees acknowledged a willingness to test out new housing forms, learning from their experience with LOUs, with most being prepared to try the idea again if supported by the market and site conditions. The location of LOUs in townhouses – either at grade or slightly below – was generally perceived as offering a more livable rental unit, compared to older basements in single-family homes. Adding an LOU to a townhouse removes “basement” space to create a rental unit, whereas adding an LOU to an apartment creates a conflict where the LOU may be perceived as devaluing the
primary unit. This may be one of the factors influencing the construction of LOUs in townhouses rather than apartments.

6.2. Limitations of the Study

This study looked at a relatively small sample of units, built during a time when land economics have drastically changed in Vancouver. Study results are based primarily on data relating to LOUs in ground-oriented (i.e. townhouse) forms. LOUs in an apartment typology may have a completely different set of concerns and approaches to design and flexibility.

While interviews with developers offer some useful context on the sales and potential market for this housing type, it is difficult to comment on detail on the affordability outcomes of the policy, including the question of rent and sale prices, or whether the presence of a mortgage helper has impacted a household’s ability to purchase a larger unit. From a market affordability perspective, the quantitative case for LOUs is untested, although many interviewees noted the potential for LOUs to help with affordability for homeowners.

6.3. Recommendations

For municipalities, central tracking of LOU projects would allow for simplified monitoring of housing policy outcomes. The City of Vancouver does not currently have an effective system to accurately and easily track LOUs and a considerable amount of manual review is required to compile a summary of permit data. Planners indicated that internal tracking at the staff level also presents a challenge, as existing systems aren’t set up to easily automate new tracking processes.

Both groups of interviewees expressed an interest in encouraging more LOUs in practice. As part of ongoing policy implementation work, planners are actively exploring additional opportunities for LOUs in Vancouver. This research suggests that LOUs have a potential role to play in providing a new form of multi-family housing, but the concept
may not be well understood by the broader public or development industry. As convenors and facilitators, planners have a role to play in sharing information about new housing forms. In the case of LOUs, this could include an engagement or education campaign, potentially with a tour of LOU projects, as part of a broader discussion on solutions to the question of affordability by design.

Taking the question of adaptability and flexibility further, Vancouver could explore the idea of a more user-led approach to LOUs. This could include encouraging “LOU-ready” townhouses, which would allow future residents to retrofit their units\textsuperscript{138}, similar to Friedman’s concept of the “flex house” (Friedman & Krawitz, 1998). Beyond LOUs in Vancouver, developers in the region are exploring design solutions with movable walls and storage to provide more flexible multi-family housing (“Architecture of inches: Intelligent use of space makes the smallest condos livable | National Post,” 2014; Gold, 2015). Another approach would be to explore the question of tenure, or to look at opportunities to leverage City of Vancouver owner land, by including LOUs as part of family-focused housing in community land trust or affordable homeownership pilot projects.

Existing guidelines for LOUs emphasize the need for natural light, semi-private outdoor space and other design elements critical to maintaining a level of livability, but don’t specify a minimum requirement for storage space. A review of these guidelines could draw from recent work on other small units in Vancouver (for example, the Micro Dwelling Policies and Guidelines, 2014, which require storage) and other jurisdictions to encourage functional design for these small units.

Finally, if there are regulatory barriers to implementing LOU policy, Vancouver should continue to explore solutions to those implementation challenges. Interviews with developers and architects indicate potential challenges of working within the prescribed height, density and LOU limits; planners could explore the possibility of allowing

\textsuperscript{138} This would require allowing for future fire separation, location of building services (electrical and plumbing), and future entrance/exiting. Allowing for future retrofitting within a market strata building may be a challenge; fee simple row houses, which do not have a Strata Council, would potentially allow more flexibility for the homeowner, but are limited in number in Vancouver (Bula, 2017b)
additional density or height to encourage more LOUs where townhouse zoning allows for this use.  

### 6.4. Areas for Further Research

As LOUs are added to new zoning in Vancouver, a first suggestion would be to repeat the analysis of permit data, with additional developer and architect interviews. Assuming there were additional examples of LOUs in apartment buildings, future interviews would include developers and architects with experience on those projects.

While my research explored the initial outcomes of LOU policy, one missing piece of the flexibility question is that of how people are actually using the units. Collecting data on unit usage was outside of the scope of this research project, and challenging given the number of units constructed, and the best practice of waiting at least one year before undertaking a post-occupancy study. A first suggestion for additional research would be to conduct a post-occupancy interview of LOU owners and residents to gather information on how residents are using the space, ideally through a longitudinal study to understand whether LOUs do provide an option for households to expand or contract their living space as needed.

This study has highlighted some of the tensions and challenges with encouraging flexibility in multi-family housing; the next step would be to explore how the planners’ interest in flexibility is translated within a strata ownership context. Further research could investigate the influence of strata rental restrictions (if any) on how LOUs are used. Assuming LOUs are occupied by people sizing up from smaller strata apartments, additional study on the affordability aspect of LOUs could explore potential rent levels, along with the question of whether the presence of a mortgage helper has impacted a household’s ability to purchase a larger unit.

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139 This could also include discretion based on the site topography – a flat site may require a different approach to a sloped site.
References


Babbie, E. R., & Benaquisto, L. (2014). *Fundamentals of social research*. Toronto: Nelson Education. Retrieved from http://sfu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwHV07T8MwED5BkBBbCyX0gfAIqYLn7Dr2XBEhoW4MiKXCsiS0mEKT8fy6xgwBRdbLOi8-WfS_5-w5AYM6zPzbBUpSAynurbBWcUOJV-14YbXywve9J_b9I_1JmaROQU1pC1veQ3Mi3EwzekR0qICVGZp1BNr_4RDrHUY0g6cAEYzhwr6cwDvhYFt9Ty64j6fPNGVx


67


Appendix A.

Housing Graphics and Zoning Maps

Figure A1: Illustration of Lock-off Units in Townhouses and Apartments

Source: Graphics adapted from City of Vancouver, 2013; City of Vancouver, 2014
Appendix B.

Zoning and Guidelines for LOUs
<table>
<thead>
<tr>
<th>Year</th>
<th>Zoning Change</th>
<th>Zoning changes as part of Local Plan?</th>
<th>Design Guidelines</th>
<th>Height</th>
<th>Density</th>
<th>Limits on LOUs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Section 2 (Definitions), Zoning and Development By-law No. 3575</td>
<td>Text amendment as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Amendment to introduce a definition for lock-off units into Section 2 (Definitions) of the Zoning and Development By-law.</td>
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<td>2009</td>
<td>C-2 District Schedule</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>13.8 m (45 ft.)</td>
<td>2.5 FSR</td>
<td>No</td>
<td>C-2 allows for mixed-use buildings in commercial areas, typically along arterial streets, with a transition required to the lower-density residential areas generally found away from arterials. LOUs in C-2 would likely be found in an apartment typology.</td>
</tr>
<tr>
<td>2009</td>
<td>C-2B District Schedule</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>15.3 m (50 ft.)</td>
<td>2.5 FSR, limited to 1.5 FSR for residential only</td>
<td>No</td>
<td>C-2 allows for mixed-use buildings in commercial areas, typically along arterial streets. Areas zoned C-2B are found only in the Kitsilano and Fairview neighbourhoods. LOUs in C-2B would likely be found in an apartment typology.</td>
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<td>Year</td>
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<td>2009</td>
<td>C-2C District Schedule</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>13.8 m (45 ft.)</td>
<td>3.0 FSR, limited to 1.5 FSR for residential only</td>
<td>No</td>
<td>C-2C allows for mixed-use buildings in commercial areas, typically along arterial streets, with a transition required to the lower-density residential areas generally found away from arterials. LOUs in C-2C would likely be found in an apartment typology.</td>
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<td>2009</td>
<td>C-2C1 District Schedule</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>13.8 m (45 ft.)</td>
<td>3.0 FSR, limited to 1.5 FSR for residential only</td>
<td>No</td>
<td>C-2C1 allows for mixed-use buildings in commercial areas, typically along arterial streets, with a transition required to the lower-density residential areas generally found away from arterials. LOUs in C-2C1 would likely be found in an apartment typology.</td>
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<td>2009</td>
<td>C-3A District Schedule</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>9.2 m (30 ft.) Discretionary height increases may be considered based on the C-3A Guidelines</td>
<td>3.0 FSR</td>
<td>No</td>
<td>C-3A allows for mixed-use and residential buildings. LOUs in C-3A would likely be found in an apartment typology.</td>
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<td>Zoning Change</td>
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<td>2009</td>
<td>Southeast False Creek Official Development Plan By-law No. 9073</td>
<td>Text amendment to existing zoning district schedule as part of EcoDensity implementation</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>Varies for each site</td>
<td>Varies for each site</td>
<td>No</td>
<td>Updates to Section 4 to &quot;City encourages housing forms designed with the flexibility to incorporate defined space for potential rental accommodation within a single dwelling unit in order to contribute to a wider range of housing options&quot;</td>
</tr>
<tr>
<td>2013</td>
<td>RT-11 and RT-11N District Schedules</td>
<td>New zoning district schedule introduced as part of implementing the Norquay Village Neighbourhood Centre Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines RT-11 and RT-11N Guidelines provide additional direction for LOUs</td>
<td>7.7 m (25.3 ft.) for the rear 40% of the site, subject to applicable design guidelines</td>
<td>0.85 FSR for sites eligible to contain LOUs</td>
<td>Permitted on small house/duplex sites with a frontage of &gt; 18.3 m (60 ft.) where the site has more than 2 principal buildings</td>
<td>New zoning districts created in the Norquay Village area to encourage development of multiple small houses and duplexes on assembled sites. Single-family development and laneway houses may still be considered on smaller sites (single lots)</td>
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<td>Design Guidelines</td>
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<tr>
<td>2013</td>
<td>RM-7 and RM-7N District Schedules</td>
<td>New zoning district schedule introduced as part of implementing the Norquay Village Neighbourhood Centre Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>Stacked townhouse / rowhouse &lt;3 units (not incl. LOU) 10.7 m (35 ft.) Stacked townhouse &gt;4 units (not incl. LOU) up to 11.5 m (37.7 ft.)</td>
<td>Dependent on residential use and site size: &gt;445 sq. m up to 1.20 FSR &lt;445 sq. m up to 0.90 FSR</td>
<td>For stacked townhouse, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouse, one LOU for each rowhouse (noted in Guidelines).</td>
<td>New zoning districts created in the Norquay Village area to encourage ground-oriented stacked townhouses or rowhouses (lower density development also permitted on single sites) and to encourage secondary suites and lock-off units within certain limits. RM-7N differs from RM-7 in the requirement for noise mitigation where units front on arterial streets or are close to SkyTrain guideways.</td>
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<td>Year</td>
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<tr>
<td>2014</td>
<td>RM-8 and RM-8N District Schedules</td>
<td>New zoning district schedule introduced as part of implementing the Marpole Community Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>Stacked townhouse / rowhouse &lt;3 units (not incl. LOU) 10.7 m (35 ft.) Stacked townhouse &gt;4 units (not incl. LOU) up to 11.5 m (37.7 ft.)</td>
<td>Dependent on residential use and site size / frontage: &gt;445 sq. m up to 1.20 FSR &lt;445 sq. m up to 0.90 FSR</td>
<td>For stacked townhouse, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouse, one LOU for each rowhouse (noted in Guidelines).</td>
<td>New zoning districts created in the Marpole Community Plan area to encourage ground-oriented stacked townhouses or rowhouses, including courtyard rowhouses (lower density development also permitted on single sites) and to encourage secondary suites and lock-off units within certain limits. RM-8N differs from RM-8 in the requirement for noise mitigation where units are close to arterial streets.</td>
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<tr>
<td>2014</td>
<td>RM-9 and RM-9N District Schedules</td>
<td>New zoning district schedule introduced as part of implementing the Marpole Community Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines</td>
<td>Basic maximum height of 10.7 m (35 ft.) and for multiple dwelling buildings with &gt; 4 units (not incl. LOUs), heights of up to 13.7 m (45 ft.)</td>
<td>Dependent on residential use and site size / frontage: &gt;445 sq. m between 1.20 and 2.00 FSR, depending on site frontage &lt;445 sq. m up to 0.75 FSR, some exceptions to the above if market rental or social housing is proposed.</td>
<td>For apartment buildings, stacked townhouses or courtyard rowhouses, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouses, one LOU per rowhouse is the maximum.</td>
<td>New zoning districts created in the Marpole Community Plan, intent to encourage medium density residential development, including a variety of residential uses: low-rise apartment, stacked townhouses, rowhouses (including freehold and courtyard rowhouses). Secondary suites and LOUs allowed to provide flexible housing choices. RM-9N requires additional noise mitigation.</td>
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<td>Year</td>
<td>Zoning Change</td>
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<td>Design Guidelines</td>
<td>Height</td>
<td>Density</td>
<td>Limits on LOUs</td>
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<td>2016</td>
<td>RM-9A and RM-9AN District Schedules</td>
<td>New zoning district schedule introduced as part of implementing the Norquay Village Neighbourhood Centre Plan, replacing the Apartment Transition Area Rezoning Policy.</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Guidelines provide additional direction for LOUs</td>
<td>Basic maximum height of 10.7 m (35 ft.) and for multiple dwelling buildings with &gt; 4 units (not incl. LOUs, heights of up to 13.7 m (45 ft.)</td>
<td>&quot;Dependent on residential use and site size / frontage: &gt;303 sq. m between 1.20 and 2.00 FSR, depending on site frontage &lt;303 sq. m up to 0.70 FSR, some exceptions to the above if market rental or social housing is proposed.&quot;</td>
<td>For apartment buildings, stacked townhouses or courtyard rowhouses, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouses, one LOU per rowhouse is the maximum.</td>
<td>Focus on encouraging new 4-storey low-rise apartment buildings. Stacked townhouses are permitted but are limited to deeper lots. RM-9AN requires additional noise mitigation.</td>
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<td>2016</td>
<td>RM-9BN</td>
<td>New zoning district schedule introduced as part of implementing the Joyce-Collingwood Station Precinct Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines, RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Guidelines provide additional direction for LOUs</td>
<td>Basic maximum height of 10.7 m (35 ft.) and for multiple dwelling buildings with &gt; 4 units (not incl. LOUs, heights of up to 13.7 m (45 ft.))</td>
<td>Dependent on residential use and site size / frontage: &gt;445 sq. m between 1.20 and 2.00 FSR, depending on site frontage &lt;445 sq. m up to 0.75 FSR, some exceptions to the above if market rental or social housing is proposed.</td>
<td>For apartment buildings, stacked townhouses or courtyard rowhouses, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouses, one LOU per rowhouse is the maximum.</td>
<td>Intent to encourage medium density residential development, including a variety of residential uses: low-rise apartment, stacked townhouses, rowhouses (including freehold and courtyard rowhouses). Secondary suites and LOUs allowed to provide flexible housing choices. RM-9BN requires additional noise mitigation.</td>
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<td>2016</td>
<td>RM-7AN</td>
<td>New zoning district schedule introduced as part of implementing the Joyce-Collingwood Station Precinct Plan</td>
<td>Principle Dwelling Unit Combined with a Lock-off Unit Guidelines RM-7AN Guidelines provide additional direction for LOUs</td>
<td>Stacked townhouse / rowhouse &lt;3 units (not incl. LOU) 10.7 m (35 ft.) Stacked townhouse &gt;4 units (not incl. LOU) up to 11.5 m (37.7 ft.)</td>
<td>Dependent on residential use and site size: &gt;445 sq. m up to 1.20 FSR &lt;445 sq. m up to 0.90 FSR</td>
<td>For stacked townhouse, one LOU for every 3 principal dwelling units, with DOP power to relax. For rowhouse, one LOU for each rowhouse (noted in Guidelines).</td>
<td>Intent to encourage rowhouses and townhouses, including stacked and courtyard buildings, on larger or consolidated sites</td>
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