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Innovative Affordable Housing Strategies for Vancouver

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INNOVATIVE AFFORDABLE HOUSING STRATEGIES FOR VANCOUVER

by

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A Major Research Paper

presented to Ryerson University

in partial fulfillment of the requirements for the degree of

Master of Planning

In

Urban Development

Toronto, Ontario, Canada, 2012

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ABSTRACT

Vancouver, British Columbia is a very attractive place to live for many reasons, but the high cost of housing in this beautiful city has become a threat to the future prosperity of the region. As housing prices continue to rise and become less attainable to low and medium income earners, innovative strategies to provide new supply of affordable housing will need to be implemented.

The paper outlines a variety of housing solutions that have already had success in the Vancouver area and elsewhere. Case studies are brought together in this document to highlight the potential that combining and replicating successful housing models can have for Vancouver. Through creative solutions and strong partnerships, Vancouver can become a world leader in innovative housing provision in the face of extreme market conditions and land constraints.

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Contents

Introduction	1
Why Affordability Matters	
Key Players in Affordable Housing Provision	
Methodology	4
PART 1: Financial Tools	6
<i>Non-profit rental</i>	6
Case Study 1: Lionsview III	6
<i>Employer Assisted Housing</i>	8
Case Study 2: Whistler Housing Authority	9
<i>Inclusionary Zoning</i>	11
Case Study 3: Langford's Affordable Housing Strategy	12
PART 2: Supply Side Cost Savings	14
<i>Reduced Parking Requirements</i>	14
Case Study 4: 60 W. Cordova	16
Case Study 5: Verdant at Univercity	18
<i>Incremental Housing</i>	20
Case Study 6: Harmony Flex Townhomes	21
Case Study 7: The Grow Home (Montreal)	22
<i>Manufactured Housing</i>	24
Case Study 8: Britco Modular Homes	25
Case Study 9: Timber Grove Apartments	27
Case Study 10: IKEA's Boklok	28
<i>Zoning for Secondary Suites and Laneway Homes</i>	31
Case Study 11: The Smallworks Builder	33
PART 3: Housing Delivery	35
Case Study 12: Options for Homes (Ontario)	35
<i>Cohousing</i>	37
Case Study 13: Quayside Village	38
<i>Purpose-built Rental</i>	40
Case Study 14: The STIR Program/ 1142 Granville Street	41
Summary Table	43
Recommendations	47
Conclusion	49
Sources	51

List of Figures:

Figure	Page Number
Figure 1: Lionsview Building 3	6
Figure 2: Chekamus Crossing, Whistler	9
Figure 3: Langford, BC Neighbourhood	12
Figure 4: 60 W Cordova	16
Figure 5: Verdant @ Univercity	18
Figure 6: Harmony Flex Townhomes	21
Figure 7: The Grow Home	22
Figure 8: Britco Modular Homes	25
Figure 9: Timber Grove Apartments	27
Figure 10: IKEA's Boklok	28
Figure 11: Laneway House	31
Figure 12: The Smallworks Builder	33
Figure 13: Options for Homes	35
Figure 14: Quayside Village Cohousing	38
Figure 15: 1142 Granville Street	42

List of Tables:

Table 1: Summary Table	43
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Introduction

Vancouver has the most unaffordable housing market in the country and is second only to Hong Kong as the most expensive housing market in the world (Demographia International Housing Affordability Survey, 2012). There are several major factors that have contributed to the cost of housing in Vancouver today. A limited land supply coupled with a strong demand for housing is ultimately what is keeping housing prices extremely high. The land supply in Vancouver is limited due to natural features such as the Coastal Mountain Range and the Pacific Ocean, as well as manmade boundaries such as the Agricultural Land Reserve and the United States border just south of the city. The strong demand for housing in Vancouver can be partially attributed to the high quality of life that local residents enjoy. The temperate climate, strong economy, diverse cultural makeup, good public transit, and natural beauty of the area are among the characteristics that make Vancouver an attractive place to live.

Among the housing affordability barriers in Vancouver is the high construction costs related to materials, transport, and labour. Furthermore, development charges, fees, and taxes are numerous and overlapping for many housing projects in the Vancouver region, and often these get passed down to the purchaser through higher asking prices.

Investment properties and speculative purchasing have also contributed to the inadequate housing supply. An in-demand real estate market is attractive to investors because a home in these markets is viewed as a valuable asset that is likely to appreciate with time. In 2009, 35 percent of the downtown condominium stock was investor owned (CitySpaces Consulting, 2009). Canada does not track foreign investment in real estate and therefore it is unknown how many homes in Vancouver are sitting vacant while their owner lives abroad, but

some real estate experts suggest that unoccupied investor units are partly to blame for keeping housing prices high and supply low (Lauderantaye, 2011).

Why Housing Affordability Matters: Housing affordability is an important part of a healthy city for several reasons, and Vancouver stands to lose a lot of what makes it a vibrant and exciting place if it does not solve its affordability issue. A city composed only of wealthy residents will lack the foundations of what keeps a city operating and evolving. Cities must have a range of housing options to suit the preferences and needs of the creative class, families, senior citizens, and low-income workers. All of these groups contribute to society and deserve a place to live for a modest price (Wake, 2007); however they are being forced out of the city by the unattainable housing market.

Key Players in Vancouver's Affordable Housing Provision:

Participants:

- Urban Development Institute (UDI)
- Architects
- Non-profit housing providers
- Financial institutions
- Provincial government and BC Housing
- Metro Vancouver and Municipalities

Contributions:

Urban Development Institute: The UDI has been working toward affordability solutions from the development side. The non-profit organization has many high-profile developer members that have been working together to find ways to produce more attainable housing. The UDI has held numerous conferences and produced reports to improve the dialogue

amongst the development industry, government, and the public regarding affordable housing solutions.

Architects: Vancouver's architects have been contributing ideas and expertise to the affordability solution. The renowned Henriquez Partners firm, in particular, have been dedicated to producing projects targeted toward low-medium income earners in recent years.

Non-profit housing providers: Terra Housing is an example of a housing provider with a long history of successful housing projects in the region which address the housing needs of marginalized groups, as well as low income earners.

Financial institutions: Vancity in particular has been providing support for affordable housing initiatives through lending and mortgage assistance. Vancity also has a development branch and has been a partner on several prominent affordable housing developments in Vancouver . The Royal Bank of Canada has also been a key player in affordable housing, particularly with their involvement in supporting laneway housing.

The Provincial Government: The Provincial Government and BC Housing, a provincial crown agency under the Ministry of Energy and Mines, are actively engaged in affordable housing provision. In 2009 they released *Housing Matters BC*, which is an affordable housing strategy to reduce homelessness and provide “affordable and appropriate housing today and into the future” (Housing Matters, 2009).

Local Government: Metro Vancouver, and the 24 municipalities it is composed of, also plays its part in the affordability solution, although the degree to which local government supports affordable housing projects varies among municipalities. The City of Vancouver has several policies, strategies, and plans in place to address affordable housing. Generally the

City's role has been to help address the housing needs of those at most risk of homelessness, in the form of subsidized social housing. For example, the 20 percent Social Housing Requirement states that all major re-zonings of lands to multiunit residential use must include 20% social housing. While social housing is a very important part of the city's contribution to addressing housing needs, it cannot be relied upon to meet the total demand for affordable housing in Vancouver. Therefore, other methods have been employed to address the needs of those with medium incomes who are not eligible for social housing but still cannot afford market housing.

Recent Initiatives (City of Vancouver):

- The laneway housing initiative,
- The Short Term Incentives for Rental Housing (STIR) program,
- Density bonusing, and
- Inclusionary zoning.

Each of these initiatives will be explained in greater detail later in this paper.

Methodology

The research for this paper began with an extensive review of documents pertaining to housing affordability in Vancouver and elsewhere. Following this document review, an examination of affordable housing models and strategies in Vancouver was undertaken in order to assess what attempts have already been successful in improving housing affordability. From this research a shortlist of projects with the most potential for replication and widespread success in the Vancouver region was created. This list was then organized into strategy categories (financial, supply, delivery, land distribution), and examples from each category were selected to be featured in this paper. Housing projects which have already had success in the Vancouver region were the main focus and the starting point of the research because they are

indicators of what can be achieved in this city even under the unique and extreme market conditions and land constraints. After the local strategies for affordable housing were selected, the same research approach was applied to international examples of innovative affordable housing strategies. The purpose of the review of foreign precedents was to discover how other cities have addressed affordable housing in ways that have not yet been experimented with in Vancouver. Montreal's "Grow Home", Ontario's "Options for Homes" and Sweden's "Boklok" housing models were selected as case studies for this paper because they each have potential for successful implementation in Vancouver, and they are diverse examples of strategies that have not yet been experimented with in the Vancouver region.

The case study approach in this paper is intended to showcase the various perspectives from which affordable housing can be addressed. There is no single, simple solution to affordable housing and therefore a combination of strategies and partnerships must be employed. This paper outlines strategies related to financing, supply cost savings, and housing delivery, and through this some logical combinations of strategies emerge from the various case studies. These are drawn together as suggestions for how future affordable housing developments can reach optimal affordability solutions in Vancouver.

Part 1: Financial Tools

Financial tools for affordable housing can help homebuyers enter the market with less money in their bank accounts than would otherwise be needed to afford a down payment and mortgage. An example of a financing tools already used in BC include employer assisted housing as explained in the case study below. Special financing arrangements can also be specific to properties and partnerships, as demonstrated by the first Vancouver case study: Lionsview Building 3.

Non-Profit Rental

Typical rental models do not generate affordable housing without some sort of external mechanism. Rental prices will fluctuate with market conditions the same way ownership costs do. However, in some cases there is an opportunity for governments and organizations to provide affordable rental units without relying on cash subsidies. This was illustrated by the successful Lionsview Senior's rental housing re-development in East Vancouver.

Lionsview Building 3 – Affordable Rentals for Seniors



Source: Housingfoundation.ca

This development was a partnership between BC Housing, Van Maren Construction, Terra Consultants, Bank of Nova Scotia and the City of Vancouver. Originally constructed between 1952 and 1960, the existing two-storey walk-up apartments on the site were aging and in need of repair or replacement by the 1990's. The success of this project is grounded in the decision to add density on the site in return for profits that can be put towards lowered rents for residents.

The Lionsview development evolved in four phases. Phases 1 and 2 consisted of demolishing some existing buildings on the three-acre site to allow room for two new 45 and 47 unit senior's apartment buildings. Phase 3 involved selling a piece of the property for a market condominium development (Kraus et al, 1999). The profits made from the selling of the land and the completed condominium units funded the construction of phase 4; a 34-unit seniors building which required no government subsidy.

The Lionsview project serves low income seniors who are selected from the BC Housing Foundation's waiting list (Kraus et al, 1999). Rent is set at a minimum \$500 per month for a one bedroom unit or 30% of income (ibid). A subsidy is available for those whose income cannot afford this minimum (less than \$20,000/year) from Shelter Aid for Elderly Renters (SAFER) which is a program of BC Housing that helps subsidize rents for low-income seniors.

Potential for Replication: This model requires the ownership of large parcel of land with space available for increased density. In this case the land was already owned by the BC Housing Foundation and thus they were able to add affordable housing without purchasing more land. If another land owner is to try the same strategy as Lionsview, they would also need to be

granted extra density for the site by the City just as BC Housing was in this case. Given the success of this project it is likely that the City of Vancouver and adjacent municipalities would support similar endeavours by granting the necessary density increases, however density increases are more welcomed in some places than others so the potential for replication of this type of project is highly site dependent.

One of the challenges for this project was that it was necessary to relocate some of the existing tenants during the construction phase. British Columbia Housing Management Commission was a partner on this project and therefore it was relatively easy to organize the relocation of residents to other BCHMC or BC Housing buildings for the construction period. The relocation of residents might pose a greater challenge if this model were to be attempted elsewhere without the assistance of BCHMC.

Finally, a project such as this will always require financing for up-front costs that are later recovered through rental revenues. Therefore, similar redevelopment projects at other sites would need to be taken on by an organization with enough capital to fund the new construction.

Employer Assisted Housing

Severely unaffordable housing markets such as Vancouver's may lead to an exodus of the labour force to more affordable cities. When only the rich can afford to live within a comfortable commute from the city centre the loss of workers for low-middle income jobs can be harmful to businesses and the economy. Some employers recognize the need to provide housing incentives to attract employees close to the job site, and they play an active role in

providing housing for their employees. This is referred to as Employer Assisted Housing, and one example of this near Vancouver is the Whistler Housing Authority.

Whistler Housing Authority – Chekamus Crossing, Athletes Village



Source: Whistler Housing Authority

The Whistler Housing Authority (WHA) is an independent municipally owned corporation of the Resort Municipality of Whistler. It was created to “oversee the development, administration and management of resident restricted housing in Whistler.” (WHA, ‘About Us’) The WHA has a goal of housing at least 75% of employees locally within the Resort Municipality of Whistler.

The Chekamus Crossing neighbourhood was originally built to house the athletes of the 2010 Olympic Winter Games in Whistler and was referred to as the Athletes Village during the games. The development, which is now a permanent mixed-use neighbourhood, was a partnership between the Whistler Housing Authority, VANOC, the Resort Municipality of Whistler, and the 2020 Development Corp. The residential development consists of 221 price and occupancy restricted ownership units, 55 hostel units, 55 Whistler Housing Authority rental

units, 20 market townhomes, and 23 market single family lots. The rental units are rented exclusively to Whistler employees, and the price and occupancy restricted ownership units are offered to Whistler employees on the WHA waiting list. 95 percent of the occupancy restricted ownership units were sold as presales prior to construction, which is indicative of the high demand for employee housing in Whistler. In order to qualify for WHA housing an applicant must be employed or self-employed for an average of at least 20 hours per week over the most recent twelve months, and their principal place of employment or business during that time must be located within the boundaries of the Resort Municipality of Whistler. Retirees are also eligible for occupancy, provided that they were employed in Whistler for five of the six years prior to ceasing employment (Whistler Housing Authority, 2011).

The Chekamus Crossing development is located 6 km south of the centre of Whistler Village, thus providing a short commute for those who work in the area. The development spans 35 hectares of a 135.79 hectare land grant that was provided by the Provincial Government of British Columbia to the Municipality of Whistler to support resident housing.

The average sale price is \$300,000 per unit, and resale restrictions are in place to ensure long-term affordability. Appreciation is capped at between 1 and 3 percent per year to ensure that this housing remain affordable in the long term.

Potential for Replication: Much of the success of the WHA employer assisted housing model can be attributed to the geographically isolated nature of the Resort Municipality of Whistler. The WHA has access to land, provided by the Province, which they can regulate and enforce price restrictions and resident waitlists. An exact replica of this model would not be possible in the

City of Vancouver because no single organization has access to large parcels of available land like the WHA has. However, employers can assist with housing in ways other than land distribution. For example, some employers may choose to provide rent or mortgage subsidies in addition to wages and salaries which would allow employees can live closer to the workplace in homes they would otherwise not be able to afford. Another alternative option for employers is to partner with developers and create an arrangement wherein the development costs are partially covered by employers in exchange for a certain number of units being set aside for employee occupancy.

Inclusionary Zoning

Inclusionary zoning is a requirement for new development applicants to contribute to affordable housing in some form. The contribution to affordable housing can be achieved through making a percentage of the developed units affordable, by doing off-site construction of affordable housing, or through cash-in-lieu paid into a housing fund (Curran and Wake, 2008)

Zoning and the extent to which inclusionary zoning is enforced varies by municipality. Vancouver has been using inclusionary zoning since the 1980's as a tool to provide social housing, affordable rental, and affordable housing. While some of the inclusionary zoning developments and cash-in-lieu is directed toward affordable homeownership in Vancouver, there remains a potential to enforce more strict affordable housing provision in new developments through the inclusionary model. Other BC municipalities that have been very successful in doing this already are Bowen Island, Ucluelet, and Langford.

Langford's Affordable Housing Strategy



Source: Town of Langford, 2011

In 2002 the City of Langford on Vancouver Island adopted an Affordable Housing Policy. During a period of rapid growth and development the city recognized the importance of providing affordable housing as well as market housing. The policy, sometimes referred to as the 1 in 10 policy, requires that 10 percent of the homes in any subdivision over 10 units are to be sold as affordable for a price of \$160,000. More specific requirements are a minimum lot size of 270 square metres and minimum unit size of 83 square metres (City of Langford, 2007). To be eligible for one of the affordable homes one must be a Langford resident of at least 2 years with an annual income below \$60,000.

The 1 in 10 policy is just one element of the Langford Affordable Housing Strategy. In 2007 the city began requiring developments to be Building Code-ready for secondary suites which also promotes affordability. Furthermore, for every new dwelling, a \$500 contribution must be made to the City's Affordable Housing Reserve Fund, which is used to fund a rent subsidy program and the construction of new subsidized units (Langford Affordable Housing Program, 2012).

Potential for Replication: This is a very strong model for affordable housing provision in areas of growth and development. This model has been successful in Langford in the past decade because the municipality is one of the fastest growing municipalities in the province, with heavy investment in both commercial and residential development. For this reason the 10 percent affordable housing requirement does not deter developers as Langford has generally been a highly lucrative area for development in recent years.

In Vancouver, this model still has tremendous potential due to the high demand for housing. The *1 in 10* model works well in areas of high demand because developers can assume that the remaining market rate units will sell easily and quickly, thus making up for any loss of revenue from the 10 percent affordable units.

The 1 in 10 model might not be appropriate for all 24 municipalities in Greater Vancouver, but it has potential particularly for the ones which are already experiencing investment and growth similar to Langford.

Part 2: Supply Side Cost Savings

Essential to solving Vancouver's housing affordability problems will be figuring out how to make the process of producing new housing more cost effective. The following section of this paper presents some examples of how construction and development costs can be reduced and savings can be passed on to homebuyers.

Reduced Parking Requirements

Parking typically represents 10-20% of the cost of housing (Litman, 2011). This is a high percentage for anyone, but it is disproportionately high for people of low income. Vehicle ownership tends to increase with income, yet the cost of parking remains relatively standard across income levels. In his 2011 study on the relationship between parking requirements and housing affordability, Todd Litman used an example of a \$100 per month direct cost of two parking spaces to illustrate the disparity. For someone paying \$500 for a basement apartment, the \$100 per month on parking is 20% of their rent, while it is only 5% of the rent for the tenant of a \$2,000 per month luxury condominium (Litman, 2011).

The cost of an underground parking stall (including land and construction costs) in Vancouver typically ranges from \$30,000 to above \$50,000 (City of Vancouver, 2008). By reducing the number of parking stalls required with new developments, construction costs can significantly decrease, and these savings can be passed on to homebuyers or renters. Environmental sustainability and housing affordability have become top priorities in Vancouver, and both of these issues can be mitigated by reduced parking requirements for new developments. If condos and apartment buildings in good locations become more affordable due to reduced parking requirements, more residents will ultimately give up driving their cars in

exchange for a more affordable housing location near public transit. Further savings could be awarded to Vancouver residents who are willing to rely on public transit rather than personal vehicles if the city decides to adopt the Location Efficient Mortgage strategy becoming popular in the United States. In nearby Seattle, for example, residents can qualify to borrow more money on a mortgage than their income would normally allow if they do not own a vehicle. The savings from not owning a car can then be used to pay the higher mortgage, enabling them to buy a home (Smith, 2007). This is a strategy that Vancouver council should consider adopting to help medium income earners enter the housing market, and it would work nicely in concert with the new Vancouver trend of reducing parking requirements.

Two examples of Vancouver housing developments that were recently granted reduced parking requirements are 60 W Cordova, and Verdant at UniverCity. These projects both have a number of other key elements that led to their affordability, as outlined in the case overviews below:

60 W Cordova



Source: www.60wcordova.com

This project, which is nearing completion, is a partnership between Westbank Developers, Henriquez Partners Architects, Vancity, PHS Community Services, and Habitat for Humanity. Located in downtown Vancouver, this 10 story condominium building is targeted toward low-medium income owners and priority is given to those who already work or live downtown. The building has 108 units, 96 of which were sold at market rate and the remaining 12 were sold below market rate. The market rate units were still sold at remarkably low prices for new downtown Vancouver condos. One of the ways the developers and the city were able to keep prices low was by dramatically decreasing the parking requirements. There are only 15 parking stalls for the entire building. The reasoning behind this decision was that people who live and work downtown have little need for a vehicle, and therefore when given the choice between parking spot access or a cheaper condo they would prefer the cheaper condo.

Another element of this project that contributed to affordability was the land acquisition. Vancity repossessed the land, a parking lot, from another developer for \$5.4 million only a couple of years after the previous owner had purchased it for \$7.2 million (Bula, 2010). This is a very good price for a piece of downtown real estate sitting ready for development, so initial costs were low from the very beginning on this project.

Simple decisions by the developer such as to include white appliances as opposed to stainless steel, and shared laundry facilities also contributed to purchaser savings. Furthermore, the new purchasers have to prove they plan to live in the building, thus removing the potential for initial speculation. Purchasers also agree to “do some maintenance themselves rather than pay a standard maintenance fee” (Bula, 2010) which will lead to further owner savings. As Vancity is a partner on this project, they are able to help with mortgage payments, allowing certain buyers to pay only 5 percent down for those who cannot afford the 10 percent required by the developer.

The price range for units at 60 W Cordova are \$219,900 for 1 Bedroom, up to \$380,900 for 2 Bedroom (Henriquez Partners, 2012). At the low end, the goal is that these units are priced so that a couple working for minimal wage could afford to live in this building (Bula, 2010). A barrier to the success of this project in the future may be that after the appreciated value of these downtown condos may make them unaffordable upon re-sale, and the first round of owners may be the only ones who reap the affordable benefits.

Potential for Replication: Reduced parking, modest finishings, and hands-on maintenance from owners are elements of this project that could easily be replicated elsewhere. This project is

also a good example of the power of partnerships. Each of the four partners involved contribute the affordability in some way. Vancity acquired the land and helped with special mortgage payments arrangements, while the developer (Westbank) and the architect (Henriquez) sacrificed potentially larger profits from a high-end development on this site in order to provide housing for those otherwise unable to enter the market in this prime location. That is not to say that there is no profit to made from affordable housing development, but in this particular case a very prominent developer teamed up with Vancouver’s most famed architect, and they chose to put their expertise toward an affordable housing project from which they intentionally took lower profits as a gesture to further pass on savings to the homebuyers. Hopefully projects such as this one will inspire new partnerships to be formed elsewhere in Vancouver to respond to the need for affordable housing.

Verdant at UniverCity, SFU Burnaby Campus



Source: verdant.ca

Another Vancouver project that involved reduced parking requirements, among other strategies, to lower the per-unit cost is called Verdant at Univercity, at Simon Fraser University’s Burnaby campus. Opened in 2007, this 60 unit building was planned and developed by the SFU

Community Land Trust (CLT) in partnership with the developer Vancity Enterprises. The Land Trust leased the land to Vancity at 30% below-market on a 99-year term (Hofer and Gurstien, 2009). The developer took only a small 10 percent fee rather than the typical 15-20 percent profit margin for developers, and land payment was deferred until the end of construction to reduce interest payments on the land. These factors lead to cost savings from the very beginning, but further savings were realized through other simple mechanisms such as fewer parking stalls, lower marketing costs, and less expensive finishings (ibid).

Energy efficient geo-exchange and passive solar water heating also reduce costs from the energy side. Because these systems require up-front costs which lead to savings over time, the systems are paid off over time through strata-fees, and therefore they did not have a large impact on the purchasing price of the units (SFU Trust, 2009).

The combination of all the cost reduction methods employed on the Verdant project allowed the CLT to sell the units at 20% below market. These units are offered first to the Faculty and Staff of SFU, particularly those with children. If no faculty or staff members are interested in a unit within 6 months of advertising for sale, the Trust will buy back the unit to hold until there is demand for it (Hofer and Gurstien, 2009).

To ensure permanent affordability in perpetuity, resale restrictions have been placed on all of the units which require them to be resold at 20 percent below market value. Because market rates fluctuate with time, before any unit is sold it must be appraised compared to current market values, and a price 20percent below market at the time of sale will be set. This

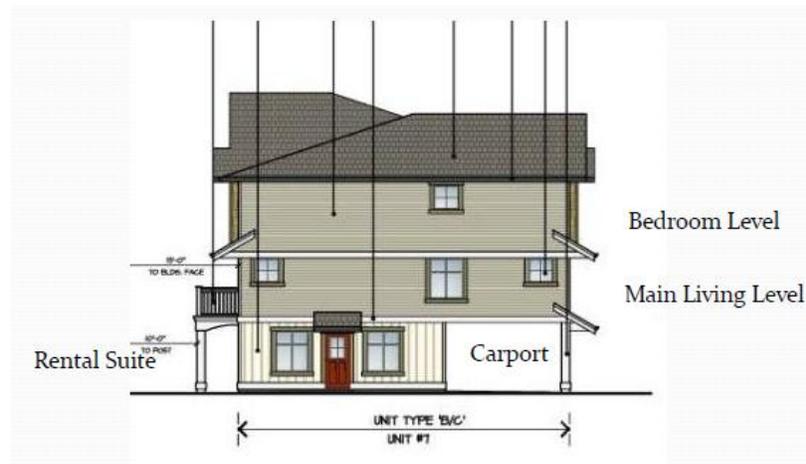
method still allows for appreciation and profit, however speculation is avoided by ensuring that new purchasers plan to live in the units (Wake, 2010).

Potential for Replication: It would be difficult to replicate all of the successes of the Verdant model elsewhere due to the rare land leasing element of this project. The Land Trust already owned the large, conveniently located, and fully serviced property and it made sense to address the need for employee housing at this site. Other typical Vancouver sites are unlikely to have the advantage of the strong connection to a University or other large institution to provide land discounts and enforce resale covenants. However, it is possible for this model to be implemented on city owned land. The City of Vancouver could provide discounted, long-term, prepaid leases to developers for similar initiatives. In this scenario, the city could also defer payment until completion to reduce development costs related to interest, similar to the Verdant case.

Incremental Housing

Incremental Housing is the term given to housing which has a flexible number of interior units which changes with time, income, family status, and need. Houses with 'finishable' basement suites or attics can be considered incremental housing, as these spaces can be turned into secondary suites when need arises. Recent trends in incremental housing have shown that anticipation of future renovations can be reflected in the design of new houses so that when it comes time to finish a secondary suite the renovations can be simple and affordable. For example, ceiling heights, floor spaces, and access points to attics or basements can be treated in new designs as if a separate resident will be occupying these spaces, even though sometimes the conversion may not take place until a few years after occupancy.

Harmony Flex Townhomes, Abbotsford



Source: BPNPHA (2010)

This development, completed in 2010, was a partnership project between Van Maren developers, the City of Abbotsford, and CMHC. The project consists of 11 townhomes, each with its own ground level bachelor rental suite, which owners can rent out. CMHC provided \$240,000 in Residential Rehabilitation Assistance Program (RRAP) funding to assist with secondary suite construction, as some suites are set aside for people with disabilities.

The city of Abbotsford played an important role in ensuring that this project remains affordable. Firstly, the city donated the land to the developer at 20% of the market value and granted a \$5000 reduction in property taxes. The city also permitted variances on parking requirements and between-building set-backs to further maximize livable space and cut costs. Finally, the City placed a covenant to sell the Harmony Flex Homes that they be sold at 26% below market value to Abbotsford residents who demonstrate a need for affordable housing. Those considered 'in need of affordable housing' are households below the Abbotsford median

income of \$60,000 who are paying more than 30% of income on housing. This includes low and middle income families, low-income seniors, and a particular focus on people with disabilities (BPNPHA, 2010).

Potential for Replication: There are few barriers to replication for this type of housing project. It is an attractive option for all parties involved, from prospective buyers who can stand to profit from the rental units, to renters in need of affordable rental space, to municipalities which are looking to provide more affordable housing options. This housing model can fit well in any neighbourhood, and it can be adopted at various scales and densities.

The Grow Home, Montreal



Source: Friedman, 2008

This model began as a prototype concept home built on the McGill University campus by Professor Avi Friedman. From the outside the Grow Home looks like a typical narrow row house, a style already very popular in Montreal. The Grow Home is 3 storeys tall, 14 feet wide, and has roughly 1000 square feet of living space including a living room, dining room/kitchen,

bathroom, and one or two small bedrooms on the second floor (CMHC, The Grow Home).

The unique feature of the Grow Home is that at the time of purchase the upper floor is un-partitioned. This gives purchasers the freedom to complete the space in whichever way they please to serve changing needs. Some homeowners may convert the space into a home office, while others might need an extra bedroom at some point in the future. By leaving this space unfinished at the time of purchase, the initial cost is lower and allows purchasers to save up the money required to finish the top floor when needed. Removable floorboards make plumbing and wiring easily accessible and easily altered with wall layout to suit evolving lifestyle needs (Friedman, 2001).

The Grow Home is sold at a remarkably low price. In Montreal, Grow Homes sell for \$15,000 to \$45,000 less than other homes of comparable size (CMHC, The Grow Home). The Grow Home concept has been a success since it first began, and there are now over 6,000 Grow Homes in Montreal and 10,000 Grow Homes across North America.

The Grow Home can be considered a prefabricated home in some respects. The frame and general layout of the home is identical and repeated for each home on the row. This leads to construction savings because the pieces required can be mass produced, and construction is simple and efficient process, not unlike an assembly line. One of the criticisms of this type of mass produced home is that the exteriors are too similar and repetitive, leading to a monotonous streetview. The Grow Home model avoids this problem by allowing purchasers to choose exterior finishings based on their own preference based on a list of available options. There is choice in the style of windows, the shutters, the awnings, and even variations in

roofline options. The Grow Home allows for the right amount of exterior variation to give each home an identity, while still being part of cohesive them for the block. The checklist of exterior options allows for all of this to be achieved without sacrificing the cost and time efficiency of using pre-fabricated building materials.

Potential for Replication: The Grow Home concept has not yet been implemented in the Vancouver area despite the tremendous potential it has to offer affordable housing supply. It is important that much of the new development in Vancouver be higher density than single-detached homes to maximize housing supply on what little available land is left. However, large towers or apartment complexes do not meet all preferences, particularly for family housing. The Grow Home model is a good compromise of efficient land use and attractive family housing. Successful implementation of the Grow Home model in Vancouver might require a paradigm shift among the west coast population to give up the dream of the large detached family home in exchange for an affordable, narrow row house. This paradigm shift was not needed in Montreal, as they already had a tradition of row house style of housing long before the Grow Home was introduced. This potential barrier to success should not discourage attempts to bring the Grow Home to BC, as its proven success elsewhere is a sign of what prospective Vancouver homebuyers are missing out on.

Manufactured Housing

Like many other products of the industrial age, housing can be made much more affordable when mass produced due to economies of scale. Manufactured housing has other common names such as modular housing, and prefabricated housing, but they are all essentially simply houses that are made in a factory instead of built on site.

There are several clear benefits of manufactured housing. The speed at which houses can be manufactured and delivered is generally much quicker than building on site. Construction costs are lower because less labour is involved in manufactured housing. Furthermore, manufactured housing is a more sustainable way to build and often creates a more sustainable product. Manufacturing houses in a factory produces less vehicular pollution than on-site construction because rather than having multiple trucks drive to job sites with repeated deliveries of materials, materials and workers instead drive to one central spot (O'Dea, 2007).

The product is also more energy efficient due to the construction materials used and methods of building modular housing which leads to fewer seams in the walls and floors compared to traditional housing. In fact, modular housing is built to withstand being lifted and carried by cranes, and therefore these houses are built very tightly and durably which makes them not only last a long time, but also very energy efficient.

Britco Modular Homes, British Columbia



source: Britco.com

Britco is one of the largest manufacturers of modular homes in North America, and it is headquartered in Langley, BC. Britco has two manufacturing plants in British Columbia located in Agassiz and Penticton. The company also has an Alberta plant in Edmonton, and an American plant in Waco, Texas. Britco manufactures a variety of buildings, including “work force accommodations, motels, seniors housing, office complexes, day care facilities, classrooms, construction site buildings and sales centres” (Britco, 2012)

Britco gained international attention in recent years for their contribution to the Vancouver 2010 Olympic Games. The Vancouver Olympic Committee (VANOC) chose Britco to construct a 100 room lodge and 20 unit townhouse complex in Whistler’s Athlete’s Village for the winter games, in part due to time constraints. Britco was one of the only companies that could guarantee a quality product on time and on budget for the games, and it was the first time modular housing has been used in the Olympics to house athletes. During the games Britco buildings housed one third of the athletes, but the legacy of these buildings lives on well after the games ended.

An agreement between VANOC and the Province of BC has resulted in 80 modules from the Olympic Village being redeployed as 160 dwelling unit equivalents at 6 locations around British Columbia. The largest project to come out of the module relocation is called Timber Grove Apartments in Surrey.

Timber Grove Apartments



Source: Coast Mental Health

This 3-storey development consists of 52 self-contained affordable rental homes for people at risk of homelessness. The land, valued at \$2,305,000, was donated by the City of Surrey, and the Province provided \$10,042,383 to fund the development (BC Housing, 2010 media release). While this project did require generous land grants and provincial funding, it still showcases the creative ways in which event housing can be reconfigured into permanent affordable housing.

Potential for Replication: Whistler's Athlete's Village was the first Olympic village to be built from manufactured housing, and therefore the Timber Grove Apartments set a precedent for what can be done at this scale in the future, hopefully with less financial assistance.

The cost advantages of constructing modular housing present a great opportunity to addressing Vancouver's affordability challenges. Britco and other modular home providers can build upon the success from the Athlete's Village and Timber Grove Apartments to prove that modular housing can be both affordable and attractive. This will help break the stigma which is currently

holding modular housing back from having widespread success in the region. A common perception of manufactured homes is that they look generic and cheap, but this is no longer the case with the modern modular housing designs available today. A barrier to modular home success in the region could potentially be backlash from the construction and development communities, as they might feel their power over the market is diminished by these new forms of housing provision that do not require as much of their services and expertise in traditional housing delivery. Whether or not Vancouver residents will welcome modular housing as a norm for housing delivery is yet to be seen, but the trend it certainly gaining momentum and the potential is great.

IKEA's Boklok



Source: e-architect.co.uk

One philosophy is that just as furniture can be manufactured to be affordable for the masses, so too can housing. IKEA applied the same principles of their interior furnishing production to the entire house in a successful modular apartment housing concept called

Boklok (pronounced 'boo-clock'). Boklok is a joint venture between IKEA and the construction company Skanska, with its head office in Malmo, Sweden.

The first four Boklok residential areas were completed in 1997 in Helsingborg, Stockholm, Örebro and Sundsvall. These apartments were the prototype for what the founders of Boklok felt could be the solution to the lack of affordable apartment construction in Sweden and elsewhere in Europe (Boklok, 2011). Since 1997 almost 4,000 apartments at over 100 locations in 5 different countries have been built. Boklok apartments have been built in Sweden, Denmark, Norway, Finland, Great Britain and Germany (*ibid*). The most typical arrangement of Boklok apartments is an L-shaped, two-storey block with three apartments on each floor. These L-shaped buildings are often erected in clusters that face inward toward a shared central courtyard area, thus promoting a sense of community within the Boklok apartment developments.

Boklok also offers prefabricated parts for simple houses that can be shipped to a property and assembled within a very short period of time, sometimes even within a day. As of November 2006 over 3,500 Boklok homes had been built. There are different models of Boklok homes available for purchase. The smallest version is called the "Mölna" and it is a 2-bedroom terraced townhouse. It is 67 square metres and currently only available in Britain, with a price of £132,500 (boklok.co.uk) The largest version of the terraced house is the family model called "Järnbrö" which offers 3 bedrooms, 81 square metres of ground floor and has a price of £149,500.

Boklok homes are still a somewhat rare commodity in Europe. The sale of Boklok homes takes place at special events at IKEA store locations. At these sales events, interested homebuyers must hand in an application to be put in a draw. Only those whose names are drawn are given the opportunity to purchase a Boklok home.

The Boklok concept company awards franchise licenses so that others can build and sell in other markets. “The franchisee is granted the right to run the business under the BoKlok brand, and is given access to the franchisor's know-how as well as administrative and commercial support” (*ibid*). To date no BoKlok franchises have been brought to Canada yet.

Potential for Replication: The Boklok designs are small and compact. The interior spaces are largely open concept allowing for the best and smartest use of a small space, however living in a house of this size would likely be more of an adjustment for a North American person than a European as house sizes in Europe tend to be smaller and more compact in general. Perhaps this is one of the reasons why the Boklok concept has been successful in Europe but has not yet been brought to North America.

In the Vancouver context the Boklok concept may not be widely applicable due to the lack of land. While Boklok is successful in creating a product that has a very low selling price, new homebuyers still need to be able to afford the land on which to construct a Boklok home. The Boklok concept could be an excellent solution to housing shortages where land is more readily available, however in Vancouver the Boklok concept does not meet the cities need for higher density. However, there may be sites in and around Vancouver where the apartment style of Boklok would be an appropriate affordability solution because the higher density of the

apartment model makes better use of high priced land than the single-family detached, or row house models.

Zoning for Secondary Suites and Laneway Housing



source: Bentley, 2011

Zoning can be an effective tool for promoting housing affordability through increased density. In Vancouver, the lack of undeveloped land has created the situation wherein the city must look at how to increase density in already built-up areas. In residential neighbourhoods, one of the opportunities for increasing density of the housing stock is along laneways. Vancouver's laneway housing by-law has been in place since 2009 and has since garnered international attention. The by-law essentially allows for a laneway house on all single family lots. This equates to roughly 60,000 new eligible parcels for laneway homes (Soules, 2011). If all of these homes get built they could absorb a population increase of 20%. As of 2011, over 400 new laneway homes had been constructed since the enactment of the laneway by-law (*ibid*).

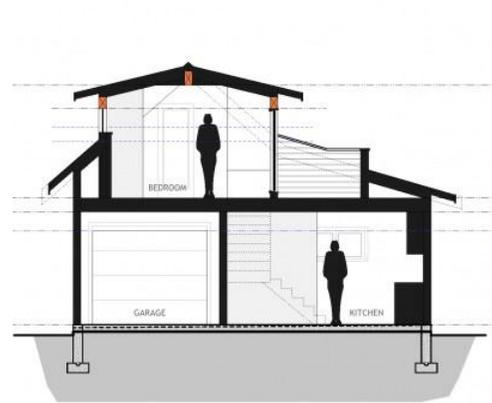
Laneway houses are permitted in RS-1 and RS-5 single family residential zones. The houses can be added to existing lots, or they can be built along with new houses. Laneway houses cannot be sold separately or strata titled in the City of Vancouver, they can only be

rented out or used for family purposes (City of Vancouver, Laneway House regulations). Some municipalities in Greater Vancouver have recently allowed for auxiliary houses to be sold in certain zoned areas. Although most laneway housing cannot be purchased separately from the main house, affordability is still achieved in two ways; The owners of laneway houses can use the rent payments to offset their own monthly housing costs, and renters of laneway houses are given the opportunity to live in areas that might otherwise be unattainable on their income.

Laneway houses are generally much smaller than the main house on the same lot. They are usually located in the space where a garage would be permitted and there must be a minimum of 16 ft. separation between the laneway house and the main house (City of Vancouver, Laneway House regulations). Other regulations for laneway houses in the City of Vancouver include a maximum unit sized based on lot size, to a maximum of 750 sq ft. Heights are restricted to 1.5 storeys, with further guidelines pertaining to upper storey massing, privacy and shadowing. (City of Vancouver, Laneway House regulations)

Smallworks is a leading developer of laneway housing in the Vancouver region. The company has been building laneway homes in Vancouver since 2006 and has become the premier builder of these types of homes. Smallworks is recognized for their pre-approved designs as well as custom styles that complement the existing architecture of the surrounding homes (Soules, 2011). The company also strives to exceed the green building practices for Vancouver's Green Home program with every new home it builds.

The Smallworks Builder



Source: smallworks.ca

The Smallworks Builder is marketed as an affordable housing solution. This do-it-yourself version of the laneway house has a starting price of \$100,000 which is a small price relative to most Vancouver homes. Smallworks delivers all of the essential, including “building permit, site preparation, underground services, insulated foundation and slab, walls, doors, windows and roof” (Smallworks, 2012) leaving the electrical, plumbing, and finishing up to the buyer. This option makes the already affordable laneway house even more attainable.

Potential for Replication: In most zoned areas of Greater Vancouver, laneway housing cannot be sold to private purchasers. Therefore, this type of housing does not address the thousands of people who wish to enter the housing market in Vancouver but are limited by income.

Laneway housing is only successful in relieving some of the pressure for housing supply on the rental side, as well as providing accommodation for family members in some cases.

While this is an effective way of increasing density in areas where towers and other large

development would be unsuitable or unwelcomed, laneway housing only has the potential to meet a small portion of the total demand for new housing in Vancouver.

Part 3: Housing Delivery

Already discussed in the paper have been financial strategies and supply side cost savings techniques for affordable housing provision. This final section presents alternative options to traditional housing delivery that have proven to be successful in providing affordable housing.

Options for Homes (Ontario)



Source: Options for Homes

Options for Homes is an Ontario based non-profit organization that has been developing affordable condos and communities since 1992 (CMHC, Options for Homes). Affordability is achieved through special financing, as well as by eliminating costly building amenities and implementing innovative marketing strategies.

Options for Homes Financing –Deferred Profits and Shared Equity Second Mortgages.

A new Options for Homes building is not constructed until roughly 80% of the units are sold. This is because future residents are responsible for financing the construction. For each project the non-profit organization takes the initial steps of securing the land, selecting a builder

(usually Deltera), and preparing preliminary plans before marketing the project to future buyers. The marketing process is cost-effective by relying on word-of-mouth, flyers, and information sessions. Costs are also saved by not building model suites for marketing purposes (Paulsen, 2009).

A minimum down-payment of 5 percent is required from all future owners before construction commences. Many buyers provide a down payment of 25 percent to avoid insurance expenses (CMHC). Options for Homes sells units at cost, development fee included, and retains a second mortgage from purchasers that is equivalent to the profit. No interest is paid on the second mortgages, however they do share in market appreciation (ibid). These second mortgages are paid at the time of the first re-sale for each unit. Therefore, the units are carried at a lower monthly cost than conventional condo units and thus the income threshold for purchasing the home is lowered. The deferred profits from the second mortgages are put towards pre-development costs of future affordable housing projects.

Options for Homes “No Frills” technique – The condo buildings constructed for Options for Homes are modern and attractive. They are very comparable to other Ontario condo buildings which list gyms, pools, saunas, theatre rooms, and party rooms among their amenities. Options for Homes buildings do not feature these extra amenities because of the associated costs. Through the elimination of unnecessary amenities, construction and maintenance costs are lowered which directly leads to lower unit prices.

In order for this housing model to be successful it assumes that the unit will appreciate in value. The Ontario Options for Homes units have been appreciating in value, and one can

assume that similar units in Vancouver would do the same given the historically strong housing demand. The units in the Options model must appreciate in value so that the owner and the second mortgage holder make enough of a profit that the mortgage lender will be able to continue to finance the model for future owners (Hofer and Gurstien, 2009).

Potential for Replication: The biggest challenge to Vancouver in replicating the success that Ontario has had with the Options for Homes model will be to find appropriate sites for this type of development. The early Options for Homes models near Toronto were constructed on sites on the cities periphery where the land was relatively affordable, yet they were close to transit and thus convenient and attractive to prospective buyers. Sites such as this are more difficult to acquire in Vancouver due to the compact size of the city and the limited land supply. However, the model still presents great potential for Vancouver and it could be a very viable option for first time buyers in the competitive housing market. The condominium lifestyle has proven to be very popular in recent years among Vancouver's population, and therefore the Options for Homes model provides an affordable alternative that does not stray far from the tastes and preferences of Vancouver residents.

Cohousing

Cohousing is a model for homeownership whereby shared communal facilities and spaces within the housing project allow for cost savings for each simplified private unit. The idea is that certain facilities are better utilized and more affordable if they are common spaces, such as children's play areas, libraries, guest rooms, large kitchens for cooking communal meals, dining rooms, and gardens. The cohousing model originated in Denmark in 1964 when architect Jan Gudmand-Hoyer attempted to build the first cohousing community (Milman,

1994). Although this first attempt was unsuccessful due to neighbourhood opposition, eventually the model caught on and cohousing is now a common housing option in Denmark, as well as throughout other European countries. Cohousing is becoming an increasingly popular concept in North America, and a successful example of the model has been in North Vancouver since 1998, called Quayside Village.

Quayside Village Cohousing, North Vancouver



Source: <http://www.bcliving.ca>

In 1995 a group of 6 individuals purchased a plot of land at Chesterfield road and 5th Avenue in North Vancouver for \$1.2 million, where they built a cohousing community with 19 residential units and shared facilities. The complex also contains 600 square feet of commercial space in the form of a small convenience store. Common areas at Quayside Commons include an urban courtyard, third floor deck and reading room, and 2500 square feet of outdoor pathways.

Quayside Village is ideal for families due to the shared, child-friendly areas. Indeed, families with young children do comprise a good share of the residents of the building, however a goal the project is to offer housing to a diverse range of residents, without

discrimination. If an individual or family wants to live at Quayside it is their decision to make, there is no membership committee to select prospective resident (Kraus et a, 1999). Units range from bachelors to 3-bedroom units, thus catering to a range of housing needs.

Affordability at Quayside Village is achieved through the communal shared spaces, however the majority of the units in this building are sold at market rates, and demand for this quality of housing in this location is strong. Therefore, to ensure that this housing project offers attainable housing to those with medium incomes, 4 of the 19 units are sold at 20-25% below market rate to ensure affordability in perpetuity to people with low-medium incomes. A fifth affordable unit is rented at below market rental rates.

There are 3 major factors that contribute to the success of this project. Firstly, The City of North Vancouver played an important role in the early stages of development by granting a density bonus of 10% that allowed for two extra units to be included in the building and designated for affordable sale. Additional floor space allowances related to communal areas were granted from the city adding up to a total of a 20% density bonus (CMHC, 2011). The original residents of Quayside also acted as the developer for the project, so no costs were lost to third-party developer profits. The second factor that contributes to affordability of this project is the slightly smaller units at Quayside compared to conventional condominiums and townhouses, which is made up for through common spaces. Thirdly, condo fees are avoided because members of the community take on the maintenance themselves.

Potential for Replication: Cohousing is a simple and effective model that is becoming increasingly popular. The largest barrier to replication of the cohousing model is that it requires

a certain number of highly motivated individuals to work cooperatively toward making new projects come to fruition. Furthermore, municipalities must be willing to help foster these types of developments through zoning and even density bonuses similar to the ones granted to Quayside development. Additionally, future cohousing developments will require mortgage financing from financial institutions which have faith in the success of such projects.

Purpose-built Rental Housing

The unaffordable housing prices in Vancouver leave a very high number of households with no option other than to rent, in fact 52 percent of Vancouver households are renters (CitySpaces, 2009). The existing rental housing stock does not meet this high demand and only 6 percent of new market development since 2004 has been for rental housing (STIR, City of Vancouver, 2012).

The largest proportion of the existing purpose-built rental housing was constructed in the 1950's and 60's (McLellan, 2009). Much of this aging stock is deteriorating in quality yet little replacement purpose-built rental has been constructed since 1991 (ibid). There is not enough incentive for developers to create purpose-built rental when building and selling condominiums is generally going to be more profitable. This is a problem for rental affordability because rented out condos usually charge a higher rent than market rentals. CMHC's 2008 market rental survey sets showed a 20% rent premium for one-bedroom units (\$1,049 for apartment condominiums compared to \$871 for purpose-built units) and a 25% premium for two-bedroom units (\$1,510 compared to \$1,245). Another reason why the construction of condominiums cannot be relied upon to meet the demand for rentals is because not all

investor-owned units are rented out. CMHC estimated that in 2008 “up to 6,000 units or one quarter of the investor-owned stock may not be rented.” In 2009, 35% of the condominium stock in Vancouver was investor owned. That equated to about 23,000 units, 53% of which were located downtown (McLellan, 2009). The thousands of units that sit vacant in Vancouver are detrimental to the affordability situation. If these units were built as market rentals rather than condominiums to be purchased as speculative investments, the units would no doubt be occupied, especially in the downtown core. In response to the need for more market rental unit, Vancouver Mayor Gregor Robertson initiated the Short Term Incentives for Rental Housing program in 2008.

The STIR program

The Short Term Incentives for Rental Housing STIR program was a two and a half year program initiated by the Mayor Robertson and City Council to promote market rental development. It began in June 2009 and ended on December 15th, 2011. The city recognized the need to make construction of market rental housing more attractive to developers, thus they offered the following incentives through the STIR program:

- **Rental Property Assessment** – applicants may be able to realize reduced property taxes where the rental housing units are secured as rental over time in strata titled projects;
- **DCL Waiver** – City development cost levies can be waived on units that are designated as rental;
- **Parking Reduction** – specifically reduced parking requirements are available for rental units including opportunities for car share to reduce standard parking standards;
- **Density** – City will consider increases in density consistent with Planning policy and careful attention to urban design.

Source: Short Term Incentives for Rental Housing, Program Highlights, January 20, 2010

1142 Granville Street



Source. Hoodsurf.ca

The first project to take advantage of the STIR incentives is a 10-storey building at 1142 Granville Street in Vancouver's downtown. Construction of this 106-unit project began in January 2011 and the building is expected to be available for rentals in Fall 2012 (Bluesky properties, 2012). The building will be in very high demand due to its prime location, and added amenities such as meeting rooms, a fitness facility, and a shared rooftop terrace will make this a very attractive rental building. Slight affordability is achieved through use of simple building materials and basic facades, as well as through keeping the size of the units quite small. Many of the units have only 320 square feet of living space (Cole, 2010). This might seem impossibly tiny by some standards, but for people for whom living downtown more important than having a lot of space, this type of unit is ideal. The rents in this building will only be slightly below the average downtown rental rate of \$1090/month. The victory here therefore is not in lowering rental rates, but simply providing more supply that will be market-rental and occupied in perpetuity, rather than another condominium building which would potentially have investor-owned units sitting empty for months at a time.

Table 1: Summary Table:

Name of Project or Model	Strategy Category	Affordability Achieved Through...	Barriers to Replication
Lionsview III	Financial Demand	-Profit from new market condos and rentals subsidize affordable rental units on the same site.	Requires a large parcel of land, a density bonus, potential temporary relocation of existing tenants, and capital for redevelopment.
Whistler Housing Authority	Financial Demand	-A land grant and percentage of new developments set aside for employee housing. Resale restrictions ensure long-term affordability.	Available land for employees is more difficult to acquire in the City than in Whistler.
Langford Inclusionary Zoning	Financial Demand	-1 in every 10 new houses sold at \$160,000 to qualifying Langford residents.	Requires strong municipal leadership in areas experiencing new growth and development.
60 W Cordova	Supply Cost Savings	<ul style="list-style-type: none"> -Reduced parking requirements -Small developer profits -Small unit sizes -Modest finishings -Reduced down payments with assistance from Vancity. 	No major barriers, but the cheap land acquisitions (purchase of foreclosed parking lot at right time in the market) was a lucky benefit of this case study that will be difficult to replicate.
Verdant at Uiversity	Supply Cost Savings Financial Demand	-99 year land lease from SFU Land Trust at 30% below-market. -Reduced parking requirements.	Replication of the land lease element of this project would require a willing landowner to participate in a similar project. The City should

	Land Distribution	<ul style="list-style-type: none"> -Energy saving heat and water systems. -Re-sale restrictions for 20% below market in perpetuity. 	consider land leasing to affordable housing projects such as Verdant in addition to social housing projects.
Harmony Flex Incremental Housing	Supply Cost Savings	<ul style="list-style-type: none"> -Ground level bachelor rental suites provide monthly income to owners. -City of Abbotsford sold land to the developer at 20% below market. -Property tax reductions. --Re-sale restrictions for 26% below market in perpetuity. 	This model works best with municipal assistance and re-sale covenants.
Grow Home	Supply Cost Savings	<ul style="list-style-type: none"> -Mass-produced pieces of the home allow for easy and affordable construction. -‘Finishable’ attics keep purchase price low. 	This model is not suitable near the city’s core due to high land prices that call for high-density land use. The Grow Home is more suited periphery suburban areas.
Britco Modular Housing	Supply Cost Savings	<ul style="list-style-type: none"> -Efficient indoor assembly with cost-effective materials. 	<ul style="list-style-type: none"> -Removing the stigma that manufactured homes are of poor quality. -Potential resistance from traditional developers and architects in the region.
IKEA’s Boklok	Supply Cost Savings	<ul style="list-style-type: none"> -Quick and affordable construction from pre-made parts. -Efficient use of space 	Not appropriate for single family lots in Vancouver because land costs are so high. The Boklok apartment

		through interior design and storage solutions.	concept could be suitable for Vancouver's suburban areas.
Laneway Housing	Supply Cost Savings Rezoning	<ul style="list-style-type: none"> -Zoning for small laneway homes (where a garage would typically go) in all residential areas. -Laneway homes increase rental housing stock and give homeowners monthly income from renting the laneway house. -The compact size of laneway houses make them affordable to construct. 	<ul style="list-style-type: none"> -Limited number of lots where laneway homes are possible. -Current laneway policies restrict laneway homes in most municipalities from being sold to private owners, therefore not addressing affordable homeownership to its full potential.
Options for Homes	Housing Delivery	<ul style="list-style-type: none"> -Residents help finance construction. -Word-of-mouth marketing. -Interest free second mortgages. -'No-frills' - no unnecessary extras (pool, gym, party room) means lower per unit costs and maintenance fees. 	<ul style="list-style-type: none"> -Affordable construction sites on the periphery near public transit are more difficult to find in Vancouver compared to Ontario. -Successful implementation of this model in Vancouver may require a government supported pilot project and media support to initiate word-of-mouth marketing approach.
Quayside Village	Housing Delivery	-The cost of communal facilities is shared amongst the owners, allowing for individual unites to be	-Required self-motivated individuals to work together to create new cohousing

		<p>smaller and more affordable.</p> <ul style="list-style-type: none"> -Density bonus from the City. -No condo fees. -4 affordable units sold at 20-25% below market and one affordable rental unit. 	<p>communities. Municipalities can encourage cohousing through tax incentives and density bonusing.</p>
<p>STIR Program (July 2009-December 2011)</p>	<p>Supply Cost Savings</p>	<p>-City provided incentives for new purpose-built rental construction, including requirements, waived development cost levies, and density bonuses.</p>	<p>The incentives still rarely outweighed the benefits of condominium construction for large projects.</p>

Recommendations:

Seven recommendations have been drawn from the analysis of the affordable housing strategies presented in this paper. These recommendations have been categorized into the groups at which they are directed: The Province, Municipalities, and Developers.

Recommendations to the Provincial Government of British Columbia

- 1. Encourage experimentation and pilot projects for new strategies through land grants and tax incentives.*

Vancouver can foster the development of new strategies for creating affordable housing by providing incentives for innovative projects. The Options for Homes model and The Grow Home model could both be successful in Vancouver, but they require initial risks and start-up capital that developers may not wish to take on without assistance from the government. The Province can encourage pilot projects for such models by providing land grants or tax reductions to new housing projects. Furthermore, innovative strategies that have never before been tried in Vancouver or elsewhere could be experimented with to help the city stand out as a leader in innovative housing solutions for the future.

- 2. Expand Land Leasing practice to include leasing to affordable housing developments targeted for medium income earners.*

The Province has a strong history of leasing land to developments for social housing, and land leasing can also help address the need for affordable housing for medium income earners. Many of the projects included in this paper could be easily replicated with the help of a land lease from the government, such as Verdant, 60 W Cordova, Lionsview III, Quayside, and more. The high cost of land is often the biggest barrier to building new affordable housing developments, and land leasing can help mitigate these costs.

Recommendations to the City of Vancouver and Municipalities

1. Ensure a diverse range of affordable housing options.

The affordable housing options presented in this paper are diverse in regard to size and style of housing. A range of affordable housing options is needed for Vancouver, because tastes and preferences for housing styles vary among the population. The City must ensure that it is promoting and planning for housing options suited to people of all age groups and family sizes in order to maintain the strong demographic diversity that currently exists in Vancouver.

2. Take better inventory of housing stock to identify the missing gaps in housing provision.

It is currently unknown how much of the condominium stock is sitting vacant as investment properties. The City should consider taking inventory of investment properties, as well as all other forms of housing in order to meet demands for all types of development. An inventory will assist the City and developers in planning for the right types of new housing delivery by identifying where gaps are; for example, a lack of family housing or a lack of studio apartments might become apparent after an inventory is undertaken.

3. Continue to grant bonus density and reduced parking requirements for affordable housing developments.

Density bonuses and reduced parking requirements are elements which have contributed to the success of several recent affordable housing projects. These are simple ways the City can help promote new developments which promise to deliver affordable housing. The City should also consider following the example of several American cities in granting Location Efficient Mortgages to residents who do not own a vehicle.

Recommendations to Developers

- 1. Use a combination of affordability strategies for optimal results.*

Many of the very successful affordable housing projects mentioned in this paper employ a combination of strategies to achieve affordable prices. Further combinations can be experimented with, such as Employee Assisted Housing combined with Flexible Housing or Modular Housing. Another possible strategy combination is the Cohousing model combined with the Boklok apartment model. These combinations can reap the affordability benefits from both models employed on the same project.

- 2. Engage in partnerships with non-profit housing providers, financial institutions, and groups of individuals.*

Partnerships have a proven history of success for affordable housing projects. Partnerships were a vital component of many of the projects featured in this paper, and future collaborations can build upon these accomplishments. Partnerships between groups of individual prospective homebuyers and developers can be experimented with in Vancouver for models such as cohousing and the Options for Homes model.

Conclusion

Vancouver is faced with an almost unparalleled challenge to provide affordable housing in a place where land supply is very limited and the strong demand for housing continues to drive market prices up. Many key players in housing provision have demonstrated that they are ready to take on this challenge and help Vancouver become an international example of how to

create affordable housing through innovative strategies and partnerships. The aforementioned case studies demonstrate the strategies that have already been employed with success in the region, as well as some examples of what has worked elsewhere that could have potential implementation in Vancouver. These strategies can be replicated and combined on future projects for further provision of affordable housing supply in the region. Vancouver also has the opportunity to experiment with new approaches to affordable housing that have not yet been tried anywhere. This will require collaboration among local and provincial governments, developers, architects, financial institutions, and the public. It is these partnerships that have proven to be the most powerful tool for creating affordable housing, and they will continue to be a vital part of the housing solution moving into the future.

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