

Assessing the Impacts of Potential Land Value Capture Mechanisms on Affordable Housing and Affordability

Prepared for the Mayors' Council on Regional Transportation and TransLink

EXECUTIVE SUMMARY

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Introduction and Background

The housing affordability crisis in the Metro Vancouver region is garnering international attention. And with good reason: access to safe, stable and affordable housing is at the core of societal stability. Without it, the dream of settling down, holding a stable job, and contributing to society as a whole vanishes. And yet unlocking the breadth and depth of the issue has evaded policy makers for many decades.

Given the scale of this crisis, there is a pressing need for housing that is affordable to a broad range of income levels, including that which is affordable for middle income earners, social housing, and everything in between. The unfortunate reality is that many working people cannot afford to live in the city in which they work or study.

There is an interplay between investment in transit infrastructure and housing affordability. Historically, roads and new transit have been foundational to creating real estate value by providing access to new land development opportunities for both residential and mixed-use development. Housing in amenity-rich locations, which are already in high demand, often see further upward pressure on prices as transit investments are delivered in those areas.

Public policy seeks to advance governance that is in the interest of all members of society. At the same time, public policy invariably involves weighing consequences and considering trade-offs. Distributive policies typically aim to serve a broader public interest by utilizing tools — like Land Value Capture (LVC) mechanisms — to reallocate resources that promote equality and social equity. This brings us to the intersection of transit, LVCs, affordable housing, and housing affordability, which must be considered in concert.

There are a range of LVC tools that can be used to provide affordable housing; it is precisely due to this value lift that naturally occurring affordable housing¹ is potentially compromised, in the absence of public policy that seeks to protect it, when new taxation measures are considered. If housing near rapid transit is unaffordable due in part to investments that have been made in transit, the goal of a sustainable region will evade policy makers - those most dependent on transit infrastructure will increasingly be unable to access it. Said another way, if government policies designed to capture land value that is generated through transit investments in turn create a new burden on housing affordability, the livability of the region will continue to move beyond reach as transit infrastructure is expanded.

¹ Defined as existing housing that is affordable (without subsidy or other supportive programs) at a rate that is no more than 30% of the regional median income.

Where should uplift in land value generated from new transit infrastructure be dedicated? There is a risk that land value uplift and redevelopment alongside major capital transit investments will reduce affordable housing supply and housing affordability if capturing the value of the new investment places a new cost burden on housing near transit.

In considering deployment of new LVC mechanisms, critical questions emerge: Should some of the uplift in land value generated from new transit be collected to assist in raising capital funds for infrastructure expansion. Should this uplift in value, captured through a tax or some other financial tool, be directed to the delivery of affordable housing near rapid transit? Or is it possible to do a combination? Or, as is commonly the case in Metro Vancouver municipalities, should this uplift be used to provide amenities such as child care space, community space, public art, or recreation facilities?

Study Objective

The purpose of this study is to explore the competing objectives, trade-offs, and other considerations associated with implementing potential LVC mechanisms in the context of new development on privately owned land to help pay for the capital and/or operating cost of new investment in rapid transit, while fostering affordable housing supply and housing affordability in transit-oriented locations. The focus is the interplay between LVC as a potential funding mechanism, the inter-related impacts with affordable housing supply and housing affordability, and the resulting impact on transit ridership and fare revenue.

Out of scope for this study is consideration of:

- Real estate that is owned by TransLink;
- Financial modeling related to the assessment of tradeoffs between the use of various LVC mechanisms;
- Assessment of the development potential — and associated quantum of affordable housing that could be delivered — on any particular site;
- Analysis or recommendations concerning the LVC mechanisms that could be used for transit capital or operations funding;
- Recommendations specific to any particular municipality.

Given that there is a risk that LVC could lead to less housing creation and less transit access if it acts as a deterrent to the creation of more housing supply, any implementation must give full and careful consideration to the negative impacts that might be generated with respect to transit access, regional affordability, and shaping ongoing development in the region. Any new mechanism must be advanced with the goal of working towards a more livable, affordable, and sustainable region for both current Metro Vancouver residents, and the many more who will become residents in the future.

This report considers the following questions:

1. In support of informing a decision by the Mayors' Council on potential use of particular LVC mechanisms, which of the mechanisms are most compatible with supporting affordable housing and housing affordability around rapid transit?
2. Is the priority to provide access to the most transit riders near rapid transit locations (ridership), or is it to maximize revenue for the building of new capital projects (LVC revenue)?
3. Would the implementation of a LVC mechanism negatively affect access to affordable housing as well as housing affordability in proximity to transit in general?
4. What is the relationship between fare revenue, access to affordable housing at station locations, and "last mile" operating costs?

Study Approach

The funding mechanisms that are in-scope for this study are:

- TransLink's Benefitting Area Tax (BAT)
- Community Amenity Contributions (CACs) revenue sharing with regional municipalities
- Density bonusing, as:
 - a revenue stream; and/or
 - a mechanism to deliver affordable housing in proximity to rapid transit
- Tiered DCCs, where rates would be higher than others in certain portions of the region
- Property Transfer Tax (PTT) revenue sharing with the Province

Why Affordable Housing Matters to Transit Delivery

The livability of a region is impacted by factors other than just housing costs. After housing, transportation represents the second largest expense for most households, making TransLink and local municipalities and other partners key players in influencing the level of overall affordability in the region. If Metro Vancouver and local municipalities and other partners can counter the common trend of increased housing costs near transit, it will mean a more equitable and resilient region, will lead to increased ridership and fare revenue for TransLink, and will facilitate progress towards meeting sustainability and GHG emissions goals.

In addition to metrics and definitions that focus solely on housing costs, Metro Vancouver's 2015 Housing and Transportation Cost Burden Study articulates the need to combine housing and transportation costs to gain a clearer picture of the cost of living in the region. Housing and transportation choices are closely linked and represent the two largest expenditures for many working households. Conversations about affordability in this region must include both housing and transportation costs. Region-wide, homeowners with mortgages paid 40% of their pre-tax income for housing and transportation; renters paid 49%. Lower income renter households earning less than \$50,000 can spend up to 67% of their pre-tax income on housing and transportation costs. Such high-cost burdens for housing and transportation leave little room for other essentials such as food and clothing. Measures such as these provide a more holistic picture of how dire the situation is for the future of livability in Metro Vancouver.

Those who are in a position to own their dwellings are increasingly looking to the region's more affordable housing markets in municipalities farther from the region's economic centres. While the lower cost to enable home ownership may be a useful approach to allow first-time buyers a way onto the property ladder, a lower home mortgage is exchanged for what is increasingly being referred to as a "transportation mortgage". This means that lower housing costs are offset by the high transportation cost of commuting to and from housing that is located farther from the metro core and other employment nodes. Even in the parts of the region where housing appears to be more affordable, the overall cost of living may be the same or worse than staying in similarly unaffordable housing in more expensive areas. This puts the stability and vibrancy of Metro Vancouver at risk over the long term.

There are two strategies that can be employed to address this problem:

1. Expansion of rapid transit and major transit network networks to help reduce transportation costs for households.
2. Recognition of the opportunity inherent in strategically located rapid transit stops and surrounding areas to accommodate more affordable housing.

The second approach is paramount to maximizing the potential utility of LVC, through the integration of new affordable housing into new regional transit capital projects and, in some cases, corridors served by existing rapid transit.

Desirable areas with rising populations by definition experience increasing demand for housing, and as such development must keep pace with this demand. Metro Vancouver is hamstrung by predominantly low-rise urban forms that underutilize land. The single-family home continues to be a de facto residential configuration despite declining household sizes which may mean that even more housing may be necessary than population growth alone indicates.

Many municipalities in the region have restrictive zoning policies that make densifying legacy residential areas prohibitively difficult and prevent the addition of a variety of housing types that could serve a broader range of residents; some 60% of land in the region is locked into land use zoning that allows only single-detached housing. Changing these restrictive zoning by-laws is politically difficult partly due to the widespread — and false — belief that housing forms other than the single-family home negatively impact surrounding property values, and as a result of resistance to changes in so-called “neighbourhood character.” This topic is particularly charged because, as alluded to above, many residents have their life savings and retirement funds tied up in their homes.

The Implications of Affordable Housing and Housing Affordability in Close Proximity to Rapid Transit for TransLink

TransLink’s goal, at a high level, is to create an equitable and inclusive region — there are a number of relevant considerations within that context:

- Ensuring that new investment in transit infrastructure is accompanied by transit-oriented development that is accessible to a broad range of households.
- As housing prices rise, residents who are unable to access affordable housing in close proximity to transit are pushed further and further from jobs and services in the core, and are forced to own and maintain a car for their mobility needs.
- The significant and ongoing underbuilding of new purpose-built rental demands a concerted, intergovernmental, and interagency approach.
- Affordable housing supports transit ridership and therefore has positive impacts on fare revenue.
- As housing near transit becomes increasingly unaffordable, transit dependent riders are pushed farther to the periphery of the region, and TransLink is required to expand bus service to ensure access. This increases pressure on operating costs.

Land Value Capture: What it is and How it Relates to Transit Investment and Housing Affordability

What is Land Value Capture?

Land value capture (LVC) is an economic concept and practice that is used as a public sector revenue generating tool in jurisdictions around the world to varying degrees. It is founded on the idea that the factors that drive land value arise primarily from public—not private—activity. Public investments in infrastructure such as utilities, rapid transit, and roads are common examples of public activities that affect land value, as are patterns of migration and population growth.

The fundamental premise of Land Value Capture is that increases in land value, often generated by public investment, can be captured to further deliver on other public goods.

The Role of Transit Investment Contributions in Shaping Land Value

Transit is a prime example of public investment with a positive spillover effect that benefits surrounding landowners, in areas where transit infrastructure increases accessibility to popular destinations. (It is imperative to note that some properties along the elevated SkyTrain guideway, not near stations, experience negative impacts such as noise, on views and due to shading, and therefore they are not beneficiaries of the positive spillover.) Urban density and rapid transit go hand in hand. In Metro Vancouver, research shows that “as of 2019 over 80% of new office growth and almost two-thirds of new strata residential growth are in rapid transit station areas.”

Market Value of Proximity to Transit	Density Permissions
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<p>Proximity to transit is a desirable, marketable housing attribute that developers seek out when pursuing development opportunities. The market value of access to transit ensures an uplift in land value. In Metro Vancouver, efforts to quantify the price premium on good access to transit have placed it at around 5% for residential space and 10% for commercial space.</p>	<p>Local governments generally permit higher density around transit stations, but developers typically apply for even greater density above those permissions. The more that can be built on a site, the higher the value of that land. Currently, municipalities capture some of this uplift in value because they are responsible for rezoning and the development approvals process and the provision of municipal infrastructure and community amenities. However, a significant share of the land value uplift near transit comes directly from transit investment itself.</p>
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Collecting monies to build affordable housing is far less desirable than for the public sector to partner with developers or non-profit providers to facilitate the delivery of affordable housing in proximity to transit infrastructure as a part of developments that are already in the pipeline, or those that are soon to come online. Having developers build a component of a development as affordable, and fully integrated with market housing, is the most straightforward approach to adding housing supply given that the land, planning work, and delivery entity are already in-hand and established.

In evaluating LVC tools and housing affordability, it is critical to consider this element of deliverability since getting new housing built is a significant barrier to housing access in the region. A tool that results in the collection of revenues to build affordable housing at a later date is less desirable than a tool that results in the building of new affordable housing as a component of a larger development project, and does not negatively impact housing affordability today.

Land Value Capture Mechanisms Reviewed in this Analysis: Merits and Considerations

Revenue from LVC can be spent in a variety of ways, but some mechanisms offer more flexibility than others. Some restrictions on how revenue can be allocated come from enabling legislation while others stem from public sentiment and perceptions of fairness. Another consideration is whether the LVC mechanism yields recurring or one-off revenue. The analysis in this paper has been limited to the potential impacts of TransLink's Benefitting Area Tax, TransLink's DCC and Potential Tiered DCC, CACs and Density Bonusing, and the Property Transfer Tax, and the possible impacts of these LVCs on housing affordability. Recurring revenue, such as that which

is driven by a Benefitting Area Tax, tends to create a steady, reliable cash flow that is well suited to investment planning, budgeting, and operating expenses. One-off revenue is less predictable and comes in larger deposits, making it better suited to capital expenses and contributions to reserve funds or paying down debt. Funds from density bonusing, CACs, and DCCs can only be used for capital expenditures.

Differentiating Between Community Amenity Contributions (CACs) and Density Bonusing

In this study, it has been deemed necessary to distinguish between CACs and density bonusing, given that density bonusing has exceptional deliverability characteristics for affordable housing: The creation of new housing is a years-long process that is land- and capital-intensive. Given the pressing nature of the housing affordability crisis, the timeliness of delivery of new affordable housing must be a paramount consideration — and ideally is closely tied to the delivery of new transit infrastructure in order to maximize access to transit service along the corridor. The availability of financial resources to build affordable housing isn't the primary issue underpinning the lack of new housing supply in the region; creating the conditions to deliver the right type of housing in the right locations on expedited timelines should be the primary goal. Density bonusing, as defined above, is separate from CACs as a mechanism to achieve this.

CACs are often characterized as a form of density bonusing given that they involve a zoning-based negotiated outcome that exchanges increased density permissions for the delivery of a range of public benefits, provided via cash-in-lieu of delivery of a piece of physical infrastructure. Revenues can be directed to funding a portion or all of community amenities (e.g. a new community centre or public library), transit infrastructure (e.g. a new station), or affordable housing. Historically, CAC allocations in B.C. have been directed to the funding of various community amenities or affordable housing on a cash-in-lieu basis. However, some municipalities are more recently moving towards a policy preference of securing in-kind contributions. More recently, CAC revenues have been used to directly fund transit infrastructure capital projects where a municipal financial contribution is required for the project (e.g. an additional station).

In contrast, this study considers density bonusing as a tool that facilitates a circumstance in which, in return for increased density permissions, a developer agrees to build a certain percentage of additional units as affordable housing. This approach is differentiated from cash-in-lieu contributions that could be dedicated to the delivery of affordable housing (or community amenities), which is often how CACs are used to secure public benefits, in that density bonusing in the form considered in this study requires the integration of new affordable units into a proposed development.

Density bonusing creates value through an expansion of regulatory mechanisms that allow more density to be built on a given parcel of land. It allows for the extraction of a benefit and capitalization of the value of adjacent transit infrastructure to achieve a public good, without placing a new burden on existing, adjacent property owners or new homeowners.

Historically, collecting monies for a public benefit such as affordable housing has been considered a good approach to securing funding over time. However, in a housing crisis, the priority must be on delivering housing as soon as possible, and density bonusing is a mechanism that scores well on deliverability.

Density bonusing can be structured to proceed according to a prescribed framework. As such, it can be inherently more predictable and efficient to administer once regulations have been established. If developers wish to exceed the base density set by local governments, they can instead build to specified higher densities if a portion of the additional units are to be offered at below-market rates. In this way, municipalities capture the value of the added density and redirect it to a public good in the form of affordable housing. The delivery of affordable housing becomes a true partnership between the private sector and government regulators.

For example, a corridor could be pre-zoned to allow for an overall FSR of 3.0 if a developer were to deliver zero affordable housing (or below a specified threshold), or an FSR of 5.0 (or greater) if it were to deliver a specific amount of affordable housing above and beyond a threshold. Such a framework would provide developers with additional certainty about achievable densities, which is an important aspect of the approach. A similar outcome can be achieved even without an established prescriptive framework, through a negotiated outcome (although this of course offers less certainty of the type that is attractive to developers).

There is a demonstrable link between the value of the new asset (transit), the benefit to the community (affordable housing, increased accessibility if located around high quality rapid transit), and the means through which the benefit is extracted (enabling additional planning permissions). In addition, given the relationship between lower income households and transit ridership, we know that this mechanism contributes to a greater active transportation mode share and grows the revenue stream through an increase in fares, by adding ridership.

Evaluating LVC Mechanisms against Key TransLink, Metro Vancouver, Provincial, Municipal, and Urban Development Objectives with a Particular Focus on Impacts on Affordable Housing and Affordability

There is an inherent push-pull between the regional need for continued investment in transit infrastructure and the region's substantial and sustained housing affordability crisis. A dollar of revenue generated from an uplift in land value dedicated to transit expansion is a dollar that is not being used by local government to advance the creation of new affordable housing or other community amenities (and vice versa).

The table below illustrates an assessment that is contingent on a variety of implementation variables (i.e. is the PTT additive atop an existing PTT, or does it involve a reallocation of existing PTT revenues, or are CAC revenues being dedicated to TransLink or towards other uses?). In this comparison, the push and pull between tools that generate revenue for TransLink while also having a negative financial impact on existing households and new future households, as well as impacting the deliverability of affordable housing supply that is transit-proximate becomes transparent.

It is a given that all of the revenue tools appear to be positive for revenue generation for TransLink; they were selected for study precisely for that reason. The more important consideration in the context of the evaluation in this study is their impact on housing affordability.

All of the LVC tools assessed in the context of this study are compatible with existing enabling legislation. It is also clear that of the tools that could potentially place a burden on existing property owners, they could be structured in a way that allows them to be progressively applied (e.g. geared towards income). Importantly, DCCs, PTT, CACs, and a BAT all carry a potential negative impact with respect to housing affordability on new area households, and each of DCCs, PTT, and CACs potentially hinder the deliverability of new affordable housing supply. The impact of the PTT on new area households would be neutral if it was a reallocation of existing revenues, which can be considered a less likely outcome given that this would entail the Province relinquishing a share of an existing revenue stream. A net increase in the PTT would place a new financial burden on new area households.

While density bonusing is neutral in terms of generating new revenue for TransLink, it is also neutral in terms of its financial impact on existing and new households while at the same time it is strongly positive in delivering new affordable housing supply. That said, if 100% of the uplift in value is dedicated to supporting the creation of affordable housing, it should be noted that monies used to deliver other types of community amenities must come from another source.

	Tiered DCCs for Transit	Revenue Sharing of PTT	Revenue Sharing of CACs	TransLink BAT	Density Bonusing (in - kind)
Impact on TransLink Fare Revenues	N/A	N/A	N/A or +	N/A	+
Impact on TransLink Non - Fare Revenue Generation	+	+	+	+	N/A
Financial Impact on Existing Area Households	N/A	N/A	N/A	—	N/A
Financial Impact on New Area Households (i.e. future residents of a station - adjacent multi - family residential building)	N/A/—**	N/A/—* **	N/A/—	—	N/A
Impact on Deliverability of Affordable Housing Supply that is Transit Proximate	N/A	N/A	N/A or +	N/A	+

+ = Positive Impact; — = Negative Impact; N/A = No Impact

**Note: the impact would be neutral if the PTT was a reallocation of existing revenues, rather than an increase.*

***It would have an impact if the rates set affect the pace of development which in turn reduces affordability*

TransLink's BAT and a Tiered DCC could introduce a new affordability burden on existing homeowners and/or renters. Given that this is a matter of degree, the choice has been made, with respect to the introduction of a DCC. Conversely, density bonusing is differentiated from the other tools in that it has a strong, positive impact on supporting the creation of dedicated affordable rental housing, and carries a strong positive impact on boosting transit-dependent ridership (and thus fare revenue) directly. In addition, density bonusing stands out as the lone tool that is supported by the development industry as a clearly positive method to significantly

enhance the construction of affordable rental housing proximate to rapid transit. It also has exceptional deliverability characteristics for affordable housing.

Density bonusing facilitates the delivery of sustainable and complete communities, in the sense that it ensures that new affordable housing is delivered in transit-oriented communities assuming that density bonusing would only be allowed in locations with good transit access. In the absence of building affordable housing as a part of market developments that are being advanced by the private sector, the risk is that transit-oriented communities increasingly become more and more exclusive as a result of the significant public investment that has been made by multiple levels of government.

Density Bonusing			
Supports the creation of dedicated affordable rental housing	✓	Is supported by housing providers and the development community	✓
Boosts transit-dependent ridership and fare revenue in locations that can be efficiently served by transit	✓	Encourages the creation of sustainable, complete communities	✓
Has exceptional deliverability characteristics for affordable housing	✓	Is, in various forms, already being implemented by regulatory authorities (and therefore can be easily adapted to the form envisioned in this study)	✓

The Limits of Land Value Capture to Fund Transit and Affordable Housing

Designing LVC Mechanisms to Mitigate Adverse Impacts on Housing Affordability

In the worst case scenario, LVC mechanisms that are intended to generate revenue for transit infrastructure could limit housing supply, and inhibit access to rapid transit. In a region facing a prolonged supply shortage, maximizing new housing supply in proximity to rapid transit is a foundational priority. Just as critical is the design of policy tools that promote the building of housing that is affordable, specifically. Developers, in both the market and not-for-profit sectors, are critical partners in building out new housing supply in response to government policy and incentives; LVC mechanisms that broaden partnerships with the development industry, instead of creating a greater burden on the delivery of supply, are in the interest of TransLink.

Economic analysis must be carried out not only around existing and proposed rapid transit stations, but in other areas where development could occur if LVC tools overburden developments near transit. This is familiar territory for TransLink; when the regional DCC for transit infrastructure was introduced, careful analysis was carried out, the DCC was set at an appropriate rate, with the intention being that it not negatively impact the pace of development. Given that LVC tools carry the potential to limit housing supply if improperly calibrated, their impacts must be fully considered prior to implementation.

Expectations Management for New Tools in Public Finance

There are numerous examples of public and political discourse becoming somewhat overblown with regard to new funding sources such as public private partnerships or tax increment financing. LVC is subject to the same risk and the same hopeful naivety. Productive discussion and effective policy both depend on a realistic understanding of what LVC mechanisms can and cannot offer. In many instances new policy tools simply move money around. Revenue sharing is an example of this dilemma - what may appear as a resource for TransLink could create a new gap for municipal partners. As a result, carefully assessing where there is accessible yet untapped value that does not deepen the tax burden or compromise housing affordability is paramount.

Local Differences in Land Economics

Any region-wide LVC program is burdened by differences in land value and the capacity of industry to tolerate or support new mechanisms. This is even an issue within single municipalities, not to mention across a region as large as Metro Vancouver, with 21 municipalities, one Electoral Area, and a Treaty First Nation that all have different approaches and tolerances for density, fees and growth more generally. Where one area may be experiencing skyrocketing land values and a highly active real estate sector, another could be stagnant or even contracting. Policies that intend to use LVC to fund transit or affordable housing must be sensitive to the local differences in land markets, which can vary significantly along a given transit corridor. The challenge is to avoid negative impacts on areas with little growth without also missing out on the gains occurring in high-growth areas.

Consequences of Miscalibrated LVC Tools

For LVC revenues to materialize, in certain markets, overtaxing development through the introduction of new LVC mechanisms could hinder development, thereby limiting the supply of new housing and doing more harm than good. Density bonusing is a helpful example for understanding the impacts of LVC on development. The additional density that is granted through rezoning during the density bonusing process has a certain value to the developer because it

represents the option to build more sellable/leasable units. This value can be predicted with a fairly high degree of accuracy.

LVC techniques must be carefully calibrated, and different government bodies must work together to ensure that the development environment remains attractive. This is especially true when the community amenities and infrastructure that make the region livable rely on an ongoing pattern of development. A density bonusing framework must be designed in such a way so as to ensure that the value of the additional density is sufficient to entice the developer to deliver the additional affordable units that accompany the increased permissions.

Sudden Market Changes and LVC

A clear risk of LVC is its fundamental assumption: that there *will* be value to capture in land that can be used to deliver on public goods. There are multiple variables well beyond the control of local governments that impact land values and the pace of development. As seen during the Covid pandemic, access to labour and materials can constrain housing delivery. While we currently enjoy an environment of low interest rates, a change in government policy either domestically or abroad could significantly impact access to capital, which drives the viability of the development industry.

Competing Uses of LVC Revenue by Municipalities, Metro Vancouver and the Province

There is a wide array of potential uses that are in competition for the same LVC revenues, as well as general tax revenues.

Uses Competing for LVC Revenue		
Arts and culture spaces	Family/youth/seniors' centres	Public safety (i.e. fire halls)
Community centres	Transit operations	Parks and open spaces
Affordable housing	Transit infrastructure	Libraries
Roads and active transportation infrastructure	General revenues (and/or reserve funds to support publicly-owned social facilities)	Childcare facilities
Heritage conservation	Furnishing, fit-out, and equipment associated with in-kind contributions	Other capital projects

There is a tendency to view LVC as “found money”, in the sense that monetary value is being extracted from an activity that does not need to be funded via the broader tax base. The same fiscal pressures that exist in any public sector budget process exist also in any discussion about how LVC revenues should be used. An evaluation of tradeoffs must occur; there is only so much blood that can be extracted from the LVC stone.

The Opportunity of Density Bonusing to Spur the Delivery of Affordable Housing in a Timely Manner on Rapid Transit Corridors

Ideally, an approach to LVC would not have an adverse impact on affordable housing or housing affordability, and would provide new opportunities for the delivery of affordable housing without imposing new costs on existing or future residents or decreasing the amount of revenue available for transit expansion.

Additionally, new LVC mechanisms should not contribute to the general burden of housing affordability by adding costs to homeownership or renting, whether one time or recurring. Of the tools analyzed in this report, the mechanism that most consistently accomplishes these objectives is density bonusing for affordable housing.

Density bonusing capitalizes on the existing regulatory role of government, recognizing that governments determine the value of land through planning permissions, and that the uplift in value associated with granting increased density permissions can be used to accomplish public policy goals — in this case, affordability. Density bonusing offers a unique array of benefits that make it an especially well suited LVC to meet the scale and nature of housing affordability challenges as they exist today, given that it:

- Directly increases the supply of housing;
- Carries the potential to enable new affordable housing with no direct nor ongoing subsidy or capital contribution from any stakeholder;
- Requires only regulatory change to land use planning provisions (and related negotiations between approvals authority and development proponent);
- Imposes no new costs on existing households;
- Adds no new financial barrier into the development process as long as the value of the additional density is greater than the affordable housing contribution that is expected in return
- Has exceptional deliverability characteristics for affordable housing
- Increases ridership and fare revenue for transit.

Similarly, in an environment where there is a sustained need for continued transit capital (and operating) funding, density bonusing allows for the creation of new affordable housing without sacrificing revenue that can be used for transit expansion. Given that transit expansion is inherently inflationary to land values, it is useful and important to ensure that a portion of the value of that uplift is driven into improving regional affordability. Density bonusing achieves exactly this.

There is little political appetite in the region for new taxes, and yet most LVCs are either new taxes or levies or revenue sharing of existing taxes or levies. When we consider, through the Multiple Account Evaluation, that some LVC tools could place an additional financial burden on existing and/or future property owners (through either direct levies or via costs that housing developers might pass along to future tenants or owners), density bonusing is set apart, insofar as it is rooted in materializing value from regulatory permissions as opposed to extracting money from property owners or purchasers.

The development of affordable housing is constrained across the Metro Vancouver region by access to land, lengthy approvals processes, constituencies that oppose even modest or incremental new affordable housing, and willing development partners with the expertise to build affordable housing at a scale appropriate to and proximate to transit. Density bonusing capitalizes on an existing land asset that is already advancing through the approvals process for development. Land is in place, a development partner (presumably with the capital necessary to develop housing) is in place, and an approvals process is underway or pending.

As such, from a deliverability perspective, unlike approaches that involve banking funding for affordable housing, or land swaps that require a parallel development to proceed, the new affordable housing to be built as an outcome of the density bonusing scheme is delivered concurrent with market housing. Given the scale of the regional housing affordability crisis and the need for new affordable units *today*, density bonusing rates even more highly than other LVC tools that produce cash-in-lieu that could be used to support the delivery of affordable housing sometime in the future on some as-yet unidentified site. The value of time must not be underestimated in analyzing the relative merits of LVC tools.

Case Study Objectives

The case studies demonstrate the variability of how a density bonusing framework could unfold on two hypothetical development sites with different characteristics, in terms of relative land value and existing and viable post-development spatial considerations and built forms. Hypothetical scenarios were chosen to lift the discussion out of a planning analysis exercise that would have had to consider the precise form of redevelopment that is appropriate for a real-world site, an analysis that should be conducted to a much greater degree of specificity and with extensive inputs, and which would be subject to debate. The chosen approach is intended to provide a clearer consideration of the merits of density bonusing as an LVC tool that avoids the subjective consideration of the appropriateness of the form of redevelopment envisioned for a particular site on an existing or planned rapid transit corridor.

Case Study Analysis

The two hypothetical sites that were selected for the case study analysis bear many hallmarks of real sites in the Metro Vancouver region. As such, they provide a useful blueprint for how a density bonusing framework might unfold at a number of current and future rapid transit stations that are characterized by the urban form depicted in the case study sites.

Case Study Site #1: Densification of a Low-rise Residential Area

Context

Many rapid transit station areas in Metro Vancouver lack dense urban forms and amenities in close proximity to station locations. Site #1 explores this contemporary urban form to illustrate the community-building potential that could be created through the provisioning for new forms and intensities of development within a few blocks of the station.

Existing Station Area

The rapid transit station in Site #1 opened in the 1980s, though both the immediate and surrounding area remains suburban 40 years after the rapid transit investment was made. It could just as well also be an area around a newly planned rapid transit station in which the existing context is predominantly single-family homes. Despite excellent transit connectivity, the neighbourhood is governed by restrictive RS-1 zoning that limits development to single-detached forms of housing at 0.60 to 0.75 Floor Space Ratio. RS-1 zoning today allows for the addition of a secondary suite and a laneway house within these density limits, but overall density and units/acre still remain low.

Upzone Scenarios

The “upzone” exploration in this case study assesses the number of homes and theoretical land value increases that might be achieved by allowing new multi-family development at densities ranging from 2.0 FSR (via a predominantly 4-storey typology) to 3.0 FSR (via a predominantly 6-storey typology). For the purpose of the analysis, it is assumed that the majority of the units would be offered as ownership condos, which typically generate higher values and higher land residuals, with the remainder being delivered as purpose-built affordable rental units. These densities are generally achievable with wood frame construction of up to six storeys, serviced by concrete underground parking.



Land Residual Analysis

A basic land residual analysis was conducted, which calculates the potential land values that could be created for 150 foot land assemblies at 2.0 FSR, 2.5 FSR, and 3.0 FSR, respectively. Using fairly conservative assumptions on value and development costs, and expected development profit, the analysis suggests that higher value condominium uses could generate land values in the range of \$240/sf of Gross Floor Area.

These estimated land values represent what a typical developer could afford to pay in total for the land price to the current land owners, as well as the existing CACs, DCCs, DCLs, property taxes, and application and permitting fees, using conservative estimates of land value and design and building costs based on industry benchmarks. With each additional increase in allowable FSR value comes additional “room” to deliver units at below-market rates.

Assessing Feasibility of Density Bonusing Scenarios to Deliver New Affordable Housing Via Density Bonusing

Based on the assumptions regarding development potential, costs, revenues, and having used those data points to compile the sample proforma, assumptions can also be made about the type and extent of affordable units that could be reasonably be expected to be delivered by the private (or non-profit) sector, in return for higher density permissions. This scenario envisions higher density permissions in return for the creation of affordable housing rather than community amenities. The proforma also provides specific insight into the role that government costs play in a development proforma, and is illustrative of how and why developers typically pass on increased government costs to consumers, if and when the market will bear it.

	0.7 FSR (Current)	2.0 FSR	2.5 FSR	3.0 FSR
Site Area	914,473	914,473	914,473	914,473
GFA	640,131	1,828,946	2,286,183	2,743,419
GFA Added	-	1,188,815	1,646,051	2,103,288
Estimated # Homes	500	2,640	3,300	3,960
# of Affordable Rental Units		221	601	980
# of Condo Units		2,419	2,699	2,980
Land Value /sf (Affordable Rental)	NA	(\$202)	(\$202)	(\$202)
Land Value/sf (Condo)	NA	\$236	\$240	\$243
Rental Land Value	NA	-25,751,459	-69,957,255	-113,970,129
Condo Land Value	NA	328,215,654	372,421,455	416,434,296

Three density bonusing scenarios are illustrated in the chart above, corresponding to the three different built-out densities, and assuming a purpose-built rental affordable unit with an average unit size of 575 square feet, offered at a “workforce housing” rent of \$2.50 per square foot (in contrast to a comparable market rent of \$3.50 - \$4.00 per square foot). The density required to build these units would be “acquired” at a zero land cost — that is, the “bonus” density — and would allow for the delivery of 221, 601, or 980 affordable units at FSRs of 2.0, 2.5, and 3.0, respectively.

FSR	2.0	2.5	3.0
Market Units	2,419	2,699	2,980
Affordable Units	221	601	980
Total Units	2,640	3,300	3,960
AH as a % of Total Units	8%	18%	25%

Though the specific mechanics of a density bonusing framework are out of scope of this study, the analysis provided above serves as an efficient illustration of the potential of density bonusing; in such a case, the planning authority (in this case, the municipality) could secure more than one thousand affordable units at the proverbial stroke of a pen, without providing a direct subsidy, and could also secure those units in an actual pipeline project in the planning process, as opposed to collecting cash-in-lieu to be dedicated to the creation of some affordable units in some project elsewhere on some undefined and unacquired piece of land. In a way, the table above illustrates how the framework could be applied to produce affordable housing on the site in-kind, allow for three different inclusionary zoning manifolds — one corresponding to each FSR — that could be supported by the market.

In terms of implications for transit, this build-out scenario — which leverages density bonusing to create new affordable housing — would see a significantly higher population living within walking distance of the station, a substantial percentage of which have a higher propensity to take transit. The higher transit ridership and associated fare revenue (due to both the higher population within 800m of the station, and the higher share of renter households) is a positive outcome for TransLink. In addition, since this is an existing station with good existing bus transit service, it likely means that there would be no or little incremental costs to transit service provision. The result is that this incremental population can be efficiently and well served by transit. For the area residents, superior accessibility to jobs and services due to living near the station will significantly reduce both their environmental footprint and overall household costs.

In addition, the development also pays the TransLink DCC (regardless of where the development is located), less any waivers or reductions. This results in revenue that TransLink can put towards transit expansion. Therefore there is both revenue that goes to TransLink for capital from the DCC, and density bonusing results in incremental ridership and fare revenue, which is ongoing incremental revenue that can be used for either operating or capital purposes.

The magnitude of the opportunity encapsulated in zoning permissions to create new housing, including affordable housing, even along existing rapid transit corridors is apparent. On this case study site, as with many like it around rapid transit stations in the region, the drawing of

even a modest radius for densification through a fairly modest form can bring thousands of new people (including hundreds of transit-dependent riders) to a station area.

Case Study Site #2: Densification of a large industrial or big box retail district

Context

Site #2 envisions a large, block-scale TOD community on land currently occupied by surface parking lots that service large-format big box retail stores and light industrial uses. A large commercial land owner would compile a block plan that includes new public parkland, a variety of community uses interspersed amongst new mixed-use and residential towers. It presents opportunities to create value by adding intensity and amenity in areas that today have little if any existing development.

Existing Station Area

The station opened in the 2000s; today, most of the area to the north of the station is comprised of surface parking. To the west is a big box store and a Park & Ride; the east portion of the site accommodates a bus loop. BC Assessment Values for the subject sites totalled \$187.7M in July 2020, clearly anticipating future development value.

Upzone Scenarios

The “Upzone” exploration in this case study contemplates a transit-oriented centre generally within a 200m radius of the station. The development blocks illustrate a potential subdivision pattern within which a finer network of pedestrian and cycling connectivity could be overlaid. These blocks total 620,000 square feet. At 4.0 FSR, the existing BC Assessment value equals \$76 per buildable square feet; at 5.0 FSR, existing assessment value equals \$61 per buildable square feet.

Land Residual Analysis

For the purpose of this analysis, it is assumed that a third of the units would be delivered in rental tenure in cost-effective wood frame rental buildings. 20% of the new units created would be let out at 80% of market rates for new rental housing (roughly \$3.00 per square foot per month vs. \$3.50 for new market rental). The resulting below-market rents would be affordable to households earning between \$42,000 to \$90,000 (roughly the median income for Metro Vancouver).

The land residual analysis considers the resulting land value of the residential development outlined above and concludes that this mix would generate land values generally in line with current BC Assessment Valuations for the properties in question. The 260,000 square feet of commercial space would deliver additional land value depending on the nature and value of those uses.

Assessing Feasibility of Density Bonusing Scenarios to Deliver New Affordable Housing Via Density Bonusing

Market developers would be motivated to deliver this housing under a density bonusing scheme that secured – as a public benefit in return for the new density of other land uses – 20% of the units (roughly 652) in rental tenure at 80% of current market rates for new rental buildings.

As with the first case study suite, there is substantial opportunity encapsulated on sites such as this to create new housing, including affordable housing, as part of brand new complete communities on land that today operates near or at its lowest and worst use. As is illustrated in the proforma above, development plans at this scale present the opportunity not only to procure a substantial amount of new housing supply, but also include the financial room to secure additional community benefits that could be located in the very same redevelopment scheme.

Conclusion

This analysis has considered several critical region-shaping objectives that ought to inform any assessment of LVC mechanisms advanced or supported by TransLink:

- Maximize the delivery of affordable housing in transit-oriented communities;
- Expedite the delivery of affordable housing in transit-oriented communities;
- Ensure housing affordability is not negatively impacted by investment in transit or Land Value Capture tools;
- Support expansion of transit ridership and fare revenue generation;
- Expand access to rapid transit for transit-dependent riders;
- Continue to support the expansion of transit infrastructure and service.

While it is tempting to view the uplift in land value around transit infrastructure as a boon to meet a broader governmental need related to funding transit expansion, the objective of ensuring a liveable, inclusive region where transit-dependant riders — who are more likely to struggle with the high cost of housing — are prioritized for access to housing proximate to transit is a significant priority, too.

Once the lens of housing affordability is applied to LVC mechanisms, it becomes clear that there are inherent risks: it is precisely for the reason that there is an uplift in land value that access to affordable housing is potentially compromised. TransLink has a direct interest in ensuring that affordable housing is delivered along rapid transit corridors it plans and operates — both as a regional partner with other levels of government that share this objective, and from a fare revenue generation perspective. Fare revenue is both protected and enhanced by ensuring the

supply of affordable housing along rapid transit corridors is continually increased; as the pandemic illustrated, in a crisis, transit-dependent riders are the *raison d'être* of transit service, and fundamental to predictable revenue generation. Even more importantly, ensuring that transit-dependent riders have good access to excellent rapid transit is fundamental to the long-term success of the region.

Of the revenue-generating tools assessed in this study, density bonusing is the tool that scores high in relation to the most significant constraints associated with delivering affordable housing amid the affordability crisis: access to land in proximity to transit, and getting housing built today. Although it is not a perfect tool, there is a shared interest in areas across the region in prioritizing density bonusing as a tool specifically to deliver new affordable rental housing in transit-rich areas. Other tools that involve revenue-sharing with either the Province or municipalities are either a new tax, or simply move the revenues of a tax that is already collected from one entity to another. LVC mechanisms that do not adversely impact housing affordability are the most compatible with the objective of creating an inclusive region that prioritizes access to transit for low and moderate income households.

There are regional pressures that call for new and more significant interventions to mitigate the housing affordability crisis, and for an ongoing investment in new transit infrastructure (and operating and service). Given this reality, at the highest level, there is a pressing need for a national strategy to fund capital transit infrastructure on a significant and continued basis. There is no free money, and someone always pays. Ensuring access to rapid transit for those who face the greatest pressures given escalating housing costs sits in opposition to capturing the value from land adjacent to the proposed transit infrastructure - unless we prioritize capturing that value to deliver affordable housing as a part of new developments.