Financial Analysis Inputs to Broadway Plan: Summary of Findings

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Prepared for:
City of Vancouver

By:
coriolis
CONSULTING CORP.

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1.0 Introduction

1.1 Background

The City of Vancouver is completing a planning process for the Broadway Corridor (the Broadway Plan). As part of the process, the City examined the potential for redevelopment and intensification of sites in portions of the study area.

A wide variety of factors were evaluated to help select the land uses and appropriate densities in the study area including social planning objectives, existing community character, urban design objectives, transportation, servicing capacity, and the general ability of the area to absorb new population and employment.

There is very little vacant land in the planning area, so new development will need to come mainly through redevelopment or infill of existing properties. Therefore, an additional consideration was the mix of uses and the density of new development that are likely needed to make redevelopment and intensification financially viable for private developers.

As one input to the planning process, the City retained Coriolis Consulting Corp. to complete financial analysis for a wide variety of different types of possible redevelopment scenarios in the study area to help address the following questions:

1. What is the likely financial performance of different types of rental, office, mixed employment and strata residential development scenarios and how much density is likely required to stimulate redevelopment in locations that are desirable for intensification from a planning perspective?
2. Is it financially viable for new projects to include below market rental units or turnkey social housing units and what are the implications for the density required?
3. What is the impact of other potential policies being considered by the City such as enhanced tenant protection and vacancy control on below market rental units?

Our work was completed over the course of the planning process, spanning from early 2020 to early 2022. Our inputs were divided into three main phases:

1. Preliminary financial analysis of different case study sites, development scenarios, and affordable housing options to inform the initial planning concepts for the study area in advance of community engagement.
2. Analysis of refined development scenarios and policies that arose from input provided at community workshops and public engagement.
3. Review of the policies included in the draft Plan.

Our work with the City was iterative as plans and policies for the Corridor evolved throughout the process.

This report summarizes the approach to our analysis and the main findings of the financial analysis.

It should be noted that the findings of our analysis are based on market conditions as of late 2021. The financial viability of redevelopment will change over time as market conditions (values and costs) change.

However, our findings are a good indicator of the likely redevelopment economics in the study area for the foreseeable future.

1.2 Professional Disclaimer

This document may contain estimates and forecasts of future growth and urban development prospects, estimates of the financial performance of possible future urban development projects, opinions regarding the likelihood of approval of development projects, and recommendations regarding development strategy or municipal policy. All such estimates, forecasts, opinions, and recommendations are based in part on forecasts and assumptions regarding population change, economic growth, policy, market conditions, development costs and other variables. The assumptions, estimates, forecasts, opinions, and recommendations are based on interpreting past trends, gauging current conditions, and making judgments about the future. As with all judgments concerning future trends and events, however, there is uncertainty and risk that conditions change or unanticipated circumstances occur such that actual events turn out differently than as anticipated in this document, which is intended to be used as a reasonable indicator of potential outcomes rather than as a precise prediction of future events.

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2.0 Objectives and Approach

2.1 Key Objectives of Analysis

The objective of our analysis was to evaluate the financial viability of different possible redevelopment scenarios for different locations in the study area and the likely impact of different potential policy approaches. Our analysis focused primarily on sites in the C-3A, RM, FM and RT zoning districts[1]. The specific objectives of the analysis differed for each site depending on the location, existing use and existing zoning of the site being evaluated.

A wide variety of development scenarios were tested for each zoning district and location in the early stages of our work. Our initial work evaluated over 120 different development scenarios at 19 different case study sites. The focus of this initial work was to evaluate the approximate densities likely required to make redevelopment financially viable in different parts of the study area under different assumed mixes of uses. This initial work also examined a variety of different affordable housing approaches and scenarios.

As plans for the study area evolved during the engagement process, we updated and refined the analysis. Over the course of the entire planning process, we analyzed over 200 different redevelopment scenarios at a wide range of different sites.

This report provides details on the scenarios and analysis included in the final phase of our work following the engagement process:

1. For case study sites currently zoned C-3A (generally along Broadway). We analyzed the financial viability of a wide variety of different development concepts, ranging from 4.0 FSR up to 8.5 FSR, including:

    - Retail and office development.
    - Retail and market rental development.
    - Retail, office, rental with 20% below market rental[2].
    - Retail and rental apartment with 80% market and 20% below market.
    - Retail and strata apartment with 20% turnkey social housing[3].
    - Retail and strata apartment.

[1] We also completed some limited analysis of scenarios for the existing industrial and mixed employment locations.

[2] Below market rental units are privately owned rental units that are rent restricted based on City of Vancouver guidelines.

[3] Turnkey social housing units are apartment units that are constructed by the private developer and transferred to the City for a nominal amount upon completion. The units are then made available to rent at non-market rates.

2. For case study sites zoned RM and FM[4] which are improved with older strata apartment buildings, we analyzed the financial performance of redevelopment of sites as 80% strata apartment and 20% turnkey social housing under different assumed densities.
3. For case study sites zoned RM and improved with older rental buildings, we analyzed the financial performance of redevelopment assuming 80% market rental and 20% below market rental under different assumed densities ranging from 5.5 FSR to 7.5 FSR.
4. For case study sites zoned RT, we analyzed different rental redevelopment scenarios including:
    - 6 storey market rental apartment development at 2.5 FSR.
    - Rental development with 80% market rental and 20% below market rental at 5.5 FSR.

Other items that we also evaluated as part of the overall work program included:

1. The likely impact of vacancy control on densities required to make mixed market and below market rental development financially viable.
2. The impact of enhanced tenant protection policies on the financial performance of projects that involve demolition of existing rental units.
3. The ability of strata apartment rezonings to provide amenity contributions.

2.2 Approach to Analysis

In order for private developers to be interested in proceeding with a new project, the project needs to be financially attractive. This means that developers planning new projects need to think the project will generate a sufficient return on the total investment to obtain project financing and address the costs and risks associated with the new development. This is different than non-profit or government funded development projects which may not require a return on project costs.

We analyzed the likely financial performance of different hypothetical development scenarios at case study sites throughout the planning area. For each redevelopment scenario, we compared the estimated potential revenues with the total anticipated costs to determine the likely profitability of the scenario and the land value supported by the scenario:

1. In consultation with City staff, we identified a range of different case study sites for our analysis. The case study sites were selected from the different locations that could be considered for growth or redevelopment within the planning area and include a cross-section of existing zoning districts and uses. The case study sites selected for the analysis were all improved with older, lower density existing buildings and are similar to the types of properties that have been redeveloped in the study area in the past. Sites with higher value improvements were not selected as these properties are not assumed to be redevelopment candidates in the short term.

[4] The existing RM and FM districts are covered by the Rental Housing Stock Official Development Plan (RHS ODP) which requires one-for-one replacement of rental housing at new developments of 3 units or more. In the Broadway Plan area, the majority of purpose built rental is located in RM zones with minimal existing rental units in the FM district (approximately 1% of existing rental units covered by the RHS ODP in the plan area are located in the FM zoning district)

2. We estimated the value of each site under its existing use and existing zoning. This is the minimum value that a developer would need to pay for a site in order to acquire it for redevelopment.
3. We agreed with City staff on the redevelopment scenarios to test for each of the case study sites (density, mix of uses, tenure, affordable housing assumptions).
4. We created detailed financial proformas to analyze the likely financial performance of each redevelopment scenario at each case study site.
5. For strata residential or strata non-residential (office) projects, we used the financial analysis to estimate the maximum land value supported by the redevelopment scenario. This is the value that a developer could afford to pay for the case study site, complete the overall project and expect to generate a sufficient return on their total investment upon sale of all of new units. In order for a scenario to be financially viable, the land value supported by redevelopment scenario needs to be equal to (or higher than) the value of the property under its existing use and zoning. Otherwise, it will be more attractive (financially) to retain the property in its existing use or build new ownership housing under the current zoning.
6. New rental projects are either retained by the developer or sold by the developer to an investor upon completion, so for the rental scenarios, we used the financial analysis to evaluate different indicators of land value and profitability depending on whether the project was sold or retained by the developer, including:
    - The value that a developer could afford to pay for the case study site, complete the overall project and expect to generate a sufficient return on their total investment upon project completion.
    - The profit margin from the completed development (profit on sale of building divided by total project costs) if the applicant acquired the property at the value of the property under its existing use and zoning, built the project, rented out the units and sold the completed project to an investor.
    - The annual yield to the developer (annual net income divided by total project costs) if the applicant acquired the property at the value of the property under its existing use and zoning, built the project, rented out the units and held the completed project as an income-producing property.
7. For each redevelopment scenario, we then used the proforma analysis to determine one of two things:
    - The density likely required to make redevelopment financially attractive, or
    - For a given density, whether the redevelopment scenario would likely be financially viable.

3.0 Key Assumptions

3.1 Rental and Affordable Housing Assumptions

The key assumptions about market rental, below market rental, and social housing units used in our analysis are summarized in the following sections.

3.1.1 Rents and Unit Mix

Unit mix and rent assumptions were as follows:

1. Starting rents for new below market units are set at 20% below[5] the City-wide CMHC average rent (by bedroom type) depending on the rezoning scenario.
2. Rent increases for the below market units are regulated under the Residential Tenancy Act (RTA) during tenancies. At the start of a new tenancy, the below market rents are reset to 20% below the CMHC City-wide average rent for that year.
3. Scenarios that include below market units or turnkey social housing units assume that 20% of the residential floor area is allocated to the affordable units.
4. Social housing units include 50% family units while the below market rental and market rental units include 35% family units.

3.1.2 DCLs and Government Funding

Assumptions about DCLs and government funding were as follows:

1. The existing City-wide DCL waiver is available for rental units that meet the DCL waiver eligibility requirements for average starting rents and maximum unit sizes.
2. The Utilities DCL is paid by all rental projects.
3. Rental projects are not assumed to obtain funding from senior levels of government. However, we assume that financing could be available from CMHC or an alternate lender that provides favourable financing rates for rental or below market rental construction.

3.1.3 Tenant Relocation Policies

The City has policies in place to protect tenants and assist tenants who are displaced due to demolition of existing rental buildings. Under the existing polices, a developer is required to:

- Create a relocation plan and assist tenants in securing new rental accommodation.
- Provide each tenant financial compensation that varies based on the length of tenancy.

[5] Other below market rent scenarios were also tested during the course of our analysis. However, the findings outlined in this report are based on the below market unit rents being set at 20% below City-wide CMHC average rents for buildings of all ages

- Provide financial assistance with moving expenses.
- Provide each tenant a right of first refusal to move back into the new rental building upon completion at a discounted rent.

Our analysis assumes that the City adopts an enhanced tenant protection approach in the Plan area which assumes that tenants are provided with assistance and moving expenses to relocate to an alternate rental unit, provided the opportunity to move into a unit[6] at the newly completed rental building at below market rent, and compensated for any increase in rent for the alternate rental unit until the new below market unit is available.

It should be noted that the tenant protection policy creates costs and uncertainties for developers. For example:

- There is uncertainty about the costs associated with compensating tenants for increased rents at an alternate rental unit, both in terms of the additional rent per month and the duration of the additional rent (as this is linked to the time required for the overall development, which is often uncertain).
- It is not possible to predict the number of existing tenants who will elect to exercise the right of first refusal upon completion of the new rental project. Having said this, in many cases the City's proposed policy would require that the new units be rented at the below market rents even if the tenant does not return.

3.1.4 Vacancy Control on Below Market Units

Our analysis assumes that rent increases for the below market units are regulated under the Residential Tenancy Act (RTA) during tenancies. At the start of a new tenancy, the below market rents are reset to 20% below the CMHC City-wide average rent for that year. This could result in an increase or a decrease in a below market unit rent, depending on the CMHC average rents at the time of turnover.

The ability to reset rents to a percentage of CMHC rents at the start of a tenancy allows a rental building owner to ensure that rents keep pace with increases in building operating costs (such as insurance, hydro, heat, water, maintenance, repair) and property taxes, which typically increase at a rate that is significantly higher than the RTA rate increase (The RTA rate increase is normally a maximum of the Consumer Price Index, but it has been less in recent years).

Under strict vacancy control, as used in the City's existing Moderating Income Rental Housing Pilot Program (MIRHPP)[7], the rent rates can increase annually as permitted under the RTA but cannot be increased between tenancies. This approach creates challenges over the long term as operating costs and property taxes typically increase at rates much higher than the RTA rent increases. Therefore, under strict vacancy control, the annual net operating income from the below market units could decline in the long term which negatively impacts the project viability.

The uncertainty about future operating and property tax increases makes ownership of units that are subject to strict vacancy control much riskier than the approach being proposed in Broadway (i.e., some limited

[6] For scenarios that include below market rental units, the returning tenant could move into one of the below market units.

[7] MIRHPP was a limited pilot program that enabled up to 20 rezonings for new buildings that provided 100% of residential floor area as secured market rental, with 20% permanently secured for moderate income households. The program was closed to new applications in January 2022.

increases to rents are permitted at turnover, but not a full reset to market rents). This uncertainty and risk has a significant impact on the value of strict vacancy controlled units.

The impact of strict vacancy control on rental unit value means that large increases in density[8] are often required to make it financially viable to develop rental projects that include vacancy controlled below market units.

It should also be noted that, even if increased density is provided to offset the impact of a strict vacancy control requirement, many developers will still not be interested in proceeding with a rental project. The additional costs, risks and financing obstacles created by strict vacancy control will likely result in many developers seeking other development options in the City or elsewhere in the region.

If strict vacancy control (with no increase in rents permitted between tenancies) is required on below market rental units, we would expect developers to build less new rental housing, resulting in less new market and below market rental housing supply over time.

3.2 Profitability Measures

We examined different measures of profitability to determine if a scenario was likely financially viable.

1. To determine if a strata residential (or strata non-residential) or mixed use scenario is financially viable, our analysis assumes that the developer would target a minimum profit margin of 15% of total project costs[9]. This the minimum profit margin typically required by strata developers to obtain financing and proceed with a new project given the significant capital, risk and time involved in new project
2. To determine if a rental scenario is financially viable, our analysis examines a combination of different indicators:
    - A profit margin of 10% on total project costs. This is low for a new multifamily residential project, but it is based on the estimated profit margins likely being achieved by new rental projects in Metro Vancouver. Our research indicates that rental developers are currently able to proceed at a lower margin than strata apartment developers.
    - An estimated annual yield on total costs of about 4.2% after the project is completed and the rental units are leased-up. This yield needs to be higher than the market capitalization (cap) rate for new(er) rental buildings[10] to account for the time, capital and risks associated with the development process. Without a return that exceeds the market cap rate, a rental developer/investor would be better off purchasing an existing rental building rather than developing a new rental building.

[8] Based on our evaluation, vacancy control on the below market units in highrise rental projects would require an increase in density of about 15% to 30% (depending on location) in comparison to the below market approach proposed for the Plan. In some cases, even additional density is not sufficient to make a project viable.

[9] It should be noted that this is not an annual return on costs. It is the profit as a percentage of costs on all costs incurred over the entire development horizon (which would span multiple years). The annual average return would be significantly lower.

[10] Market cap rates for new rental apartment buildings in Metro Vancouver are currently in the range of about of 3.75% to 3.85% (assuming rents are at full market) depending on location and type of rental project. Some have sold at lower cap rates but these projects have had rents that are less than current market rents at the time of sale so there was potential upside to the investor as units turn over and rents are able to be increased to market rent.

Other measures of the return that are often used to evaluate the profitability of a new rental project are internal rate of return (IRR) and discounted cash flow (DCF) analysis. We did not focus on these measures as each involves numerous assumptions about the future change in rental rates, vacancy rates, operating costs, property taxes and cap rates. These additional assumptions introduce significant uncertainty to results of the analysis.

Drawing on these different measures of profitability we determined whether a development scenario was viable, possibly viable (slightly below our target measures of profitable), or not viable.

3.3 Other Assumptions

This section outlines other assumptions that are common to the scenarios that we tested.

The estimated existing property values, revenues from the new rental units and project creation costs used in our analysis vary depending on the location of the case study site in the overall planning area and the type of project. Generally, market values (existing case study values and market values for new space) are higher in the western portion of the study area than in the eastern portion. Our analysis takes into account the variation in market values and costs in the different locations in the planning area.

Other key assumptions used in our financial analysis included the following:

1. Rezoning and redevelopment scenarios that involve the assembly of multiple existing single family (or duplex) homes include a cost allowance to address the costs associated with assembly of multiple properties.
2. Projects are assumed to incur costs for utilities relocation and green infrastructure. The actual cost will vary from site to site, but based on input from the City our analysis assumes that new projects incur costs of about:
    - $1.0 million to upgrade and replace utilities (in addition to typical servicing costs for upgrades adjacent to a site).
    - $350 per square metre of site area for on-site green infrastructure for rainwater management.
3. No CAC or density bonus contribution is assumed in any redevelopment scenarios. For strata residential scenarios, our analysis assumes that any CAC would be negotiated as part of the rezoning process based on any increase in land value due to rezoning. For rental and employment scenarios, the analysis assumes that the employment space, rental housing and affordable housing is the amenity contribution.
4. The commercial linkage target is included for 100% commercial projects that are leasehold. CACs would be negotiated from strata commercial projects based on any increase in land value due to the rezoning.
5. Public art contribution of $1.98 per square foot is included for rezonings in excess of 100,000 square feet.

4.0 Summary of Results of Financial Analysis

This section summarizes the key findings of our financial analysis. It is organized based on existing zoning for the case study scenarios, as follows:

- C-3A scenarios (primarily along Broadway).
- RM and FM strata building scenarios.
- RM and FM rental building scenarios.
- RT rental scenarios.

4.1 C-3A Scenarios

Our financial analysis of development scenarios for the C-3A sites indicates that:

- Mixed strata apartment and retail development is viable at the current permitted C-3A density of 3.3 FSR[11] at sites that are improved with older low density commercial buildings. If permitted density is higher, strata projects can support significant amenity contributions.
- Market rental and mixed commercial and market rental apartment development likely requires minimum densities of about 8.0 FSR to be viable on sites improved with older low density commercial buildings.
- Rental apartment projects with a mix of 80% market and 20% below market rental (or mixed use) development likely requires minimum densities of about 12.0 FSR to be viable on sites improved with older low density commercial buildings.
- Retail and office development likely requires minimum densities of about 8.0 FSR[12] to be viable on sites improved with older low density commercial buildings.
- Mixed strata apartment with 20% turnkey social housing likely requires minimum densities of about 6.0 FSR to 8.0 FSR (depending on location) to be viable on sites improved with older low density commercial building.

Rental and below market rental development is less likely to occur in the eastern portion of the study area (Mount Pleasant) as market rental rates are lower than in the western portion of the study area but building costs are similar.

4.2 RM and FM Scenarios for Sites with Existing Strata Buildings

The viability of redevelopment will vary significantly depending on the density of the existing building at the site, the number of existing units, the condition of the building and the interest from a sufficient percentage of strata unit owners (a minimum of 80%) selling for redevelopment[13]. The higher the existing built density, the more density is required to make redevelopment financially attractive.

[11] This density includes a 10% bonus for heritage density.

[12] This assumes the commercial space is leasehold. If the project is a strata commercial project, the required density is lower.

[13] In BC, support from a minimum of 80% of owners is required to wind-up an existing strata corporation.

Our financial analysis of development scenarios for RM sites that are improved with older strata apartment buildings indicates that:

- At a density of about 4.0 FSR, some older strata properties will be viable for redevelopment to 100% strata apartment.
- At a density of about 6.0 FSR, some strata properties will be viable for redevelopment to 80% strata apartment and 20% turnkey social housing.

The viability of redevelopment for these types of sites will depend on the existing built density and the interest that the current owners have in selling their units (as 80% or more need to be interested in winding up the strata corporation).

4.3 RM and FM Scenarios for Sites with Existing Rental Buildings

The viability of redevelopment of existing rental buildings will vary significantly depending on the existing built density at the site, number of existing units, and the condition of the building. The higher the existing built density and the better the building condition, the more density that will be required to make redevelopment financially attractive.

We do not have information on building condition for the rental buildings in the planning area. However, there is a range of existing built densities in RM districts, so some properties are likely better candidates for redevelopment than others. Based on data provided by the City, we estimate that roughly 20% of existing rental properties in the study area are built to 0.9 FSR or less, 30% are built between 0.9 FSR and 1.2 FSR and the remaining 50% are built to higher densities.

We analyzed rental redevelopment with 80% market rental and 20% below market rental at densities ranging from 5.5 FSR to 7.5 FSR in different parts of the study area. We evaluated how the financial viability changes depending on the existing built density of the existing rental apartment building. An example of the financial analysis for these scenarios for one site is included in the attachments.

The following exhibit summarizes the findings of our analysis for properties in the western portion[14] of the study area. It shows the likely viability under different assumed built densities and different assumed redevelopment density.

Exhibit 1 – Summary of Financial Viability of 80% Rental/20% Below Market Rental – West Side Properties

	5.5 FSR	6.5 FSR	7.5 FSR
Properties Built to 0.9 FSR	Possibly Viable	Likely Viable	Viable
Properties Built to 1.1 FSR	Not Viable	Possibly Viable	Likely Viable
Properties Built to 1.3 FSR	Not Viable	Not Viable	Possibly Viable

This shows that minimum densities of about 6.5 FSR are likely required to make existing low density rental properties in West Side locations financially viable for redevelopment assuming 20% of the floorspace is allocated to below market rental units.

[14] This includes Fairview, South Granville and Kitsilano

Our analysis indicated that development of new rental buildings with 20% below market floorspace is unlikely to be viable at sites improved with existing rental buildings in the eastern portion of the study area at the densities we tested, unless the property is built to a very low existing density. This is due to the lower rents that are achievable in the market portion of the new building in comparison to rents in neighbourhoods further to the west.

Overall, our analysis indicates that:

- A relatively small share (likely 20% or so[15]) of existing rental apartment buildings in the study area will be financially viable for redevelopment to 80% market rental and 20% below market rental at densities of about 6.5 FSR. These properties would be redeveloped over time based on the interest of existing owners to sell. At 7.5 FSR, significantly more properties would be viable for redevelopment.
- If assembly is required, the number of sites that are financially viable likely declines as each site in the assembly would need to be built to a low existing density.
- These sites will only redevelop if existing owners are interested in selling for redevelopment (or redeveloping on their own) so the pace or redevelopment will likely be modest.

There are a number of reasons that the redevelopment of these properties is challenging (from a financial perspective) despite the large in increase in proposed density, including:

- The existing rental buildings in the study area have relatively high market values under existing use as income-producing investment properties.
- New rental buildings that require concrete construction typically require high densities to be financially viable as construction costs per square foot are high.
- The portion of the building that will be allocated to below market units has a low value upon completion due to the below market rents but high costs to create.

4.4 RT Scenarios

The viability of redevelopment of existing RT zoned sites (duplex and single detached) will vary significantly depending on age and quality of the existing homes, the current owner's interest in selling, and the existing lot sizes. Smaller lots are more challenging to redevelop (from a financial perspective) due to the higher existing value per square foot of lot area.

We tested the financial viability of redeveloping existing RT properties for 6 storey market rental at 2.5 FSR and highrise rental with 80% market and 20% below market at 5.5 FSR at sites in different parts of the study area. Our analysis indicates that both forms of rental development will likely be financially viable on assemblies of RT properties if the lot sizes are relatively large (6,000 square feet or more) and the lots are improved with older homes (or duplexes).

The scenarios we tested are unlikely to be viable in the short term on assemblies of smaller lots or properties improved with higher value homes. Because many houses and duplexes in the RT areas are newer and/or on smaller lots, only a share of RT lots will likely be candidates for redevelopment in the short term. The need to assemble properties will also be a constraint on redevelopment.

[15] Based on data provided by the City, we estimate that about 20% of all rental buildings in the study area are located on the West Side and are currently built to 1.1 FSR or less.

5.0 Evaluation of Draft Plan

5.1 Existing C-3A Properties

The permitted development opportunities outlined in the draft Plan for C-3A sites vary depending on location. Generally, the opportunities are as follows:

- For 80% market and 20% below market (with commercial and/or office) rental, densities are in the range of 10.5 FSR to 12.25 FSR in station areas and 9.5 FSR to 10.5 FSR in shoulder areas.
- For 100% market rental (with commercial), densities are in the range of 8.0 FSR to 8.5 FSR.
- For strata apartment with 20% turnkey social housing (with commercial), densities are in the range of 7.5 FSR to 8.5 FSR.
- For strata apartment (with commercial), densities are in the range of 7.5 FSR to 8.5 FSR in station areas and 5.5 FSR in shoulder areas. In some locations the density is lower due to view cones. This type of rezoning would be subject to a negotiated CAC.
- For office development, densities are in the range of 10.5 FSR to 12.25 FSR in the station areas and 8.5 FSR to 10.0 FSR in the shoulder areas.

There are also opportunities to mix some of the different uses at the densities outlined above.

Based on our financial analysis:

- The uses and densities indicated in the draft plan in the C-3A areas create financially viable development opportunities throughout the study area (east and western portions of the study area) for sites that are currently improved with lower density existing commercial buildings.
- Development interest will likely be high at C-3A sites throughout the study area. However, development will occur over time based on market demand, construction industry capacity and property owners' willingness to sell for redevelopment.
- There should be interest in the full range of market uses permitted by the draft Plan, including apartment (rental and strata), retail and service space and office space.
- Development will likely be focused in station areas (where permitted densities are the highest) and in locations where sites are improved with low density existing buildings. Sites improved with higher density buildings are unlikely to be redevelopment candidates in the foreseeable future (even if located inside a station area).
- The increase in permitted density at C-3A sites creates significant additional value. This varies across the C-3A district as different locations have been identified for different densities and uses. Generally, we would not expect large increases in market land values for most C-3A development sites due to increased density because the additional land value created by the increased permitted density will be off-set by the cost associated with amenity contributions, below market rental housing and social housing requirements.

5.2 Existing RM and FM Strata Properties

Our understanding is that the policies in the draft Plan will create the opportunity to redevelop existing strata apartment properties in the RM and FM districts to strata apartment at 4.0 FSR or strata apartment with 20% turnkey social housing at 6.0 FSR.

Based on our financial analysis:

- The viability of redevelopment of existing strata buildings in the RM district will depend on the existing built density and the interest that the current owners have in selling their units.
- At the proposed redevelopment densities, some older strata apartment buildings that are built to a low density will likely be candidates for redevelopment in the short term, but most will not. Therefore, the pace of redevelopment will likely be modest, particularly if assembly of multiple properties is required.
- Development will be focused at sites that are built to a low existing density or where the building is in need of major capital repairs.
- The increase in permitted strata density at these RM sites creates additional value. However, we would not expect significant increases in market land values for these sites due to increased density because the additional land value created by the increased permitted market density will be off-set by the costs associated with amenity contributions and social housing requirements.

5.3 Existing RM and FM Rental Properties

Our understanding is that the policies in the draft Plan will create the opportunity to redevelop existing rental properties in the RM and FM districts to 80% market rental and 20% below market rental at densities in the range of 5.5 FSR to 6.5 FSR.

We think development will be viable at the upper end of this density range if the RM (or FM) site is built to a low existing density. However, we would expect the pace of redevelopment in the RM and FM districts to be modest because:

- Rental projects with 20% below market rental will likely only be financially viable at RM and FM rental properties that are built to low existing densities (0.9 FSR to 1.1 FSR or less) in West Side locations These types of properties make up a small share of all of the rental properties in the overall study area (likely 20% or so) and these sites would only redevelop if existing owners are interested in selling for redevelopment (or redeveloping on their own).
- The Plan requires minimum lot frontages which will likely mean that assembly of multiple rental sites is required to achieve the minimum lot frontage. To be financially viable for redevelopment, the overall built density at the assembled site will need to be relatively low. Therefore, development will be focused in locations where there are multiple adjacent low density existing rental buildings. This further reduces the number of sites that are likely financially viable for redevelopment.
- The below market rental scenarios we tested are unlikely to be financially viable at the eastern end of study area, so any development will likely be focused to the west.
- The enhanced tenant protection approach proposed for the study area creates additional complexity, cost, uncertainty and risk for developers.
- If permitted densities were somewhat higher (say 7.5 FSR), then it would significantly increase the number of existing rental sites that are financially attractive for redevelopment.

We would not expect significant increases in the market values for RM and FM rental properties due to the increase in permitted density supported by the draft Plan. Additional value created by the increased market rental density will be off-set by the below market rental housing requirements and tenant protection policies.

5.4 Existing RT Properties

Our understanding is that the policies in the draft Plan will create the opportunity to redevelop existing RT zoned properties to 80% market rental and 20% below market rental at densities up to 5.5 FSR or to 6 storey market rental at densities of about 2.5 FSR.

Based on our analysis:

- The rental development opportunities supported by the draft Plan will be financially viable at assemblies of RT properties if the lot sizes are relatively large (6,000 square feet or more) and the lots are improved with older homes (or duplexes). Smaller lots are more challenging to redevelop (from a financial perspective) due to the higher existing value per square foot of lot area.
- Because many houses and duplexes in the RT areas are newer and/or on smaller lots, only a share of RT lots will likely be candidates for redevelopment in the short term. The need to assemble properties will also be a constraint on redevelopment. Therefore, the pace of redevelopment in the RT areas will likely be moderate.
- We would not expect significant increases in RT land values due to the increase in permitted density supported by the draft Plan. The density supported by the 6 storey rental option does not create significant additional land value. Additional land value created by the increased market rental density in the 5.5 FSR option will be off-set by the below market rental housing requirements.

6.0 Attachments – Case Study Example

We analyzed dozens of different redevelopment scenarios for existing RM rental case study sites in different parts of the study area. This attachment provides an example of one set of scenarios that we analyzed for an existing rental property in the western portion of the study area (i.e, Kitsilano, Fairview, South Granville). All of the values shown in these attachments would be lower if the property was in an east side location.

This case study example is an older rental building on a 24,940 square foot site. Three different scenarios for the assumed existing built density (and number of rental units) at the property were evaluated, including 0.9 FSR, 1.1 FSR and 1.3 FSR. These are representative of the lower half of existing built density at RM and FM zoned rental properties in the overall study area.

These different assumed existing built density scenarios affect the assumed acquisition cost of the property to the developer and the overall financial viability of redevelopment. The higher the existing built density, the more expensive the property acquisition to the developer.

At the three built density scenarios, the assumed total gross floorspace and number of units at the site are as follows:

Assumed Existing Building Scenarios

	Assumed Existing Gross Floorspace (sf)	Assumed Number of Existing Units
0.9 FSR	22,446	28
1.1 FSR	27,434	34
1.3 FSR	32,422	40

For each of the built density scenarios, this attachment includes three assumed redevelopment density options ranging from 5.5 FSR to 7.5 FSR. The redevelopment scenarios assume that the project would be 80% market rental and 20% below market rental.

The assumed gross floorspace and the number of units for each redevelopment scenario is as follows:

	Assumed Gross Floorspace (sf)	Assumed Market Rental Units	Assumed Below Market Rental Units
5.5 FSR	137,170	152	38
6.5 FSR	162,110	179	45
7.5 FSR	187,050	207	52

For the financial analysis, we assume that a developer acquires the existing site based on its current market value as an income producing rental apartment (which varies based on existing built density). The developer then obtains approvals, helps relocate existing tenants, demolishes the existing building, constructs the new rental building and leases up the units to tenants. Any returning tenants are provided with a first right of refusal on the below market units.

For each scenario, the attachments provide a summary of the detailed proforma analysis that we completed. Each summary shows:

- The estimated net operating income from the new units upon lease-up (gross revenue, less vacancy, less operating costs, less property taxes).
- The assumed costs associated with property acquisition (the existing market value of the rental building plus closing costs and financing).

- The estimated hard construction costs (including demolition, servicing, site development).
- The estimated soft costs (permits, professional fees, management, admin, insurance, other).
- All other project costs (such as DCLs, GST, tenant relocation, public art, property taxes, leasing, financing, miscellaneous).
- The total estimated project costs.
- The estimated annual yield to the developer on total project costs if the project is retained by developer.
- The estimated profit margin to the developer on total project costs (if the completed project was sold).

Attachment 1:
Summary Proformas - 80% Market and 20% Below Market Rental - Existing Built Density of 0.9 FSR

	Rezoning Density (FSR)		
Summary Proforma	**5.50**	**6.50**	**7.50**
Revenue	$5,286,117	$6,247,737	$7,207,496
Vacancy	$52,861	$62,477	$72,075
Operating Costs & Taxes	$1,228,759	$1,452,170	$1,675,580
Net Operating Income (NOI)	$4,004,497	$4,733,089	$5,459,841
Land Acquisition (plus related)	$15,479,431	$15,479,431	$15,479,431
Construction Costs	$63,523,613	$74,604,680	$85,606,996
Permits, Soft Costs and Professional Fees	$7,140,054	$8,385,566	$9,622,226
All Other Costs	$13,119,053	$15,248,946	$17,371,662
Total Costs including Land Related	$99,262,151	$113,718,623	$128,080,316
Profitability Measures			
Stabilized Annual Yield to Developer	4.0%	4.2%	4.3%
Estimated Building Value Upon Completion	$106,786,584	$126,215,719	$145,595,750
Total Costs Including Land	$99,262,151	$113,718,623	$128,080,316
Estimated Profit	$7,524,434	$12,497,096	$17,515,434
Estimated Profit Margin % (on total cost)	8%	11%	14%

Assuming a target profit of about 10% and/or a stabilized annual yield of 4.2%, this illustrates that redevelopment densities in the range of about 6.0 FSR to 6.5 FSR are likely required to make redevelopment financially attractive at sites improved with older rental buildings built to an existing density of about 0.9 FSR.

Attachment 2:

Summary Proformas - 80% Market and 20% Below Market Rental - Existing Built Density of 1.1 FSR

	Rezoning Density (FSR)		
Summary Proforma	**5.50**	**6.50**	**7.50**
Revenue	$5,286,117	$6,247,737	$7,207,496
Vacancy	$52,861	$62,477	$72,075
Operating Costs & Taxes	$1,228,759	$1,452,170	$1,675,580
Net Operating Income (NOI)	$4,004,497	$4,733,089	$5,459,841
Land Acquisition (plus related)	$18,803,152	$18,803,152	$18,803,152
Construction Costs	$63,628,361	$74,709,428	$85,711,744
Permits, Soft Costs and Professional Fees	$7,151,828	$8,397,340	$9,634,000
All Other Costs	$13,257,117	$15,387,010	$17,509,726
Total Costs including Land Related	$102,840,458	$117,296,930	$131,658,623
Profitability Measures			
Stabilized Annual Yield to Developer	3.9%	4.0%	4.1%
Estimated Building Value Upon Completion	$106,786,584	$126,215,719	$145,595,750
Total Costs Including Land	$102,840,458	$117,296,930	$131,658,623
Estimated Profit	$3,946,127	$8,918,789	$13,937,127
Estimated Profit Margin % (on total cost)	4%	8%	11%

Assuming a target profit of about 10% and/or a stabilized annual yield of 4.2%, this illustrates that redevelopment densities in the range of about 6.5 FSR to 7.5 FSR are likely required to make redevelopment financially attractive at sites improved with older rental buildings built to an existing density of about 1.1 FSR.

Attachment 3:

Summary Proformas - 80% Market and 20% Below Market Rental - Existing Built Density of 1.3 FSR

	Rezoning Density (FSR)		
Summary Proforma	**5.50**	**6.50**	**7.50**
Revenue	$5,286,117	$6,247,737	$7,207,496
Vacancy	$52,861	$62,477	$72,075
Operating Costs & Taxes	$1,228,759	$1,452,170	$1,675,580
Net Operating Income (NOI)	$4,004,497	$4,733,089	$5,459,841
Land Acquisition (plus related)	$22,126,874	$22,126,874	$22,126,874
Construction Costs	$63,733,109	$74,814,176	$85,816,492
Permits, Soft Costs and Professional Fees	$7,163,601	$8,409,113	$9,645,774
All Other Costs	$13,395,181	$15,525,074	$17,647,791
Total Costs including Land Related	$106,418,765	$120,875,237	$135,236,930
Profitability Measures			
Stabilized Annual Yield to Developer	3.8%	3.9%	4.0%
Estimated Building Value Upon Completion	$106,786,584	$126,215,719	$145,595,750
Total Costs Including Land	$106,418,765	$120,875,237	$135,236,930
Estimated Profit	$367,819	$5,340,482	$10,358,819
Estimated Profit Margin % (on total cost)	0%	4%	8%

Assuming a target profit of about 10% and/or a stabilized annual yield of 4.2%, this illustrates that redevelopment densities in excess of 7.5 FSR are likely required to make redevelopment financially attractive at sites improved with older rental buildings built to an existing density of about 1.3 FSR.