



Memorandum

To: Ms. Rosa Bustamante

Company: City of Burlington

From: N. Barry Lyon Consultants Limited

Phone: (416) 364-4414 **Date:** July 25, 2019

Re: Downtown Burlington Mobility Hub – Illustrative Economic Analysis

Summary of Findings

NBLC was asked to explore the impacts of policy directions on the feasibility of high-density development in Downtown Burlington. Specifically, NBLC was asked explore how a requirement to include retail uses at the ground floor, and a combination of retail and office uses would influence the economics of a larger scale residential condominium apartment building.

We approached this assignment by first establishing a base case which assumed a six-storey residential condominium apartment building with no other uses. We developed a financial pro forma – or residual land value model – that assesses all revenues and subtracts costs and profit to arrive at a hypothetical land value. We then repeat this analysis for a building with 10,000 square feet (“sf”) of retail on the ground floor and then with a building with 10,000 sf of ground floor retail and approximately 17,000 sf of office on the second floor.

Since construction costs, revenue and profit are relatively fixed, we look to observe the impacts on the resultant land value as the building form changes. Where land value decline, we calculate how much additional density is required to offset the loss. The following is a summary of our findings:

- Adding 10,000 sf to the ground floor of the six-storey prototype appears to have a negligible impact on land values. No additional height beyond the six-storey base case was necessary to compensate for this requirement. This assumes that the retail would be located in areas with strong market characteristics.
- Adding a full floor of office space to a new development, in addition to retail on the ground floor, however, has a notable impact on the land value of a new development. In our analysis, an additional three to five storeys of residential development would be required to compensate for the loss associated with an office space requirement.



1.0 Introduction

In 2017, N. Barry Lyon Consultants Ltd. (“NBLC”) was retained as part of a broader team, led by Brook McIlroy, to prepare Area Specific Plans (“ASP”) for the four Mobility Hub areas in the City of Burlington. NBLC’s role on the team was to provide market analysis to help guide the planning and urban design aspects of the overall project. In order to do this, a contextual market analysis of the City of Burlington was undertaken along with a more detailed assessment of the four Mobility Hub study areas.

As part of our work on the Downtown Mobility Hub, NBLC provided the City with an illustrative economic analysis that considered the impact of increased building heights on development feasibility. This memorandum builds on that analysis to assess the impacts of retail and office space requirements on development feasibility of condominium apartment development in the Downtown Core area of Burlington.

2.0 Methodology

There are several methodologies for predicting the financial outcomes of real estate developments. One of the most common approaches is a residual land value model (RLV). The RLV model is a forward-looking approach that accounts for all development revenues, costs and developer profit. The remaining (or residual) amount after this calculation represents the maximum price a developer could pay for the land to construct the project and make an attractive profit.

Project revenues are a function of the marketplace and cannot be increased simply to address increased costs. Construction costs are similarly fixed based on market forces. Developers expect a minimum profit after which they revert to other investment opportunities. Therefore, land value becomes the independent variable by which we can test the viability of development as costs associated with policy changes are adjusted. The RLV is therefore a valuable tool as it can help assess the impact of policy changes on the land market. If the policy has a negative impact on land values, owners of land may be less inclined to sell for redevelopment, compromising intensification and mobility hub objectives. If the policy generates a significant increase in land values the City may be in a better position to extract additional community benefits.

Figure 1

Understanding Residual Land Value	
Project Revenue	A
Project Costs	- B
Developer Profit	- C
<hr/>	
Residual Land Value	= D

In our model we adjust costs by increasing the less valuable retail and office floor space in each scenario. Current rents for retail and office uses are generally too low to support new development and therefore become a cost to the project and negatively impact land value. We then compensate for these additional costs by adding residential density until the land value is equal to the base case.

2.1 Development Assumptions

The scenarios put forth in the analysis include:



- Scenario 1: A condominium apartment building with residential uses only, the base case;
- Scenario 2: A mixed-use development with street-fronting retail on the ground floor and condominium apartment units above; and,
- Scenario 3: A mixed-use development with street-fronting retail on the ground floor, office space on the second floor, and condominium apartment units above.

The hypothetical development for this analysis is assumed to be located on a non-waterfront 0.5 acre parcel of land in the Downtown Core, an area bound approximately by Caroline Street to the north, Martha Street to the east, Lake Ontario to the south, and Brant Street to the west.

Our assumptions have been developed through our review of local market dynamics and our experience in assessing the financial viability of residential development. Key assumptions and results are illustrated in Table 1.

Table 1

Illustrative Pro Forma Example - Key Assumptions			
Downtown Burlington Mixed-Use / Residential Development			
	Residential Only (Scenario 1)	With Retail (Scenario 2)	With Retail and Office (Scenario 3)
Land Area (acres)	0.5	0.5	0.5
Average Unit Size (sf)	750	750	750
Starting Index Price (\$PSF)	\$750	\$750	\$750
Average Starting End-Price	\$562,500	\$562,500	\$562,500
Absorption Rate (sales per month)	10	10	10
Residential Parking Ratio (per unit)	1.25	1.25	1.25
Office Lease Rate at Completion	-	-	\$25
Office Vacancy Rate	-	-	10%
Office Cap Rate	-	-	6%
Retail Lease Rate at Completion	-	\$25	\$25
Retail Vacancy Rate	-	5%	5%
Retail Cap Rate	-	5%	5%
Discount Rate	7%	7%	7%
Cost & Revenue Inflator	2%	2%	2%
Developer Profit Margin	12%	12%	12%

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Additional assumptions that need to be considered include:

- Our model assumes that there is demand for new retail and office space in the Downtown Core area. NBLC was not tasked with completing a commercial demand study as part of this analysis. The rents assumed are based on a high level survey of current leasing activity of which there are a limited number of relevant comparables.



- Our model assumes that any new retail or office tenants will not require on-site parking and that a lack of parking for these uses will not impact demand, achievable pricing, or occupancy rates. The City of Burlington does not require parking spaces for these uses in a mixed-use building in the Downtown Core;
- Our model assumes a building footprint that is 80% of the site area;
- Our model assumes a suite mix of 50% one-bedroom and 50% two-bedroom units;
- Our model assumes that one parking space is included in the purchase price of all units. Additional parking spaces (0.25 per unit) are assumed to all be purchased at a cost of \$50,000 each;
- Our model assumes that storage lockers are provided at a rate of 0.6 lockers per unit and that all lockers are sold for \$5,000 each; and,
- Our model assumes a developer profit margin of 12%. This is considered to be towards the lower end of developer expectations. In more mature markets like Toronto, we would generally assume a profit margin of 15% to 20%.

3.0 Findings

The requirement to provide both retail and office space in a new development has a negative impact on the land value of a project in Downtown Burlington. This is simply due to the fact that the rents that can be charged for these spaces are too low to justify the costs of construction and provide a satisfactory financial return to the developer relative to building residential units. These spaces therefore become a cost to the project – rather than a source of revenue.

This base case six-storey scenario represents a building scale that is a small increase over the current zoning in the Downtown Core (four-storeys). Utilizing this base case, we were able to compare the retail and retail/office scenarios at this and increased heights in order to get a sense of the impact that a policy change would have on land value and project feasibility.

Utilizing our assumptions for revenues, costs, and profit, our base six-storey residential building supported a land value of approximately **\$3,775,000** in our analysis. This is the value we would expect someone to pay for a similar sized piece of land in the Downtown in order to build this scale of development under the cost and revenue assumptions we have utilized. This residential-only value is used to compare the impact of the inclusion of retail and office space, as well as any changes to the scale of a building.

3.1 Base Analysis

Table 2 illustrates the revenues, costs, profit, and land value of each scenario at 6-storeys. While the impact of the retail space in Scenario 2 appears fairly negligible (albeit still slightly negative relative to Scenario 1), the land value is reduced by about 32% in Scenario 3.

The decline in land value can be a concern if it falls below that of the existing land value. If we assume the base case is the existing land value – or lowest value an owner would be willing to sell the land – a policy that required second floor office development might discourage reinvestment.



For example, assume an owner of land has a single storey retail building in Downtown. The property and business it accommodates has an existing value of \$3,000,000. The base case policy context that would support a value of \$3,775,000 may be attractive enough for the owner to “cash in” and sell to a developer to intensify the property. However, under Scenario 3, a land value of approximately \$2,600,000, the owner is better off to continue the business.

Table 2

Illustrative Pro Forma Example - 6-Storey Baseline			
Downtown Burlington Mixed-Use / Residential Development			
	Residential Only (Scenario 1)	With Retail (Scenario 2)	With Retail and Office (Scenario 3)
Project Statistics			
Number of Storeys	6	6	6
Gross Floor Area (sf)	97,574	97,574	97,574
<i>Residential GFA (sf)</i>	97,574	87,574	70,150
<i>Office GFA (sf)</i>	-	-	17,424
<i>Retail GFA (sf)</i>	-	10,000	10,000
Saleable Floor Area (sf)	81,962	83,562	84,608
<i>Residential (sf)</i>	81,962	73,562	58,926
<i>Office (sf)</i>	-	-	15,682
<i>Retail (sf)</i>	-	10,000	10,000
Number of Residential Units	109	98	79
Years to Completion	4.6	4.6	4.5
Revenue			
Total Revenue	\$68,886,000	\$66,804,000	\$60,956,000
Development Costs			
Hard Costs	\$35,624,000	\$34,227,000	\$32,010,000
Soft Costs	\$19,830,000	\$19,532,000	\$18,304,000
Total Development Costs	\$55,454,000	\$53,759,000	\$50,314,000
Developer Profit			
Total Profit (Future \$)	\$8,266,000	\$8,016,000	\$7,315,000
Residual Land Value			
Residual Land Value (Present \$)	\$3,775,000	\$3,691,000	\$2,460,000
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3.2 Additional Height Requirements

We utilized this \$3,775,000 land value as our baseline for comparison in order to examine what type of additional height and floor area would be required to justify a similar land value if the City were to implement a requirement for non-residential space in that building. This allowed us to adjust the scale of the building until the land value for those other scenarios was as close to equivalent to that of the residential only building (Scenario 1) as possible. Table 3, on the next page, provides a summary of the impacts of increased density.



As noted, our financial analysis found that a requirement to provide retail space would have a fairly negligible impact on land value in this example. In this case, additional height and floor area may not be required. This scenario assumed that 10,000 sf of the approximately 17,400 sf ground floor would be utilized for retail space.

While the developer loses some residential revenue associated with the 10,000 sf, the lower number of residential units means that fewer underground parking spaces are required, which balances out to ensure that, in this example, the land values are nearly identical (albeit slightly lower in Scenario 2).

Scenario 3 includes the same 10,000 sf of retail space on the ground level, in addition to a full storey of office space (approximately 17,400 sf) on the second level of the building. Adding a full level of office space requires additional residential revenue to offset the losses incurred by providing the office space. In this example, an 11-storey building would be required – an increase of five-storeys – to maintain the base case land value of approximately \$3,775,000.

Table 3

Illustrative Pro Forma Example - Additional Height			
Downtown Burlington Mixed-Use / Residential Development			
	Residential Only (Scenario 1)	With Retail (Scenario 2)	With Retail and Office (Scenario 3)
Project Statistics			
Number of Storeys	6	6	11
Gross Floor Area (sf)	97,574	97,574	125,696
<i>Residential GFA (sf)</i>	97,574	87,574	98,272
<i>Office GFA (sf)</i>	-	-	17,424
<i>Retail GFA (sf)</i>	-	10,000	10,000
Saleable Floor Area (sf)	81,962	83,562	108,230
<i>Residential (sf)</i>	81,962	73,562	82,548
<i>Office (sf)</i>	-	-	15,682
<i>Retail (sf)</i>	-	10,000	10,000
Number of Residential Units	109	98	110
Years to Completion	4.6	4.6	4.6
Revenue			
Total Revenue	\$68,886,000	\$66,804,000	\$80,961,000
Development Costs			
Hard Costs	\$35,624,000	\$34,227,000	\$42,198,000
Soft Costs	\$19,830,000	\$19,532,000	\$24,005,000
Total Development Costs	\$55,454,000	\$53,759,000	\$66,202,000
Developer Profit			
Total Profit (Future \$)	\$8,266,000	\$8,016,000	\$9,715,000
Residual Land Value			
Residual Land Value (Present \$)	\$3,775,000	\$3,691,000	\$3,684,000
<i>Prepared By: N. Barry Lyon Consultants Limited</i>			



We tested the sensitivity of the model by increasing the height of the base case building and the result was that the required height increase was generally between **three and five-storeys**, decreasing (to no fewer than three-storeys) as the base building grew.

It is important to note that this analysis is illustrative and results can vary from project to project. Depending on the costs, revenues, and profit expectations of a developer and individual project, the required increase could vary higher or lower than our model has projected. The amount of retail and office space in the development would also have an impact on the height requirement.

Finally, it is also important to acknowledge the uncertainty of the effects of the recently announced Bill 108 – More Homes, More Choice Act, 2019. While it is possible that some of the regulations in this Act could improve development feasibility and project performance, the full impacts remain unknown, especially without further clarity on the methodology for calculating potential Community Benefits Charges.

4.0 Other Challenges

There are other challenges associated with requiring non-residential space in all new buildings. These challenges can create additional costs, reduce building efficiency, or increase developer risk. Some of these challenges include:

- **Access:** In a scenario with retail, office, and residential units, the office and residential uses would require separate entrances, stairwells, lobbies, elevators, etc, which present potential design and efficiency challenges, as well as add costs.
- **Market Issues:** The requirement of office uses on a second storey of a mixed use building could negatively impact the marketability of residential uses above. Purchasers or renters may not want to be associated with certain office tenancies or intermingle with business uses.
- **Non-Residential Demand:** It is possible that requiring non-residential uses in all new buildings could oversaturate the Downtown market with retail and office uses if there is not sufficient demand, leading to empty retail storefronts and vacant office space. Insufficient demand for non-residential uses would also add more risk to a development and potentially render some projects unfeasible. An approach that targets certain parts of the Downtown or certain corridors may be better than a blanket approach to the policy.

Additionally, our model assumed that no three-bedroom units are included in the residential portion of the building. We have yet to see a significant market develop for three-bedroom condominium apartment units in Burlington. These larger unit sizes feature higher end-prices and typically take longer for a developer to sell, potentially lengthening the overall development timeline and predevelopment risk. Further, larger units tend to have lower index prices, which would reduce the overall average attainable index price of a given development.

It is important to note therefore that requiring three-bedroom units as part of any new development in the Downtown could have an impact on project performance and may impact the results of this illustrative review which considers potential outcomes through a policy which might mandate the inclusion of non-residential space in future development.



Disclaimer:

The conclusions contained in this report have been prepared based on both primary and secondary data sources. NBLC makes every effort to ensure the data is correct but cannot guarantee its accuracy. It is also important to note that it is not possible to fully document all factors or account for all changes that may occur in the future and influence the viability of any development. NBLC, therefore, assumes no responsibility for losses sustained as a result of implementing any recommendation provided in this report.

This report has been prepared solely for the purposes outlined herein and is not to be relied upon, or used for any other purposes, or by any other party without the prior written authorization from N. Barry Lyon Consultants Limited.