Economics

This section provides a high level analysis of the development potential of the Bloomfield School site. The intent of this analysis is to provide an order of magnitude valuation of the options being considered so that it can provide a feedback loop to the proposed design. In this way, the proposed development can be right sized from its inception.

Assumptions

For the purposes of this analysis, we have made the following assumptions:

1. All cost estimates prepared by Sperry & Partners are considered valid, but have been inflated by 5% per year to account for construction inflation.

2. All numbers are stated in 2009 dollars and have not been inflated. As revenue will outstrip construction costs, this is a reasonable and conservative assumption.

3. The Imagine Bloomfield Vision indicates a design for affordably priced office space and residential housing. Therefore, we have assumed that 20% of all residential units are set aside as affordable housing to households at 80% of median income. Our definition of affordable housing is "housing for the working poor" (i.e., hard working, modest income households who need some assistance is paying market rents in a particular location). The goal is to limit their total household expenditure of shelter to no more than 30% of their income. We have not assigned a land value to these units, as this subsidy will likely be needed in order to entice the developer to build these units.

4. We have also assumed that at least one old building (the Commons or Fielding building) is retained as affordable space for nonprofit groups. Affordable is defined as just paying the cost of operating expenses (heat, lights, maintenance), but no net return to the landlord to cover the cost of the investment in the building.

5. Due to the cost of renovating the existing school buildings (Fielding and Commons), Option 4 assumes that the Commons building is sold to a nonprofit group for $1. This group is then responsible for the renovation of the building; this improves the cash flow to the municipality. We have also assumed that under this scenario, the nonprofit would be exempt from property taxes (conservative, as they would likely get a partial exemption).

Redevelopment Costs

The following table summarizes the costs associated with the four scenarios. These costs include the renovation of existing buildings, demolition of the main school (for the scenario that includes this option), and the construction of new multi-purpose space and outdoor parks and art.

	Option A: Medium Density,	Option B: Low Density, Keep School	Option C: High Density	Option D: High Density Recommended Option
BUILDING RENOVATION				
Commons Building Renovation	$ 2,980,000	$ 2,980,000	$ 2,980,000	$ -
Fielding Building Renovation	$ 1,980,000	$ 1,980,000	$ 1,980,000	$ 1,980,000
Main Building Renovation	$ -	$ 3,830,000	$ -	$ -
Main Building Demolition	$ 430,000		$ 430,000	$ 430,000
NEW CONSTRUCTION				
Combined Multi-Purpose Space	$ 6,126,152	$ -	$ 7,307,624	$ 4,058,575
Public Use Pavilion	$ -	$ -	$ 540,000	$ 540,000
Parks and Openspace	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Outdoor Art	$ 250,000	$ 250,000	$ 250,000	$ 250,000
TOTAL FUNDS REQUIRED FOR DEVELOPMENT	**$ 12,266,152**	**$ 9,540,000**	**$ 13,987,624**	**$ 7,758,575**

The cost of the four options ranges from $7.7 to $13.9 million.

Option D is the least expensive, as it assumes that the Commons Building is donated to a non-profit, who is then responsible for the cost of renovation. This option also has a reduced amount of new community space, which is estimated to cost $300 per SF.

Option B (retaining the existing school) is also a relatively inexpensive option ($9.5 million), however it also provides the least amount of overall development, and cannot provide enough parking to be a functional development.

Option A and C are the most expensive options, with costs drive primarily by the cost of renovating the Commons and Fielding buildings, and building a new multi-purpose space.

All past renovation estimates have been inflated to 2009 dollars. These costs do not include any private sector space (e.g., residential housing, for profit commercial space, etc).

Comparison of Four Design Options

An initial option (Option A) was discarded early on in the design process, as not being viable, either from a design or financial perspective. The following table provides a comparison of all four design options considered for the site (A,B,C and D). The intent of this analysis was to assist the design team in understanding the relative density of the four options, and whether or not they could meet realistic development design criteria.

		Option A: Medium Density,	Option B: Low Density, Keep School	Option C: High Density	Option D: High Density Recommended Option
Community Space					
Fielding Building (HRM Programming) SF		22,500	22,500	22,500	22,500
Commons Building		-	-	-	22,500
Existing Bloomfield School			58,470		
New Community Building		16,800		20,040	11,130
Fern Lane Pavilion Building				1,800	1,800
Total Community Space		**39,300**	**80,970**	**44,340**	**57,930**
Commercial Space					
Commons Building		22,500	22,500	22,500	-
Storefront Retail - Townhomes		19,800	19,800	13,200	12,000
Storefront Retail - Towers		N/A	N/A	33,600	34,048
Flex Space (Market) Above New Community Buildings		32,000	-	16,320	26,500
Total Commercial Space SF		**74,300**	**42,300**	**85,620**	**72,548**
Townhomes					
Total Residential Space (SF) Townhomes		61,200	59,400	39,600	36,000
Total Townhome Units (Total SF / Avg Size of)	1,400 SF	44	42	28	26
Total Apartment Space - Two Towers (in SF)		N/A	N/A	253,140	211,200
Total Apartment Units (Total SF / Avg Size of)	900 SF	0	0	281	235
Less 20% Affordable Housing	20%	-	-	(56)	(47)
Equals Estimated Market Rate Apartments		-	-	225	188
TOTAL RESIDENTIAL UNITS		44	42	309	261
Total Built Space (in SF)		**174,800**	**182,670**	**422,700**	**377,678**
SUMMARY OF PARKING					
a Parking Accommodated on Site Per Scheme		280	35	420	420
Parking Requirements by Use					
Commercial/Community Parking Spaces (X per 1,000 SF)	1/5	(170)	(185)	(195)	(196)
Residential Parking Spaces (X per unit)	0.7	-	-	(197)	(165)
Visitor Parking		(25)	(25)	(25)	(25)
b Sub-Total Required Parking		(195)	(210)	(417)	(386)
c=a-b Parking Surplus (Deficit)		85	(175)	3	34

Key points to note include the following:

1. Option C produces more than five times as much housing as options A and B. This helps create neighbourhood vitality.

In fact, Option C creates more affordable housing (56 units) than all the housing created in Option A or Option B. Option D produces 48 less units than Option C, or a total of 261 townhomes and apartments.

2. Option B (keeping all three existing buildings) creates the most community space 80,970 SF), although HRM staff indicate that this amount of space is way in excess of their current needs, and as such, they had concerns about the operating costs associated with such a large facility.

3. Option B is virtually non functional in terms of parking, with only 35 parking spaces available after the development of the site.

Based on the need for 1.5 spaces per 1,000 SF of commercial and community space, and 0.7 parking spaces per residential unit, Option B is 175 spaces short of the desired amount of parking. This makes the viability of this scenario extremely questionable.

Options A, C and D provide parking via underground facilities (Option A assumes one layer of parking, while Option C and D assume 1.5 layers of parking). Options C and D provide 420 parking spaces, and have a slight surplus of parking spaces based on very restrictive parking ratios.

Option 4 Detail of Development Program

The following table provides a detailed description of the amount of residential, commercial and community space provided in Option D – the Recommended Option.

Description	Residential	Commercial	Community	TOTAL SF
SUMMARY OF RECOMMENDED DEVELOPMENT PROGRAM				
Townhomes				
Robie Street Townhomes	19,800	6,600	-	26,400 SF
Agricola Street Townhomes	16,200	5,400	-	21,600 SF
Sub-Total	36,000	12,000	-	48,000 SF
Tower 1 (Robie and Almon) - 10 Storeys	109,760	17,920	-	127,680 SF
Tower 2 (Robie and Agricola) - 10 Storeys	101,440	16,128	-	117,568 SF
New Community Buildings				
Public Use Pavilion			1,800	1,800 SF
Building 1 NW on Bloomfield St. Extension		13,900	5,838	19,738 SF
Building 2 NE on Bloomfield St. Flexspace		12,600	5,292	17,892 SF
Commons Building			22,500	22,500 SF
Fielding Building			22,500	22,500 SF
SUB-TOTALS	247,200	72,548	57,930	377,678 SF

The proposed development includes 247,200 SF of residential housing, 72,548 SF of Commercial space, and 57,930 of community space (377,678 SF in total). The housing is distributed into low rise townhomes, and two 10 storey residential towers. Overall, the development includes 261 residential units, including 47 units of affordable housing.

Is The Proposed Density Realistic?

The planning and design process has tried to strike a balance between good urban design form, and the density needed in order to make the project economics work. Some concern has been expressed that as the tower at Robie and Almon Street got higher, that it would be too big for the market to absorb. We do not think that this will be an issue for the following reasons:

- The project is very well located, mid peninsula, and near grocery stores, Hydrostone market, bus routes, employment centres, recreational facilities, etc.
- The nearby Gladstone Ridge project has a similar amount of density in two towers (149 rental units in Tower 2), and did not encounter any difficulty being absorbed into the market.
- Housing demand projections for HRM indicate future demand of about 2,500 units per year, with an increasing percentage allocated to multi-family housing units. Although 1,000 multi-family starts has been the norm in the past, we expect this number to increase slightly over time as residents look for central locations to minimize their commute. At an average unit size of 1,000 SF, the Robie Street tower will include 150 units of housing; this is about 15% of the total demand for one year, and can be realistically absorbed without adverse financial impacts.

Aggregate Purchasing Power

The purchasing power of the new residents will play an important role in the support of new commercial space. Simply put, the more residential density that goes on the site, the greatly the likelihood of new commercial businesses on site being successful. The following table provides an assessment of the projected economic impact of the three options.

Description		Option A: Medium Density,	Option B: Low Density, Keep School	Option C: High Density	Option D: High Density Recommended Option
AGGREGATE PURCHASING POWER OF OCCUPANTS					
Market Rate Townhomes		$ 3,060,000	$ 2,970,000	$ 1,980,000	$ 1,800,000
Market Rate Ownership		$ -	$ -	$ 2,922,400	$ 2,444,000
Market Rate Rental		$ -	$ -	$ 10,071,040	$ 8,422,400
Affordable Ownership		$ -	$ -	$ -	$ -
Affordable Rental		$ -	$ -	$ 2,517,760	$ 2,105,600
		$ 3,060,000	$ 2,970,000	$ 17,491,200	$ 14,772,000
Percentage of Baseline (Option A) Scenario			97%	572%	483%
Purchasing Power (% of income on food, merchandise, etc.)	20%	612,000	$ 594,000	$ 3,498,240	$ 2,954,400
SF of Retail Supported	$300	2,000	2,000	12,000	10,000
% of Retail Supported Internally		10.1%	10.1%	25.6%	21.7%

Based on these calculations, the residents of Option D will have an aggregate household income of $14.7 million per year. This is significantly greater than the household income in Option A and B, but less than Option C.

Assuming 20% of household income is available for the purchase of food, clothing, merchandise, etc, and that a store requires sales of $300 per SF per year to be economically viable, then the residents of Option D can support 10,000 SF of commercial space.

This is 5 times the amount of space when compared to options A and B, and represents about 20% of the total commercial space proposed for this development. While it is true that residents of the Bloomfield site will not spend all of their disposable income downstairs, it does provide an indication of the potential viability of the proposed development.

Calculation of Future Property Taxes

The following table provides a projection of the property taxes for the four options.

			Option A: Medium Density,	Option B: Low Density, Keep School	Option C: High Density	Option D: High Density Recommended Option
ECONOMIC IMPACT - PROPERTY TAXES						
Assessed Value of Residential Housing						
Market Rate Townhomes	Value Per	$ 245,000	$ 10,710,000	$ 10,395,000	$ 6,930,000	$ 6,300,000
Market Rate Condominium	Value Per	$ 230,000	$ -	$ -	$ 10,340,800	$ 8,648,000
Market Rate Rental	Value Per	$ 140,000	$ -	$ -	$ 25,177,600	$ 21,056,000
Affordable Rental (80% of Market)	Value Per	$ 112,000	$ -	$ -	$ 6,294,400	$ 5,264,000
Sub-Total Market Value			$ 10,710,000	$ 10,395,000	$ 48,742,800	$ 41,268,000
Assessment to Market Ratio			85%	85%	85%	85%
Total Residential Assessment			$ 9,103,500	$ 8,835,750	$ 41,431,380	$ 35,077,800
Times Residential Tax Rate per $100 of Assessment			$ 1.30	$ 1.30	$ 1.30	$ 1.30
Annual Property Taxes			$ 118,346	$ 114,865	$ 538,608	$ 456,008
Less: Province of NS Component		$ 0.438	33.6%	$ (39,828)	$ (38,656)	$ (181,262)	$ (153,465)
Equals: HRM Component of Property Taxes		$ 0.865	66.4%	$ 78,745	$ 76,429	$ 358,381	$ 303,424
		$ 1.303	100.0%				
Assessed Value of Commercial Development						
Fielding Building, and New Comm Space	Value per SF	$ -	$ -	$ -	$ -	$ -
Commons Building	Value per SF	$ 90	$ 2,025,000	$ 2,025,000	$ 2,025,000	$ -
Commercial Space	Value per SF	$ 200	$ 10,360,000	$ 3,960,000	$ 12,624,000	$ 14,509,600
Sub-Total Market Value			$ 12,385,000	$ 5,985,000	$ 14,649,000	$ 14,509,600
Assessment to Market Ratio			85%	85%	85%	85%
Total Commercial Assessment			$ 10,527,250	$ 5,087,250	$ 12,451,650	$ 12,333,160
Times Commercial Tax Rate per $100 of Assessment			$ 3.71	$ 3.71	$ 3.71	$ 3.71
Annual Property Taxes			$ 390,801	$ 188,794	$ 462,243	$ 457,844
Less: Province of NS Component		$ 0.533	14.4%	$ (56,142)	$ (27,130)	$ (66,405)	$ (65,773)
Equals: HRM Component of Property Taxes		$ 3.179	85.6%	$ 334,661	$ 161,724	$ 395,838	$ 392,071
		$ 3.712	100.0%				
Total Combined Annual Property Taxes				$ 509,376	$ 303,940	$ 1,001,886	$ 914,732
Less: Province of NS Component of Taxes				$ (99,970)	$ 65,787	$ 247,667	$ 219,238
Equals: Combined Annual Property Taxes to HRM				**$ 413,407**	**$ 238,153**	**$ 754,219**	**$ 695,494**
PV of Future Property Taxes (HRM Component Only)		6.50%		**$ 6,360,101**	**$ 3,663,891**	**$ 11,603,375**	**$ 10,699,910**

The calculations assume that the assessed value is 85% of market value, and that HRM receives 66% of all residential property taxes (the Province of NS gets the remaining 34%), and 85% of all commercial property taxes.

In total, Option D generates just over $900,000 per year in property taxes once the site has been built out. This is almost double the taxes generated in Option A and triple the taxes generated in Option B. Option C produces an extra $85,000 per year in property taxes when compared to Option D. The net present value of the Option D taxes over the life of the project is $10.7 million.

Should HRM require more property taxes from the site, the ratio of commercial space could be increased (i.e., provide more market rate office space).

Calculation of Required Subsidy

The final table calculates the total revenue likely to be generated by for profit development on the site, and then deducts the development costs as outlined earlier. This calculates the total amount of subsidy required in order to make this development viable.

			Option A: Medium Density,	Option B: Low Density, Keep School	Option C: High Density	Option D: High Density Recommended Option
VALUE OF LAND IN DEVELOPMENT OPTION						
Land Value - Market Rate Rental (Avg Size 900 SF)	Per Unit	$ 22,000	$ -	$ -	$ 4,945,600	$ 4,136,000
Land Value - Market Rate Townhomes (Avg Size 1,400 SF)	Per Unit	$ 60,000	$ 2,622,857	$ 2,545,714	$ 1,697,143	$ 1,542,857
Affordable Residential	Per Unit	$ -	$ -	$ -	$ -	$ -
Market Rate Commercial	Per SF	$ 20.00	$ 1,036,000	$ 396,000	$ 1,262,400	$ 1,450,960
Value of Commons Building	Per SF	$ 90.00	$ 2,025,000	$ 2,025,000	$ 2,025,000	$ -
Value of Fielding Building	Per SF	$ -	$ -	$ -	$ -	$ -
Total Estimated Value of Development			$ 5,683,857	$ 4,966,714	$ 9,930,143	$ 7,129,817
Less Cost of Development (See Above)			(12,266,152)	(9,540,000)	(13,987,624)	(7,758,575)
Subsidy Required for Development			**(6,582,294)**	**(4,573,286)**	**(4,057,481)**	**(628,758)**

Based on these calculations, Option D requires the least overall subsidy, with $7.1 million of revenue from land sales paying for $7.75 million of development costs (community space, parks, etc). These calculations do not show the end value of the Commons or Fielding buildings, as they have no value if the rent only covers operating costs, however there is intrinsic value in these buildings to HRM, as the provide an amenity to the community.

Once the cost of development of public infrastructure is deducted (this was detailed earlier on in this chapter), Option D requires the least subsidy of just $628,000, while options A through C require $4.0 to $6.5 million in subsidy. Given that Option D also generates over $900,000 of property taxes per year to HRM, this is the most fiscally desirable option for HRM, as the subsidy can be made up in several years if 50% of the property tax revenue were allocated to this project.

Summary

Based on the previous analysis, it is clear that Options C and D are the only realistic options for HRM to pursue for the redevelopment of the Bloomfield School site. Between the two, Option D is seen as the more desirable one, as it strikes a balance between the provision of new community facilities and overall development density on the site.

The following points summarize this argument.

1. Option D creates the self contained community of over 600 people (assumes an average of 2.4 people per unit) living and working in the heart of the Halifax Peninsula. When the new commercial and community space is included, it is clear that this has the critical mass to establish itself as a unique live/work environment within HRM.
2. The critical mass of residential development will be critical in the long term financial viability of any proposed commercial or community space. This has to be recognized when HRM is making decisions with respect to the Bloomfield Site.
3. Option D generates significantly more property tax revenue to the municipality when compared to the two low and medium density options (Option A and B).