



BLOCK F REZONING APPLICATION PACKAGE

UNIVERSITY ENDOWMENT LANDS, VANCOUVER, BRITISH COLUMBIA

MUSQUEAM CAPITAL CORPORATION ON BEHALF OF THE

MUSQUEAM INDIAN BAND

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Section A - Text



1.0 INTRODUCTION

1.1 OVERVIEW

The Block F property is located within the University Endowment Lands (UEL) and is currently zoned MF-1 allowing for medium density residential uses in a 4 storey format, subject to the review and approval of the Minister, Community, Sport and Cultural Development. Musqueam Indian Band, the property owner, through the Musqueam Capital Corp. (MCC), is proposing to modify the zoning entitlements to provide a wider range of land uses including a small commercial village, a 120 to 150 room hotel, community and amenity buildings, and a variety of residential built forms, all of which will contribute to an enhanced neighbourhood within UEL.

The Project team, on behalf of Musqueam, has met with management of the UEL and their advisors in order to determine an appropriate planning process which the project would follow prior to a formal rezoning application, especially with reference to community consultation and the involvement of other external agencies. Sections 7.0 and 8.0 list the various meetings carried out to date and provide a summary of the community consultation processes that have taken place prior to the formal application. A detailed report of each of the three Open Houses is also attached to this report under Appendix G.

The Project team believes that through a concerted community consultation effort prior to the formal application and with an open sharing of development ideas, a comprehensive range of input from the public has been received. These opinions have been assessed and have informed much of the overall development concept and associated master plan of the Block F site. Significant decisions and modifications were made in response to the community's input. Section 7.0 lists the planning responses made as a result of public input.

We the Musqueam people are united and strong. We have good hearts and work together to do the right thing. We will use our teachings, so the Musqueam people will be alright. We will care about our elders, the little ones and everything on this earth. This way we will be looking after the ones that come after us. Then the Musqueam will continue to be strong.

Musqueam Council Vision Statement

1.2 A FUTURE VISION

Throughout the community consultation process there were many differences of opinion. Because of the range and conflicting aspects of those opinions, it would not be possible to incorporate all of these ideas into the final rezoning submission.

In addition to the above is the responsibility that the Project team (and those granting approval) have to create a community and a master plan which incorporates a vision for the future and which understands the needs and aspirations of future residents of Block F. The Project team researched best practices in other settings in order to inform the development of Block F. It evaluated and understood trends which would guide future development. It assessed the best methods of ensuring a successful, viable and long term sustainable community. And it undertook to consider the interests of the Musqueam Indian Band in the development of these lands and in their community's interests as the development of the site is directly related to Musqueam's economic self sufficiency.

These best practices and best methods were considered in addition to input from the community. The final master plan is considered to be, in the professional judgement of the team, in the long term, best interest for a successful neighbourhood from a community wide perspective.



2.0 EXECUTIVE SUMMARY OF THE PROPOSED DEVELOPMENT

The site is currently zoned as a MF-1 Multiple Dwelling District. Based on the calculations used to determine the estimated number of housing units in the proposed development, the current zoning would result in 1,100 to 1,254 units, or a population of 2,250 to 2,500 persons (see sections 2.1.2 and 4.2).

This proposal is for 1,169,150 sf of multi-family development and 145,000 sf of commercial, hotel and rental residential development. (See 2.1.3)

The master plan is a result of input from a series of community information meetings, written and oral submissions, discussions with governmental agencies, the RCMP, the Fire Department, Ambulance Services, Fortis, BC Hydro, UBC and various other stakeholders. In addition the project team had many meetings with UEL Administration and their consultants, and also met with the Community Advisory Committee and with some members of the Advisory Design Panel.

The resulting design concentrates development onto a smaller proportion of the site than would be under the current zoning, and protects a significant stand of trees and open space for the direct benefit of the overall community. It also provides outdoor and indoor amenities for the community that would likely not be possible under the current zoning.

It is estimated that, under the current economic and development conditions, the overall site would be built out in 10 to 12 years from the start of development in a phased, sequential manner. As Musqueam will partner with residential developers for each component of the project, the overall Block F property will be developed over this time horizon in concert with market conditions.

This proposal will require changes to the Official Community Plan, Zoning Bylaws and Parking Regulations. (See sections 2.4.3 and 4.4)

2.1 DEVELOPMENT STATISTICS

2.1.1 Site Area

Total Site Area: 21.44 acres (86,765 m² or 933,926 sf) gross area
Park Dedication: 3.0 acres (12,141 m² or 130,680 sf) minimum required
Net Site Area: 18.44 acres (74,624 m² or 803,246 sf)

2.1.2 Developable Area under Current MF-1 Zoning

Under the current MF-1 zone, if the entire site were to be developed after the minimum 3.0 acre park dedication, a density of up to 1,164,967 square feet of residential development would be possible at a 1.45 FSR. If the site were to be developed at the maximum permitted density after dedication of the 3.0 acre park and dedication of roads (in this application, road dedications are 10.1% of the total site area) then the density at 1.45 FSR would be 1,027,933 square feet of residential development.

Total development potential after park dedication under current MF-1 Zone:

Total Development (gross site area):	1,164,967 sf
Total Development (after road dedications):	1,027,933 sf

2.1.3 Proposed Development Areas (See Tables 2.5 and 2.6 in Section B – Graphics)

A. Commercial Village Development Area	
Commercial/Office:	30,000 sf
Hotel:	85,000 sf
Rental Residential:	<u>30,000 sf</u>
Total	145,000 sf
B. Residential Development Area	
High-rise + Townhouse associated with High-rise:	732,350 sf
4 and 6 Storey Apartment (excluding rental):	318,000 sf
Townhouses independent of High-rise suites:	<u>118,800 sf</u>
Total	<u>1,169,150 sf</u>
Total Development Area	1,314,150 sf
C. Indoor Amenity Area (not including that in individual developments)	
UEL Community Amenity Space	8,000 sf
Block F Clubhouse	10,000 sf
Daycare	<u>2,500 sf</u>
Total	20,500 sf

2.1.4 Floor Space Ratios (excluding indoor amenity space; based on net development area)

A. Under Current Zone:	1.45 FSR
B. Proposed:	1.85 FSR

2.1.5 Number of Units Proposed and Estimated Population

Estimated number of residential units:	1,254
Estimated population at build out:	2,250 to 2,500

2.1.6 Parks and Open Space

Dedicated park	3.1 acres
Publically accessible open space (not including street ROW open space)	2.8 acres
Greenways	<u>1.9 acres</u>
Total	7.8 acres (36.4% of the overall site)



3.0 BACKGROUND

3.1 TRANSFER OF PROPERTY

As part of the traditional territory that was never ceded by Musqueam, the parcel of land known as Block F was returned to Musqueam in 2008. This parcel of freehold land was part of a larger agreement between Musqueam and the Province of British Columbia, the *2008 Musqueam Reconciliation, Settlement and Benefits Agreement*.

Included in the terms of the Agreement was the return and transfer of four fee-simple parcels of land to Musqueam; Block F is one of those parcels. As part of the Agreement regarding Block F the following was specified.

- » The UEL Land Use Bylaw is amended so that the MF-1 Land Use District extends to Block F, and the OCP is amended so that Block F is designated as RMF1 and included in local Area D on the OCP Land Use and Context Plans.
- » Musqueam agrees that one or more areas within Block F, in aggregate not less than 3.0 acres, will be established as public park by way of a dedication or a fee simple transfer, at the discretion of the Province prior to any subdivision of Block F or the commencement of construction of any residential or other development within any portion of Block F.
- » It is intended that the dedicated park is to be recognized as an amenity associated with the development of Block F and count towards the park dedication requirements of a future subdivision of Block F.
- » A comprehensive development plan would be desirable, and design and development requirements may be imposed or need to be satisfied in connection with any subdivision, development or building approval.

The rationale for the Province to return Block F was to enable development to occur on the lands so as to create an economic return for Musqueam who could then use the proceeds of developing the site to assist in creating economic self-sufficiency. Given the fact that Musqueam is an urban Band, there is no opportunity for Musqueam to capitalize on resource extraction (timber, gravel etc.) as the Band lands are constrained within an urban context. As such, the Block F project represents a very important opportunity for Musqueam to achieve some of their financial goals and objectives through the development of the property.

3.2 SITE DESCRIPTION

The property is a 21.4 acre (86,765 m² or 933,926 sf) property located in the UEL bordered by existing roads on its four sides: University Boulevard to the northeast, Toronto Road to the north, Acadia Road to the west and Ortona Avenue to the south. There are two smaller parcels of land that are contiguous with the site without being separated by a road: a three-storey townhouse development (Liberta) in the southwest corner of the property and St. Anselm's Church in the southeast.



The site is currently treed with second and third growth, and contains forested trails connecting UEL and UBC with Pacific Spirit Park. Portions of the site are lower in elevation than the surrounding sites and as such, some stormwater collects on the site and periodically outflows to Salish Creek to the north beyond the University Golf Course and Cutthroat Creek to the south.



One and a half kilometres to the east of the site is the boundary of UEL and the City of Vancouver. The extension of University Boulevard east of this boundary becomes West 10th Avenue and includes multi-family residential, commercial and retail uses for four blocks.

The property forms a linkage between the northern and southern portions of Pacific Spirit Park although that linkage is interrupted by neighbouring churches, school and University Boulevard.

3.3 NEIGHBOURHOOD CONTEXT

The site is located at the far south-eastern edge of Area D of the University Endowment Lands. Other than St Anselm's Church and the Liberta townhouse development (Block G), the only other developed part of UEL that is contiguous to the site is a short stretch along Toronto Road on the northern boundary of the site. The majority of the property is bordered across University Boulevard by Pacific Spirit Park, UBC Golf Course, and University Chapel, across Acadia Road by the University of British Columbia and its residential development, and across Ortona to a school.

Land uses adjacent to the property include recreational (Pacific Spirit Park and UBC Golf Course, across University Boulevard), assembly use (two churches: St. Anselm's and University Chapel), multi-family residential (a four storey apartment building and two and three storey townhouses), and educational (VSB-Norma Rose Point School). See location and context maps in Section B - Graphics, Part 1.

In discussions with UBC, the land to the west across Acadia Road will be redeveloped over time to include more intensive residential uses and neighbourhood amenities, including residential high-rises of at least 22 storeys. At the time of this rezoning application, detailed planning for the future of the Acadia neighbourhood have not commenced.

3.4 CURRENT ENTITLEMENTS

The site is currently zoned MF-1 Multiple Dwelling District, and under the OCP is designated as RMF1 Multifamily (low-rise) and included in Area D on both the Zoning and the OCP Land Use and Context Plans. Under the terms of the Reconciliation Agreement, the land use and OCP designations "will in no event whatsoever be construed to limit or in any way fetter the discretion of any public official who may from time to time be responsible for subdivision, land use, zoning and related matters in the UEL including the discretion held by any local official acting under the University Endowment Land Act, the Land Title Act, the Local Government Act or the Land Use Bylaw to grant, refuse to grant, impose conditions in connection with, or any other matter relating to the issuance of a subdivision approval, building permit or development permit for the development of Block F in accordance with generally applicable procedures and policies in the OCP and the Guidelines in the Appendices to the Land Use Bylaw relating to areas with multi-family development and subject to the requirements of procedural fairness and other requirements of administrative law." With respect to the aforementioned requirement, Musqueam has followed the planning procedures as set out by UEL.

4.0 REZONING RATIONALE

The current MF-1 zone permits medium density residential development up to 1.45 FSR, including townhouses and apartment buildings. The maximum height of a building is restricted to four storeys.

A survey of best planning practices, current planning recommendations and recent developments strongly support the development of compact, complete mixed use neighbourhoods. Sustainable planning is predicated on a comprehensive approach to the development of vacant or underutilized land, particularly where servicing and amenities are currently in place and where a range of transportation options are available.

This parcel is ideally located and of an ideal size to contribute to a more complete and healthy community. It provides an opportunity to create a more walkable neighbourhood, to be able to expand the range of types of homes provided and residents accommodated, and to provide services and amenities for the benefit of both Block F residents and the larger UEL community.

This rezoning application proposes to expand the range of housing types, services and amenities that are not currently permitted under the MF-1 zone. It will increase benefits and opportunities for the larger UEL community. It will secure a significant park dedication, and it will also significantly increase the amount of publicly accessible open and green space than may otherwise be provided under the current zoning.



Above: Artist's rendering of residential on University Boulevard.

4.1 BENEFITS OF THE PROPOSED ZONE AND LAND USE PLANS

As outlined above, there are many benefits associated with the contemplated change in zoning from the current MF-1 zone to a CD Comprehensive zone that permits the implementation of the development plan that forms part of the rezoning application.

These benefits include the following.

1. It will create a wider range of housing opportunities for a wider range of residents. Included are various forms of townhouses, wood frame apartments in four and six storey buildings, and high-rise apartments in concrete buildings. It will augment and expand the range of housing currently available in the UEL.
2. It will focus growth and the corresponding new development on a transit route that is currently very well serviced, and which is a designated stop for a proposed rapid transit line.
3. It will provide services and amenities that are not currently permitted in the MF-1 Zone, enabling the creation of a more complete neighbourhood.
4. It will encourage and support residents to walk and bike. Commercial, recreational and community amenities are proposed for this site. The site is located adjacent to forest, recreational, educational and other commercial uses within a short distance.
5. It will provide neighbourhood amenities such as a daycare facility and a clubhouse that will add to the well-being and cohesion of the members of the community.
6. It will provide to UEL a community-programmed facility that can be utilized in the manner that best meets the aspirations of the overall UEL community.
7. It will provide an urban forest park. The urban forest and wetlands will provide respite, nature and educational opportunities.
8. It will provide dramatically more publically accessible open space than would be achieved under a development permit process under the current zoning.
9. It will provide a series of pathways, trails, greenways and smaller, intimate open spaces. The open play areas will provide opportunities for healthy activities. The greenbelt along University Boulevard will provide an increased width to the existing green boulevard. The trails and other connections will allow for current pedestrian and bicycle routes through the site to be continued.
10. It will provide a village plaza that can be utilized for community functions, fairs, gatherings and celebrations.
11. It will retain a significant grove of mature trees in a consolidated area that will facilitate their healthy continuance, as well as other significant clusters of trees on site.
12. It will maintain and enhance the value of the current wetland habitat, and continue their current contributions to offsite streams to the north and the south. The site will manage storm water runoff through best management practices.
13. It will provide an opportunity for upgrading of offsite services, roadways and intersections at the cost of the proponent.
14. It will provide for both a diversified and a larger tax base for the UEL community, which is important to address the aging infrastructure in the community.
15. It will provide uses during and after construction that will contribute to Musqueam and other's employment and training.
16. It will provide a component of rental housing.

4.2 COMPARISON OF THE CURRENT ZONE (MF-1) AND THE PROPOSED REZONING (CD)

There are current entitlements for the Block F site. The impact of the currently-approved development on transportation, local infrastructure, public facilities, community services and the natural environment would in many ways be very similar to the impact of the proposed development under the contemplated rezoning.

It should also be understood that approvals under the current zoning application are restricted to subdivision approval and a development permit process. A rezoning application provides more opportunities to achieve public benefits than may otherwise be achieved under the existing zoning schedule.

Under the direction of UEL administration and their advisors, a direct detailed comparison between possible development under the current zone and that under the proposed CD zone has not been undertaken. The applicants were asked to concentrate on the viability and potential merits of the proposed new master plan forming the basis of the CD zone. For this reason a direct impact and infrastructure comparison between current and proposed zoning and subsequent development has not been provided as part of this rezoning application.

Notwithstanding, some comparison is necessary to understand the additional impact that future development on Block F might have. The current zoning permits a density of up to 1.45 FSR if two conditions are met: that the site frontage of any lot is at least 80’ and that all required parking is underground. Those two conditions are very easy to meet (and in fact are met in the rezoning proposal) and any development under the current zoning would reasonably be expected to attempt to achieve that maximum density.

Under Current Zoning

Under the current MF-1 zone, if the entire site were to be developed after the minimum 3.0 acre park dedication, a density of up to 1,164,967 square feet of residential development would arguably be possible at a 1.45 FSR. If the site were to be developed at the maximum permitted density under the current zoning after dedication of the 3.0 acre park and dedication of roads (in this application, road dedications are 10.1% of the total site area) then the density at 1.45 FSR would be 1,027,933 square feet of residential development.

Under the Proposed Zoning

The residential density proposed in the rezoning application is 1,169,150 sf. The overall density with all uses, excluding amenities, is 1,314,150 sf.

A simple comparison of possible developable area between the current and proposed zones is:

Current zone:	1,027,933 sf to 1,164,967 sf of residential
Proposed zone:	1,169,150 sf of residential
	<u>1,314,150 sf</u> of all development, exclusive of amenities.

The difference between the current and proposed zoning is an additional: 4,183 sf to 141,217 sf of residential development, plus 145,000 sf of commercial development.

Comparison Table

The following is a comparison table of what is permitted under the current zoning and what is proposed in this CD rezoning application.

	Current Zoning	Proposed Zoning
Zone	MF-1 : Multiple Dwelling District	CD
Uses	<ul style="list-style-type: none">• Residential• Child Care• Park or Playground• Community Centre• School• Special Needs Residential Facility• Other Miscellaneous	<ul style="list-style-type: none">• Residential• Child Care• Park and Playground• Community Centre• Commercial/Retail• Hotel• Rental Residential associated with Commercial• Amenity Facilities• Daycare
Height	4 storeys and 45'	Varies per parcel; up to 22 storeys and 235' (72m)
Setbacks	Front: 20' Side: 5' min. + 15' av. Rear: 20' + 30'	Front: 0'; 10'; 16'; 26'; 33'; 42' (0m; 3.0m; 5.0m; 8.0m; 10.0m; 3.0m) Side: 13'; 16'; 26' 4.0m; 5.0m; 8.0m Rear: 16'; 33' 5.0m; 10.0m
Floor Space Ratio/ parcel	1.0 outright 1.45 maximum	0.35 to 4.50
Minimum Site Area	7,000sf for MF Dwelling	30,000 sf for MF Dwelling, Commercial/Retail or Hotel
Site Coverage	30%	65%
Off-Street Parking <ul style="list-style-type: none">• Apartments<ul style="list-style-type: none">• High-rise• Low-rise• Townhouses• Community Centre• Offices• Retail• Neighbourhood Grocery Store• Restaurant• Hotels• Clubhouse• Daycare	<ul style="list-style-type: none">• 1.35 plus .25 visitor• 1.35 plus .25 visitor• 1.5 plus .25 visitor• 1/1,000 sf gross area• 1/1,000 sf gross area• None• None• None• 1/two sleeping units• None• None	<ul style="list-style-type: none">• 1.0 or 1.1 plus 0.1 visitor• 1.0 or 1.1 plus 0.1 visitor• 1.4 plus 0.1 visitor• None• 1.5/1,000 sf gross area• 2.5/1,000 sf gross area• 2.5/1,000 sf gross area• 6/1,000 sf gross area• 1/two sleeping units• None• 1 per 15 students

4.3 HOW THE PROPOSAL MEETS THE BROADER COMMUNITY GOALS AND ASPIRATIONS - EXISTING PLANNING POLICY AND OFFICIAL COMMUNITY PLAN

Currently the Block F site is governed by UEL’s existing planning policies including the UEL Official Community Plan which sets out a broad statement of objectives and policies to guide decisions on planning and land use management within the area covered by the Plan. The OCP is not a static document and is organized to primarily deal with the four urbanized areas referred to as University Hill which is made up of Blocks A, B, C & D the latter of which includes Block F.

The proposed rezoning of Block F aligns with numerous current OCP objectives including:

4.3.1 Sustaining Environmental Quality

a) Greenspace

The Block F project will be designed with a view to creating a landscape that is unique in character and reflects the development to which it responds. The future parks and open space system will work with the existing park spaces within UEL and will serve to limit the extent of impervious surface materials on each property.

b) Tree Management Policies - Area D

The tree management plan for Block F considers the preservation of the most valuable tree assets on Block F and ensures their integrity by locating the park area to coincide with this stand of mature trees. An arborist report and a tree survey individually reviewed these trees and a windfirm edge was identified from a safety perspective.

d) Traffic Policies

The development of Block F will introduce new vehicular and pedestrian connections but will serve to traffic calm these areas and impede inter-arterial shortcutting. As well, bicycle lanes will be introduced on new roadways in Block F as well as bicycle opportunities through the open space network.

e) Transit Policies

The development of Block F will assist in supporting rapid transit to UBC through development immediately adjacent to the future rapid transit alignment. A future station location is conceptually shown adjacent to Block F which is supported by the owner.

4.3.2 Maintaining Neighbourhood Character

a) Building Patterns

Each Local Area in UEL has its own distinctive characteristics. Area D presents a village-like atmosphere of high and low-rise apartments, townhouses and retail development. The development of Block F is consistent with this established character and offers an opportunity for a masterplanned development offering the continuance of this established development character inclusive of the mixed use character.

b) Density Policies

As a higher density neighbourhood within Area D, Block F has been designed to respect a human scaled streetscape experience including wide boulevards, tree planting and street furniture combined with significant area of parks and open spaces.

The new development will provide for safe, convenient and secure bicycle storage for residents and visitors.

d) Commercial Development

Consistent with the OCP, commercial uses are located in Local Area D and are oriented so as to be as close to the existing commercial services in the community. It is proposed that a specialty grocery store be located as an anchor for the new small scale commercial village.

The commercial demand study undertaken specifically for the Block F site has considered the UBC commercial expansion plans and allows for considerable opportunities for residents and visitors to purchase goods and services from a variety of locations including UBC and West 10th Avenue.

4.3.3 Providing Essential Services

a) Development Cost Recovery Policy

The Block F project will be investigating the off-site servicing impacts specifically related to the development of the Block F site. Should upgrades be required directly as a result of this development, the developer will pay for these improvements.

b) Stormwater Policies

Consistent with the policies of managing stormwater the Block F development will improve the quality of stormwater leaving the site through the creation of a reconstructed wetland, the creation of rain gardens, and providing landscape design with minimal impervious surfaces. The particulars of the stormwater requirement plan have been submitted to DFO/MOE and have received approval in principle.

4.3.4 Achieving a Compact Metropolitan Region

The intent of the GVRD's regional plan is to promote growth within the urban boundary zones identified as Growth Concentration Areas. This includes infilling undeveloped areas and growing established commercial centres. Compact metro regions are the end result of strong green zones and managed growth at the local level.

The UEL supports this initiative by:

- a) Focusing and densifying commercial development within established commercial areas;
- b) Densifying existing multi-family residential zones through redevelopment initiatives; and
- c) Supporting growth close to transit lines and promoting public transit use for all UEL residents (such as utilizing off-peak capacity for reduced fares) through discussions with Translink.

The Block F development fulfills all of the above noted objectives by increasing development within an urban area that is currently serviced by transit and will likely be serviced by rapid transit in the future. The master planned neighbourhood builds on the planning principles that are already well-established in the UEL and fulfills many of the regional growth and open space goals.

The UEL's Land Use, Building and Community Administration By-law is the other planning tool utilized by UEL to regulate specific land uses and associated features of any development. In the case of Block F, given the size and unique attributes of the site, a CD-1 By-law has been applied for so as to customize the zoning regulations for the site. Included within the specifics of the CD-1 would be regulations related to land use, building height, setbacks, parking as well as design guidelines relating to both public and private spaces. Through this process, a new CD-1 zone would supersede the existing MF-1 zoning which currently regulates land uses and activities on the site.

4.4 AMENDMENTS TO THE UNIVERSITY ENDOWMENT LANDS OFFICIAL COMMUNITY PLAN

The proposed CD rezoning would require the following amendments to the current Official Community Plan.

4.3 a) Building Patterns

The inclusion of Block F as site where mixed-use commercial / residential is encouraged.

4.3 c) Densification

- ii) modify OCP to exclude Block F from optimizing density levels established in "current By-Law"
- v) modify OCP to exclude Block F from this provision

4.3 d) Commercial Development

Modify to include Block F in the description of where commercial uses are permitted and do not limit the areas to the Village

5.3 Statement of Housing Policies

Second paragraph – exclude Block F from provision of 20% of additional density dedicated to below market housing

6.3 Building Complete Communities

Amend 6.3 b) to not require this provision on Block F and

6.3 c) add Block F to this paragraph

6.3 d) to allow development on Block F as per CD By-law

6.4 Achieving a Compact Metropolitan Region

Amend 6.4 a) to add Block F as a mixed-use commercial area.

Figure 2 Current designation modified to allow commercial on Block F

Figure 3 modified to include new public roads

It should be noted that in the OCP, item c) in Section 6.2 Protecting the Green Zone "Placing restrictions on the use of Block F ... to preserve as publicly accessible parkland" has already been modified in Section 6.03 Block F Zoning of the Reconciliation Agreement, which states "...and the OCP is amended so that Block F is designated as RMF1 and included in Area D on the OCP Land Use and Context Plans..."

4.5 MODIFICATIONS TO CURRENT ZONING DEFINITIONS FOR THIS APPLICATION

For the purposes of development on lands included in this CD rezoning application, definitions shall be as per the University Endowment Lands Land Use, Building and Community Administration Bylaw except for the following.

(19) "area of the floors of the buildings on a site" means the enclosed area of the buildings, but shall exclude areas used for parking and vehicular circulation; storage areas, stairs, elevators, elevator lobbies, vestibules and similar within a parking garage; mechanical and electrical rooms and spaces; amenity areas; storage areas including bicycle storage, and similar.

(30) "height of buildings" means the vertical distance between the average grade and the highest point of the habitable portion of a building, excluding amenity and non-habitable space, elevator shafts, mechanical rooms, chimneys, antennae, screening and similar features.

(59) "site coverage" means the percentage of the site covered by buildings based on the projected areas of the outside of the outermost walls of all buildings, including accessory buildings, but does not include patios, porches, covered decks, steps, retaining walls, gazebos, parking garages that do not extend higher than 3'-6" above finished grade, and similar features.

5.0 PRINCIPLES AND OBJECTIVES



Preservation and enhancement of open space



Sustainability



Community integration and respect



Housing diversity



Responsible development



Building a community heart

5.1 PLANNING PRINCIPLES

At the start of the rezoning project, the Project team developed several planning principles to help guide their work. These were presented to the community and to others at the first Open House in December 2012. The preliminary site concepts that were subsequently developed were informed by these project planning principles, site study findings, and stakeholder and community input.

Musqueam has been widely recognized nationally and provincially for their leading edge community planning and development projects. The same commitment is brought to the development of Block F.

1. Protect and enhance open spaces and community connections to Pacific Spirit Park.
2. Live sustainably; Musqueam's cultural values are founded on stewardship of the natural world; we have walked the talk of sustainability for a long, long time.
3. Consider community integration and respect; encourage good relationships and strive to be good neighbours.
4. Provide a diversity of housing for a mixed community and a variety of housing types for a variety of needs.
5. Provide a range of amenities and services within the community.
6. Engage in responsible development that is economically sound, environmentally progressive and socially respectful.
7. Build a community heart.
8. Create a neighbourhood focus and a centre of activity and services for both future residents of Block F and the UEL community.

5.2 DESIGN OBJECTIVES

Following from the Planning Principles, the Design Objectives guided the creation of the design and the development of the proposed development plan and the resultant crafting of the rezoning document.



PRESERVATION AND ENHANCEMENT OF OPEN SPACE

- ✓ Use open space and greenways as guiding features in the design of the community
- ✓ Locate park in the most optimal location
- ✓ Maintain trail networks currently on site
- ✓ Minimize area dedicated to roads and vehicular traffic to maximize green and open spaces
- ✓ Preserve Wetlands



HOUSING DIVERSITY

- ✓ Provide a variety of housing types to address a variety of needs
- ✓ Consider social, seniors and UBC staff housing
- ✓ Consider providing larger residential units to accommodate families or existing residents looking to downsize



SUSTAINABILITY

- ✓ Minimize impervious surfaces
- ✓ Maintain off-site flow rates of rain water as much as possible
- ✓ Ensure community walkability
- ✓ Support a mix of land uses



RESPONSIBLE DEVELOPMENT

- ✓ Locate the commercial village and hotel to benefit the local and surrounding community
- ✓ Explore options that provide and enhance connections with existing and planned cycling, walking and transit routes and facilities
- ✓ Ensure businesses support local needs



COMMUNITY INTEGRATION AND RESPECT

- ✓ Ensure on-site features are accessible to the public
- ✓ Ensure the scale and type of development respects the adjacent neighbours
- ✓ Provide Neighbourhood amenities geared for UEL residents



BUILDING A COMMUNITY HEART

- ✓ Create a focus that becomes a heart for the wider UEL community
- ✓ Ensure access to new community services for wider UEL community
- ✓ Provide opportunities for formal and informal gathering places
- ✓ Provide for a "Village Green", a gathering spot for the local community

6.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

This plan proposes a vibrant, diverse, comprehensive neighbourhood that will contribute to other areas of the UEL and to the broader community. It supports the principles of a walkable neighbourhood with enhanced social features and connections.

This application proposes a variety of building types and heights to address a variety of housing needs and to provide for a variety of urban forms. It provides a range of housing that will better address the wide range of needs of current and future residents.

Open space, especially publicly accessible open space, is extensive. More than one third of the site will be comprised of dedicated park and publicly accessible open space, an amount that arguably would not be possible with the current zoning. Given the community's preferences for retention of the mature trees and the continuance of the existing trail network system and wetland area, this is one of the strongest arguments in support of this rezoning application.

A key component of the development is the creation of a heart – a village square as focus and gathering place. The commercial village, with retail and services, is within easy walking access of the residential development on Block F as well as other residential areas in the UEL. It provides indoor and outdoor community amenities for the benefit of those residing in Block F and the larger UEL community.



Above: Artist's rendering of the Commercial Village.

6.1 LAND USE

6.1.1 A Mixed Use Community

To fulfill the potential of the property and to create a healthy and sustainable community, this application proposes a mixed use community with a variety of land uses. Commercial/retail will provide employment and local shopping within walking distance of current and future residents. A mix of residential - townhouses, low rise apartments and high rise apartments – will provide housing opportunities for a wide range of population, age, income and demographics composition.

A community facility will be made available to the larger UEL community for uses of their determination. A clubhouse facility will augment the indoor amenities of individual developments and will be geared towards onsite residents' recreation and social needs. A daycare centre will provide childcare services for local parents.

A hotel will provide a much-needed facility for the western end of the Metro Vancouver peninsula. The proposed hotel will be located immediately adjacent to and forming part of the Commercial Village in the development. Direct access to the hotel and the Commercial Village would be provided from a signalized intersection at University Boulevard.

6.1.2 Siting of Uses

The proposed land uses are sited to allow for the most direct integration into the surrounding UEL neighbourhoods and with other communities and activities. The commercial and hotel uses are situated at the northern portion of the site, closest to the other areas of UEL and visible and accessible from University Boulevard. These uses are most directly connected to the rest of the UEL, UBC, Pacific Spirit Park and the University Golf Course.

The community facility of interest to the broader UEL community is located so that it provides convenient access to the UEL community and an opportunity for integration with Pacific Spirit Park. The intention is to provide the shell space for the UEL to finish and use as it deems most appropriate and in direct response to community need as well as enabling Musqueam to showcase their culture.

The hotel is located so that it has visibility from University Boulevard, is adjacent to planned rapid transit, and is walking distance from UBC, the University Golf Course and many of the activities that will attract users of the hotel. Its function spaces can also be used by the broader community.

The high rise developments are located adjacent to the mature stand of trees that will form the new, dedicated park. The trees are a similar height to the high rises and will provide a contextual background to the taller development forms.

The dedicated park space is located almost mid-point on the site and essentially spans between Acadia Road and University Boulevard. The additional parks and open space linkage radiate outward from the park site allowing a range of 'off road' connections throughout the site.

The four and six storey apartment developments are located within and between the townhouse and high-rise developments and will provide a transition from higher to lower forms of development.

The townhouses are located adjacent to the church, school and an existing neighbouring townhouse development. The townhouses' scale is sensitive to the adjacent neighbours.

6.1.3 The Commercial Village

A small component of locally-oriented retail/commercial uses is planned for the Block F site. The total size is approximately 30,000 sf and is expected to include a specialty grocery store amongst other local serving retail services. This modest retail village is planned so that its primary function is to serve the core needs of local residents living in Block F and in the immediately adjacent area (UEL).

It will provide a base array of goods and personal and professional services. It will offer residents an informal gathering place and will be a clear and desirable alternative to traveling by car for regular convenience purchases. It is planned as an extension and complement to other nearby commercial facilities. By catering specifically to the needs of non-student area residents, Block F's shops and services will serve as a complementary lifestyle amenity for other area residents seeking a less student-oriented tenant mix and environment. Its modest scale and mix will draw primarily from a walkable trade area, thus ensuring that the majority of local resident spending will continue to flow to and support other retail nodes both on campus and in Vancouver's west side, particularly UBC, Point Grey Village, West Broadway and West 4th Avenue.

6.1.4 The Hotel

It is anticipated the hotel would include a variety of guest rooms and suites to accommodate a range of singles, families and business travelers. It would also include a continental breakfast room, approximately 1,500 sf of meeting rooms, a fitness room, indoor pool and/or hot tub, and a business centre.

The primary demand generator for the Hotel would be the UBC campus. Preliminary research suggests that virtually all of the UBC faculties have some level of demand for hotel facilities year round through conferences and meetings, guest speakers and presenters, and parents of students. A variety of other features such as the Chan Centre, Thunderbird Stadium, the Tennis Centre (Davis Cup) and Cecil Green Park would also be demand generators.

6.1.4 The Hotel continued

Secondary demand generators include the UBC Golf Course (also owned by Musqueam) which caters to a significant number of weddings, golf tournaments and other banquets which are derived from Downtown Vancouver and other areas. As well, the local neighborhood’s “visiting friends and relatives” comprised of social functions and weddings also was considered a demand generator.

Projected Hotel Market Segmentation	
Market Segment	% Demand
Corporate/Commercial	5.50%
Meeting/Conference	36.00%
Leisure/Tourist	35.20%
University	23.30%
Total	100.00%

The hotel would provide for employment and training opportunities for Musqueam and others and could be affiliated with the UBC faculties to provide educational opportunities such as training and internships.

6.1.5 The Residential

The residential development is geared to a very wide range of housing needs. Both rental and ownership of residential units will be provided. Unit sizes range from affordable one bedroom apartments to expansive three bedroom townhouses. Unit types range from ground-oriented with private gardens to high-rise homes.

The size and scale of the different developments are attractive to experienced local developers who have reviewed the draft plans and have expressed strong interest in being involved, and who believe this plan provides much-needed housing and commercial services.



Above: Artist's rendering of residential on Acadia Road.

6.2 COMMUNITY AMENITIES

As part of the rezoning application, the following amenities are proposed.

- » A Clubhouse building for the use of the Block F residents, and others. Included will be sports courts, fitness facilities, meeting rooms, club lounge and possibly a resident caretaker.
- » A daycare that will accommodate a private daycare operation of up to 40 children.
- » A UEL community building.
- » An extensive series of, parks, greenways and publically accessible passive and active open spaces.
- » Indoor and outdoor amenity spaces within individual developments.

6.2.1 The Clubhouse

A Clubhouse will be constructed by the owner/developer at no cost to UEL. The facility will be owned by all of the residential strata corporations of Block F and operated by them. The terms of construction, operation, maintenance and related issues will be incorporated into the sales agreement with the each of the developers of each phase of the development and all of the strata purchasers, and in the strata bylaws of each of the residential strata corporations.

This facility will be a minimum of 10,000 square feet and will contain the following typical uses:

- | | |
|---------------------------------------|--------------------------|
| » A gymnasium/sport court | » A full kitchen |
| » A fitness centre | » A manager’s office |
| » A large social room | » A manager’s suite |
| » A meeting room | » A large, covered porch |
| » Storage and relevant service rooms. | |

The maintenance, operations and cost of maintaining this facility will be the responsibility of each strata owner by way of master agreements with each of the residential strata corporations and will not impose any additional cost upon UEL. The timing of the construction of the clubhouse will coincide with 50% of the total estimated units sold so as to have a built-in demand for the facility once it opens.

6.2.2 The Daycare

A daycare building, independent from the Clubhouse, will be constructed by and at the master developer’s cost. This daycare will accommodate a private daycare operation of up to 40 children, and will be made available at to a private operator who will be responsible for the operation, maintenance and other related costs of the facility.

Terms of who has access and determining the priority of who has access to

the daycare will be the responsibility of the master developer until the overall development is at least 75% complete and occupied. At this point it will become the responsibility of the daycare operator.

6.2.3 The UEL Community Building

A building shell of a minimum of 8,000 square feet will be constructed, at the master developer’s cost, on the second floor above the retail/commercial development. It is intended that the scope and operation of the community building will be determined by input from the UEL community, Musqueam Indian Band, and with the joint agreement of the master developer. This community space presents an opportunity to showcase the Musqueam culture and preliminary thoughts include the provision of an interactive component for Musqueam.

The master developer will work with representatives of the community to jointly agree to matters that will affect the design of the shell of the building. The design, cost and constructing the improvements in the community building will be the responsibility of the UEL community. It is expected that more specific terms and agreements regarding the UEL Community Building can be discussed through the processing of the rezoning application and an agreement in principal reached at the time of rezoning approval.

6.2.4 Parks, Greenways and Publically-Accessible Passive and Active Open Spaces

The Dedicated Park

Musqueam Capital Corp. will dedicate the park to the UEL as per the Reconciliation Agreement and agreed to by the MCC under the terms specified in the Reconciliation Agreement. MCC, as master developer, will construct improvements to the park as generally shown on the drawings submitted with the rezoning application, based on an agreement that the dedication of the park will not infringe on MCC or related developers’ ability to construct on Block F properties in accordance with generally accepted standards, including temporary access into the park land during construction.

The maintenance and cost of maintenance of the park will be the responsibility of the UEL or its designated agency albeit the maintenance cost is believed to be very modest given the current natural state of the mature forest.

The Wetland and Other Publically-Accessible Open Spaces

The cost of construction and maintenance of the wetland and other publically-accessible open spaces will be the responsibility of the master developer, individual developers and related strata corporations with no cost incurred by UEL.

Guaranteed access to the general public, subject to them acting reasonably in these spaces, will be granted and included as covenants on title to the land.

6.3 PUBLIC ART

As part of Musqueam’s affiliation with the Block F lands both historically and more recently, there is a desire to leave a Musqueam imprint on the lands in an effort to convey a local story which would be layered overtop of the public parks and open spaces developed as part of the project. The intent is to introduce public art throughout the Block F site in an effort to strengthen the urban fabric and this art would contribute to the identity and character of the Block F neighbourhood.

Public Art can be unexpected moments of beauty, amusement, reflection or intrigue. These works of art might serve as monuments or memorials or represent other creative, innovative and exploratory ideas or expressions for the area. The creation of the public art pieces would be undertaken directly by Musqueam artists who have historical ties to the lands.

The public art program would be funded through the allocation of a percentage (%) of the total construction cost of each development which would be collected by Musqueam (MCC) as part of the business terms with the selected development partner. There are a variety of opportunities for Musqueam to implement public art:

- » “On site” contributions where the art is commissioned and installed either on the subject property or the immediately adjacent public lands;
- » “Off-site” contributions are pooled to a fund which allocates public art pieces on publicly owned lands; or
- » “On-site/Off-site” contributions whereby there is a combination of art commissioned and installed on the subject property with the balance of funds collected pooled to a reserve fund which may be used for art pieces on publicly owned lands.

Conceptually the public art plan could incorporate the following features;

Welcome: Creation of an entry experience(s) to the Block F neighbourhood would serve to welcome all individuals coming to visit or living in the Block F neighbourhood and make all residents and visitors feel comfortable as guests. Introducing a sense of arrival will create an atmosphere whereby visitors may respond with respect and intrigue.

Inform: Opportunities exist to inform visitors, residents and neighbours of the history of the land and the importance to the Musqueam people. This may be told through interpretive signage/storyboards in an effort to share the cultural heritage and archeological history of the site.

Engage: The existing open space features that will be retained, enhanced and newly created open spaces on the site will provide opportunities for all individuals to engage with the natural features and history of the site.



Left:
Flight Spindle
Whorl by
Musqueam artist
Susan A. Point

6.4 PROJECT VISION

How a project is visioned in the marketplace is both driven by the wants and needs of the market and by the competitive landscape. Without clarity of the vision, the task of establishing the future needs of the residents and determining what to build, what to sell, and how to address their needs becomes a convoluted one.

The most successful projects begin with a clearly defined, differentiated and well-articulated positioning statement and brand identity that encompasses the retail, commercial and residential components in a complementary fashion. This enables the developer to attract sufficient, timely interest in ownership opportunities at required prices, thereby ensuring accelerated success.

The planning behind the Block F project from the outset was to include a variety of housing forms that would appeal to a wide range of the marketplace and offer opportunities for a mixed population to live in the new neighbourhood. The site’s geographic location lends itself to a number of different residential segments including young university students, young professionals, families and seniors/downsizers. These future residents may currently live in the UEL or adjacent west side neighbourhoods or alternatively be drawn to the new neighbourhood given the appeal of the site offerings and/or adjacent amenities.

Given the uncertainty of projecting future purchasers/residents, it would be impractical to design the new neighbourhood with a narrow focus or a singular resident subset in mind. Rather, the approach taken in preparing the Masterplan and rezoning application was to create a neighbourhood that would house a wide range of residents as well as providing for onsite amenities that would appeal to a broad range of future residents. These onsite amenities combined with amenities currently available either within UEL, UBC or the west side of Vancouver would provide for a comprehensive range of opportunities for the future residents of Block F.

6.4.1 Future Population

Real estate developers often refer to great neighborhoods as “urban magnets”. Urban magnets are unique, vital and authentic urban places that attract and hold the emotions and interest of groups of people. These groups animate a place and give it vitality, a sense of place and economic success. Animation includes the after school energetic activities of children who attend school in surrounding areas and frequenting the shops along Arbutus, in Kerrisdale and Dunbar, along West 10th, West Broadway and 4th Avenue and at UBC..

People live in the UEL because it is a mature, safe and attractive Westside community. It provides reasonable access to education and social and recreational activities and an eclectic mix of shops, restaurants and amenities and downtown Vancouver. It can be enjoyed on foot, by bicycle or car.

One could say that the proposed project will be successful if positioned and developed as primarily a residential neighbourhood in close proximity to the grander scale lifestyle amenities and opportunities that both UBC and Vancouver has to offer. Of course, given the psychographics and demographics of the people that reside nearby and the fact that this emerging neighborhood is located in Vancouver’s affluent Westside must not be overlooked.

The surrounding area is home to a mix of professionals, middle class workers and students renting basement suites or apartments to attend nearby

schools. The area is also home to older and elderly residents who primarily rent or own in the low rise rental blocks. The majority of the multi-family stock in the immediate area is 10+ years old or much older. The single family housing in the surrounding area is relatively more expensive with starter home typically priced above \$2,500,000.

In general, it is assumed that a majority of buyers will have either owned property here before, lived with a relative who has owned property for some time or rented property in the area for more than a year with the eye to buying in the area if the right opportunity was presented. Accordingly, it is assumed the majority of purchasers will have a history in the area and a positive emotional connection to this corridor specifically or Vancouver’s Westside in general.

Colliers defines the **primary and secondary target markets** as follows:

International – Education Oriented

- » Male / Female between 30 and 55 years old
- » Many are buying for the first time in this country and are linking their purchase to immigration.
- » Couples with one child aged 4 - 24 looking to educate their child in Canada and/or immigrate for lifestyle
- » If children are older, may be looking to house a family member attending private or public primary, secondary or post-secondary school in the area and later selling the home for a profit

6.4.1 Future Population Continued

Westside Baby Boomers

- » 50 to 65 years of age, married or divorced “downsizer” looking to sell a single family home or town home in the immediate area and purchase a less capital intensive, easier to maintain condominium home in the immediate area.
- » May be looking to live a portion of the year in another location and therefore value the option of “locking and leaving” their primary home in a secure community while they are away.
- » Enjoy a vibrant social life in area thus are not interested in relocating to new communities.
- » Enjoy dining in and dining out, socializing and recreational activities with friends and family.
- » May have raised a family in the area and may have extended family nearby.
- » Interior design tastes and preferences may be more traditional - offerings like those in KITS or downtown may not appeal to them.
- » Even though they are downsizing, they will have concerns about having enough space – “more than 1,000 square feet please” - need secure storage and will prefer the single floor living offered in apartments instead of the multi-floor living offered in most townhomes.
- » Some of these individuals may be entrepreneurs who work from home.
- » Household income may be less of an indicator than net worth. That said, household income exceeds average.
- » The scale of smaller developments in Kerrisdale and Dunbar being developed over new retail may not appeal to this prospective buyer. However, they are unlikely to be attracted to more dense mixed used projects on Broadway or Downtown or in Marpole. That being said, select new offerings at South East False Creek, on the Granville and Cambie Street corridors and to a degree at UBC will be considered.
- » It is quite likely a small percentage of these prospective buyers may have a small pet that they are emotionally attached to. The buyers will not want to be overly restricted from owning a pet.

Westside Maturing Neighbors

- » Early 30's to late 40's - single, divorced or married.
- » Work within 15 to 20 minutes' drive of the site.
- » White collar employment.
- » Household income is typically above average for area. This target may have a greater propensity to save than their counterparts in other areas.
- » Enjoy dining out, socializing and recreational activities with friends.

- » Most will have a prior connection or history with the area having grown up here or having extended family in the area.
- » May currently be renting in the area with an eye to buying but unsatisfied with re-sales options on the market.
- » Interior design tastes and preferences may be more similar to new offerings in South East False Creek, Yaletown or Kitsilano.
- » May have one child living with them age 12-24. If so, student is likely enrolled in private school or attends local public high school.
- » Target include affluent international residents looking to spend part of the year in Canada or looking to educated a child 12-24 in the best school possible.
- » Likely tech savvy and have active lifestyles.
- » Limited number of these prospective buyers may receive deposit as a gift from older parents who reside in the area. Household income may be less of an indicator than net worth. That said, household income is close to or exceeds average.
- » A small percentage of these prospective buyers may have a small pet that they are emotionally attached. The buyers will not want to be overly restricted from owning a pet.

Young Aspiring Professionals

- » Comprised of young white collar professionals aged 26-36. They are slightly better off than their downtown dwelling counterparts / young couples and first time home buyers who plan to occupy their units upon completion and may wish to start a family.
- » They will be tech savvy, social and lead healthy active lifestyles.
- » These buyers may be receiving financial assistance from their parents who reside in the area and or their parents may be the actual purchaser.
- » Work within 15 to 20 minute drive of the area.
- » Enjoy dining out, socializing and recreational activities with friends.
- » Most will have a prior connection or history with the area having grown up here or having extended family in the area.
- » May currently be renting in the area with an eye to buying but unsatisfied with re-sales options on the market.
- » Interior design tastes and preferences may be more similar to new offerings in South East False Creek, Yaletown or Kitsilano.
- » It is quite likely a small percentage of these prospective buyers may have a small pet that they are emotionally attached.

Seniors

- » 65 to 85 years of age, married, divorced or widowed “downsizer” looking to sell a single family home, town home or condominium and purchase a less capital intensive, easier to maintain condominium home in the immediate area.

- » May be looking to live a portion of the year in another location and therefore value the option of “locking and leaving” their primary home in a secure community while they are away.
- » Enjoy a vibrant social life in area thus are not interested in relocating to new communities outside the City.
- » Enjoy dining in and dining out, socializing and recreational activities with friends and family.
- » May have raised a family in the area and may have extended family nearby.
- » May still lead relatively active lifestyles and would consider moving to a new neighbourhood that is located in a geographic area that is amenity rich, safe, offers retail amenities and transportation alternatives.
- » They will have concerns about “aging in place” and will prefer the single floor living offered in apartments instead of the multi-floor living offered in most townhomes or the single family homes they have left.

6.4.2 Product/Unit Mix

At the present time no decisions with respect to unit mix have been made given the fact that in due course, Musqueam’s development partners may take on the responsibility of detail planning, construction and selling individual residential projects. As such, these future decisions will be influenced in part by the party interested in acquiring the land from Musqueam. In general, based on the work done to identify the primary and secondary residential markets the project team has formulated an opinion with respect to unit mix:

- » The proposed mix of a number of the buildings should be primarily comprised of larger floor plans (two bedroom and three bedroom homes). There is demand for larger product in this area. However, a limited number of projects in the market have attempted to capture this demand due to concerns about market risk and slower absorptions.
- » While larger product is appealing in this market particularly to affluent families and downsizers, realistically attainable multifamily sales pricing will naturally restrict the outer limit of sizes. More specifically, demand for product larger than 1,000 to 1,500 square feet is present. However, demand for 1,500+ square feet products is much less and demand for 2,000+ square foot product is very marginal at best.
- » Smaller, lower priced product tends to pre-sale much faster than end user oriented larger, premium offerings. If aggressive pre-sales targets are not required, an offering of larger homes can be suitable to achieving optimal product absorption. Consider a mix of smaller homes in lower floors or closer to retail.
- » Townhome offerings in locations such as this remain scarce and tend to absorb quickly especially in instances where construction can be accelerated in a manner that enable marketing efforts to be conducted from a completed Display Home(s). There is sufficient demand to support the proposed number of townhomes and possibly more. It is also understood that UBC Property Trust will focus on concrete product (high-rise) going forward.

6.4.2 Product/Unit Mix Continued

Low Rise Woodframe Condominiums

Proposed size offering of low rise condominiums includes:

Ownership Type	Unit Type	Size
Leasehold	One Bedroom	600 to 650 square feet
	One Bedroom + Den	650 to 700 square feet
	Two Bedroom	800 to 1,000 square feet
	Two Bedroom +	1,000 to 1,200 square feet

High Rise Concrete Condominiums

Proposed size offering of high rise condominiums includes:

Ownership Type	Unit Type	Size
Leasehold	One Bedroom	525 to 625 square feet
	One Bedroom + Den	625 to 675 square feet
	Two Bedroom	775 to 975 square feet
	Two Bedroom +	1,000 to 1,250 square feet
	Three Bedroom +	1,200 to 1,400 square feet
	Penthouse	1,200 to 1,600 square feet

Townhomes

Proposed size offering of high rise condominiums includes:

Ownership Type	Unit Type	Size
Leasehold	Three Bedroom +	1,400 to 1,800 square feet



6.5 PRELIMINARY POPULATION ESTIMATES

In an effort to provide an estimate of the future population of Block F, a number of variables need to be considered including the number of overall units, the size of units and the estimated absorption of units over time. Based on the current market dynamics, it is anticipated that the build out of the entire Block F neighbourhood would occur over a 10 to 12 year period. Over the course of this time period there could be changes to the real estate cycle which could have an impact on the absorption of the residential product over this time period.

6.5.1 Census Data

Given the current makeup of the UEL population it is anticipated that future population of Block F (the average people/dwelling unit (ppl/u)) would be less than that which currently exists in UEL. The tables below outline the 2011 Census data specifically for the UEL and were provided by Statistics Canada.

Population by Age Profile

	UEL		BC	
Total Population (2011 Census)	3,230		4,400,055	
0 to 9 years	230	7.1%	438,585	10.0%
10 to 19 years	555	17.2%	513,945	11.7%
20 to 29 years	715	22.1%	568,600	12.9%
30 to 39 years	270	8.4%	556,850	12.7%
40 to 49 years	615	19.0%	664,365	15.1%
50 to 59 years	375	11.6%	677,945	15.4%
60 to 69 years	240	7.4%	1,014,965	23.1%
70 to 79 years	130	4.0%	288,190	6.5%
80 years and over	105	3.3%	189,625	4.3%
Median age	34.0		41.9	

Household Size Profile

	UEL		BC	
Total Households (2011 Census)	1,300		1,764,640	
1 person	330	25.4%	498,925	28.3%
2 persons	410	31.5%	613,270	34.8%
3 persons	275	21.2%	264,130	15.0%
4 persons	195	15.0%	237,725	13.5%
5 persons	55	4.2%	91,605	5.2%
6 or more persons	30	2.3%	58,990	3.3%
Total number of persons in private households	3,230		4,324,505	
Average number of persons in private households	2.50		2.50	

Household Type Profile

	UEL		BC	
Total Households (2011 Census)	1,300		1,764,640	
Single-detached house	375	28.8%	842,120	47.7%
Semi-detached house	15	1.2%	52,825	3.0%
Row house	35	2.7%	130,370	7.4%
Apartment, duplex	50	3.8%	184,355	10.4%
Apartment, building that has fewer than five storeys	580	44.6%	361,150	20.5%
Apartment, building that has five or more storeys	240	18.5%	143,975	8.2%
Movable dwelling	0	0.0%	46,955	2.7%
Other single-attached house	0	0.0%	2,880	0.2%

Mother Tongue Profile

	UEL		BC	
Total Population (2011 Census)	3,235		4,356,205	
English	1,330	42.2%	3,062,430	71.7%
French	40	1.3%	57,275	1.3%
Mandarin	555	17.6%	94,050	2.2%
Chinese	370	11.7%	120,045	2.8%
Korean	290	9.2%	48,975	1.1%
Cantonese	110	3.5%	133,245	3.1%
Persian	65	2.1%	36,045	0.8%
Japanese	30	1.0%	19,665	0.5%
Spanish	30	1.0%	40,795	1.0%
Tagalog	30	1.0%	66,125	1.5%

The resultant tables outline that UEL’s population as a whole has a median age of 34 years, compared to a provincial median age of 41 years. With respect to household size, approximately 78% of total households consist of less than 3 people and 57% of total households consist of less than 2 people.

6.5.2 Household Size by Dwelling Type

The UEL average number of people living in all unit types is 2.5 ppl/u which is consistent with the BC average. The Metro Vancouver average number of persons in private households is 2.6 ppl/u while the City of Vancouver average is 2.2 ppl/u. The Greater Vancouver Area inclusive of the City as well as Electoral Area A and UBC is also 2.5 ppl/u based on all unit dwelling types.

	Electoral Area A¹	Vancouver	Metro Vancouver
Single-detached house	2.91	3.11	3.13
Semi-detached house	3.11	2.65	2.70
Row house	3.07	2.63	2.70
Apartment, duplex	2.73	3.00	3.09
Apartment, < 5 storeys	2.29	1.78	1.93
Apartment, ≥ 5 storeys	2.22	1.63	1.73
Movable dwelling	3.00	1.77	1.80
Other single-attached house	0.00	2.12	2.25
Total	2.46	2.23	2.56

When single family, duplexes, movable dwellings and others are excluded from the data set, the remaining household types of row house, apartments less than 5 storeys, and apartments greater than 5 storeys yield the following average number of persons in private households:

	Electoral Area A	Vancouver	Metro Vancouver
Row house	3.07	2.63	2.70
Apartment, < 5 storeys	2.29	1.78	1.93
Apartment, ≥ 5 storeys	2.22	1.63	1.73
Total	2.39	1.76	2.02

6.5.3 Estimating Build Out Population

Three different methods were used to estimate the total future population of Block F at build out. Based on the outcome of these estimates, a future range of population was created

Method 1

The first method involves taking the gross developable area of the multifamily area excluding townhomes and applying an average unit size (750 sq.ft.) to the net developable area which would exclude things such as hallways, stairwells, elevator shafts etc. The townhomes would be a separate subset and are more easily defined as to the total number within the project. This would result in the following unit count:

Multifamily	1,112 units
Townhomes	142 units
Total	1,254 units

Applying the **average ppl/u rates** of Vancouver (1.76 ppl/u) would result in an estimated Block F population of 2,207 people at build out. Conversely, applying the Metro average number of persons in private households (2.02 ppl/u) would result in a total population of 2,533 people at Block F build out.

Method 2

The second method of estimating future population involves analyzing the aggregate developable area by dwelling type and then applying the above noted average number of people in private households based on unit type. In this instance, the breakdown of estimated dwelling units at build out on Block F would be 1,254 with a corresponding estimated population at build out of 2,300 people.

Dwelling Type	Gross Developable Area	Net Developable Area	Estimated Total Units³	Average ppl/u	Estimated Population
Row house / townhouse	251,150	251,150	142	2.70	383
Apartment, ≤ 6 storeys	348,000	306,240	408	1.85	755
Apartment, > 6 storeys	600,000	528,000	704	1.65	1,162
	1,199,150	1,085,390	1,254		2,300

Method 3

The third method utilizes average household size unit type for various dwelling to estimate build out population. The table below outlines the estimated number of units for different unit type in the Block F development.

Dwelling Type	Unit Type	Block F Units	Average Vancouver ppl/u (2006 Census)	Estimated Population
Townhouse	3 Bedroom	142	3.02	429
Apartment, ≤ 6 storeys	1 Bedroom	96	1.45	139
	2 Bedroom	109	2.12	231
	3 Bedroom	21	3.04	64
Apartment, > 6 storeys	1 Bedroom	263	1.44	379
	2 Bedroom	327	2.02	661
	3 Bedroom	127	2.85	362
		1,085		2,265

Based on the above methodologies, **the estimated build out population of Block F could range from approximately 2,250 people to 2,500 people**. These figures are inclusive of vacant owned units which could range between 5% and 10% of the total supply at any one time

¹ Electoral area A includes: UBC area; UEL; lands along Howe Sound; Bowyer and Passage Islands (Howe Sound); northern portion of Indian Arm; Boulder Island and Carraholly Point (southern end of Indian Arm); west side of Pitt Lake; and Barnston Island.

² Based on an average unit size of 750 square feet.

³ Based on an average unit size of 750 square feet.

6.6 PROPOSED PARKING SUPPLY

Parking requirements for the proposed Block F development have been carefully planned, taking into consideration relevant planning policies, current trend on vehicle ownership levels, as well as anticipated built-form and expected parking demand for the proposed Master Plan.

Excessive provision of parking would undermine the urban design and promote unnecessary vehicle trips. It is imperative that parking be provided at a level that meets the broad sustainability objectives, while ensuring the development is commercially viable.

The table below shows the proposed parking supply ratios for various land uses proposed in the Master Plan.

Use	Proposed Parking Supply Ratios (Minimum)
Residential	
Low-rise (up to 6 storeys)	1.1 per unit
Condominium (7-16 storeys)	1.0 per unit
Townhouse	1.4 per unit
Visitors	0.1 per unit
Commercial	
Office	1.5 per 1,000 sf ft. GFA
Retail	2.5 per 1,000 sf ft. GFA
Restaurants	6 per 1,000 sf ft. GFA
Hotels	1 for every two sleeping units
Daycare (Staff Parking)	1 per 15 students

The proposed parking supply ratios for various uses in the Master Plan are to be different from the parking requirements outlined in the *UEL Land Use, Building and Community Administrative By-Law (1999)*. While the UEL by-law provides minimum parking requirements for Apartments, Condominiums and Townhouses, they are approximately 10% to 35% higher than what have been previously applied for other comparable communities. The suggested parking supply ratios for residential uses are also supported by the survey findings in the *Metro Vancouver Apartment Parking Study (September 2012)*.

For the commercial uses, the current UEL by-law does not provide much guidance with regards to the appropriate parking supply levels. This could partly be explained by the fact that the existing community at UEL do have a significant number of residents where they can access the commercial facilities easily by walking or cycling hence reducing the need of parking for the commercial uses. For the proposed Block F Master Plan, some provision of parking would be appropriate to ensure the viability of the commercial uses in the community. Shared parking opportunities may also be available given office and retail have different peak parking demand periods.

Finally, in light of the potential opening of the UBC Line rapid transit service, parking supply ratios may be revised in the future to account for the potential reduction in parking demand due to proximity to a rapid transit service.

7.0 COMMUNITY CONSULTATION

Leading up to the preparation of the rezoning application for Block F, the Project Team held three community consultation events (“Open Houses”) to involve the public during each step of the preliminary planning process. The feedback received from these events played a significant role in the development of the Block F planning vision. The following summary provides an overview of the pre-application consultation process spanning from September 2012 to April 18, 2013.

7.1. CONSULTATION PROCESS

Block F is a unique opportunity for the Musqueam Indian Band to build a legacy; as such, it was important to engage with and involve the public at an early stage of the planning process. The diagram below illustrates the consultation process, with the timing of the three pre-application Open Houses represented by red dots. There are additional legislative requirements for community consultation as part of the UEL Planning Process; these consist of a “Neighbourhood Meeting” and “Public Meeting” once an application is received and reviewed by UEL.

The Project Team began examining preliminary studies and research in September 2012, and hosted the first community Open House in early December 2012. This event provided an introduction to the Block F site, the 2008 Reconciliation Agreement which gave rise to this parcel being returned to Musqueam Indian Band, the current planning entitlements for the parcel and an outline of the pre-application communication process. In addition, six

preliminary Planning Principles were presented to initiate conversation on the development vision. One important goal of this event was to clearly outline the planning process and to communicate methods to ensure all feedback is received and analyzed for consideration in the development concept for the site.

Based on the feedback from the first Open House, the Project Team proceeded to the next stage of the preliminary planning process. Additional studies were conducted; which, together with the public’s feedback, allowed the Project Team to develop three general site layout options. These options were presented at the second Open House (Feb 2013) where detailed feedback on each of the design elements and the respective merits was collected. After analyzing and considering all the comments received (both positive and negative), the Project Team moved towards developing a preferred site development concept which was developed for the third Open House.

In April 2013, the Project Team hosted the third Open House to present the preferred site development concept in greater detail which set out the land use plan, internal site road layout, preliminary traffic findings, parks and open space plan and community amenities. To better illustrate the development concept, a more detailed site plan was presented along with character sketches depicting what the ultimate development may look like. A summary of the most recent community feedback as well as additional study findings were presented in support of the site concept. Public feedback was collected again at this Open House which was considered in the development of the preferred site concept that forms part of the rezoning application.

7.2 CONSULTATION FORMAT

To create an open environment that enabled two-way conversation and prompted feedback, a drop-in format was adopted for all three Open Houses. All three events were 4 hours in duration and the public could visit anytime during the event to browse through storyboards that were set up around the room at their own pace. The events were well attended, with over 300 people attending the first Open House. The second and third Open House both had approximately 170 attendees each.

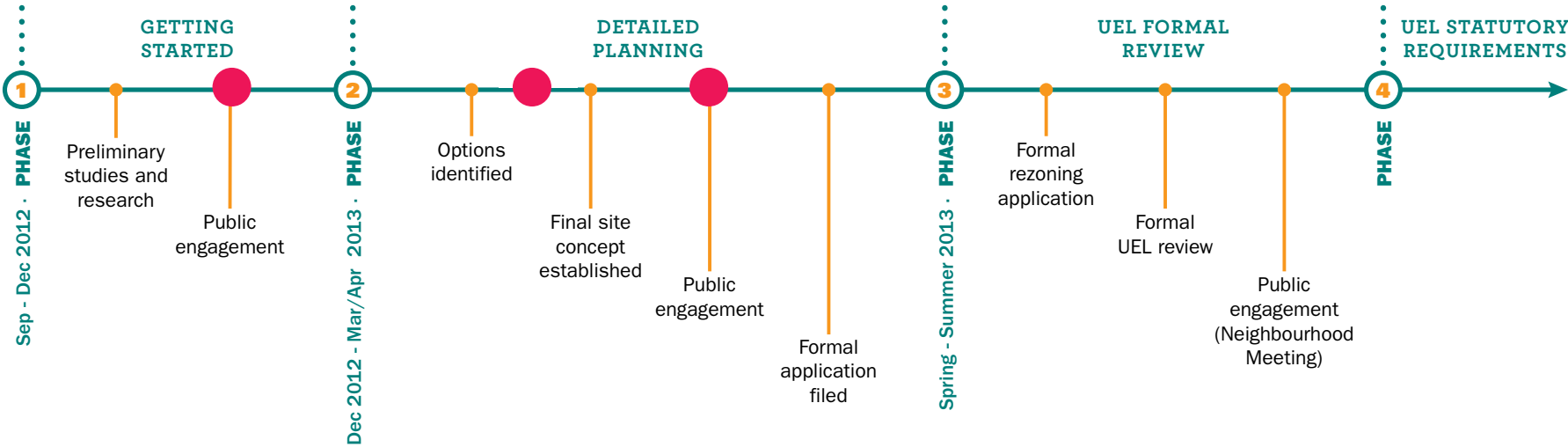
One important feature of the Open Houses was that the public had an opportunity to have one-on-one conversations with members of the Project Team. Between 19 and 21 Team members were present at each event, which included representatives from all professional firms involved in the project.

	Date	Attendance
Open House 1	December 6 th , 2012	300
Open House 2	February 6 th , 2013	170
Open House 3	April 18 th , 2013	176

7.3 RESPONSE SUMMARY

Public comments and feedback for ideas presented at each Open House were collected in several different ways, with Comment Forms being the main tool. For each event, questions corresponding to the storyboards depicting the evolution of the proposed development concept were compiled into a one-pager which was given to all attendees at the beginning of the event. These questions were designed to be open, allowing flexibility in responses. The public could choose to drop off their responses at the event, through email, or respond to the questions in privacy on PlaceSpeak. For all three events, slightly more than half of the respondents were UEL residents and the majority of non-UEL respondents are from neighbourhoods immediately surrounding UEL (i.e. Dunbar, Kitsilano).

	Comment Forms Received	Respondents that are UEL Residents
Open House 1	114	55%
Open House 2	44	55%
Open House 3	51	58%



7.3 RESPONSE SUMMARY CONTINUED

In addition to Comment Forms, the Project Team took notes on feedback provided orally from one-on-one conversations. As well, attendees were prompted to provide comments directly on the storyboards with labels and Post-It Notes at the first and second Open Houses. Two weeks after each event, feedback in all forms were compiled and analyzed to create a Summary Report. As approximately half of the respondents are UEL residents, the Reports presented feedback from UEL residents separately where possible. Below is a summary of the key feedback received at each Open House.

See Appendix G for further information about the Open Houses.

Open House 1

At the first Open House, requests were made for specific areas of interest local residents had for input into the future planning of the site. Specifically, the Project Team needed to decide whether to proceed with a rezoning application as the current zoning only permits up to four storeys of residential uses. As such, feedback on the provision of a variety of housing, a range of retail shops & services, and a hotel was sought:

- » 63% of respondents (59% of UEL resident) agreed that there should be greater variety of housing types. Respondents are then asked about their view on the balance between building height and open space. 58% of the people who responded (57% of UEL residents) to this question are "OK with some taller buildings in order to preserve more open space". When asked which type of residence would suit their lifestyle, 58% selected townhouse and 36% selected apartment (multiple selection allowed).
- » 50% of respondents (49% of UEL resident) agreed that retail uses should be included and the most prefer establishment type include coffee shop, grocery store, health care services and restaurants.
- » 36% of respondents (31% of UEL resident) agreed that a hotel should be included

Preferences for building design and open space/park character were also requested at the first Open House. Based on responses received, the Project Team proceeded with the planning of a mixed-use community at Block F and that further input would be sought at additional Open Houses.

Open House 2

Building upon the outcomes of the first Open House, three different site layout options were presented at the second Open House. Each plan is made up of a variety of housing types, including townhouse, low-rise and high-rise, and a commercial village. Attendees were asked to discuss their opinions on various elements of each option through this exercise; the Project Team found the following designs to be generally preferred:

- » Preservation of mature trees and wetland as a cohesive piece
- » Preservation of existing trails, especially the one that connects the north portion of the Pacific Spirit Park to the south portion
- » Location of the commercial village in the northern corner to allow for better access to and from other areas of UEL and University Boulevard
- » Proximity of the hotel to commercial village to provide synergies
- » Minimize on site roadways

There were a mix of positive and negative feedback on the commercial and hotel component and the building height:

- » Commercial: Some provided suggestions on retail types while others believe retail units will not perform well based on performance of retail units at UBC village and on 10th Avenue.
- » Hotel: Some argued that it will be a great addition to the community, but some questioned its feasibility.
- » Building Height: Some people are against towers for various reasons, including shadow and design, while others would rather have towers in order to provide for more open space. When asked about their opinion on the location of taller buildings, the general preference is near the commercial village or the stand of tall trees.

Additional concerns were expressed on the amount of road that will be built; the common preference is to have the least amount of roads possible. In order to create the preferred development concept, the Project Team compiled all the feedback, incorporated all the features that received positive feedback and mitigated features that received negative feedback.

Open House 3

At this Open House, a preferred site concept for Block F was presented which illustrated the proposed layout for park and open spaces, commercial village and hotel, residential buildings, roads, and public amenities. The feedback received previously played an important role in shaping the preferred concept. In order to ensure the final concept addressed many of the public's concern, the attendees were once again asked to provide their feedback through Comment Forms.

Based on responses received, more than 80% of the attendees found the information presented useful in understanding more about the planning process for rezoning Block F, and the preferred development. Many positive comments were received:

- » Respondents appreciated and supported the Project Team's effort to preserve mature trees, wetlands, and trail connectivity in the preferred design
- » Respondents were generally in support of a commercial village. On the other hand, there continued to be mixed feelings about the development of a hotel
- » Some respondents were positive about the mix of buildings types and heights proposed, while others were still debating the height of the tall buildings
- » Approximately half of the respondents liked the proposed road layout, while others are concerned about increase in traffic and the safety for children, particularly on Acadia Rd. and the proximity to Norma Rose Point School.
- » Amenities proposed received positive feedback; however, many still sought clarification of the amenities being provided by the development of Block F for the larger UEL community.

7.4 PLACESPEAK

In addition to consulting the public through Open Houses, the Project Team also set up a webpage on PlaceSpeak to engage online participants. PlaceSpeak is a community consultation platform and offers features like file sharing, discussion forums and surveys. All project information and consultation material was made available online to coincide with the Open Houses, including electronic questionnaires with the same questions as the Comment Form. In addition, the Open House Summary Reports were uploaded after each Open House; once completed.

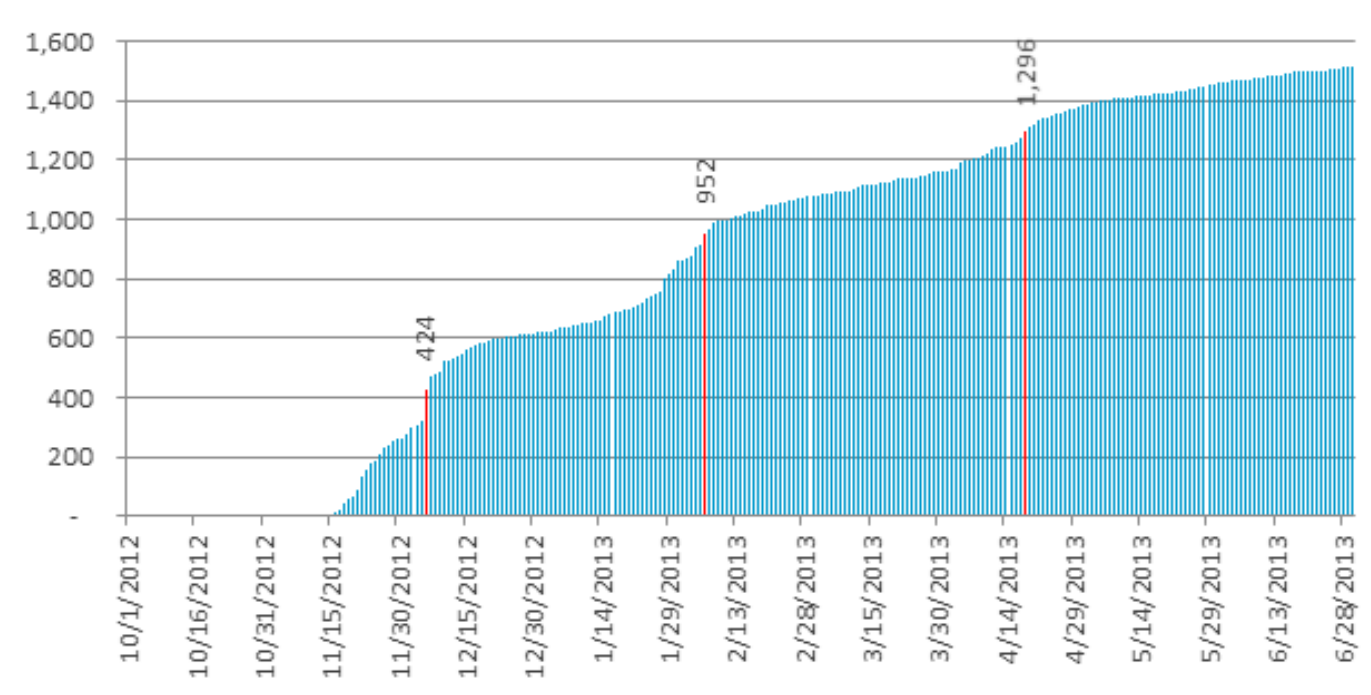
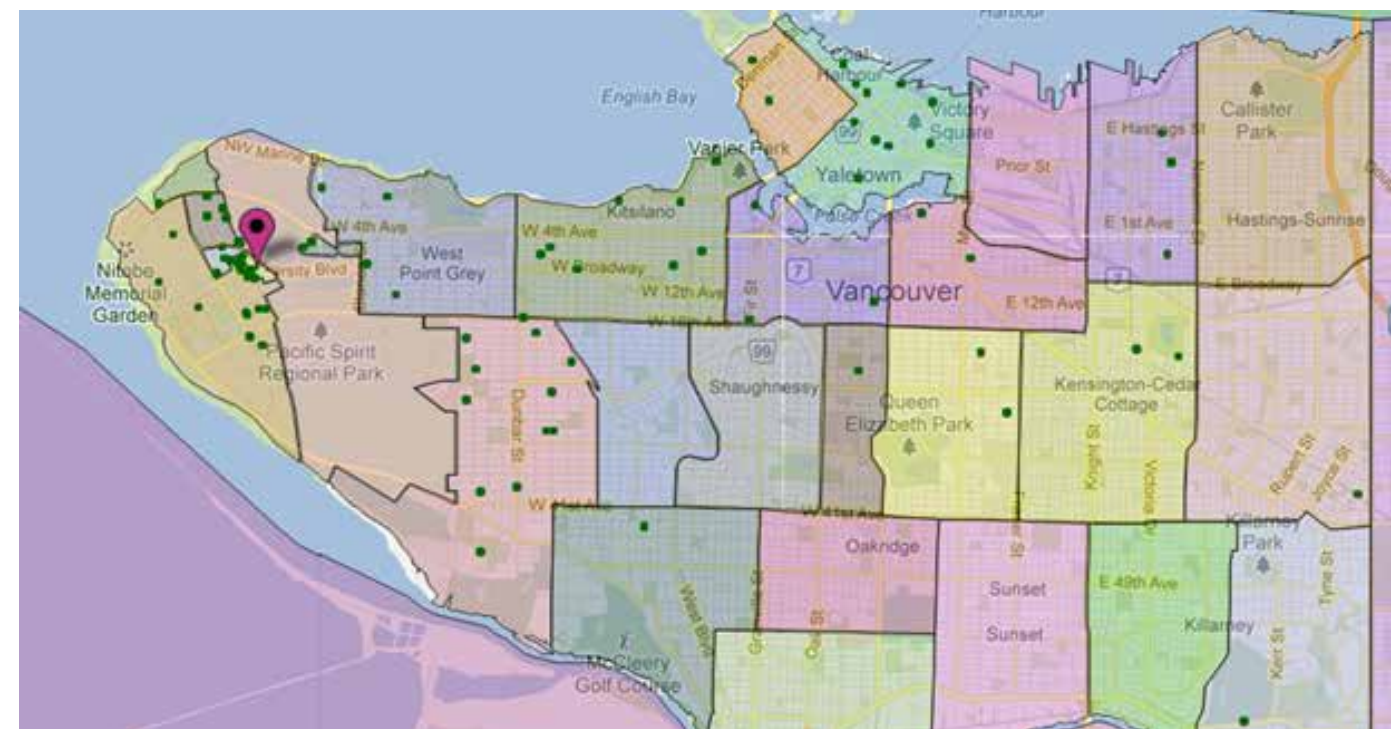
See Appendix G for further information about the results of PlaceSpeak

7.4.1 Unique Views

As of the end of June 2013, the Block F webpage had a total of 1,547 visitors (unique views¹). The graph below illustrates total unique view count overtime, with the red bars illustrating the timing of the Open Houses.

7.4.2 Connected Participants

In order to participate in the discussion forums, PlaceSpeak requires online participants to register for an account with their residential address, and “connect” to the Block F “topic”. The Block F webpage has a total of 103 connected participants as June 2013, of which 12% are from UEL, and 19% are from UBC. The green dots on the adjacent map illustrate the geographical distribution of participants who are connected to the Block F webpage.



¹ Unique view is defined as a page view by a unique person (with unique IP address); as such, repeated visits are not included in the count.

7.5 EVENT ADVERTISING

To ensure the Open Houses were well advertised, the Project Team met and exceeded the University Endowment Lands' Open House Notification Requirements. Prominent advertisements were placed in the following publications at least two weeks prior to each Open House:

- » Vancouver Courier for two consecutive weeks
- » The Campus Resident
- » The Ubyyssey for two consecutive weeks
- » UNA eNewsletter for two consecutive weeks

In addition, three site signs were erected along University Boulevard, Toronto Road, and Acadia Road, and were updated to provide the latest information on upcoming events. As well, mail notifications were hand delivered to all residents and businesses in the UEL and portions of UBC (Acadia Park, as specified by the UEL Administration staff) a minimum of two weeks in advance of the events. Other forms of event advertising included:

- » UEL Website posted detailed information on the consultation process
- » PlaceSpeak
- » Electronic newsletter sent to all interested parties who provided their contact information throughout the consultation process
- » Open House advertisements were placed at kiosks located throughout Pacific Spirit Park (for Open House 3)

8.0 CONSULTATION WITH OTHER AGENCIES AND ORGANIZATIONS

At the request of UEL Administration, Colliers /MCC undertook to meet with many of the agencies which will formally receive a referral notice from UEL as part of the Rezoning Application review. Specifically these agencies were: RCMP – University Detachment

- » Fortis
- » BC Ambulance Services – Station 262 UBC
- » Vancouver Fire Rescue Services – University Fire Hall No. 10
- » BC Hydro
- » Pacific Spirit Park Society
- » Ministry of Transportation Infrastructure

The following represents a summary of these early consultations with the above noted agencies.

8.1 RCMP

A meeting was held with S/Sgt. Darren Malcolm, Sgt. Drew Granger and Colliers on October 15, 2013. A review of the project was provided including background history, previous community consultation and highlights of the current application including development statistics, site plan, project components and phasing. In addition to leaving 11x17 graphics, pdf's were sent as a follow up to the meeting.

Issues discussed included the following:

- » RCMP provides policing for UNA, UBC, UEL and Pacific Spirit Park.
- » RCMP is contracted through the Province.
- » There is also cooperation with Richmond RCMP and City of Vancouver for larger incidents.
- » If RCMP service was to expand it is possible to expand existing detachment into adjacent Fire Hall.
- » Typically the police service is provided at a 1 officer per 800 people ratio.
- » RCMP aware of growth at UBC over the next 10 years.
- » At complete build out of Block F (assuming an additional population of potentially 2,200 to 2,500 people), an additional three officers may be required.
- » No specific site plan critique was offered at this meeting.

8.2 FORTIS BC

A meeting was held with Fortis, R.F. Binnie and Colliers on October 18, 2013. A review of the project was provided including background history, previous community consultation and highlights of the current application including development statistics, site plan, project components and phasing. In addition to leaving 11x17 graphics, pdf's were sent as a follow up to the meeting.

Issues discussed included the following:

- » Currently Fortis has a service which runs along University Blvd. passes through the Block F site then splits and services Acadia on UBC.
- » As there is currently no development on Block F, services to the site do not exist. The road network was reviewed and Fortis was satisfied that future gas network could align with current and proposed roads.
- » Similar to Hydro, if future Roads A and B are to be private, rights of way will need to be secured.
- » Based on a preliminary review, Fortis believes capacity is available for the project but will provide a more detailed review shortly.

8.3 BC AMBULANCE SERVICES

A meeting was held with Nahum Ip and Colliers on October 21, 2013. A review of the project was provided including background history, previous community consultation and highlights of the current application including development statistics, site plan, project components and phasing. In addition to leaving 11x17 graphics, pdf's were sent as a follow up to the meeting.

Issues discussed included the following:

- » Previously there were 3 ambulances stationed at Station 262 UBC (beside Hospital) but currently there is one in addition to a patient transfer vehicle.
- » Unlike RCMP ambulance service is provided over a wider distribution area based on calls and is not based on a specific ratio of ambulance /population. Ambulance at UBC could go as far as Richmond/Burnaby and in one instance Mission.
- » Fifteen years ago there was no station at UBC but due to an incident where someone died while waiting for emergency service, a political decision was made to have a station which makes sense now given growing UBC neighbourhoods and Hospice on campus.
- » The station is manned 24 hours.
- » Ambulance aware of growth anticipated at UBC over next 10 years.

- » Request was made to have sequential addressing as currently UBC addressing is a mess which does not sync with GPS.
- » No specific recommendations were put forward apart from addressing nor were any site plan critiques put forward.

8.4 VANCOUVER FIRE RESCUE SERVICES – UNIVERSITY FIRE HALL NO. 10

A meeting was held with Marcus E. von Minden and Colliers on October 21, 2013. A review of the project was provided including background history, previous community consultation and highlights of the current application including development statistics, site plan, project components and phasing. In addition to leaving 11x17 graphics, pdf's were sent as a follow up to the meeting.

Issues discussed included the following:

- » Fire advised that prior to 1995 UEL had its own service but this was amalgamated with UBC where now the Province contracts with the City of Vancouver for a 99 year contract.
- » Currently Station 10 (UBC) has one fire engine, one tower truck and one hazmat response truck.
- » Fire confirmed that addressing on UBC is difficult and that sequential addressing for Block F should be implemented.
- » There is also cooperation with City of Richmond and City of Vancouver for larger incidents.
- » Fire services are set up in the City on a total citywide plan, not necessarily on a population based approach. The City Fire Department continually update their fire safety plan which looks at response times of 2 to 3 minutes across the City.
- » If at some point in the future additional fire service was required, they would look to set up a second station on the peninsula and not an expansion of the existing station 10.
- » Fire Department is aware of growth at UBC over the next 10 years as well as Block F plans.
- » No specific recommendations were put forward apart from addressing nor were any site plan critiques put forward.

8.5 BC HYDRO

BC Hydro (Meeting 1)

An introductory meeting was held with BC Hydro and Colliers on July 3, 2013. A review of the project was provided including background history, previous community consultation and highlights of the current application including development statistics, site plan, project components and phasing. 11x17 graphics were left behind after the meeting.

Issues discussed included the following:

- » Once the project overview was provided, Hydro advised that they needed the following info to assess the future loads of the project; total connected load, average operating load and date for energization.
- » Hydro stated that if ownership of Roads A and B were private they will need SRW's in order to access equipment.
- » Hydro asked about project phasing and energization dates for the various components of the development.
- » Hydro would like to see a conceptual streetlight layout as this would requires its own service assuming UEL would own these.
- » Hydro would like to see road cross sections to determine adequate SRW size.
- » Once requested information is provided, Hydro will assign a project lead to do a preliminary analysis of design cost and seek an upfront contribution from the owner prior to undertaking further detailed design.
- » Hydro outlined tariff credits which are available as credits towards the overall cost of the project.

BC Hydro (Meeting 2)

A second meeting was held with Hydro on November 6, 2013 to review the projected electrical loads and servicing concept prepared by Shenke Bawol Engineering (See Technical Appendices). Schenke Bawol was retained as the electrical consultant for Block F, specifically tasked with providing estimates of future electrical loads for the project. The meeting included representatives from Schenke Bawol, Hydro, R.F. Binnie and Colliers.

Issues discussed included the following:

- » A project overview was provided including the current stage of civic approvals proposed plans for marketing the various components/ phasing and anticipated roadway construction. Hydro advised that they needed the following information to assess the future loads of the project; total connected load, average operating load and date for energization.

- » Hydro asked about project phasing and energization dates for the various components of the development.
- » Hydro will require a conceptual streetlight layout as this would requires its own service, assuming ownership by UEL.
- » Hydro was advised that road cross sections would be meet municipal standards.
- » Conceptually, the distribution plan was reviewed and while Hydro design will require more analysis, common approaches of Hydro distribution were presented by Hydro. Hydro was advised all development sites would be independent lots.
- » Once additional information is provided, Hydro will assign a project lead to do a preliminary analysis of design cost and seek an upfront contribution from the owner prior to undertaking further detailed design to determine capacity options.
- » Further Hydro design work will be required in order to confirm energization dates/availability of capacity etc.

8.6 PACIFIC SPIRIT PARK SOCIETY

On three separate occasions the Block F design team and members of the Pacific Spirit Park Society have met together, generally coinciding with the three community consultation events. These meetings provided an opportunity for the Block F team to review the Block F project in more detail and receiving input and thoughts from the Pacific Spirit Park Society. PSPS expressed appreciation for the input allowed them and the modifications made by the design team in response to PSPS's comments.

8.7 UNIVERSITY OF BRITISH COLUMBIA

The applicants met twice with senior staff at the University of British Columbia. Included were Campus & Community Planning, Sustainability and General Services. The first meeting was in January 2013 to describe the site planning options being considered and to obtain feedback from UBC on their plans and what they thought the issues were. A second meeting was held in July 2013 to show UBC the final version of the planning prior to making a formal application to UEL.

UBC asked that their comments be kept in camera. It should be noted that there were no requests from senior staff for any modifications to the Block F rezoning proposal, and they were agreeable to forwarding the proposal to the UBC Board of Governors with a request for a letter of support from the Board of Governors.

8.8 MINISTRY OF TRANSPORTATION

The applicants met with the Ministry of Transportation, with reference to their responsibility for University Boulevard, early on in the process to ensure that the site planning approaches being considered were feasible and to obtain direction from MOTI on upgrades, intersection designs.

At the meeting on January 14, 2013 with Jeffrey Moore, Glenn Callander, Nassir Malik and Roanna Cruz of MOTI, the following direction was given.

- » Internal roads would be given over to the University Endowment Lands, unless they are bare land strata roads. If they are given over to the UEL, sidewalk, curb and road design would need to meet UEL standards and, in the absence of such standards, to MOTI standards. Typical ROW widths are 20m, with an 8m paved travel section. If they are bare land strata, they do not need to meet MOTI standards.
- » A centralized access point for the site from University Boulevard would be good. A signalized intersection on University Boulevard would be fine. A round-about would also need to be considered for this intersection as part of the standard analysis required.
- » Any lot created would need to have road frontage and be completely serviced. MOTI will be the approving authority for the subdivision approval of the lots. For approval of subdivision, a site servicing plan would have to be finalized. A subdivision application can be made prior to receiving the rezoning. Roanna would receive the subdivision application and would refer it back to UEL. An environmental assessment would need to be done.
- » University Boulevard is owned and maintained by MOTI. Translink has little input into the Boulevard.
- » A transportation impact analysis will be part of the rezoning and subdivision application.
- » Parking standards would be according to Institute of Traffic Engineers.
- » The site has been designated as a future rapid transit station location.

9.0 RESPONSES TO PUBLIC AND RELEVANT AGENCIES

As stated in Section 1.2, the Project Team have a responsibility to consider the input of the public and consider these in development of a final master plan. This responsibility is balanced with a concurrent responsibility to design a community that is best conceived for its future success and will work for those who will reside there.

Among the changes made in response to input from the public are these.

1. The site of the 3.1 acre park has been located to best preserve the stand of mature trees on the site, one of the strongest requests made by the community. The area of the park has been expanded and incorporates and preserves an important wetlands area.
2. The principles and integrity of the current trail system through the site is maintained, again a strong request of the community. The appearance of the trail system will be modified to fit into the new community, but the trail locations and connections to adjacent trails will be maintained.
3. Open play and green areas accessible to all have been incorporated. The amount of publically-accessible open space has been expanded to encompass more than a third of the overall site.
4. A village plaza, creating an opportunity for a heart in the UEL community, has been incorporated. It will be a multiple use area allowing passage through and community events and outdoor gatherings within. The village is located to be closest to and most easily accessed by the overall UEL community. The plaza has been aligned to orient with one of the Pacific Spirit Park trailheads.
5. A variety of housing types supporting a variety of types of residents, ages and incomes is incorporated.
6. Lower forms of development have been located next to the existing townhouse development (Block G), school and church. Taller buildings have been located adjacent to the mature trees and have been designed to be not taller than the current maximum height of trees.
7. The amount of roadways on the site has been reduced and the roadways have been located to reduce impacts while allowing connectivity through the site.
8. The commercial village and hotel have been located close to the proposed location of a planned rapid transit station and adjacent to a current major transit line.
9. A community building space has been offered, with the use and operation of the building to be decided by the UEL community.
10. Offsite servicing upgrades will be constructed to the benefit of the entire UEL community

Meeting #1
Community Engagement/Input (Dec. 2012)



Meeting #2
Three Site Options (Feb. 2013)



Rezoning Application
Final Site Concept (Sept. 2013)



10.0 IMPACT OF THE PROPOSED DEVELOPMENT

10.1 SERVICING AND INFRASTRUCTURE IMPROVEMENTS

The development consists of a 22 acre parcel of land, Block F, bounded by Acadia Road to the west, University Boulevard to the east, Toronto Road to the north and private lots to the south. The site is planned to be developed over the course of 10 years +/- with parcelization plans for phased development. The proposed development will be mostly residential consisting of a mixture of townhouses, high rise residential, and a hotel. A small portion of the development is planned for commercial.

The development of Block F and resulting density will include various improvements to the existing infrastructure in the area as well as new infrastructure to support the development.

10.1.1 Roads and Pathways

Two new road connections (Road A and Road B) are proposed between University Boulevard and Acadia Road through the site. These roads would be aligned in dedicated road right of ways to be ultimately owned by UEL. They will be designed to UEL standards, incorporating Canadian TAC standards and good engineering practices. The northern connection, Road A, will be built to a commercial standard with 3.2 m two-way travel lanes, on-street parking and new sidewalks and boulevards. The southern connection, Road B, will be built to a residential standard with 3.0 m travel lanes, on-street parking, new sidewalks and boulevards. Both proposed roads will have 1.5 m and 2.5 m wide separated walks, as well as connection pathways, will allow for significant pedestrian access throughout the site. Signalized crosswalks as part of the new fully signalized intersection at University Boulevard and Road A will permit pedestrians to safely cross for access to transit and facilities to the east of the site. The roads will have streetlights and native landscape trees within the large landscaped boulevards. The curb articulations will help slow traffic through the site.

The existing roads adjacent to the site are planned to be upgraded. The east side of Acadia Road, fronting the site, will be upgraded with new curb, on-street parking, sidewalks, street lighting and landscaped treed boulevard. The intersection of University Boulevard and Road A will be improved with a full movement signalized intersection complete with pedestrian crosswalks. On University Boulevard at Road A will be a left turn bay for access into the site. As well, a left turn for access is planned for access to the University Chapel driveway on the far side of University Boulevard. At Road B, University Boulevard will also get a left turn bay for access to the development. The University Boulevard frontage will be redeveloped to include a meandering pedestrian path and landscape boulevard inclusive of a rain garden.

Vehicular access within the individual building parcels will be designed to the Canadian Building Code standards and good engineering practices. The roads will allow for fire access and safe vehicular and pedestrian movements. The design will be carried out as part of the Development Permit / Building Permit process.

10.1.2 Sanitary Sewers

Phase 1 of the development will be serviced by a proposed gravity waste water sewer collection system. It is planned to construct a sanitary sewer from the existing manhole on Acadia Road at Toronto Road, along Acadia Road and along Road A for 50 m. The sanitary sewer on Road A starts as a 200 mm diameter pipe, increasing to 300 mm where it ties into the existing manhole at Toronto Blvd and Acadia Road.

Phase 2 of the development will be serviced by both a gravity sanitary sewer and pumped system. A gravity sewer would be constructed on Road B servicing the development parcels with 250 mm diameter pipes. The gravity system would discharge into the proposed pump station located at the corner of Acadia Road and Road B. The waste water would then be pumped via 150 mm diameter forcemain along Acadia Road to the proposed sanitary

described in Phase 1. AECOM is currently calculating the downstream effects on the existing sanitary system from our development, however the total flow from our site will most likely exceed the capacity of the existing system and upgrading would be required.

The total peak flow for the current proposed number of units is calculated to be approximately 52 l/s. The Inflow and Infiltration used is 0.17 l/s/hectare.

The pump station and sanitary sewers within the dedicated road right of ways and statutory right of ways on the will be designed to UEL standards, as well as good engineering practices, and will become part of UEL's infrastructure. Sanitary sewers within the building parcels will be designed to the Canadian Building Plumbing Code and good engineering practices.

The included Sanitary Sewer Design Calculation Sheet shows our preliminary calculations for the site flows. The Calculation sheet corresponds to the included Conceptual Servicing Plan. The Harmon peaking factor formula was utilized in the calculations for the Block F site, which is a commonly used by many cities in the lower mainland. The actual flows would need to be calculated by adding our site to the UEL model which would use their own peaking factor formula. Pipe sizes are based on MMCD Design Guidelines 2005.

10.1.3 Stormwater Management

Phase 1 of the development will be serviced with a gravity storm sewer system. It will outlet into a new reconstructed wetland/detention pond, exiting the site through a culvert under University Boulevard. A 200 mm diameter storm sewer will be built on Acadia Road between Presidents Row and Yalta Place to intercept the existing catch basin leads that currently drain into Block F. A 375 mm diameter storm sewer will continue up the Road A right of way, servicing the new road drainage as well as the proposed building development (Parcels A, B, C and D). A 450 mm storm sewer will carry the flow through a proposed statutory right of way on the west side of the site to

R.F. Binnie & Associates Ltd.		SANITARY SEWER DESIGN - CALCULATION SHEET																																
North Catchment																																		
PROJECT NO. :	12-125				Residential								Institution / Commercial				Equivalent population component:				350		litres/capita per day		Infiltration Rate:		0.170		litre/s per hectare		SHEET: 1 of 1			
PROJECT DESCRIPTION:	Block F Musqueum Development				High Rise Units				2.22		people / unit		Retail Village/Hotel				1.78		people / unit		Industrial component:		350		litres/gross hectares/day		Manning "n":		0.013		PVC		DATE: February 13, 2013	
PROJECT DATE:					Townhouse Units				3.07		people / ha								Institutional / Commercial component:		40000		litres/gross hectares/day								BY: JS			
LOCATION:	University Endowment Lands				4-Storey Apartment Units				2.29		people / unit								people / ha												DATE: February 13, 2013			
					6 - Storey Apartment Units				2.22		people / unit								people / ha												CHECKED BY: TC			
Location of Catchment Area	Manhole		of each density				Residential				of each density				Commercial/Institutional				Peaking Factor Qpeak/ Qaverage	Infiltration			ΣQpeak litre/sec.	Sewer Design					ΣQpeak/Q cap. cms/cms	Remarks Rev.1 March 18, 2013 Rev. 2 October 24, 2013				
	From	To					Total Area Hectares	Accumulative Area Hectares	Total Population ppl	Accumulative Population capita	Residential Flow Qaverage litre/sec.					Total Area hectares	Accumulative Area hectares	Total Population ppl		Accumulative Population capita	Industrial Flow litre/sec.	Total Area hectares		Accumulative Area hectares	Infiltration Flow litre/s									
			2.22 ppl/unit # Units	3.07 ppl/unit # Units	2.29 ppl/unit # Units	2.22 ppl/unit # Units																				1.78 ppl/unit # Units	0.0 capita per hectare	0.0 capita per hectare			0.0 capita per hectare			
Area 1	SMH 1-1	SMH 1-2		42	102		1.59	1.59	363	363	1.47					0.00	0.00	0	0.00	0.00	4.04	1.59	1.59	0.27	6.205	0.50	200	37.0	.738	23.192	27%			
Area 2	SMH 1-2	SMH 1-3			85	130	1.64	3.22	483	846	3.43					0.00	0.00	0	0.00	0.00	3.85	1.64	3.22	0.55	13.724	0.50	250	85.7	.857	42.050	33%			
Area 3	SMH 1-3	SMH 1-4	134	21			0.60	3.82	362	1208	4.89					0.00	0.00	0	0.00	0.00	3.75	0.60	3.82	0.65	18.975	0.50	250	36.7	.857	42.050	45%			
Area 4	SMH 1-4	SMH 1-5	88	21			1.04	4.86	258	1466	5.94					0.00	0.00	0	0.00	0.00	3.69	1.04	4.86	0.83	22.721	0.50	250	36.0	.857	42.050	54%			
Area 5	SMH 1-5	SMH 1-6	88	21			1.28	6.14	258	1724	6.99					0.00	0.00	0	0.00	0.00	3.63	1.28	6.14	1.04	26.435	0.50	250	36.5	.857	42.050	63%			
Area 6	SMH 1-6	SMH 1-7					0.46	6.60	0	1724	6.99					0.00	0.00	0	0.00	0.00	3.63	0.46	6.60	1.12	26.513	0.50	250	143.1	.857	42.050	63%			
Area 7	SMH 1-7	SMH 2-2					0.12	6.72	0	1724	6.99					0.00	0.00	0	0.00	0.00	3.63	0.12	6.72	1.14	26.533	0.50	250	143.1	.857	42.050	63%			
Area 8	SMH 2-1	SMH 2-2	318	36			1.25	1.25	816	816	3.31	30				1.29	1.29	53	53.40	0.60	3.84	2.54	2.54	0.43	15.411	0.50	200	143.1	.738	23.192	66%			
Area 9	SMH 2-2	SMH 2-3					0.15	8.12	0	2541	10.29					0.00	1.29	0	53.40	0.60	3.50	0.15	9.40	1.60	39.654	0.50	300	82.2	.967	68.378	58%			
							0.16	8.27	0.00	2541	10.29					0.00	1.29	0	53.40	0.60	3.50	0.16	9.56	1.62	39.681	0.50	300	85.0	0.97	68.378	58%			

10.1.3 Stormwater Management continued

a proposed 1,420 m³ landscaped detention pond within the proposed park area. The pond would be a landscape water feature for the park, creating a natural habit. The pond will be designed to detain the flow from the site and release it at a predevelopment rate to the culvert under University Boulevard therefore maintaining the flow of water to the existing watercourse to the north. The existing culvert will be upgraded, as recommended in the previous Urban Systems report, to a 600 mm diameter pipe. Bio-swales will be built within the building parcels and park area, as one of the methods used to allow rainwater to recharge the ground.

Phase 2 of the development will also be serviced with a gravity storm sewer system which will outlet to the new detention pond. As in Phase 1, a 200 mm diameter storm sewer will be built on Acadia Road between Fairview Lane and north of Ortona Avenue to intercept the existing catch basin leads that currently drain into Block F. A 250 mm diameter pipe increasing to a 450 mm diameter storm sewer will continue up the Road B right of way, servicing the new road drainage as well as the proposed building development sites (parcels E thru J). A 525 mm diameter pipe will take the flow in a proposed statutory right of way, through the proposed park area to the detention pond. The proposed building parcel (Parcel H) located at the south east corner of the site may require a small onsite pond with an outlet to the existing ditch on Ortona Avenue.

The storm sewers within the dedicated road right of ways and statutory right of ways will be designed to UEL standards and good engineering practices and will become part of UEL’s infrastructure. Storm sewers within the building parcels will be designed to the Canadian Building Plumbing Code and good engineering practices and may require rights of way/easements where these cross from one property over another. The detailed stormwater calculation for the site is presented in Technical Appendix H.

10.1.4 Water

We propose the construction of a new 250 mm looped water system for the development complete with hydrants. New water mains would be built in the road right of way on Road A in Phase 1 and on Road B in Phase 2, tying between the existing 660 mm diameter steel main on University Boulevard and the existing 300 mm C.I. main on Acadia Road as recommended in the Urban Systems report. The new mains would become part of UEL’s infra-structure. The 660 mm steel main is a high pressure supply and may require a pressure reducing station. The best approach to the design would be determined in the detailed design stage of the project.

The existing water network surrounding Block F was previously analyzed and several deficiencies were identified. The report basically stated that the existing water network does not have sufficient fire flow capacity for the existing developed area and requires many sections of water main to be upgraded. The report indicates that once these upgrades have been completed, the existing system would meet current fire flow standards and that the addition of the Block F development would not require additional upgrades.

Consultation with UEL on the timing of the water system network upgrades and the associated funding model are ongoing.

10.1.5 Hydro Electric, Telephone, Gas

Hydro, telephone and gas utilities are planned for the site. The utility companies have been contacted and are currently working with the team reviewing the requirements for the development. The utilities will run underground along the boulevard areas of the proposed roads. The services vaults and junction boxes will be placed to accommodate the boulevard features such as access driveways, landscape trees, sidewalks, etc.

10.2 ECONOMIC IMPACT ANALYSIS

Property Tax Value Creation

Block F represents a significant expansion of the local tax base. When the project is complete, the total property tax revenue generated by the development is estimated to be almost \$2.6 million, an increase of \$2.4 million over the 2013 assessment. The portion of the projected property tax revenue collected directly by the University Endowment Lands (UEL) is estimated to be \$750,000: \$680,000 from the residential component of the development and \$70,000 from the commercial uses.

As the UEL’s levy for the property in 2013 was \$68,000, the revenue generated by the proposed development at full build-out will increase the University Endowment Lands’ levy by more than \$680,000. This equates to a 25% increase over the UEL’s total 2013 tax base.

These figures represent the total build-out of the project (estimated build-out of 10 to 12 years) and are based on the current 2013 tax mill rates. As is typical with most municipalities/electoral districts, taxes increase over time so the above figures could be considered conservative as the mill rates are assumed constant over time in order to provide an estimate of tax increases for UEL.

Job Creation

The Block F project will act as a substantial employment generator both throughout the development period and during ongoing project operations. In developing the retail, commercial and recreational components of the development, it is estimated that 2,500 jobs in diverse employment sectors including construction, professional services and sales/marketing will be created annually. With an estimated development horizon of approximately 10 years, this equates to 25,000 person years of total employment.

Once the commercial phases of the development are complete, permanent jobs will result from ongoing operations. It is estimated that the Commercial Village component of Block F will generate 65 full-time equivalent (FTE) jobs. In addition, operation of the onsite hotel is estimated to generate an additional 60 FTE jobs. In total, 125 full-time permanent jobs offering employment in a range of sectors will be created by Block F. These jobs are important considerations for Musqueam as they may provide valuable jobs and training for Musqueam members as well as other members of the community.

Job Creation	
Annual jobs during construction	2,500
Permanent Jobs	
Commercial Village	65
Hotel	60
Total	125

Block F Property Tax Revenue		
	UEL	Total
Current	\$ 67,918	\$ 223,474
At Build Out		
Residential	\$ 682,354	\$ 2,245,198
Business	\$ 69,366	\$ 346,379
Total	\$ 751,720	\$ 2,591,578
Net Increase	\$ 683,803	\$ 2,368,104

Block F Property Tax Revenue								
	School	UEL	Police Tax	BC Assess. Auth	Munl. Fin. Auth.	Area A Metro Van RD	Translink	Total
Current	\$ 109,423	\$ 67,918	\$ 7,017	\$ 4,859	\$ 16	\$ 8,339	\$ 25,902	\$ 223,474
At Build Out								
Residential	\$ 1,099,353	\$ 682,354	\$ 70,500	\$ 48,814	\$ 160	\$ 83,784	\$ 260,234	\$ 2,245,198
Business	\$ 205,864	\$ 69,366	\$ 7,165	\$ 6,013	\$ 17	\$ 8,517	\$ 49,437	\$ 346,379
Total	\$ 1,305,216	\$ 751,720	\$ 77,665	\$ 54,827	\$ 177	\$ 92,301	\$ 309,671	\$ 2,591,578
Net Increase	\$ 1,195,793	\$ 683,803	\$ 70,648	\$ 49,968	\$ 161	\$ 83,961	\$ 283,769	\$ 2,368,104

10.3 SCHOOLS

Future Youth Population at Block F, UEL

Projecting school enrollment levels is challenging, given the many variables that are at play. The generally-accepted method for school planners is to look at the enrollment from the last school year, and the number of children in the community who are school-age (kindergarten) and about to enter the school system. That number of potential students is then increased or decreased based on factors such as private school enrollment ratios, new residential construction, out of catchment transfers, and so on. In this exercise, school planners try to determine approximately how many children, and in turn public school students, are likely to be on Block F in newly-built residences.

Calculating population and future student numbers based on dwelling units is accomplished using yield rates. Yield rates can either be for the gross population, for school-aged population, or for public school students.

In order to compare the results directly between methodologies, we utilized 704 high-rise apartments (buildings that have 5 or more storeys) and 550 Ground-Oriented multi-family units (buildings that have fewer than 5 storeys) at neighbourhood build-out which is projected to be 10 to 12 years after project initiation. The first building occupancy is anticipated to be in spring 2016.

Census Data

The following table shows the estimated child yields using census data of population in occupied private dwellings by age and by dwelling type for Metro Vancouver as a whole. Based on an estimated number of units at built out (1,254), Block F will have approximately 464 school-age children, with an additional 150 just entering school-age. This number is reduced by 11% because the data provided is for

Child Age	Apartment, ≥ 5 storeys	Apartment, < 5 storeys and townhouse	Built Out Student Enrollment
0 – 4	0.08	0.17	150
5 – 9	0.06	0.18	146
10 – 14	0.07	0.20	157
15 - 19	0.07	0.20	161
Total 0 – 19			615
Total 5 – 19			464
Minus unoccupied units		-11%	413
VSB Enrollment		@ 60%	248
		@ 80%	330

occupied dwellings and approximately 10%-11% of dwellings in this area are unoccupied. Therefore, there could be 413 school-aged children living in a built-out Block F. Using the ratios of a low of 60% or a high of 80% of school-aged children enrolling in public school (the rest would attend private school or alternative); the future student enrollment would be between 248 and 330 students at full build-out.

There are a number of factors that contribute to calculating the future population of a project; which in this case focuses on the child yields which can assist in informing school age child population for the Vancouver School Board.

It is recommended that Vancouver School Board (VSB) be made aware of the Block F proposal so as to incorporate the prospective students from this development into their enrollment projections, particularly given the new Norma Rose Point School being completed immediately southeast of the site. It is also believed that VSB will apply their own factors for children enrollment projections given the many precedents within the City of Vancouver for new mixed use developments. VSB elects to review development applications independently from the applicant so it is anticipated that VSB will provide UEL with their own projections of children based on their experience.

10.4 RECREATION AMENITIES

The issue of what impact the new population of Block F will have on the existing amenities offered either by UEL directly or other jurisdictions is difficult to gauge given there are currently very few amenities owned and operated by UEL. As a comparison, UBC assesses a ratio of 0.15 sm per new resident when they look to provide community centre space. Based on this same ratio and assuming the upper range of future population, the Block F project would be required to provide approximately 375 sm (4,036 sf) of community recreation space

With the projected minimum 929 sm (10,000 sf) clubhouse facility contemplated for the use of onsite residents, this more than provides two times the warranted demand. In addition to this facility, individual development partners are anticipated to incorporate a range of amenities within specific projects available to those specific owners of the residential units within the project.

In addition, the 743 sm (8,000 sf) Community Amenity building provides additional opportunities for new residents as well as existing residents to participate in recreational and social opportunities.



Above: Artist's rendering of Community Green and Clubhouse.

A wide range of parks and open spaces are also anticipated to be built and available to new and existing residents, most notable the 3.1 acre dedicated park. Similar to other existing residents of UEL and UBC, Pacific Spirit Park, UBC and Norma Rose Point School are additional amenities which could be utilized off-hours by the general public. VSB has indicated that there will be a variety of rental opportunities at Rose Point School which could include multi-purpose meeting rooms and gym space subject to the regular school activities which would be given priority.

It is also anticipated that any new residents would be offered the same opportunities to participate in City of Vancouver recreation facilities, UBC facilities all on a pay as you go basis as these facilities are generally open to all members of the public. The City of Vancouver Library facilities are also open to members of other jurisdictions on a pay basis.

Neighbourhood Amenities

1. Trails and Access to Nature were the highest valued amenities that were identified in the planning process through the public engagement. Trails and access to nature are featured amenities within and surrounding this project and we anticipate this will be a marketing and valued attraction for future residents. The adjacent and designed trail connections to Pacific Spirit Park have been carefully address and fully integrated and offer significant trail connections to over 750 hectares of forest trails.
2. Children's Play Areas. There are two (2) children's play areas proposed on the project site, one informal play area in the forest area and one in the community green area. There are two (2) other children's play area located within a 10-minute walk at the East Neighbourhood Park and Jim Everett Park.
3. Exercise and Fitness Opportunities. An informal outdoor exercise circuit in proposed in the forest area on site. As well the green lawn and Village Square can be utilized for Tai Chi and outdoor exercise / yoga programs. The Community Clubhouse will provide a gym and / or fitness centre. We also believe that there could be a number of additional exercise and gym amenity rooms built within the development site parcels.
4. Indoor Basketball / Sports Courts. With the adjacent New High School within a 2 -5 minute walk, indoor amenities of sports courts after school hours, for intermural activities are available by rental through the Vancouver School Board.
5. Outdoor Sports Courts and Informal Fields. With the adjacent New High School within a 2 -5 minute walk, informal access during non school times of the informal fields and outdoor basketball courts are available for informal use, which is typical in most Vancouver neighbourhoods.
6. Golf. Access to Golf is within a 5-minute walk across University Boulevard at the University Golf Club, which is a public golf club. This amenity will provide a quality golf and social amenity for future residents.

10.5 CONTAMINATED SITES REGULATIONS

The Ministry of Environment sets out requirements for when a development proposal triggers the requirements for submitting a Site Profile under the Environmental Management Act (Contaminated Sites Regulation). Generally the Site Profile clarifies the previous industrial activities that have occurred on the site, which in some cases may have led to contamination and would result in environmental testing and analysis. The requirement to submit a Site Profile is determined by the presence of any uses that have occurred on the site as set out under Schedule 2 of the Contaminated Sites Regulation and include chemical industries and activities, metal processing and smelting, mining milling or related industries, petroleum and natural gas drilling, production and processing, transportation industries, and wood, pulp and paper products and related industries.

The Block F site has never been developed as the only prior use was open space/park. As such a Site Profile is **not** required to be submitted under the Contaminated Sites Regulation.

10.6 ENVIRONMENTAL SETBACKS

BACKGROUND

The proposed reconstructed wetlands project has been reviewed by Fisheries and Oceans Canada and they determined that the “project is not likely to result in a contravention of the habitat protection provisions of the Fisheries Act.” This review confirmed that the proposed stormwater-management measures, including the upgrade to the culvert under University Boulevard; do not pose a risk to downstream fish habitats.

The proposed upgrade to stormwater management of the site was also reviewed as a notification under Section 9 of the Water Act by the provincial Ministry of Forests, Lands and Natural Resource Operations, who determined that the project could proceed “subject to the proposed works being consistent with the objectives, standards and the planning, design and operational best practices outlined in our Standards and Best Practices for Instream Works.”

The proposed development of the Block F Parcel includes construction activity within the riparian area of proposed stormwater management infrastructure (a constructed wetland) that will be connected via surface flow to Salish Creek, a known fish-bearing watercourse. As such, environmental setbacks will be required to protect the fish habitat values of the constructed wetland. Please note that fish are not present at or near the site.

The proposed development will take place in and adjacent to the existing drainage ditch at the east end of the Block F parcel. As the existing drainage ditch is not connected to fish habitat, there are no requirements for environmental setbacks.

PROPOSED RIPARIAN SETBACKS

The proposed average riparian setback width of 10.4m (from the high-water mark) for the constructed wetland is presented in PWL Partnership Drawing LSK 20 (attached).

DISCUSSION

The riparian area, alongside natural and man-made aquatic areas, is intended to protect aquatic habitat. To test whether the proposed setback discussed above will adequately protect aquatic habitat, the functions of a leave strip as outlined in the “Land Development Guidelines” can be reviewed:

- » Large organic debris source: mature trees in the riparian zone are required to provide an ongoing source of large organic debris that provides stability, cover from predators, and habitat for young fish. It is our opinion that a tree/shrub setback zone, averaging 10.4m in width, for the constructed wetland will provide adequate stability. Cover and habitat for juvenile fish are not relevant here, because there are no fish present at the site;
- » Food source: the vegetation of the riparian corridor is habitat for terrestrial insects that, in turn, are a major food source for rearing juvenile fish. Leaves and other organic matter falling from proposed native riparian vegetation to be planted at the site (see below) are also an important food source for aquatic insects. The vegetation in the proposed setback (averaging 10.4m in width for the constructed wetland), adequately protects this source of food for fish populations downstream of the site;
- » Regulation of water temperature: summer water temperatures cannot exceed approximately 20°C without causing stress and eventually mortality in downstream salmonids. One of the most important functions of riparian vegetation is to provide shade to keep water temperatures as cool as possible. It is our opinion that the riparian shrubs/trees to be included in our proposed setback area will provide adequate shade; and
- » Filtering of runoff: this final function of leave strips is perhaps one of the most important, yet one of the most difficult to quantify and assess. The riparian vegetation forms a physical barrier to surface runoff, slowing down flow and trapping sediment and pollutants carried by the flow. This prevents these materials from flowing into the watercourses and the fish habitat. There will be no direct runoff of dirty stormwater from future site development to the constructed wetland. The combination of our proposed average setback width discussed above, and plans for treatment of dirty stormwater appear to be sufficient to achieve this filtering objective.
- » It is the opinion of Pottinger Gaherty that the fish habitat functions of the proposed constructed wetland are adequately protected with the proposed setback and implementation of native riparian restoration, as described below.

PROPOSED NATIVE RIPARIAN RESTORATION

Restoration concepts to be implemented in the riparian areas of the constructed wetland will be based on natural successional strategies and involve a two-phased approach. The first phase of planting will include a simple, high-density planting strategy dominated by young, fast-growing, native primary woody plant species, including:

- » Red alder (*Alnus rubra*);
- » Black cottonwood (*Populus balsamifera*);
- » Red-osier dogwood (*Cornus stolonifera*);
- » Willow (*Salix* sp.); and
- » Bracken fern (*Pteridium aquilinum*).

The second phase of planting will occur after the primary woody plant community has successfully established (i.e., roughly three growing seasons). This phase will supplement the pioneering woody species with pioneering coniferous trees to assist the successional process, and begin to establish long-term conditions less favourable for some unwanted invasive species. Tree species to be included in the second phase of planting will include:

- » Douglas-fir (*Pseudotsuga menziesii*);
- » Western redcedar (*Thuja plicata*);
- » Western hemlock (*Tsuga heterophylla*); and
- » Sitka spruce (*Picea sitchensis*).

Refer to graphic prepared by PWL on following page.

10.6 ENVIRONMENTAL SETBACKS CONTINUED

PROPOSED RIPARIAN SETBACKS

