PLANNING PRINCIPLES

The Project Team initiated the rezoning project by identifying several planning principles and objectives that would guide and inform their work. These principles were shared with the UEL community and others at the first Open House in December of 2012. Subsequently, the site concepts developed were based on these project planning principles as well as the findings of the site study along with UEL Administration, stakeholder and community input.

The Project Team's Key Planning Principles for Block Finclude;

- 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 forms for a mixed community and a variety of housing tenure 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 for UEL.
- 8. Create a neighbourhood focus and a centre of activity and services for both future residents of Block F and the UEL community.

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 components 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



SUSTAINABILITY

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



Block F Site Plan



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



HOUSING DIVERSITY

- Provide a variety of housing types to address a variety of needs including rental
- ✓ Consider providing larger residential units to accommodate families or existing residents looking to downsize



RESPONSIBLE DEVELOPMENT

- ✓ Locate the commercial village to benefit the local 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



BUILDING A COMMUNITY HEART

- ✓ Create a focus that becomes the 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



	LEGEND	Approx. Area						
	Publicly Accessible Open Space							
1	Forest Park	3.00 ac (12158m²)						
2	Community Centre Parcels							
	(incl. approx. 0.24 ac of building area	a) 0.99 ac (4017 m²)						
3	Wetland	0.82 ac (3317 m ²)						
4	University Boulevard Linear Park	1.57 ac (6400 m ²)						
5	Village Square	2.04 ac (8267 m ²)						
6	Community Green	0.57 ac (2294 m ²)						
7	Public Access Easements	0.15 ac (600 m ²)						
	SUBTOTAL	9.14 ac (36988 m²/ 3.70 ha)						
8	Enhanced Street Open Space ¹	1.10 ac (4500 m ²)						
	(Road A and B)							
9	Ortona Trail ²	0.17 ac (700 m ²)						
	(Off site)							
	SUBTOTAL	1.27 ac (5300 m²/ 0.53 ha)						
	TOTAL PUBLICLY ACCESSIBLE OPEN SPACE							
	10.41 ac (42128 m²/ 4.21 ha)							

Public Access Route and Improvements Provided by the Block F Project includes:

¹Enhanced Street Open Space through curvilinear neighbourhood streets with a treed boulevard and naturalized landscaping that connects residents to walking trails and parks. Excludes parking and roadway areas.

²New Ortona Trail connection (off site) from the Sword Fern/Iva Mann Trail and Norma Rose Point School to Pacific Spirit Park trail heads at University Boulevard.

Building Heights



Name of Parcel



Number of Building Stories



Townhouses (3 storeys)

THE REVISED PROPOSAL

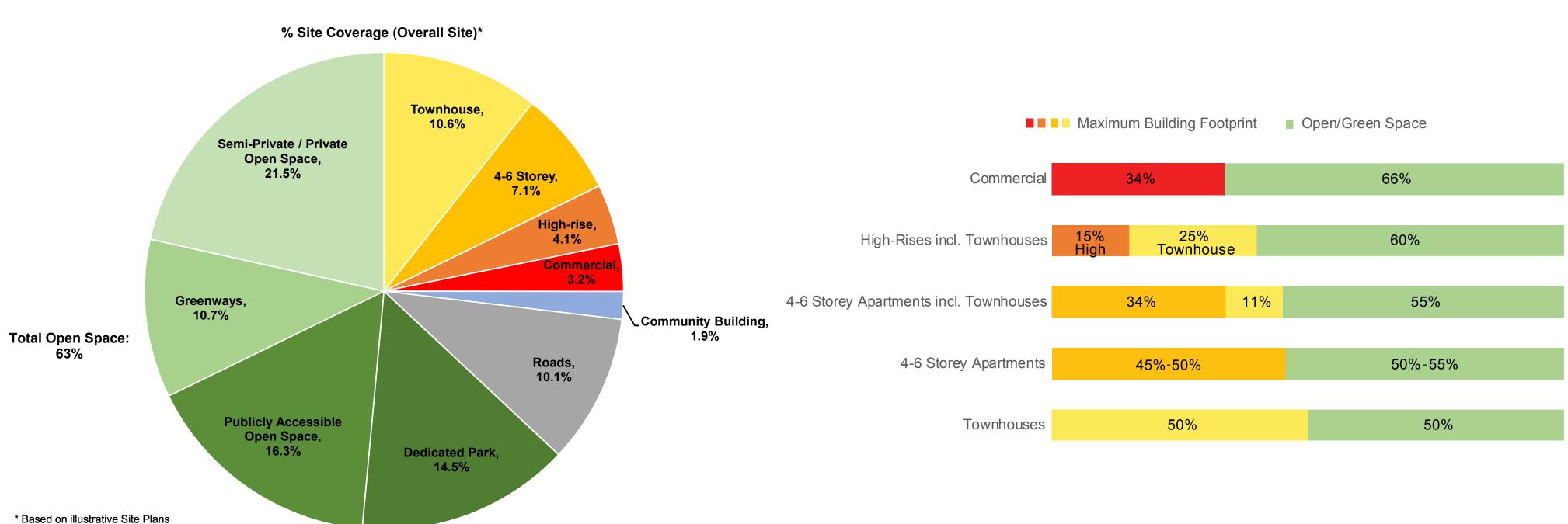
The revised master plan is a result of input from a series of community information meetings, discussions with the Community Advisory Council Block F Working Group (CACWG) and extensive meetings with UEL Administration.

The resulting masterplan concentrates development onto a smaller proportion of the site than would be the case under the current zoning, and protects a significant stand of trees and creates 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.

The Block F masterplan has concentrated a significant portion of the overall development program into slender tower forms which allows for a greater proportion of parks and open space at grade. The distribution of development density and other features are shown below which results in approximately 62.5% open space/park space for the overall site inclusive of publicly accessible, semi-private and private space.



BLOCK F - SUMMARY												
PARCEL	PARCEL NET AREA		USES	GROSS FLOOR AREA	GROSS FLOOR AREA	MAX F.S.R.	MAX SITE COVERAGE	MAX HEIGHT	MAX HEIGHT	MAX HEIGHT		
	m ²	SQ. FT.		(SQ. M.)	(SQ. FT.)			(Storeys)	(Meters)	(Feet)		
	8,261	88,921	Commercial	2,601	28,000							
A			Below Market Residential	4,065	43,750	1.09	45%	5	20 m	66 ft		
			Market Residential	2,323	25,000							
		35,101	Rental Residential	7,897	85,000	2.48	50%	12	40 m	131 ft		
В	3,261		Accessory Commercial	186	2,000							
COMM. VILLAGE DEVELOPMENT AREA (Parcels A+B)	11,522	124,022		17,071	183,750							
D	4,725	50,859	Highrise + TH	13,631	146,724	2.89	40%	18	54.25 m	178 ft		
E	5,214	56,123	Highrise + TH	14,143	152,235	2.71	40%	18	54.25 m	178 ft		
F	4,654	50,095	Highrise + TH	13,357	143,775	2.87	40%	18	54.25 m	178 ft		
G	4,624	49,772	Apartment + TH	9,767	105,126	2.11	45%	6	21 m	69 ft		
Н	5,330	57,372	Apartment	9,334	100,471	1.75	40%	4 + 6	21 m	69 ft		
1	3,358	36,145	Apartment	8,394	90,353	2.50	50%	6	21 m	69 ft		
J	3,398	36,576	Apartment	5,946	64,006	1.75	50%	6	21 m	69 ft		
K	4,676	50,332	Townhouse	5,822	62,663	1.25	50%	3	11 m	36 ft		
L	4,390	47,254	Townhouse	5,493	59,125	1.25	50%	3	11 m	36 ft		
M	4,287	46,145	Highrise + TH	12,863	138,456	3.00	40%	18	54.25 m	178 ft		
RESDIENTIAL DEVELOPMENT AREA (Parcels D-M)	44,656	480,673		98,750	1,062,934							
TOTAL DEVELOPMENT AREA (Parcels A-M)	56,178	604,695		115,821	1,246,684							



% Site Coverage (overall site)

Permitted Building Coverage on Development Sites









2 View South through Community Green along Road B







4 View North along Acadia Road



View North through Park towards Community Centre



6 View West through Wetlands

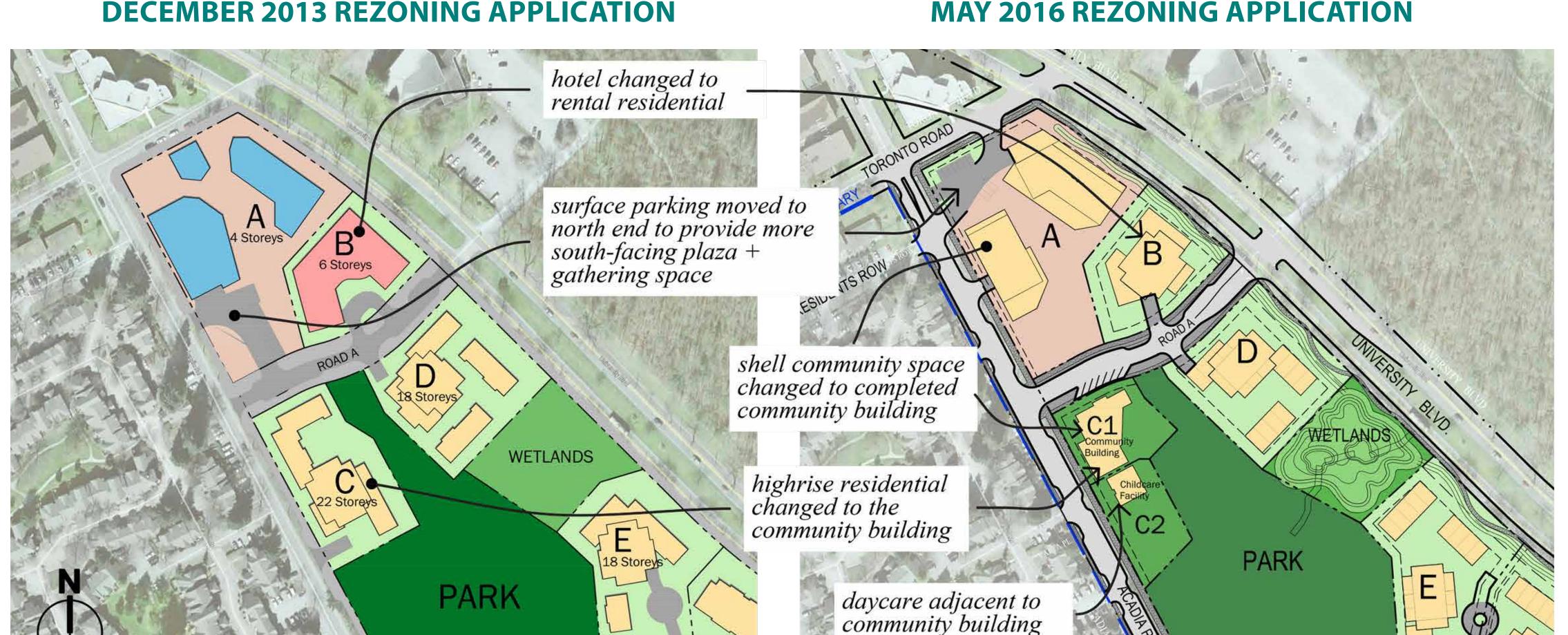


COMPARISON OF CHANGES SINCE 2013 APPLICATION

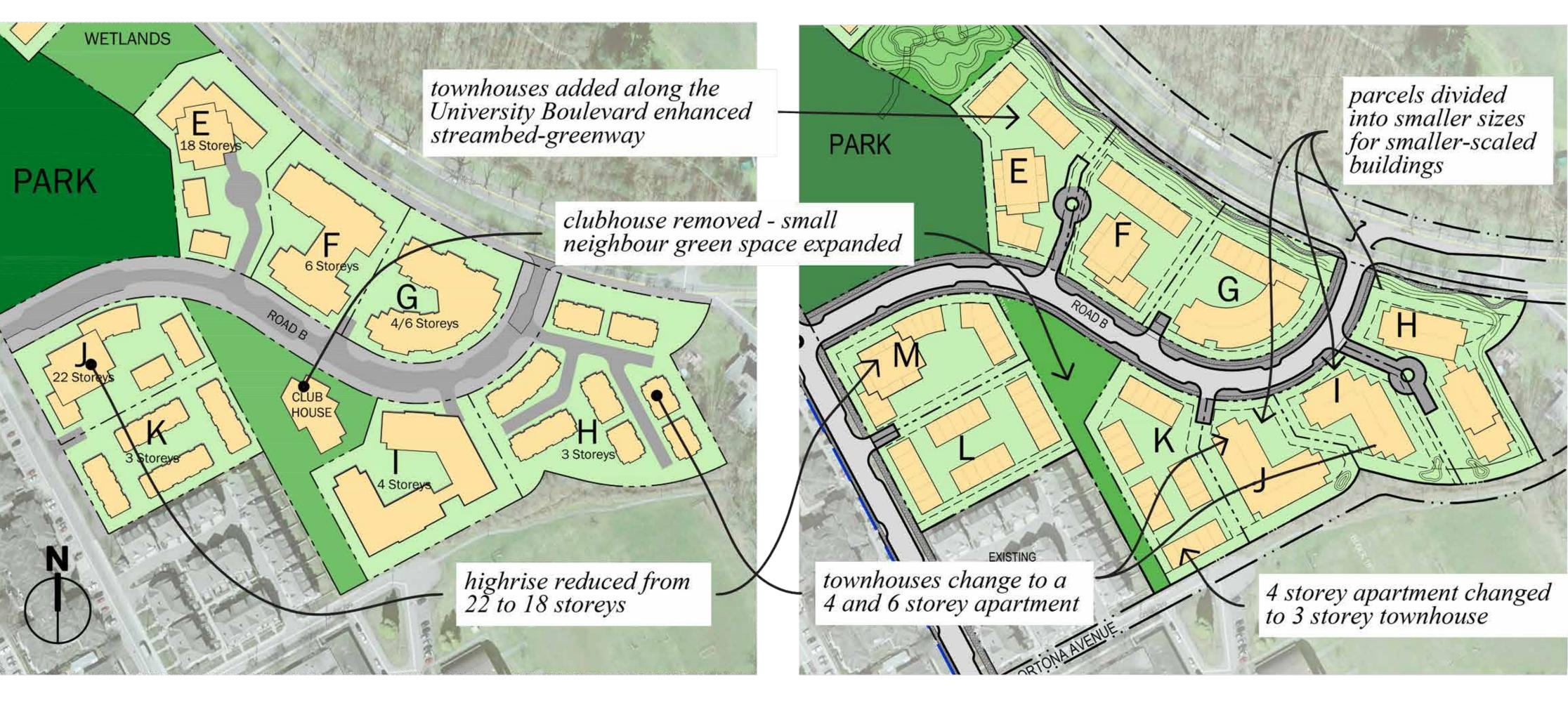
Changes made in response to consultation efforts to date include:

- » The Design Guidelines have been enhanced with input from UEL.
- » Building heights have been reduced from 22 stories to a maximum of 18 stories (4 buildings) with a slender building form. The taller buildings have been located adjacent to the mature evergreen trees and have been designed relative to the height of trees.
- » The proposed hotel has been replaced with a purpose built rental residential building.
- » The overall density inclusive of the 20% below market housing has been reduced from the original application.
- » A Village Heart has been created through the concentration of retail and public amenity buildings, and the inclusion of an open flexible multi-use plaza. The Village Plaza includes commercial frontages and open space that can support community events and outdoor gatherings. The trail network crosses the plaza linking it to other public open spaces in Block F and Pacific Spirit Park. Located on University Boulevard, adjacent to public transit and convenient parking it is easily accessed by the overall UEL community.
- The Club House on Road B has been replaced with a new turnkey Community Centre and Childcare Facility on separate parcels on Road A in the Village Heart to serve all of UEL residents.
- » 30 parking stalls for the Community Centre have been added (7 on-street and 23 below grade).
- » The commercial uses and rental buildings have been located close to the location of a planned rapid transit station and adjacent to a current major transit line.
- » An enhanced greenway has been added to south side of University Boulevard creating an additional public open space area and an improved gateway character for UEL and Block F preserving/enhancing the existing forest character.
- » A variety of housing types supporting a variety of residents, ages and incomes is incorporated, inclusive of market and below market rental.
- » Workforce Housing added on Parcel A above Ground Level Retail.
- » Lower forms of development have been located next to the existing townhouse development (Liberta), school and church.
- » A multi-purpose trail has been added on the east side of Acadia Road to provide a safe off-street pedestrian and cycling connection to Norma Rose Park School

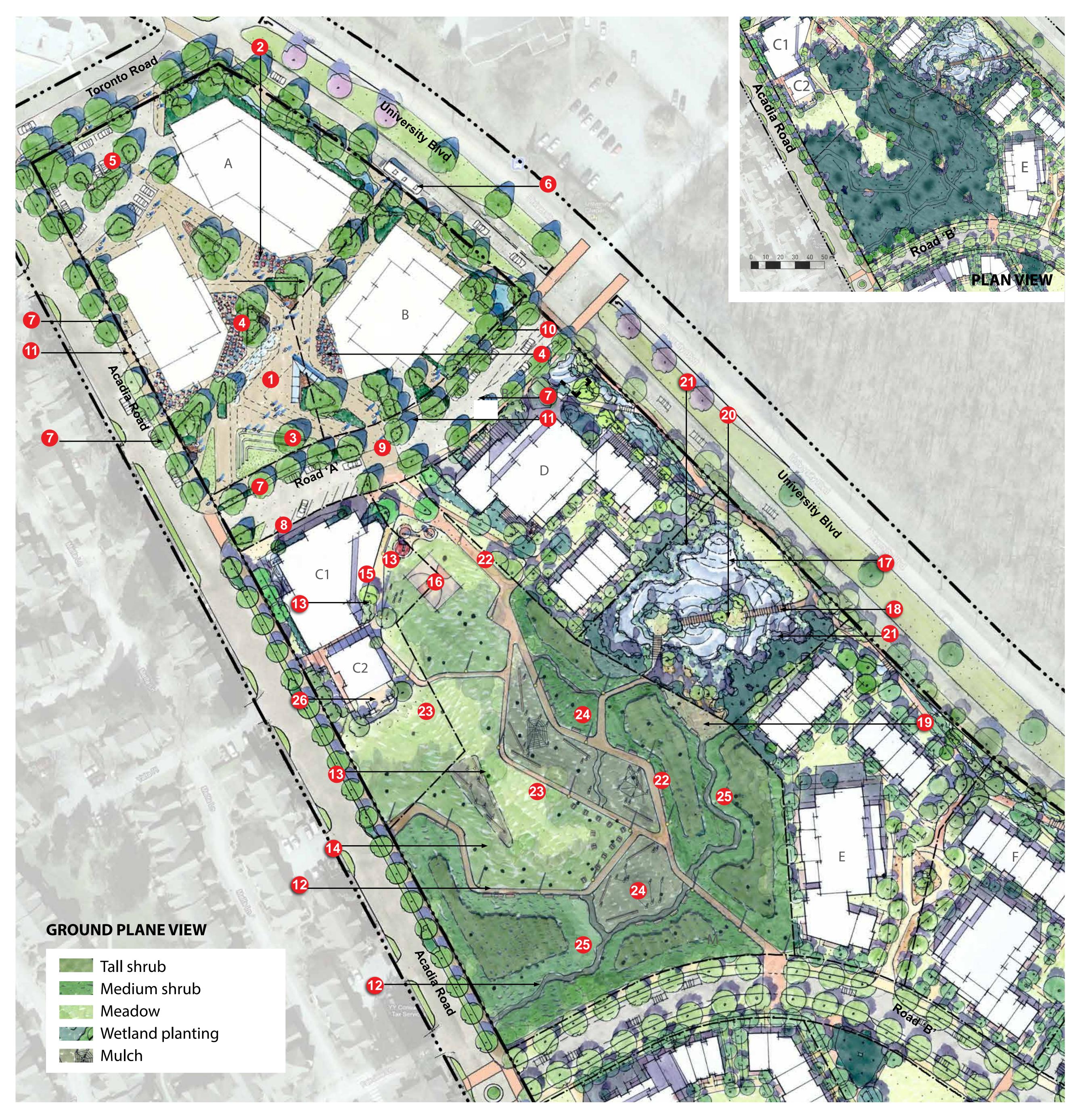
DECEMBER 2013 REZONING APPLICATION



DECEMBER 2013 REZONING APPLICATION



MAY 2016 REZONING APPLICATION



LEGEND

Public plaza

Seating and raised planters

Event lawn

Cafe seating

Surface parking

Proposed bus stop

Parallel street parking Angled back-in parking (hc + regular)

Raised cross walk

Enhanced width sidewalk

Parkade driveway

Community lawn / flexible open space / play fields Playground

Community building outdoor amenity area + great lawn

Picnic area

Hard Court Constructed wetland

Bridge / boardwalk

Observation area

Wetland island Riparian buffer

Sword Fern / Iva Mann Trail

Nature / tertiary Trail

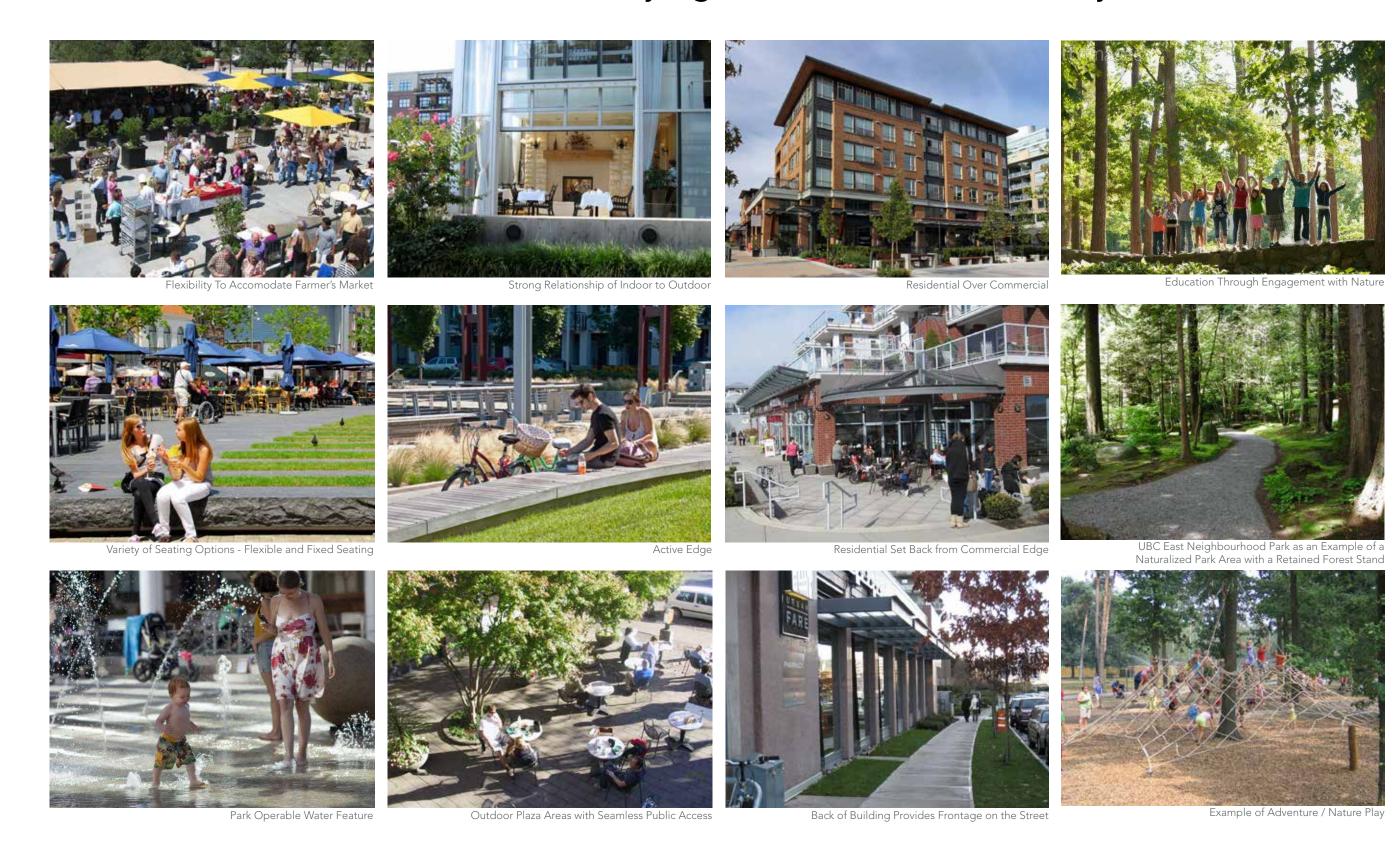
Nature play

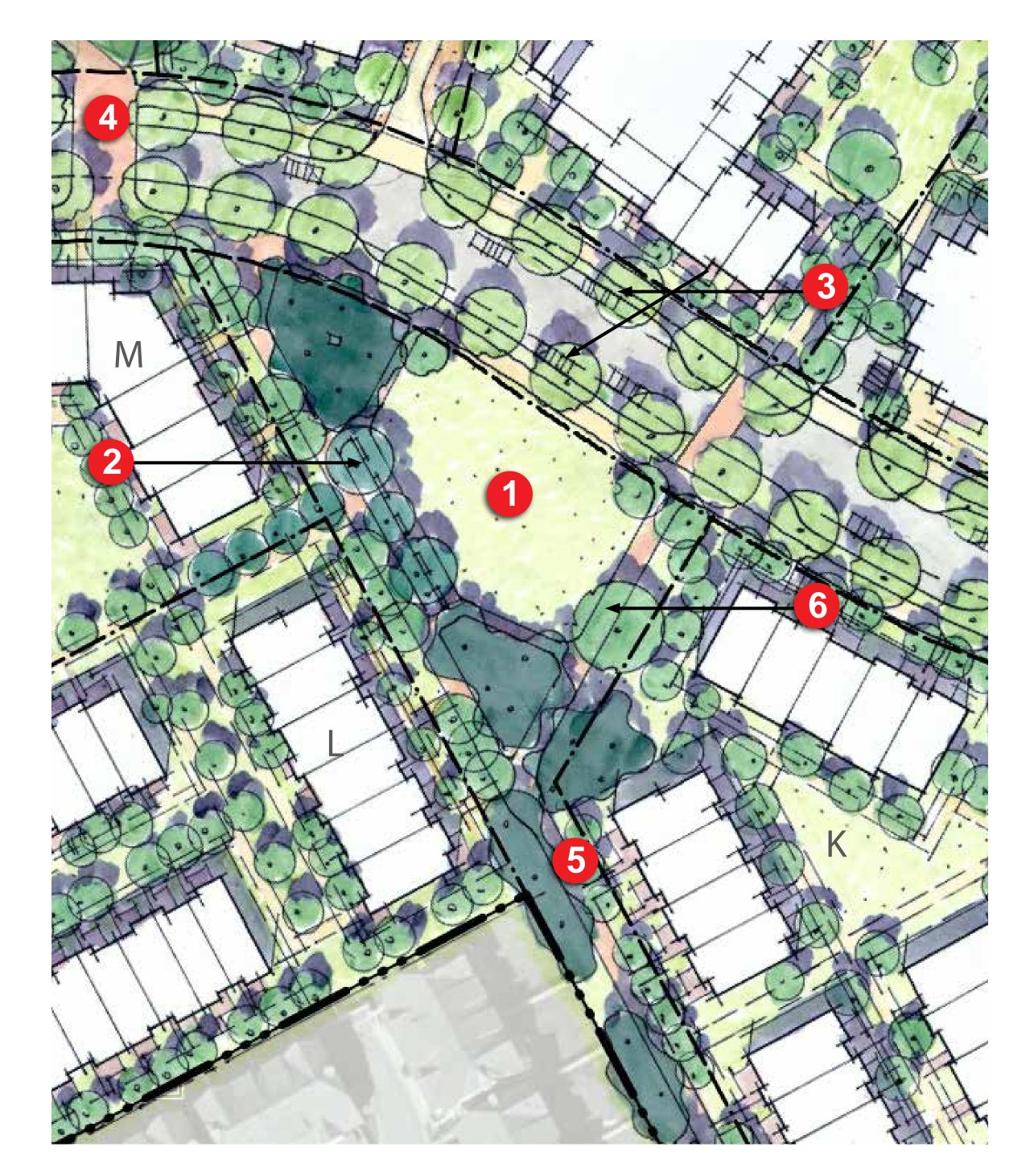
Habitat and nature trail area

Outdoor day care play area

PARK AREAS

There are three park areas in Block F: the Forest Park (dedicated), the Community Green and the University Boulevard linear park. Together they will provide the open space for passive and active recreation in the new neighbourhood and for the broader UEL community. They will be designed around the natural amenities of the site and the west coast forest theme. All three will be connected to each other by the Block F trail system. These parks are different in size, location, and adjacent to different land uses and development forms. They will be different in character and function in order to meet the varying needs of the community.





LEGEND

- 1 Lawn /flexible Space
- Seating
- Parallel on-street parking
- 4 Raised pedestrian trail crossing
- Sword Fern / Iva Mann Trail
- Multi-use trail

COMMUNITY GREEN

The Community Green on the south side of Road B is a complement to the activities and amenities of the Forest Park. It will include perimeter trees with planting around an open lawn area offering a different scale than the Forest Park. As an integral part of the Block F trail system, the Sword Fern trail connects with the Forest Park to the north, crosses the park on the west providing direct residential unit access to the trail network and connects with the Ortona Trail and the school to the south.

RENTAL HOUSING

The Planning of Block F is aimed at creating a variety of housing forms and tenures that would appeal to a wide range of the marketplace and offer opportunities for ownership as well as rental and below market rental. The OCP requirement will be met through the provision of below market rental housing intended to accommodate moderate income households. The master developer would be responsible for the build out of this housing which would be operated under a long term lease, by a nonprofit housing provider in accordance with BC Housing's Housing Income Limits. The project will include 25% of the units as adaptable units.



Community Centre Concept - View of Great Porch Looking South

COMMUNITY AMENITIES

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

- A Community Centre for the use of Block F and all other UEL residents.
- » A Childcare Facility that will accommodate a private childcare operation of up to 40 children.
- » An extensive series of UEL parks, greenways and publically accessible passive and active open spaces.
- » Indoor and outdoor amenity spaces that would be located within individual developments.

PARK

The Community Centre

A Community Centre will be constructed by the owner/developer at no cost to UEL. The facility will be open to all residents of UEL. The terms of construction and related issues are set out in a mutual agreement between UEL and MCC.

For the purposes of this rezoning application, this facility will be 15,000 square feet and may contain the following uses:

- » A gymnasium/sport court
- » Fitness centre
- » Social and meeting rooms
- » Indoor gathering space
- » Covered outdoor gathering space
- » A coffee bar/kitchen
- Office

The start of construction of the Community Centre will commence by the granting of occupancy of the residential units in first phase of the development.

As part of this development, the master developer will be responsible for the design, construction and fit out of the Community Centre at their sole cost. The land parcel on which the Community Centre is located will be the subject of a long term lease between the UEL and the master developer.

The Childcare Facility

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

The childcare facility will be located south of the Community Centre, in a location which receives the most sunlight over the year. The Childcare Facility will consist of approximately 4,000 square feet of indoor space, and approximately 4,800 square feet of outdoor space. The facility will meet the facility requirements of the BC Child Care Licencing Regulation.



Community Centre Concept - View of Great Porch Looking East

1 FOREST PARK

The Forest Park is centrally located in the new Block F community. It includes a significant area of mature evergreen trees with many measuring up to heights between 40 to 50m tall with a few reaching 60m tall. The park has frontages on both University Boulevard and Acadia Road, as well as Roads A and B, allowing it to be visually and physically accessible to the surrounding community. A mix of open understory areas and retained vegetation will allow for a series of experiences and activities in addition to the ecological functions the forest provides.





4 VILLAGE SQUARE

The Village Square is located at the north corner of the site and is framed by University Boulevard, Road A, Acadia and Toronto Road providing a high visibility and easily accessed location for the proposed retail services. Public transit and cycling routes are immediately adjacent.

Primarily a hard surfaced area with large forest character planters and integrated seating with various edges to promote daily use and activation it will have a strong relationship to the Community Centre and the Forest Park though adjacencies and public realm finishes. Space for outdoor seating and retail spill out will be provided. The Sword Fern trail will connect from the Forest Park through the area and link to the public transit stop on University Boulevard.

Underground parking will be provided to meet the majority of the parking needs however a small surface parking for short-term needs is also included at the corner of Toronto and Acadia Road. Adjacent on street parking will further support the short term parking needs so vital to retail success.



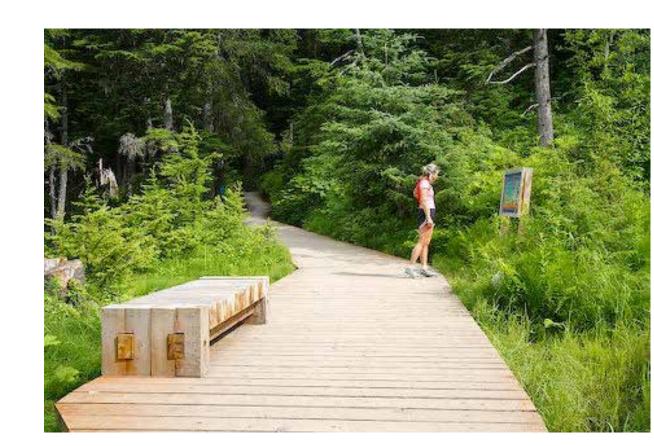


UNIVERSITY BOULEVARD LINEAR PARK

This linear park extends from Toronto Road in the north to south of Road B along the frontage of University Boulevard. A combination of area from the road right-of-way and a public access right-of-way on the development parcels, the 12m wide park will include a significant bioswale with naturalized wetland areas, trails, mixed forest planting areas and open lawn with sunny exposure. Adjacent residential units will front the park creating a sense of engagement and safety for the park. A full suite of site furniture including benches and lighting will be provided. This park will connect with Sword Fern and Fairview trails ensuring a close integration with the surrounding open spaces and the community.

2 CONSTRUCTED WETLAND

The constructed wetland will manage the majority of surface rainwater runoff directed there via bioswales from other areas of the site. As such the water will have received a high level of treatment prior to, resulting in higher water qualities and improved habitat values. It will be designed in a naturalized form to complement the west coast forest theme and thus visually connect to the Forest Park and Pacific Spirit Park across the street. A Community Trail Head at the intersection of the University Boulevard Trail and Fairview Trail will be an entry point to the community for pedestrians and cyclists. A set of bridge structures are proposed to bring people into the Forest Park over the water and crossing the islands to promote a connection with the land and water. A crushed stone "beach" is proposed on the south side to afford views over the wetland from the park side.







3 COMMUNITY CENTRE PARCELS

The open space around the Community Centre will be designed as an uninterrupted continuation of the Forest Park. The new Block F trail system will bring people to the building from the park and surrounding area. Public realm amenities will be focused on community related activities and the close proximity to the retail area. A great lawn area and children's play area will further connect the building to the public open space of the park and Village Square.





5 COMMUNITY GREEN

Located in the southern part of the site the Community Green offers a different park and open space experience than the Forest Park. Primarily a sunny open lawn surrounded by new trees and vegetation buffers it is bounded on two sides by townhouse residential units. The Sword Fern trail crosses the park on the west providing a connection to the Forest Park and beyond to the Ortona Trail and the elementary school.





ORTONA TRAIL

The Ortona Trail will be fully contained within the off-site Ortona Road SROW. It will be an extension of the Block F trail network with similar finishes and site furniture. An important riparian area related to the Cut Throat Creek will be enhanced and preserved. It will connect to University Boulevard on the north and the Pacific Spirit Park trail heads in that area. A new organization of the existing parking is considered to resolve potential pedestrian and cycling conflicts with the vehicles.





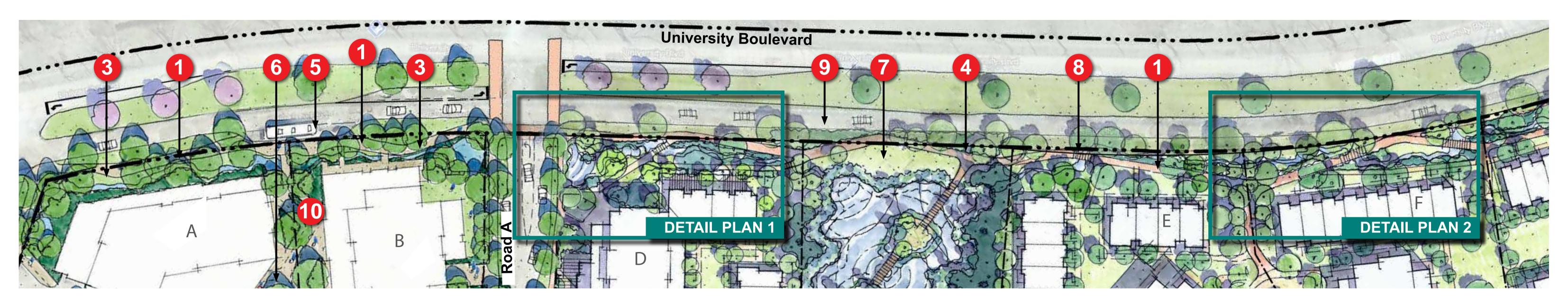
KEY PLAN



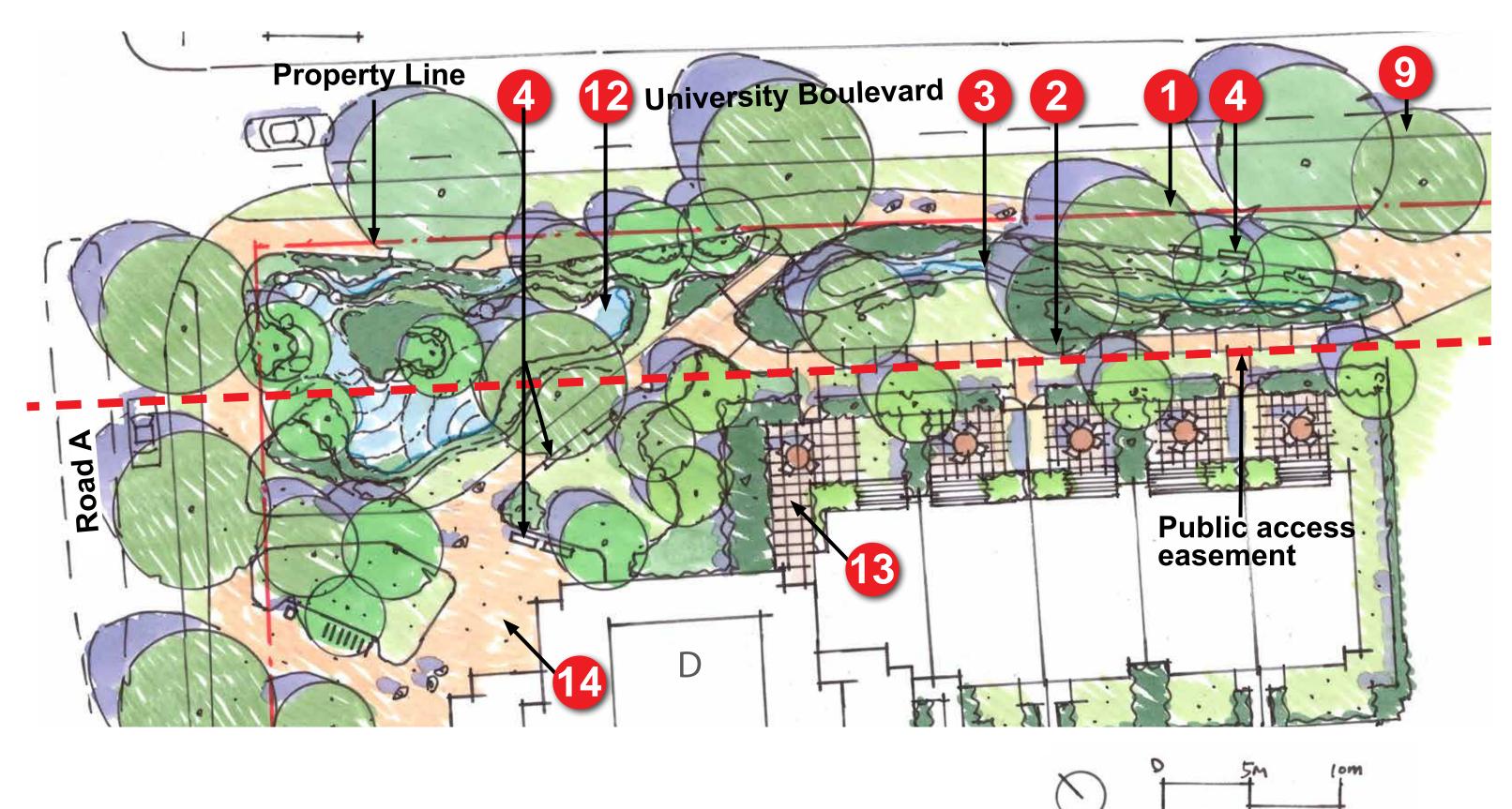
UNIVERSITY BOULEVARD LINEAR PARK

An Statutory Rights of Way (SRW) for public access on the University Boulevard frontage will increase the width of the available space for a new multi-use trail and allow for the creation of a robust west coast rain forest themed park between the street and the fronting townhouse residential units. Transitioning from a highly naturalized character at the edge of the Pacific Spirit Park on the south, to a more refined character at the Village Square and retail area to the north, the park will welcome people to this new development and be a gateway to the UEL. The adjacent lots located between Road A and Road B will all have fronting townhouse units with private patios and gated entries to the front doors accessible from the trails.

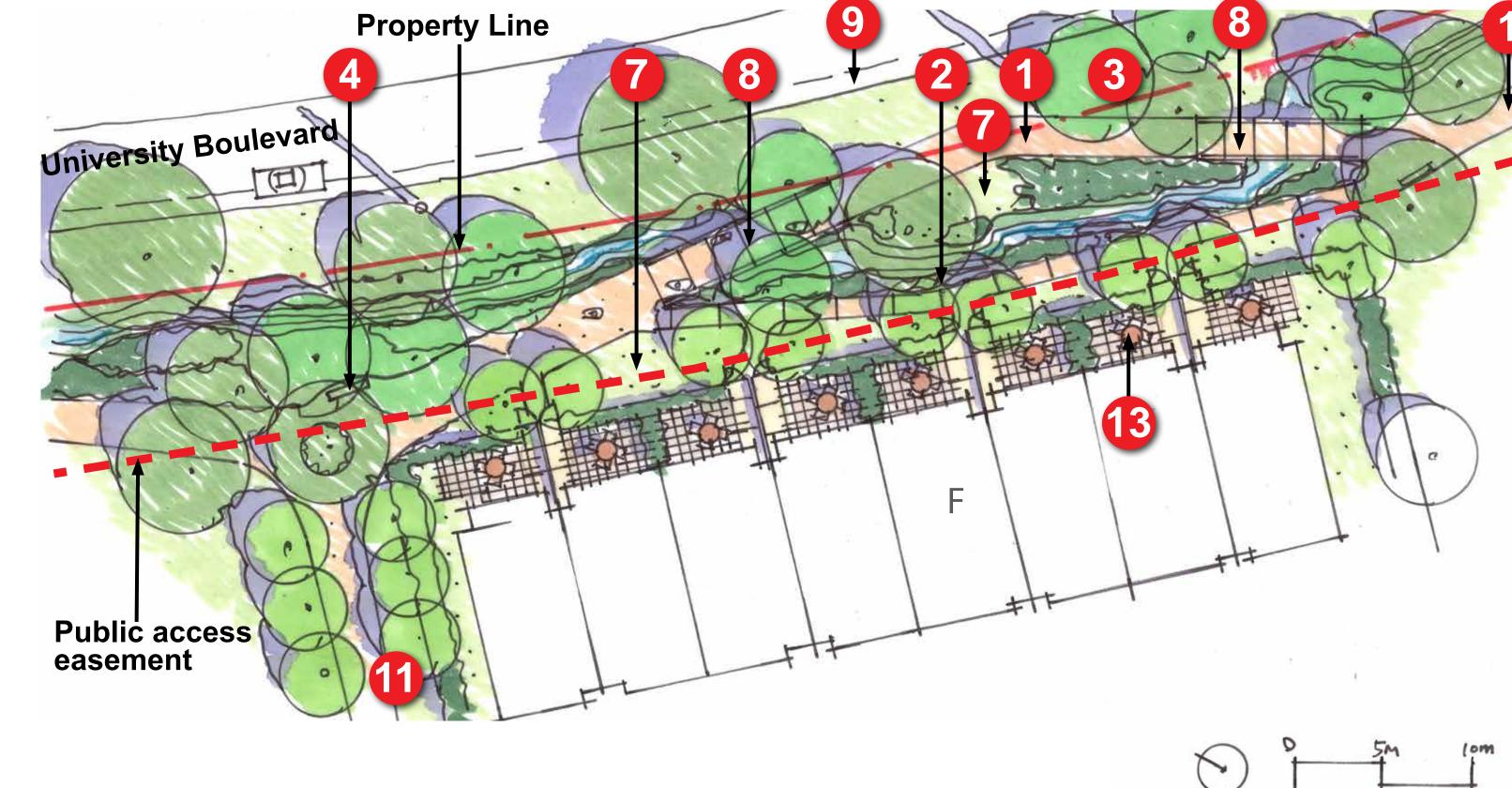
UNIVERSITY BOULEVARD TRAIL: OVERALL PLAN



DETAIL PLAN 1



DETAIL PLAN 2



LEGEND

- Primary trail
- Secondary trail
- Rainwater swale
- Seating area
- Bus stop
- Retail patios
- 7 Lawn
- 8 Bridge / Boardwalk
- ing area <a>9 Bike lane
 - Pedestrian access to Village
 Square from bus stop
- Connections into Block F from University Boulevard
- Naturalized water feature
- Private patios with gates
- Tower Entry Plaza





Dockside Green Development

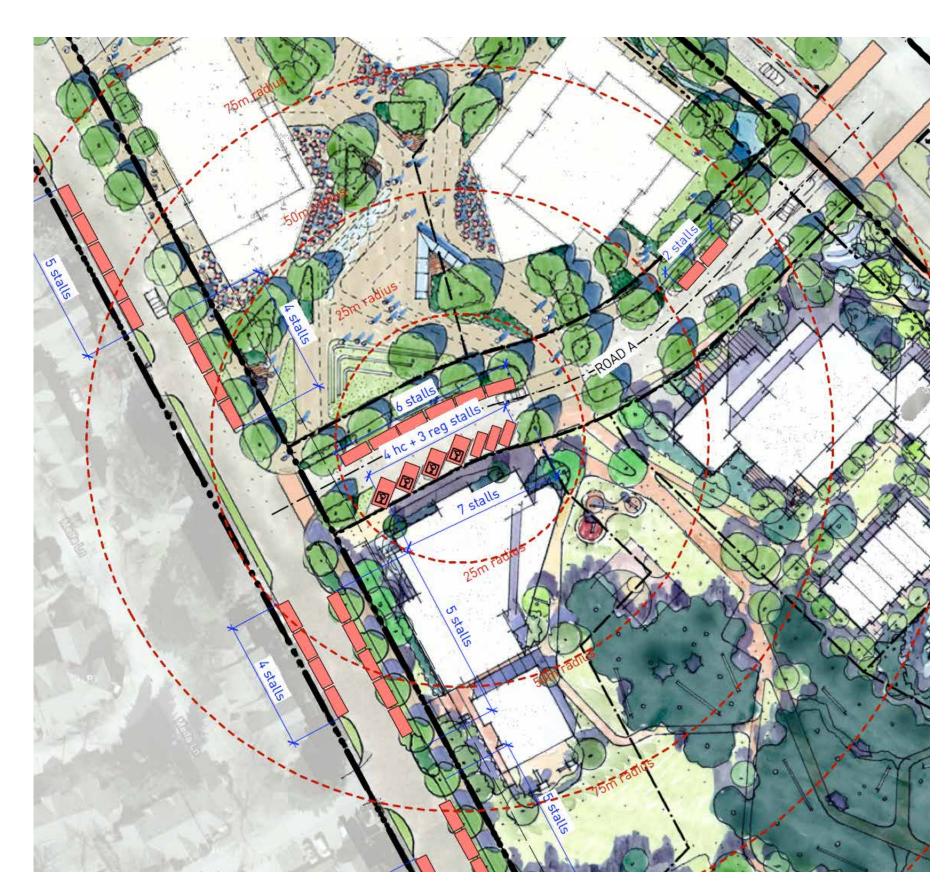
Boardwalk Crossing Over Bioswale

PARKING PRINCIPLES

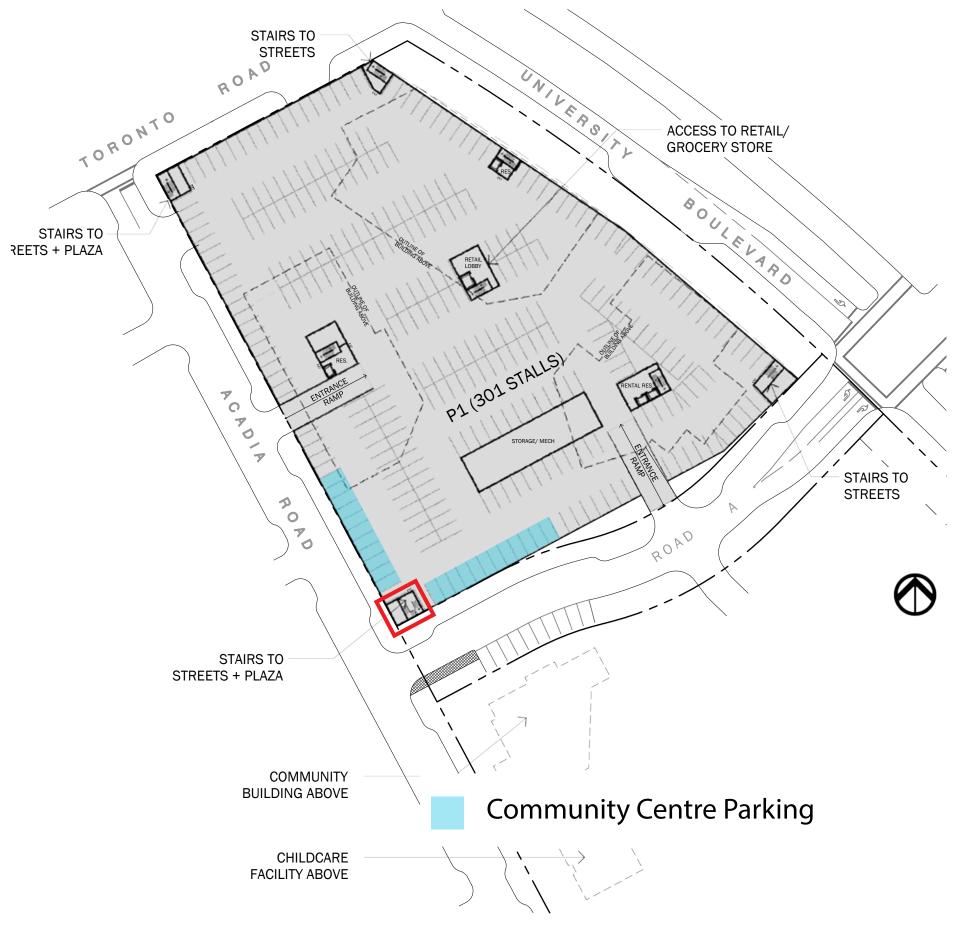
- Parking requirements for the Block F development have been carefully planned, taking into consideration relevant planning policies, current trends on vehicle ownership levels, as well as the proposed residential and commercial uses and the expected parking demand.
- Secure bicycle parking and car share programs are all planned to reduce reliance on private automobile use, which is consistent with the Planning Principles for the site. Electric vehicle charge stations are also planned to promote the use of electric vehicles.
- » All residential and visitor parking will be provided underground on private development lands.
- » All commercial parking will be provided underground with access from both Acadia Road and Road A. A small component of surface convenience parking for the retail uses (including accessible parking) is proposed at the corner of Toronto Road and Acadia Road.
- Parking spaces for those using the Community Centre are located at grade in front of the Building as well as in the underground parkade (4 hc + 3 regular on-street parking stalls on Road A, 23 stalls in parkade).
- With the construction of new roads (Roads A & B) as well as the reconstruction of Acadia Road, approximately 145 new on street parking stalls will be created within a 5 min. walk from the new Community Centre (Road A and Acadia Road). These stalls are proposed to be restricted to short term parking and would allow the public access to the community amenities. Accessible parking will be provided immediately adjacent to the main entrance of the Community Centre.
- » Accessible parking will be provided at a ratio of 2% of the total stalls provided on all development parcels.



Surface Parking Plan



Surface Plan (Parcels A+B)



Conceptual Parking Plan -P1 (Parcels A+B)

ARCHITECTURAL DESIGN PRINCIPLES

Principles which should guide the design of buildings are these.

- 1. Be responsible to your neighbour and to those who pass by on the street.
- 2. Be inclusive design to invite people in visually or actively.
- 3. Be respectful of the history of the land and of the legacy that will be left behind.

Site Planning/Siting of Buildings

The master plan of Block F works as a whole. Potential building shapes and locations are illustrated to support the success of the whole: framing open spaces, encouraging connections, providing street energy, respecting views from within and without, and moderating the massing and shadowing of buildings.

While the design guidelines are, in fact, guidelines, they will be heavily relied on by the approving authorities in assessing whether or not to approve development permit applications. The site planning and Design Guidelines have been shared with the community who will have an expectation that future applications will generally comply with these documents.

The site planning and siting of buildings and open space shown in the zoning document have been carefully considered to ensure the greatest success of the overall community.

- » The commercial development and village plaza are located at the north end to provide easy accessibility to both the existing community and the new community which will come. Buildings are placed to create an open, vibrant public plaza.
- » Highrise sites are located closer to the tall stand of mature trees that will remain and to minimize shadowing onto adjacent developments. Townhouses are incorporated at the bases of the highrises and are located along streets and greenways to provide a more intimate scale and sense of neighbourliness.
- » The mid-rise and low-rise developments are located further to the south where they will offer a suitable transition to the adjacent community.

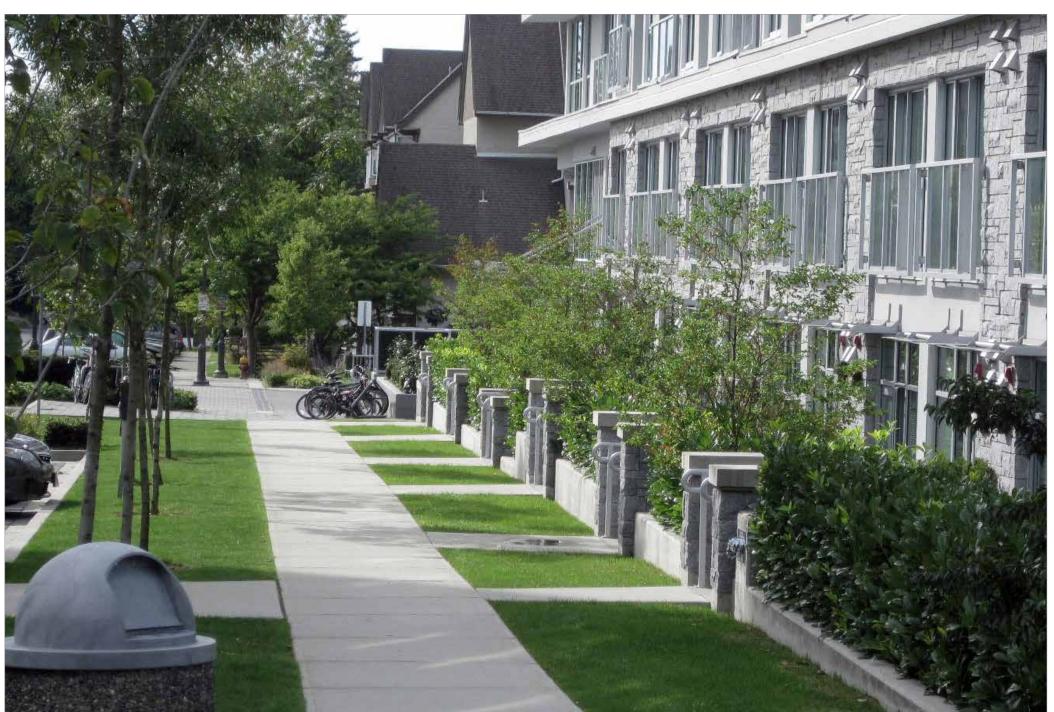
Integration of Architecture with Landscape

Design buildings to integrate the hard and soft landscaping with the building. Blend public-to-private so that each component benefits from the other. In a number of locations, easements have been established on private property for public pedestrian access.

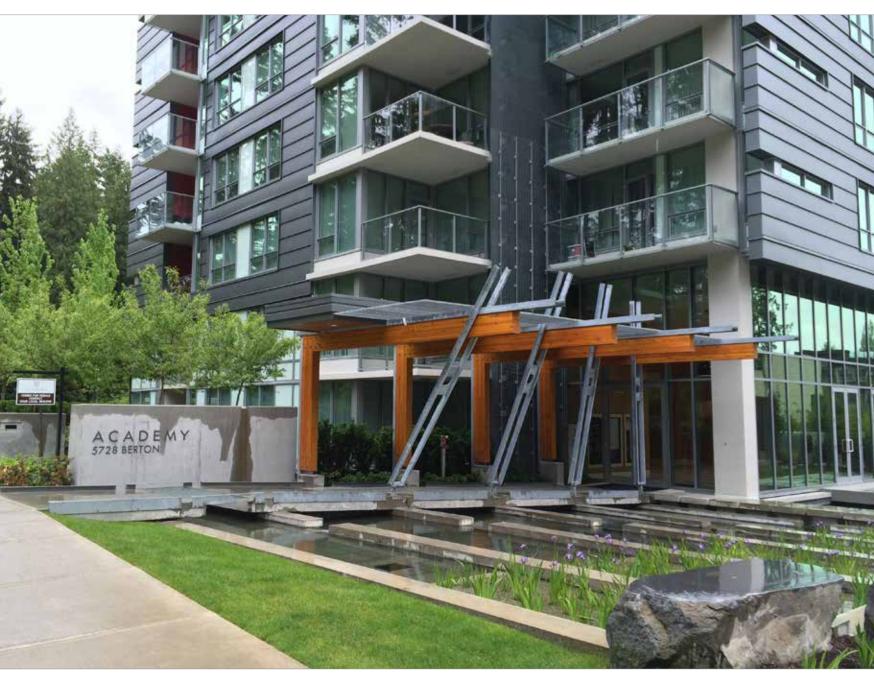
- » Provide clear lines of demarcation between the publically-accessible areas and private areas.
- » Allow for visibility from the semi-private areas to the publically-accessible spaces for security and neighbourliness. Follow good CPTED (Crime Prevention Through Environmental Design) principles.
- » Design buildings so that they frame outdoor spaces on the site.
- » Use buildings to create smaller and larger outdoor spaces and courtyards that are seen as outdoor rooms, and use buildings to modulate between various sizes and types of outdoor spaces.
- » Provide opportunities for sitting, including benches and sit-height walls, on private property where they are at corners, near entries and adjacent to greenways.
- » Create "parkettes" and other features at exposed corners of sites that, while they are on private land and will be maintained by the building owners, can be used by the general public.



Successful integration of landscaping and public art



Individual gates for ground floor apartments



Highrise with strong entry utilizing water and real wood



More intimately scaled building works well next to public greenway

The Village Centre

The Village Centre, along with the Community Centre, will provide a heart and focus to the community. The design of buildings, open space, plazas, parking and landscaping should support the community benefit of these features. There is a strong expectation that the final design of the Village Centre incorporates the elements shown in the zoning document.

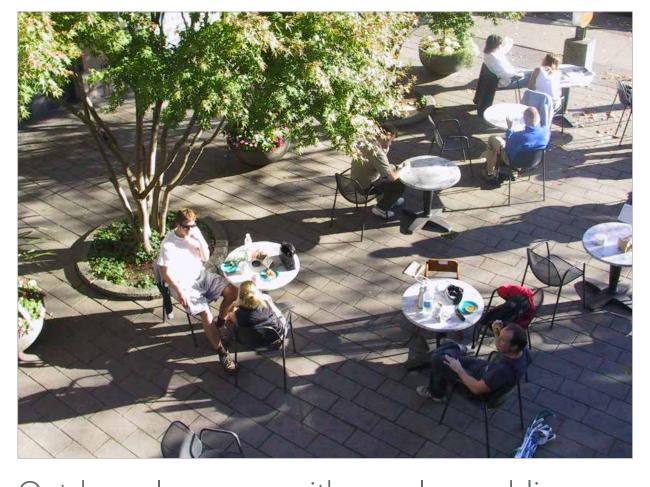
The Village Centre is both an entrance to the overall site and the location of a continuation of pathways and trails on the site. Right-of-ways are registered to ensure that public access is maintained through the Village.



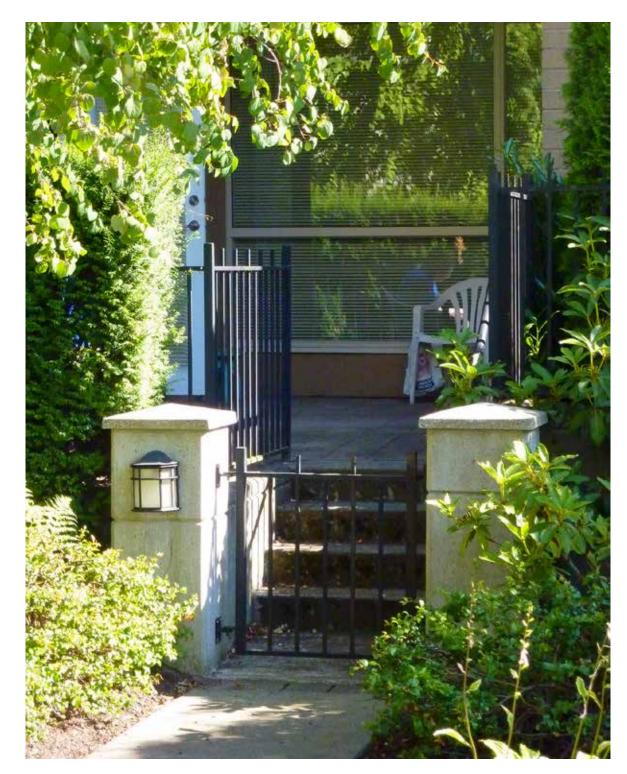
Residential over commercial



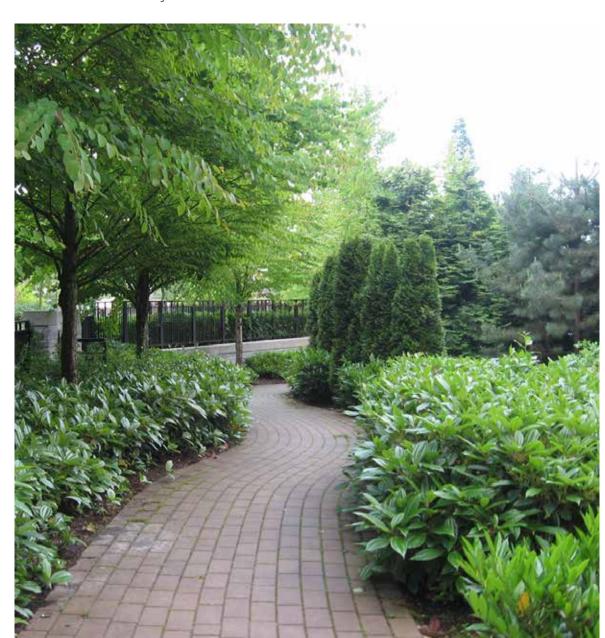
Landscaping incorporated into retail plaza



Outdoor plaza areas with seamless public access



Layered Transition Between Public and Private Realms



Fences and Thick Planting



Rainwater Management on Private Parcel



Landscape Spaces on Slab Condition



Front Entry Patio, Arbutus Walk, Good Relationship to



Green Amenity Roof Deck, Arbutus Walk







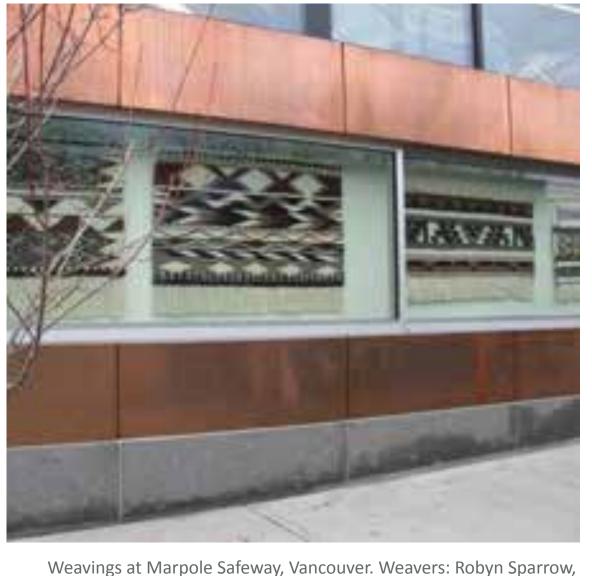
Use of Low Maintenance Turf Grass



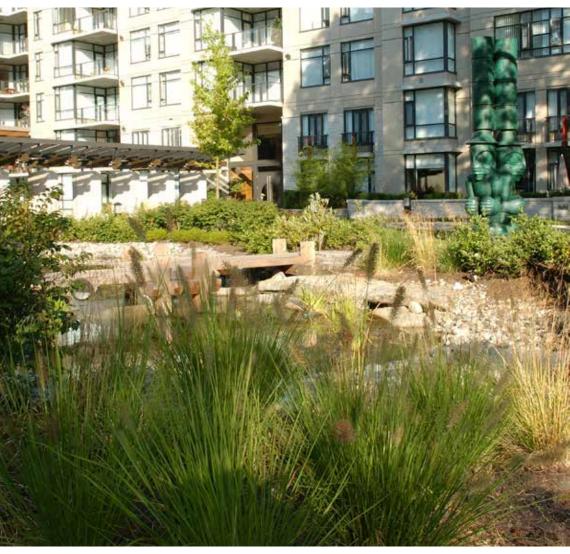
giyəplenəx^w house post at Allard Hall, UBC. Carver: Brent Sparrow Jr.



SEFC First Nations Public Art. Photo credit: Wilco.



Krista Point and Debra Sparrow; Photo: Ann Camero



Marguerite House First Nations Public Art

PRIVATE REALM CHARACTER: WEST COAST NATURAL

The design of the private realm landscape should respect and complement the site context within the Pacific Spirit Park forest and be a reflection of the overall landscape approach for the development site. The landscape expression that integrates and is seamless with the building architecture and seeks to blend the edges between the public and private realm and between adjacent development parcels.

LANDSCAPE DESIGN PRINCIPLES

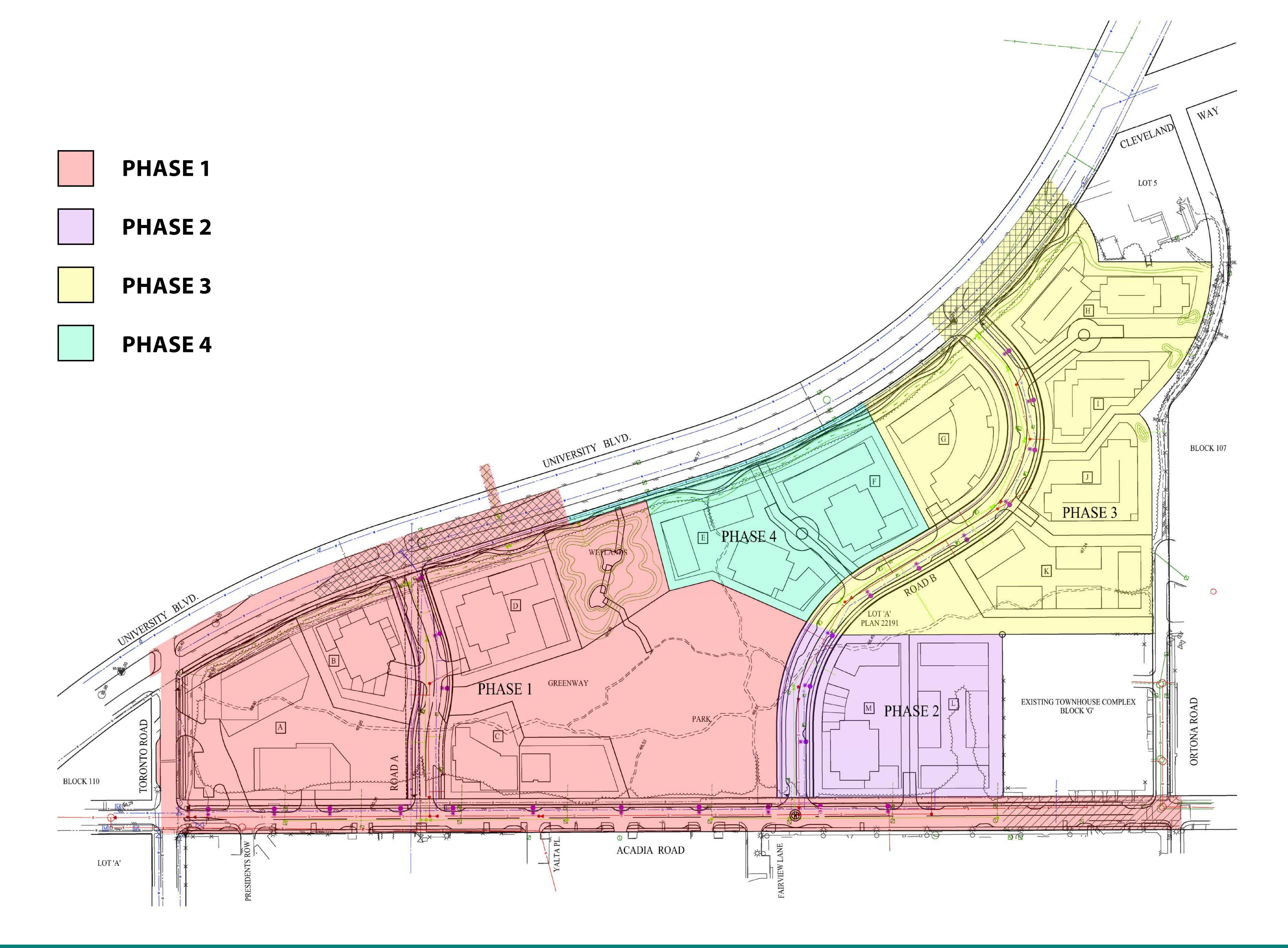
The landscape design should follow the essence of the planning principles for the project.

- » Sustainability: match or exceed the project's stated sustainability targets
- » Landscape expression and character shall have a strong relationship with interior spaces and should act as room extensions in the landscape
- » Private outdoor spaces should be designed so that it serves all residents of the building
- » Private parcel landscapes shall be well integrated with the public realm and should have a seamless expression
- » Front yards should engage with the streets to facilitate "eyes on the street" and activity at street level
- » Explore opportunities for roof top living including amenity and landscape areas
- » The collection of rainwater shall be celebrated and visible within the development parcels

MUSQUEAM ART PROGRAM FOR THE BLOCK F DEVELOPMENT: PROCESS OVER-**VIEW**

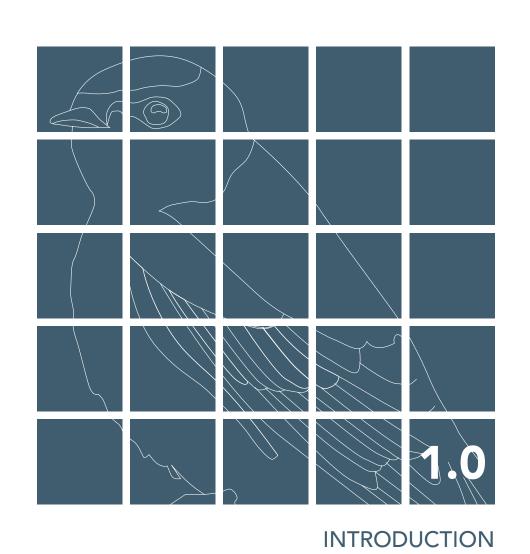
The Musqueam people have used and occupied their territory, which includes the lands now known as the University Endowment Lands and Pacific Spirit Park, for millennia. Given Musqueam's deep connection to and current ownership of the Block F lands, Musqueam culture and history will be represented in a variety of ways within the Block F development.

A key method for ensuring Musqueam representation within this development (and future developments), is by implementing a public art program. As stated in the Block F Rezoning Package, the project intends to "introduce public art throughout the Block F site in an effort to strengthen the urban fabric and to contribute to the identity and character of the Block F neighbourhood." The Block F Design Guidelines state that public art should be integrated into the overall design of the development and embedded in aspects of parks, open space, and public realm, with focus on Musqueam people, the forest, the streams, sustainability, and community.



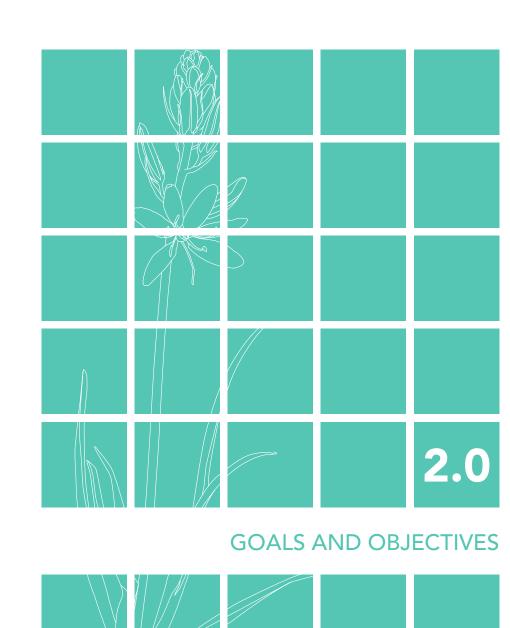
DESIGN GUIDELINE SUMMARY

The Design Guideline covers the points noted below, to provide direction and clarity to individual developers so they are able to deliver a project that meets the overall vision and design intent, creating a harmonious neighbourhood.



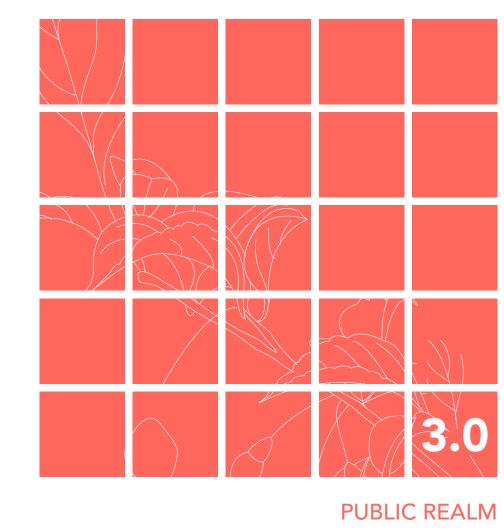
1.0 INTRODUCTION

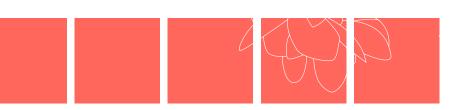
- 1.1 The Musqueam Nation
- 1.2 Musqueam Legacy and Values
- 1.3 The Vision
- 1.4 Planning Principles
- 1.5 Overview
- 1.6 Legal Limitations



2.0 GOALS AND OBJECTIVES

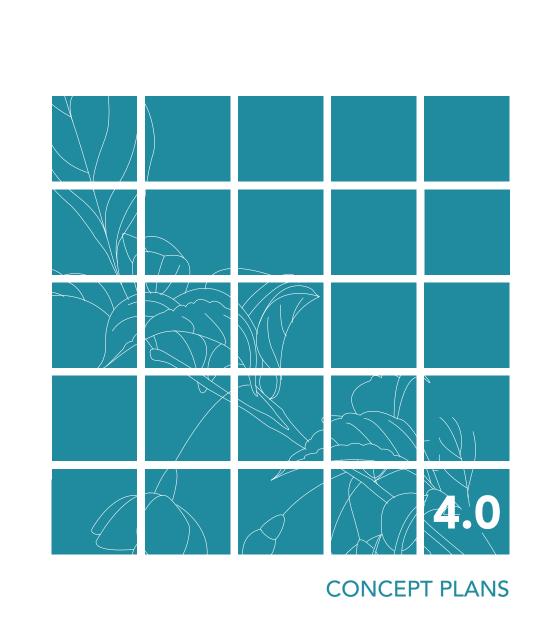
- 2.1 Design Objectives
- 2.2 Neighbourhood Sustainability





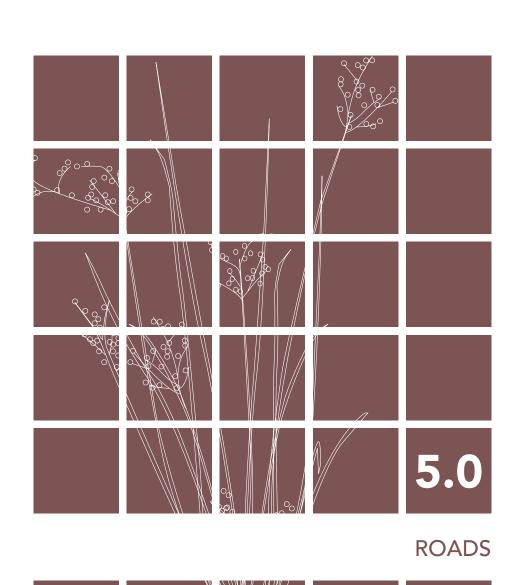
3.0 PUBLIC REALM

- 3.1 Public Realm Character:
- **West Coast Rain Forest**
- 3.2 Public Realm Elements
- 3.3 Parks + Open Space Design Principles
- 3.4 Village Heart
- 3.5 Park Areas
- 3.6 Open Space Areas
- 3.7 Trails + Walkways
- 3.8 Wetlands
- 3.9 Signage + Wayfinding
- 3.10 Landscape Materials
- 3.11 Site Furnishings
- 3.12 Lighting
- 3.13 Planting
- 3.14 Tree Management
- 3.15 Wildlife Corridors



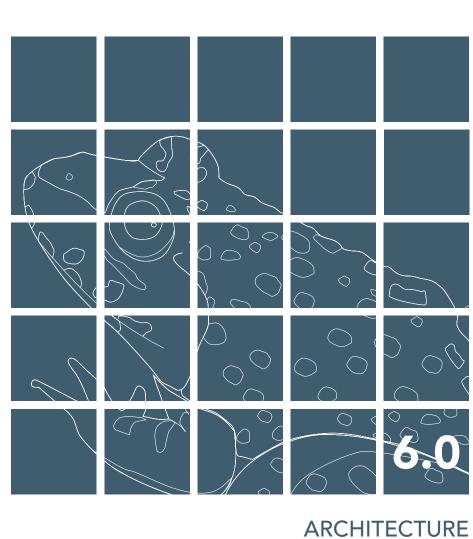
4.0 CONCEPT PLANS, SECTIONS, AND 3D **MODELS**

- 4.1 Public Interface with Developed
- **Parcel** 4.2 Views
- 4.3 Cross-sections
- 4.4 Three-Dimensional Models
- 4.5 Development Statistics



5.0 ROADS AND TRANSPORTATION

- 5.1 Street Character
- **5.2 Surrounding Roads**
- 5.3 Internal Roads
- **5.4 Sustainable Transportation Features**

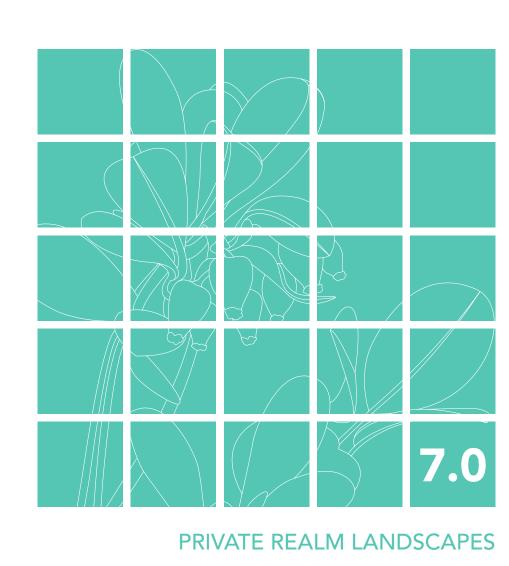






6.0 ARCHITECTURE

- **6.1 Design Principles**
- 6.2 Site Planning/Siting of Buildings
- 6.3 Architectural Form and Character
- 6.4 Village Centre
- 6.5 Multi-Family Residential Buildings
- 6.6 Community Centre / Daycare
- 6.7 Product/Unit Mix
- 6.8 Adaptable Units
- **6.9 Noise Guidelines**
- 6.10 Bird Friendly Design



7.0 PRIVATE REALM LANDSCAPES

- 7.1 Private Realm Character: West Coast Natural
- 7.2 Landscape Design Principles
- 7.3 LEED® / Sustainability
- 7.4 Public Front Entry Courts
- 7.5 Private Outdoor Spaces 7.6 Side Yard Privacy
- 7.8 Site Grading
- 7.9 Landscape Materials
- 7.10 Planting
- 7.11 Public-Private Interface
- 7.12 Irrigation
- 7.13 Landscape Features
- 7.14 Growing Medium Depth + Materials 7.15 Water Features

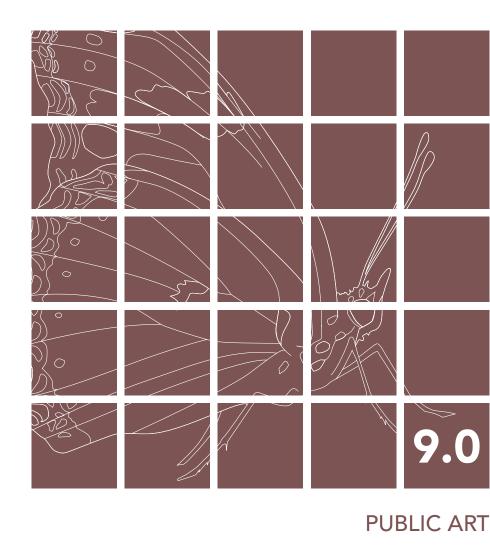
7.16 Rain Gardens and Bioswales

STORM WATER MANAGEMENT

8.0 STORM WATER MANAGEMENT

MAY 2016

- 8.1 Public Realm
- 8.2 Private Realm
- 8.3 Rain gardens and Bioswales





9.0 PUBLIC ART 9.1 Implementation

KEY CHANGES MADE TO DESIGN GUIDELINES

- » Design Guidelines have been enhanced and modified
- » Fire prevention measures, including forest floor treatment and fire hydrants, are being incorporated
- » Tower heights have been restricted to 18 storeys and 178'. They are slender: maximum floor area of 7,600 sf. Tower left on Parcel M to soften impact on University Boulevard
- » Wildlife corridor is maintained; wetlands and rain gardens will be used to clean and slow storm water run-off
- » Bird strike guidelines are added to the design guidelines
- » Community Centre parking is added in front of the Centre and below grade on Parcel A
- » The Community Building and Daycare are separated and on separate parcels to allow different ownership and usage
- » Noise guidelines and acceptable levels have been added to the by-law

Design Guidelines Chapter on Noise

Incorporate building and landscape lighting that will support clear and safe access to and around the building.

 No dedicated loading bay is required on this site.

 Garbage and recycling areas must be incorporated within the building.

6.7 PRODUCT/UNIT MIX

At the present time no decisions with respect to unit mix have been made given the fact that in due course, future detailed planning, construction and marketing of individual residential projects will be completed. As such, these future decisions will be influenced in part by the future developer, the real estate dynamics at the time of future marketing efforts, and the work done to plan the Block F site to allow for a wide range of residents.

The proposed unit mix of each building will vary based on the market dynamics and demand exhibited for earlier phases. A variety in unit sizes will ensure the individual

Smaller units may be located in the retail village including the below market and market rental housing components of the development.

Townhouse offerings in locations such as this remain popular and contribute to the supply of larger units appropriate for families. It is believed there is sufficient demand to support the proposed number of townhouses and possibly more in this geographic location. Lock-off suites will also be encouraged throughout and where practical.

the number of ground oriented units will be maximized and overall the residential units will define, animate and overlook streets and public spaces. As well, residential units for seniors, singles, and renters are encouraged.

6.8 ADAPTABLE UNITS

Residential units with the exceptions of townhomes will require a commitment to design certain units to the Province's Adaptable Dwelling Standards as a minimum

6.9 NOISE GUIDELINES

The main objective of this section of the Design
Guidelines is to provide the UEL Administration with
confidence that appropriate consideration will be given to
potential environmental noise impacts on the surrounding
community and on residents of new development during
the development of each of the proposed parcels in Block
F. These guidelines set out high-level requirements that
each developer must follow, grounded in data measured
on site as part of the Building Permit process.

Some of the noise sources that are covered by these
Design Guidelines include:

Building equipment
 Emergency generator testing
 Garbage collection

Restaurants, clubs, pubs, extended hours liquor establishments

The provisions of the guidelines are weighted for nighttime or weekend noise generation when the ambient noise levels are quieter and the receivers are more sensitive. Maximum noise levels are limited or prohibited for nighttime period and the allowable hours are reduced on weekends.

velopment
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velopment due to new
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» Emergency Generators

Heating Ventilating and Air-Conditioning (HVAC)
equipment such as:

Chillers

Air-Handling Units

Rooftop Units

Exhaust Fans

Cooling Towers

Condensing Units

as appropriate, both active and passive measures. As well, at the time of building permit applications, the developer shall, at its own cost, have the qualified according professional certify that the plans submitted include survive site specific noise mitigation measures referenced in the earlier report. In particular it shall be demonstrated that sufficient mitigation in the design of the building and it equipment will ensure that no equipment or other noise source shall make, cause or permit to be made or cause continuous sound the sound level of which:

Some of the typical equipment or other sources of noise for commercial construction includes:

*** Heating Ventilating and Air-Conditioning (HVAC) equipment such as:

*** Chillers

*** Air-Handling Units

*** Rooftop Units

*** Exhaust Fans

*** Dry Coolers

*** Cooling Towers

*** Condensing Units

*** Refrigeration Equipment

*** Summary of Acceptable Continuous Noise Limits

**Receiver Lo

**Quiet Intermediate Day Night Day

*** Quiet State Intermediate State S

Ills) to control noise.

PMENT IMPACTS

B are within the Block F Activity
D, these shall be considered diate Area, while all other Lots
Block F Quiet Area, as indicated Il development within these e requirements of this Section. ain conditions and subsequent t areas may also be created.

To a Development Permit, per form of a report and per for

GARBAGE AND REFUSAL IMPACTS

for garbage/refusal areas, the noise mitigation report prepared by the qualified professional should also outlined design and operational recommendations related to its storage and collection. In addition, no person involved in the collection of garbage/refuse shall make or cause or permit to be made or caused any noise to emanate from a motor vehicle while the vehicle is being used to collect refuse by means of a mechanical or hydraulic lift from a bulk refuse container in or adjacent to a resident

Limits (Decibels) in Block F

Per Location Area

Intermediate Activity

Day Night Day Night
60 55 60 55

60 55 65 55

MITIGATION

Mitigation for both residen or other sources of noise, oduct silencers, acoustic lou acoustic enclosures, selectial adequate use of vibration is louvers and grilles away from the mitigation measures show Development Permit and B through the provision of a repressional trained in acouncies measurements and missing measurements.

reference
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that
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te dare to limits.

Activity could potentially have an impact at the north
end of the site, on Lots A, B, C1, C2 and D. In addition,
temporary events could occur and include amplified sound
reproduction (movie night, concerts, etc.).

Subject to the satisfaction of the Manager of the
University Endowment Lands, and on a case by case
basis, temporary events which generate noise may be
approved as a temporary event area.

Another potentially disturbing noise source could be from
the activity at the loading dock at the new food store.

Detailed noise propagation modelling will be

and adequately control noise emissions towards the residential building across Toronto Street.

Potential noise from commercial activities is also possible source of noise. The detailed design of the venue should take into account the noise limits outlined in these Design

PACTS ON NEW BUILDING INTERIORS

development permit application for dwelling uses all require evidence in the form of a report and commendations prepared by persons trained in oustics and current techniques of noise measurements monstrating that the noise levels inside those portions the dwelling units listed below shall not exceed the ise levels expressed in decibels set opposite such ritions for the dwelling units. The noise level is the

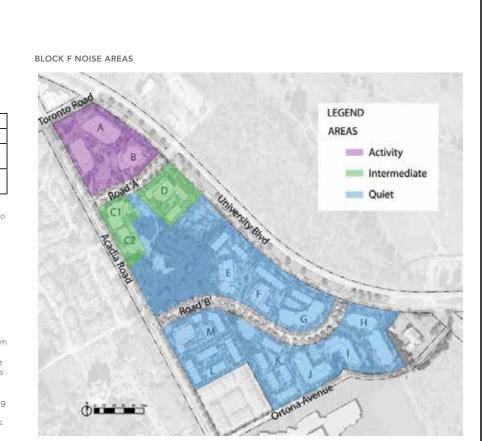
equipment, barriers, ets, ets, enent, eation of as, etc.

It of the dissions, qualified hingues of the minimum sound isolation requirements of the minimum sound isolation requirements of the markets.

minimum sound isolation requirements of the Vancouver Coastal Health Authority are met in Lot A and B between the commercial premises and the residential units above.

d

» This will require the submission of a letter from an acoustical consultant confirming that the development permit drawings show a minimum STC 55 construction between the commercial and residential components of the building, or a minim 0.15 metre solid concrete slab shall be specified or the drawings. Where music, recorded or live, may I a major activity in the commercial premises, submireport from an acoustical consultant recommending minimum STC 60 construction between the commercial and residential components and advists the required control of music levels to satisfy the



Design Guidelines Chapter on Bird Friendly Design

6.10 BIRD FRIENDLY DESIGN

These guidelines are intended to support the design and implementation of a bird friendly environment throughout the Block F development. By enhancing bird habitat on public and private lands, the Block F development can continue to be a safe place for birds while a greener, more livable city is created for people. The focus of the guidelines is on the newly created landscape spaces, recognizing that the development retains a significant area

recognizing that the development retains a significant are of mature habitat that will be augmented with additional landscaping including street trees along the streets and along with wildlife corridors.

General principles for landscaping include:

** Establish habitat features like mature trees, native fruit bearing shrubs and freshwater ponds and

Use street and park trees to create a continuous forest canopy for birds.

 Prioritize greening along quiet streets with low traffic volumes and speeds, and avoid planting shrubs adjacent to highways and other high volume thoroughfares, due to the risk of increasing bird mortality resulting from vehicle collisions.

 Incorporate a mix of habitat types including:

wetlands throughout the urban landscape.

meadow and freshwater wetland,

 Increase vertical vegetation structure by creating layers: ground cover, shrub, understorey and canopy layers. Tall shrubs and sub canopy trees are particularly important.

 Conserve large trees and shrubs where space permits.

 Plant shade-tolerant native ground cover and shrub

plants within forest fragments to increase foraging and nesting opportunities for birds.

Plant native ground cover and shrub plants at the base of isolated trees to create islands of layered vegetation.

Plant vegetation in a stepped pattern, with large trees in the back, shrubs in the middle, and ground cover plants in the front.

Use a diversity of native plants that are appropriate for the soil and site-specific conditions.

foraging options for birds including: seeds, fruit, nuts and nectar

Incorporate plants with persistent fruits, plants that hold their fruit into the winter, for example, Pacific Crabapple, Evergreen Huckleberry and Highbush Cranberry.

Incorporate plants that attract insects for birds to feed on, for example, Red Alder, Pacific Willow and Scouler's Willow

Normalist Seed on, or example, Red Alder, Facilic Willow and Scouler's Willow

Incorporate plants with early flowering to ensure a reliable supply of nectar when migratory hummingbirds arrive in spring, for example, Salmonberry, Flowering Currant and Oregon Grape.

Provide sidewalks, boardwalks or trails to direct human circulation through or around sensitive habitat areas.

Where areas adjacent to sensitive habitat areas are designated for passive human recreation, such as birdwatching, or enjoying nature, ensure they are designed to limit access into or disturbance of the

Reduce light pollution. Install outdoor lighting only where it is necessary, for example along trails and streets.

Use International Dark-Sky Association Approved lighting fixtures for outdoor applications.

Interior Lobby greenery should be located well away from exterior windows.

New landscaping that may be attractive to birds should be located far enough from the building to reduce reflections in its glazed surfaces. Alternately, trees and shrubs can be planted close to a building façade if they are sufficiently close to the building—within a metre—that their reflections will be obscured, and the velocity of departing birds will be slow enough to limit the fatality of any strikes.

Select a mix of native plants that provide a variety of foraging options for birds including: seeds, fruit, nuts and nectar
 Incorporate plants with persistent fruits, plants that held the form of the part of

General principles for buildings include:

» Discourage free-standing clear glass walls (landscape elements), glass corners, greenhouses, balconies or patios with unbroken glazed segments, and bus shelters made of clear glass.

» Interrupt any reflective glass by increasing the density of external visual markers including spandrel panels and mullions. Strategies can include adapted fenestration patterns, external or internal blinds, shutters, sunshades, grilles, louvers, embedded glass, or artwork.

» Design corner windows, glass railings, and other similar features to reduce the appearance of clear passage to sky or vegetation. These areas should have clearly defined edges, in either opaque

screens, drapes, sunshades or blinds to increase the opacity of clear glass and dampen reflections.

** Avoid interior landscaping near windows.

**Down lighting should be selected over up lighting and floodlighting should be avoided.

**Ventilation grates and drains should have openings no larger than 2 by 2 cm or 1 by 4 cm to ensure that birds cannot be trapped within.

**Cap or screen the ends of all open pipes, large and small, so that birds do not become entrapped when investigating these openings for nesting opportunities.

Design Guidelines Chapter on Building Height

6.5.2 Building Entries
Enhance the transition from public spaces to front doors with attractive hard and soft landscaping, water features and similar. (Refer as well to Section 6.)

The front doors to lobbies of buildings should be readily visible from the street or internal access road. Provide generous covered areas at building entries.
 Provide individual townhouse and ground floor apartment entries directly from streets and public greenways where indicated on the Concent Plans

Use gates, landscaping and fencing to define the separation between public and private
 Avoid large areas of hard surfaces in front of buildings

6.5.3 Highrises/Highrise Sites

Townhouses are to be located at the ground level of all highrise parce. The locations of these townhouses are indicated on the Concept Plan and are intended to provide a finely-textured pedestrian scale for the community, along with private outdoor spaces that provide animation.

A slender profile of highrises is encouraged. The maximum floor plate size of any highrise should be 706 square metres or less
 Stepping and/or other architectural initiatives to reduce the overa mass of the highrise are encouraged
 Provide clear and open views from public street or interior lane to the lobby and front door of the highrise

Integrate entry lobbies with views through to forest/water/courtyards

Taller lobby spaces that permit a blending of outdoor to indoor are encouraged

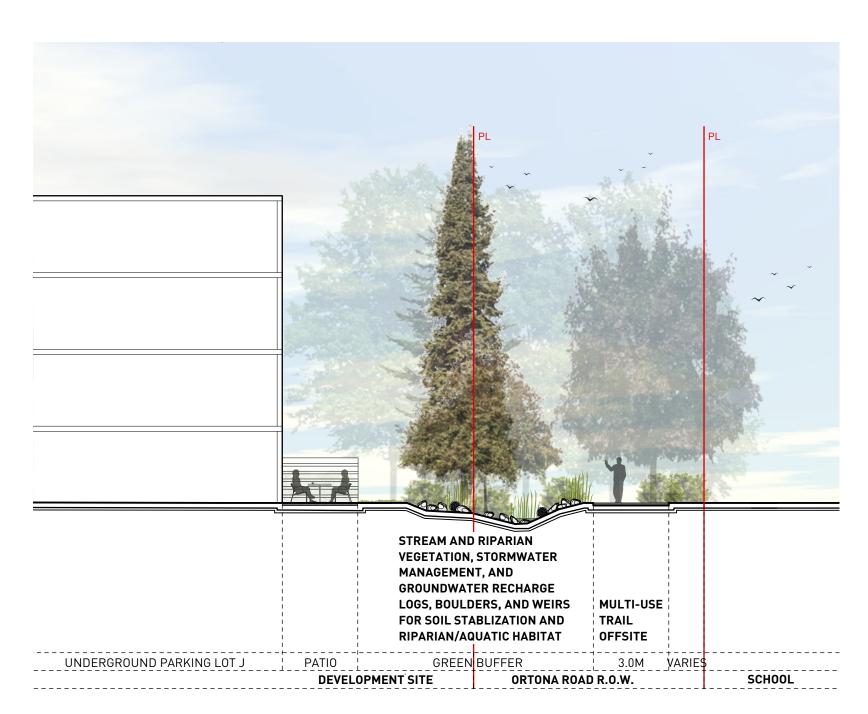
The tops of highrises should be part of the design of the building and not merely a mechanical appendage at the top

Screening and other architectural elements above the habitable

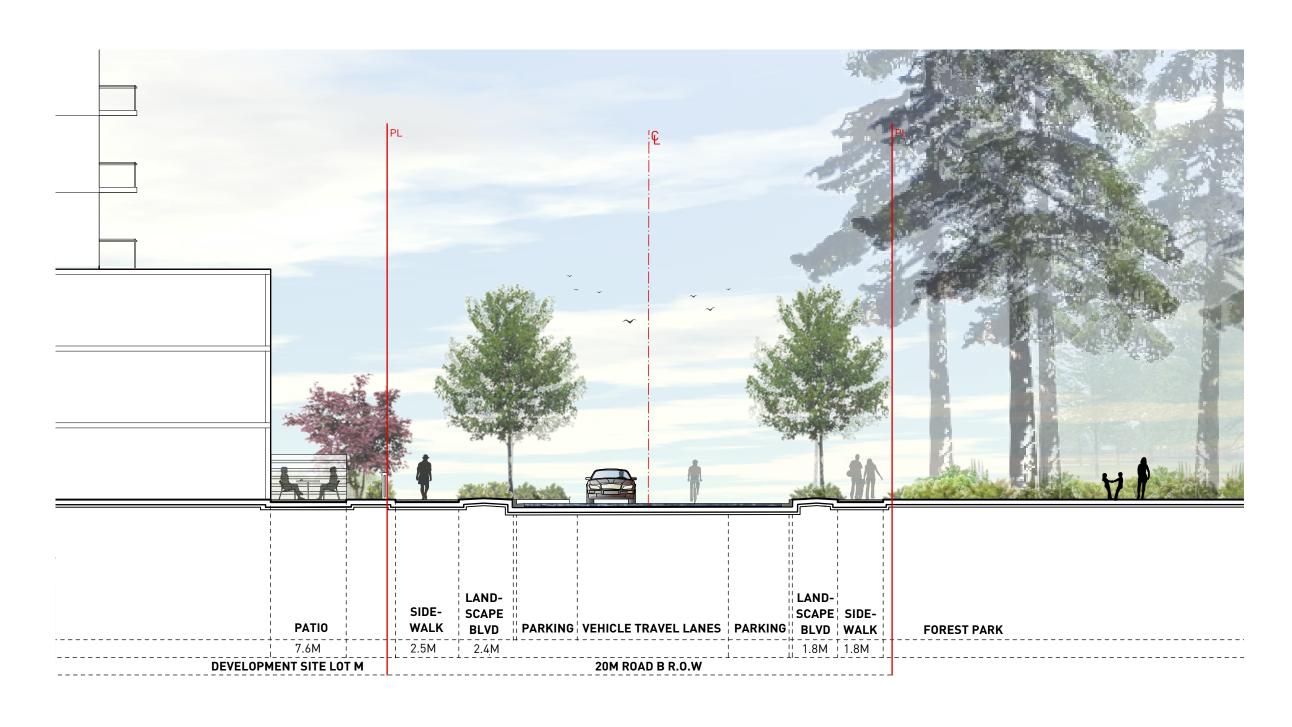




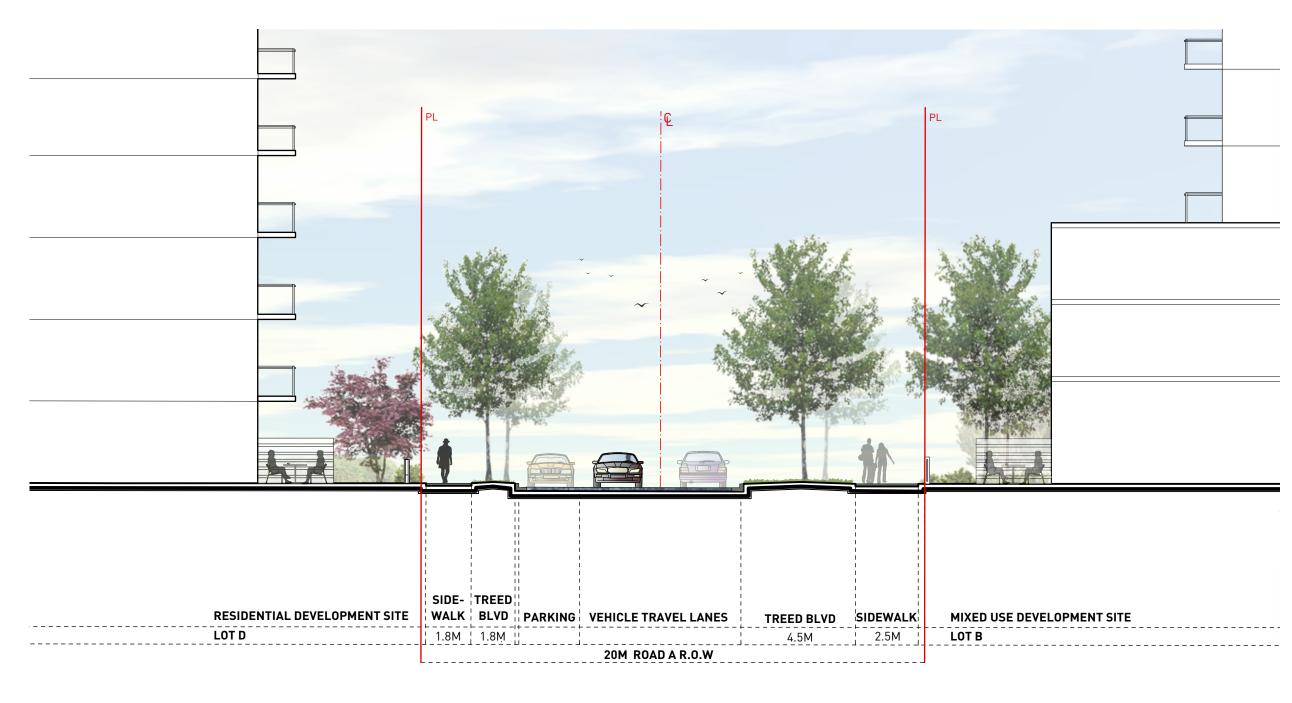




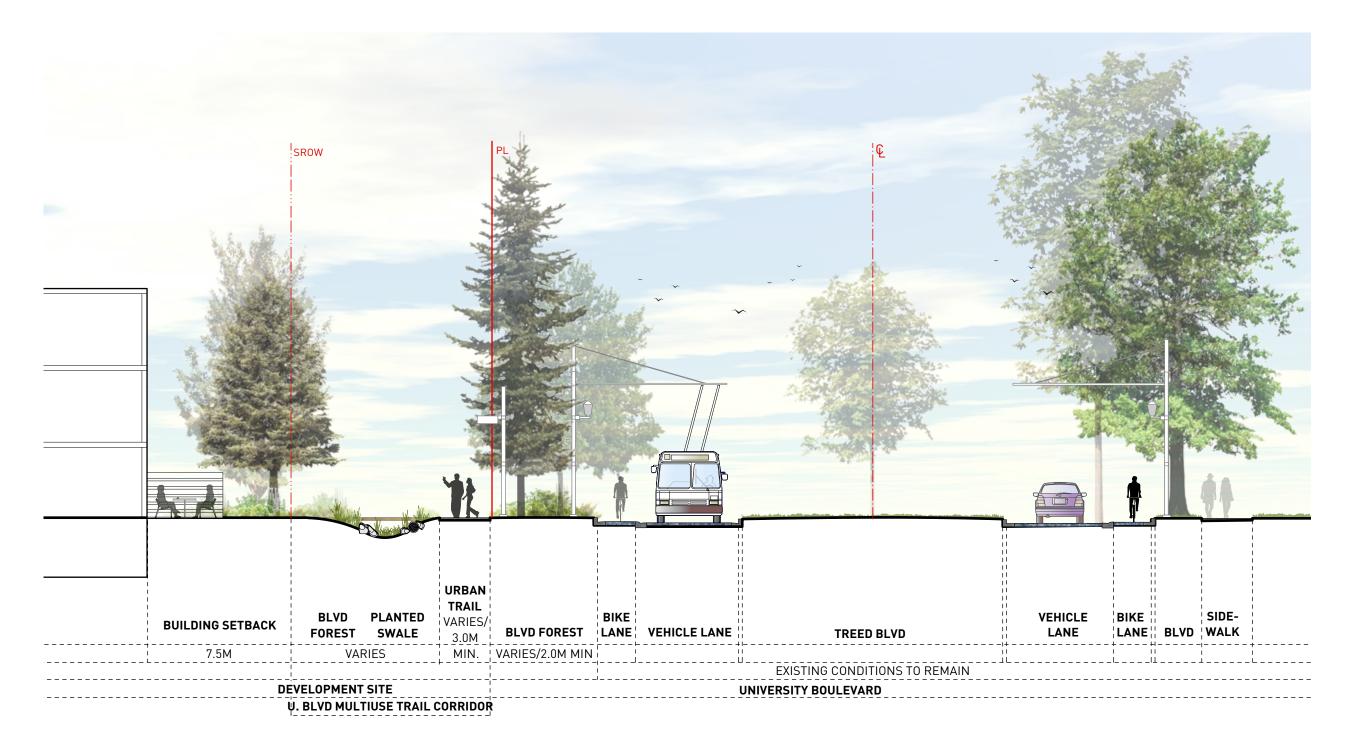
Section 1



Section 3

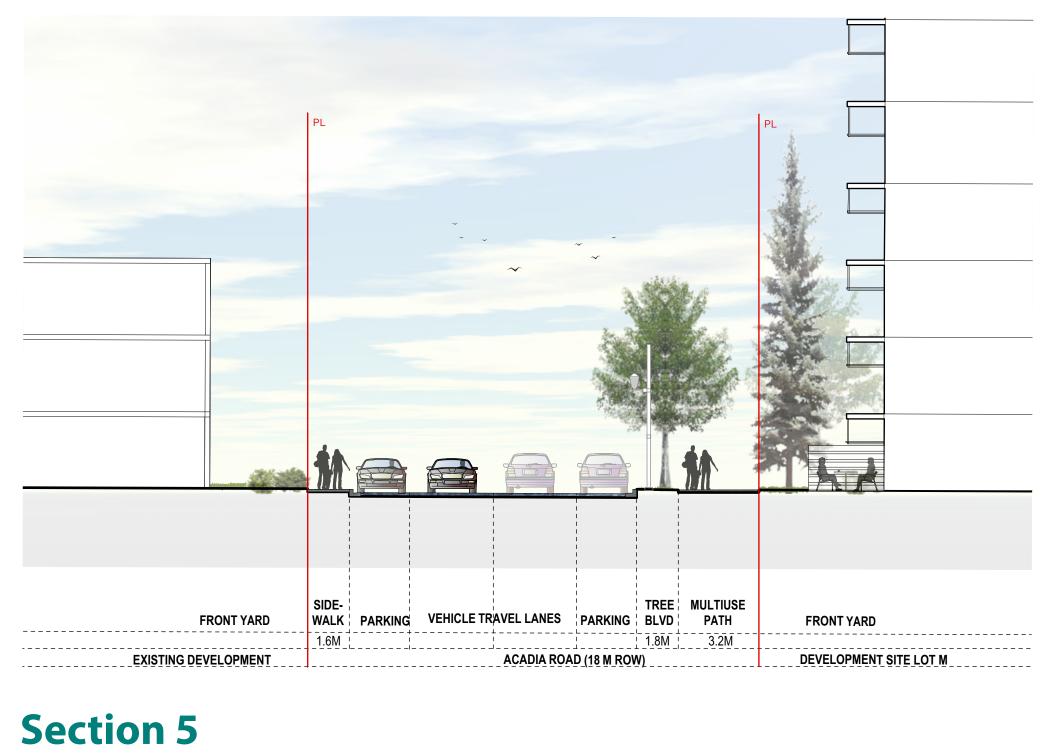


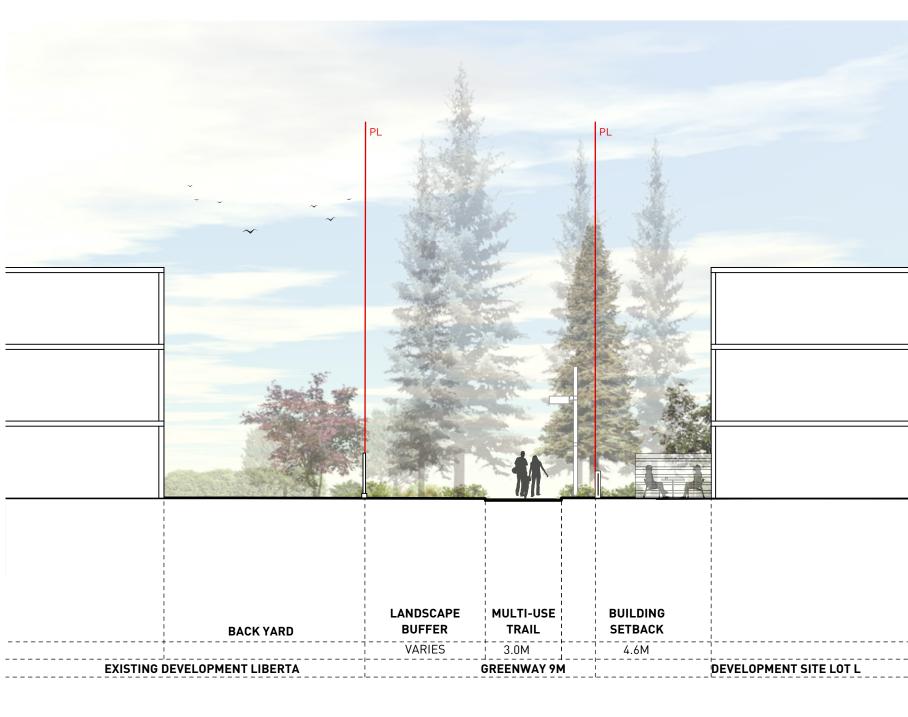
Section 2



Section 4

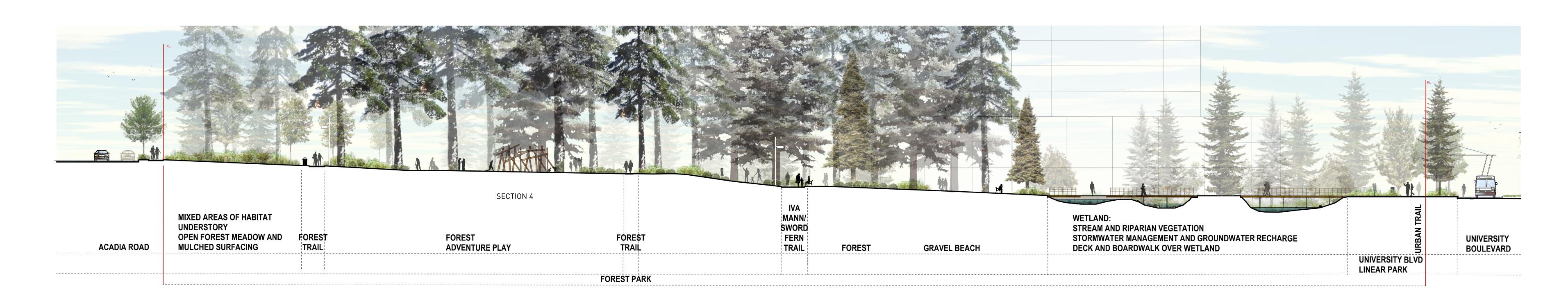






Section 6





Section 7

