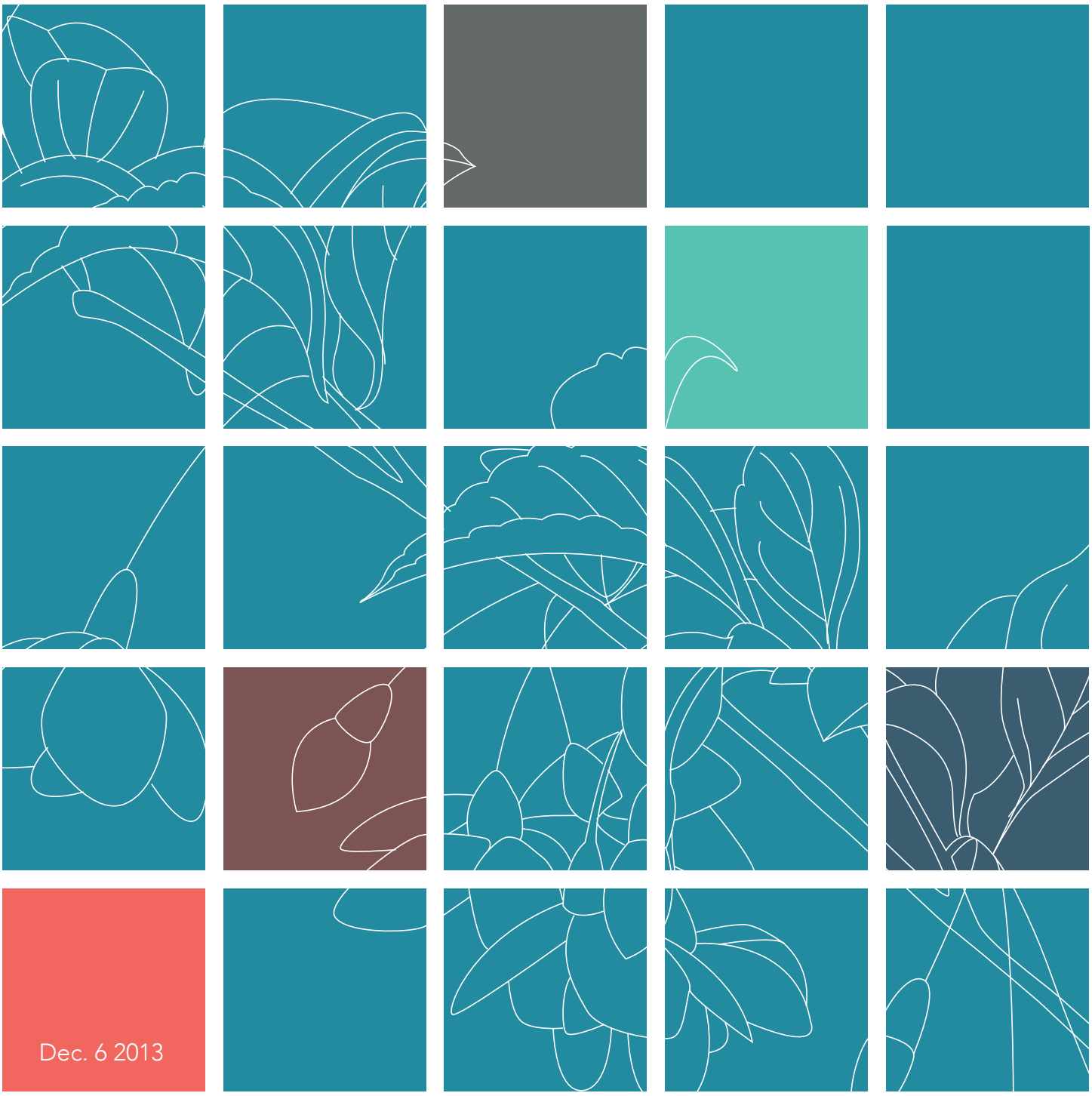

Dec. 6 2013

UEL BLOCK F
Design Guidelines

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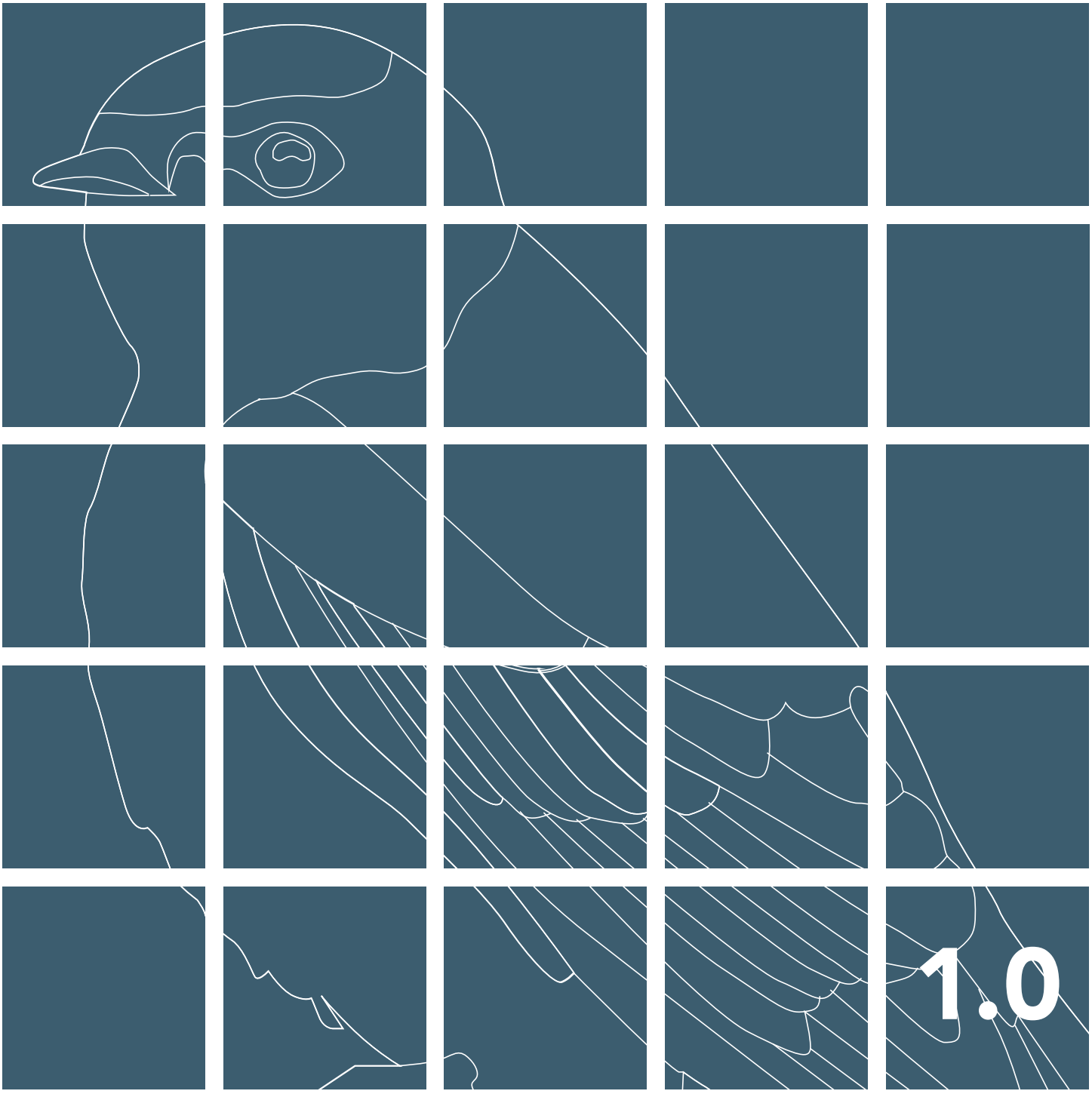


1.0

INTRODUCTION

1.0 INTRODUCTION

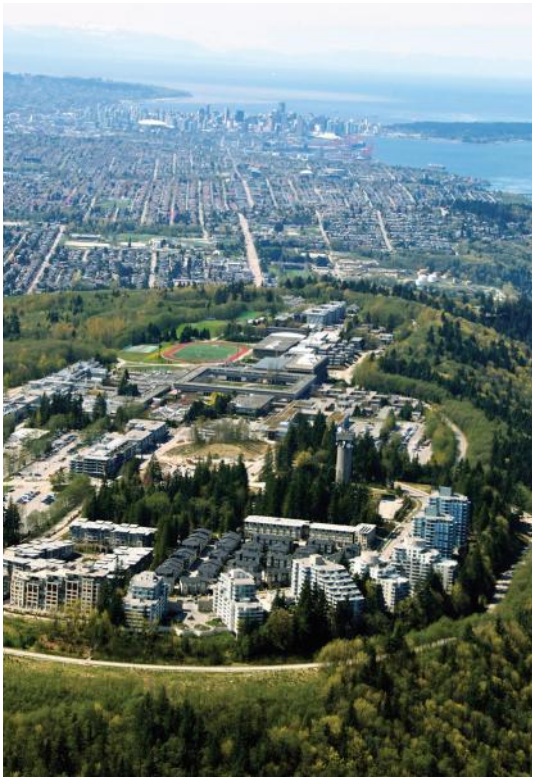
1.1 THE MUSQUEAM NATION

Musqueam culture today is a blend of the traditional and the modern. We are not people living out of time, nor a relic of the past encapsulated in history. Like any other Nation, we are living, breathing people whose culture continues to adapt and grow; we bring forth a proud heritage as we navigate the changes to our surroundings. The values of our ancestors are still our values today. We are keepers of the river, keepers of the lands, and waters that continue to sustain us. We intend to care for our territory so that our future generations can enjoy the abundance of our predecessors. Perhaps more than ever, we value community.

The rich and dynamic culture of the Musqueam people is seen both in early history and in more recent times as Musqueam adapted to and adopted outside influences. Integrating aesthetic, practical, and essential elements of Musqueam culture into modern building design and construction should contribute to an impressive and dramatic facility that reflects the complexity and sophistication of the Musqueam people.

Musqueam people traditionally lived in harmony with their natural surroundings and all living creatures. The site should facilitate a living environment - one that acts as habitat for birds, small mammals, insects, and marine life indigenous to the region. The western red cedar is integral to both the landscape of the Musqueam people and their culture. A landscape design that includes large trees should greatly contribute to the overall aesthetic and authenticity of the site.

(Extract from *Musqueam - A Living Culture,* 2006 by Musqueam Indian Band)



UniverCity: A Mxied-use Sustainable Master Planned Community at Simon Fraser University

1.2 THE VISION

The vision for Block F is to create a mixed-use sustainable community that is integrated into the University Endowment Lands and University of British Columbia Lands seamlessly. The project is intended to be a showcase of sustainable development that the Musqueam Nation can refer to that demonstrates respect for the land, the waters, and the community.

Block F will provide a variety of housing types for a wide variety of future residents. The character of the community is residential housing, village retail, and community amenities focused around a great amenity of mature forest, wetlands, and greenway trail system.

The overall development will have a Contemporary West Coast look that demonstrates green building and green infrastructure in an innovative and integrated way.

1.3 PLANNING PRINCIPLES

Musqueam has been widely recognized nationally and provincially for their leading edge community planning and development projects. The following Planning Principles reflect their approach to community building:

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

1.4 OVERVIEW

Block F is a special place: the site itself and the area that surrounds it; its history and its current condition; its future uses and the contribution it will make to the larger community. It is expected that the design of the architecture and landscape architecture will honour that special quality.

This is an urban development, but the presence of the surrounding Pacific Spirit Park and University Golf Course, and the integration of a forest park of mature trees and a wetland area within the site give it a bucolic nature. The architecture and landscape should reflect that through the selection of good and honest materials, the integration of people with the natural and built environment, and the design of buildings that open up to the sun and shelter from the rain.

The general approach to the design of buildings and the landscape is to be warmly contemporary, with an integration of natural materials and colours to respond to the forested context in the adjacent area. It should be of its time, and have a lasting quality.

The design guidelines provide a framework for future development, in recognition that the quality of the developer and the quality of the design team they hire will be admirable.

Aerial View of Existing Site

Existing Wetland on Site

2.0

GOALS AND OBJECTIVES

2.0 GOALS AND OBJECTIVES

2.1 DESIGN OBJECTIVES

Following from the Planning Principles, the Design Objectives guided the creation of the design and the crafting of the Rezoning Document and Design Guidelines.

Preservation + 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 uses

Integration + 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
- Consider providing larger residential units to accommodate families or existing residents looking to downsize

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

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

2.2 NEIGHBOURHOOD / SUSTAINABILITY

Musqueam has been widely recognized nationally and provincially for their leading edge community planning and development projects. To further their commitment to respecting the land, Block F in the University Endowment Lands is intended to be developed in parallel with the UBC REAP Principles and Requirements. All REAP principles should be considered to inspire infrastructure, buildings, and landscape development progresses.

The following are the principles to date that have lead the planning, design, and guideline process. These should be reflected in all aspects of project planning and build out.

Planning Principles

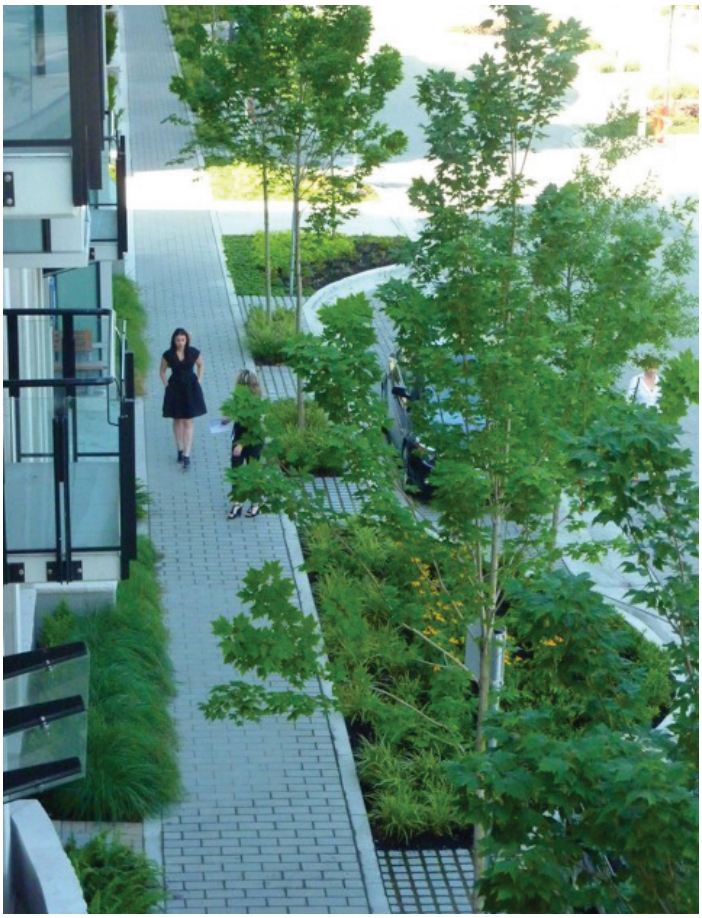
- Musqueam Sustainability: "Our cultural values are founded on stewardship of the natural world and we have walked the talk of sustainability for a long, long time"
- Community integration and respect: Good relationships and good neighbours
- Housing Diversity: A variety of housing types for a variety of needs; a mixed community
- Accessible open space: Creating accessible open space to meet the diverse needs of the present and future community
- Responsible Development: Economically sound, environmentally progressive, socially respectful
- Building a community heart: Creating a neighbourhood focus and a centre of activity and services for both future residents of Block F and the UEL community

General Site

- The project proposes Responsible Development
  - Economically sound, environmentally progressive, and socially responsible
- Site design should build a community heart
  - Create a neighbourhood focus and a centre activity and services for both future residents of Block F and the UEL community

Neighbourhood Pattern and Design

- Site design respects natural features such as forest and wetlands
  - Minimize site area dedicated to vehicular traffic in order to maximize open space and green space
- Site design respects and connects to surrounding neighbourhood



Southeast False Creek Green Street

Southeast False Creek Hinge Park

Sage at the University of British Columbia

- Provide strong connection to neighbourhood school/daycare
- Respect pedestrian, vehicular, and cycling network
- Encourage Future Transit Station at Commercial Village Node

» Site design provides a mixed use compact community
- Creating a neighbourhood focus / heart and a centre of activity and services for both future residents of Block F and the UEL community
- Provide some short-term at-grade parking but situate majority of parking in below grade parking structures in order to maximize open space and minimize impervious paving
- Design provides a variety of housing types for a variety of needs

» Site design preserves connections to Pacific Spirit Park and retains existing features such as trails
- Improve the quality of, and sense of safety on the new on-site trails while matching the experience of the off-site trails
- Maintain on-site trailheads in close proximity to existing off-site trailheads

» Site design encourages walkable streets and trail network
- Create "green streets" with treed boulevards, landscape bump-outs, integrated rainwater management facilities and high quality pedestrian experience

» Site Design creates an accessible open space approach to meet the diverse needs of the present and future community

Green Infrastructure + Building

» Storm water management should be embedded in site design and site fabric
- Maintain pre-development off-site flow rates at the existing culvert to minimize impact to off-site wetlands and habitat
- Design should maintain and enhance wetland in the vicinity of the existing culvert to protect the off-site wetlands, treat on-site rainwater, create habitat and be a showcase gateway feature for the new community

» Maintain, to the degree possible, the mature stand of evergreen trees in the park

» Provide two primary trail routes through the site; one north-south route and one east-west route

» Ensure development respects frontages on University Blvd, Toronto and Acadia Road

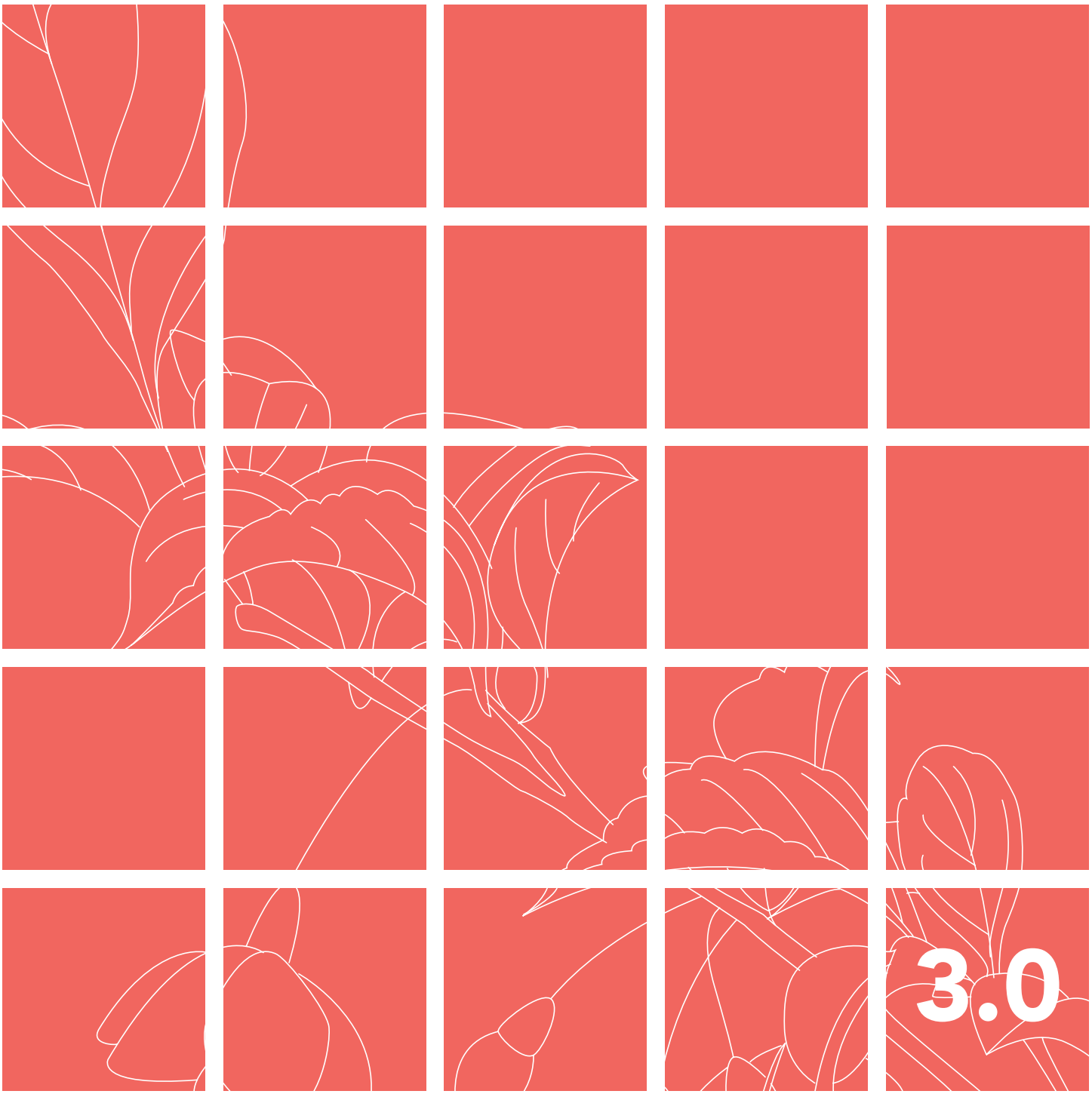
» Minimize private open space on development parcels in favour of functional publicly accessible open space for community use

» Explore options to integrate the new community into the surrounding community with emphasis on pedestrian and cycling routes, while also providing vehicular linkages

» Create a walkable community through quality of public realm and opportunity to walk and cycle to preferred destinations

» Open space areas should be water efficient and enhance / propose natural vegetation to encourage songbirds and their habitat
- Explore the use of pervious paving within the road and on-street parking to minimize surface runoff and sediment transport

Dockside Green



PUBLIC REALM

SALMON STREAM

3.0 PUBLIC REALM

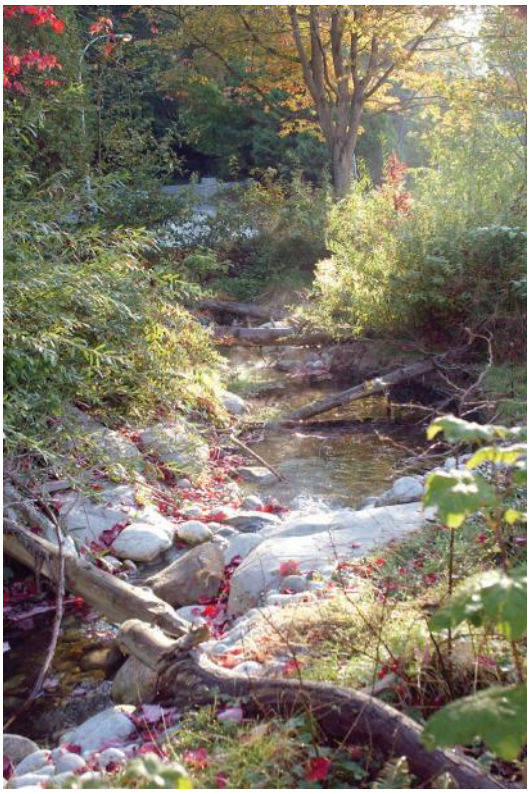
3.1 PUBLIC REALM CHARACTER: WEST COAST RAIN FOREST

The project has been designed around the strong and unique character of the mature west coast rain forest that exists and will be preserved on the project site. Public realm features and elements should work with the character and nature of the forest in both a contemporary and natural manner. The west coast rain forest character should be most prominent in the central park however opportunities to use and create this character in the general public realm are to be explored. The character of the public realm should reflect the Musqueam's respect for the land, and their love and respect for the creeks and streams, which is tied to the importance of fish habitat to their culture.

3.2 PUBLIC REALM ELEMENTS

The public realm of Block F is made of several distinct typologies that together will help create the physical fabric that holds this development together as a whole community. Generally focused on the existing natural amenities of the site it also includes urban areas and edges. The public realm elements are:

- Park Space
- Open Space
- Trails and Walkways
- Wetlands



Salmon Stream

3.3 PARKS AND OPEN SPACE DESIGN PRINCIPLES

The parks and open spaces should serve the resident's needs by providing recreational, social, and healthy environmentally sound and sustainable spaces throughout the entire development. The parks and open spaces should reflect the desire and need for residents to be outdoors throughout all seasons on a regular basis. The spaces should also recognize the wide variety of users and specifically a population that is focused on healthy living.

- Organize the community around the parks and open space areas
- Focus the parks and open spaces around, and integrate with, the existing natural features, topography and vegetation
- Ensure resident, wildlife habitat and plant ecology connectivity throughout the site, to the surrounding neighbourhood and to Pacific Spirit Park
- Provide opportunities for a variety of social, active and passive outdoor spaces to support the intended wide range of residents
- Ensure there are all-weather and all-season uses and places
- Create a flexible urban open space available for all residents of Block F and the surrounding community that can support a variety of activities
- Provide opportunities for educational elements related to the site, natural ecology and Musqueam culture

3.4 PARK AREAS

There are two park areas in Block F:

- Dedicated Forest Park
- Community Green

These parks should be different in character and function. They should be connected to each other through the Block F trail system and an enhanced raised pedestrian connection across Road B to create the sense of a contiguous park space.

3.4.1 Forest Park

Forest Park is in the centre of the site at the stand of existing west coast forest. A combination of areas, some with retained understory vegetation and others with cleared understory, should be explored to provide space for the resident activities while maintaining functional ecological and habitat areas. The limit of the Forest Park has in part been defined by the location of existing wind firm trees that have been surveyed and reviewed by the project arborist. The two existing trails, Sword Fern and Fairview, which cross through the forest, should be re-established. The

park should provide opportunities for all age groups and activity levels and contain a variety of active and passive recreation facilities. These may include:

- Natural adventure play areas
- Rain shelters
- Seating
- Lighting
- Natural, informal exercise equipment/loop
- Boardwalks
- Rainwater management

3.4.2 Community Green

Community Green on the southeast side of Road B is planned to include a community clubhouse and daycare. With an open area anchored by perimeter trees and plantings this park should offer different uses than the Forest Park. The Sword Fern trail crosses the park on the south. Also supporting active and passive activities for a range of ages, the park may include:

- Open lawn area
- Seating
- Lighting
- Adventure play area
- Rainwater management

3.5 OPEN SPACE AREAS

There are four main open space areas:

- Urban Village Square
- Greenways
- Public access easements over development parcels
- Enhanced Road Boulevards

These open space areas will be different in character and function. They should be connected to each other through the Block F trail system and an enhanced raised pedestrian connection across Road B to create the sense of a contiguous park space.

3.5.1 Urban Village Square

The Urban Village Square should be a publicly accessible plaza located at the north corner of Block F by the retail and hotel buildings. Defined by hard surfacing punctuated with large planters with "Forest Remnant" character it should be a flexible space capable of supporting a range of programming. The parking lot should be treated in such a way as to read as part of the plaza and be closed to support larger community events. The Sword Fern trail should cross the plaza to the community trailhead at the intersection of Toronto Street and University Boulevard. This trail/walkway connection to the Forest Park should be achieved by an enhanced raised pedestrian connection matching the one at the Community Green park.

3.5.2 Greenways

Greenways are used to provide wide pedestrian trail/walkway connections across the project including not only the trail/walkway but also significant planting. There is a Greenway connecting the Community Green southward to the Ortona Right of Way and the new school. There is also a Greenway along the University Boulevard frontage that combines the right of way and a public easement for right of passage.

3.5.3 Public Access Easements

To improve overall walkability and permeability there are public access easements planned on several parcels. These would have moderate planting with enhanced walkways including lighting connecting to municipal sidewalks or internal trail/walkways. In character these should look and feel very similar to the larger trail system of Block F.

3.5.4 Enhanced Road Boulevards

The boulevards within the road right-of-way for Road A and B should be enhanced in several ways. These should include:

- A widened sidewalk on one side of each street
- Landscape bump outs with naturalized plantings at crossings, driveways, and ends of on-street parking bays
- Significant street tree plantings

3.6 TRAILS + WALKWAYS

There are a variety of trail and walkway experiences proposed in the Block F Plan and they should continue to link with the Pacific Spirit Park established trails. They should cross the site in urban areas, through greenways, mature forest areas, and over wetlands and in all cases should reflect the character of the setting. With improved surfacing and lighting they should better serve the wider resident population and provide safe pedestrian and cyclist connections through the new community. The trail system should be open and accessible to the public 24 hours a day to improve connectivity and pedestrian safety. The trail requirements are:

- Should be less than 5% slope and universally accessible
- Should be lit with LED pedestrian lights for safety reasons
- The trail should vary in width with a minimum width of 1.2 m
- Provide benches, trash receptacles, signage, and interpretive material at strategic points
- Existing street trees should be retained and protected where feasible; additional native and adaptive street trees should be planted to reinforce the natural transition edge from the stormwater feature to the park-like roadway.
- Should have a planted landscape treatment

3.6.1 Iva Mann/Sword Fern Trail

This trail through the mature forest is a re-establishment of the Iva Mann / Sword Fern Trail that runs north-south

through the site and will extend from the new school at Ortona Avenue contiguously to the intersection of Toronto Street and University Boulevard. Other trails will be developed through the forest in addition to the main trail, however these trails will play a minor role, yet connect the residents and users to areas of the forest and to connections to the surrounding neighbourhood.

3.6.1.1 Main Forest Trail

This trail should be a granular paved material such as crushed limestone that will compact and is easily accessible. The character of the path wants to be natural in character yet clearly designed as a safe, inviting, and accessible. The trail requirements are:

- Should be less than 5% slope
- Should be lit with LED Pedestrian Pole lights
- Compacted limestone paving
- The trail will vary in width with a min. of 2.4 m wide
- Provide benches, trash receptacles, signage, and interpretive material at strategic points

3.6.1.2 Minor Forest Trails

The trail requirements are:

- Should be less than 5% slope
- Bark mulch paving
- The trail will vary in width with a min. of 1.2 m wide

3.6.2 Fairview Trail

This trail through the mature forest is a re-establishment of the existing trail and bisects the Forest Park in an east-direction. It is envisioned that the future development of the Acadia lands will provide a trail extension directly across Acadia to the south. It will connect across the Wetland Trail to the north discussed below. The trail requirements are the same as the Major Forest Trail noted above.

3.6.3 University Boulevard Trail

The existing University sidewalk on the west side will be replaced with new curb and gutter and a meandering paved trail complete with lighting through a new evergreen and deciduous forest area creating a unique experience along University Boulevard while providing

an improved natural view from University Boulevard. The Greenway Trail will follow the east perimeter of the project site area that serves as a stormwater management feature. The trail requirements are:

- Should be less than 5% slope and universally accessible
- Should be lit with LED pedestrian lights for safety reasons
- CIP concrete with bridging elements where required over stormwater feature
- A minimum of 1.8m in width
- LED Street Lighting should be placed within the boulevard area
- Area should be planted with native and adaptive plant species
- Existing street trees should be retained and protected; additional native and adaptive street trees should be planted to reinforce the natural transition edge from the stormwater feature to the park-like roadway.
- Provide benches, trash receptacles, signage, and interpretive material at strategic points.

3.6.4 Wetland Trail

The Wetland trail will be a continuation of the Fairview Trail that extends east-west from Acadia Road to University Boulevard through the Forest. The trail connects directly to the Iva Mann / Sword Fern Trail. This trail will be predominantly a boardwalk extending through the wetland

Harmony Pathway, Simon Fraser UniverCity

Greenway, Arbutus Walk

environment. Along the trail areas for overlook and small gatherings should be provided to view the wetland. The trail requirements are:

- Should be less than 5% slope and universally accessible
- Should be lit with LED lights for safety reasons
- Boardwalk should be durable and well built
- All plant material should be native and relate to the wetland habitat

3.6.5 Trail Heads

Trail heads should be strategically placed and designed in conjunction with the Pacific Spirit Park Society. Trail heads should have signage, trash receptacles, map holders, benches, interpretation, and other trail amenities.

3.6.6 Public Right of Ways

There are a number of public right of ways / trails between development parcels that are to encourage connectivity throughout the development. These trails are to remain open and unfenced. Front door connections to residential units on the development parcel are strongly encouraged. The trail requirements are:

- Should be less than 5% slope and universally accessible
- Can be a variety of paving material from granular to hard surface paving
- A minimum of 1.2m in width
- Should feel public and not private in character
- Should have a planted landscape treatment

3.7 WETLANDS

There are three distinct wetland typologies planned for Block F. These include bio-swales, rain gardens and a constructed wetland. All are tied to existing drainage patterns, are intended to moderate on site rainwater, and are connected through surface flow to off-site creeks. As such they require a high degree of ecological integration through materiality and planting.

3.7.1 University Boulevard / Salish Creek

The University Boulevard frontage has bioswale along its length from north to south. North of Road B it drains to the constructed wetland. It is to be treated in a naturalized manner with an organically curved form and native wetland plantings. Residential units facing University Boulevard will require bridge elements to cross over to the trail/walkway.

The wetland will be a visual center point to the community along University Boulevard. It is a re-establishment of the emerging wetland existing on site. With improved ecological function and ability to retain and detain on-site rainwater runoff it will have a naturalized character with a broad diversity of native wetland plants. The planting should flow into the forest character on the west at the retained forest edge. The character of the wetland is to be carried into the adjacent development parcels to create a seamless transition between the two uses. The outflow of the wetland should connect to a new culvert under the street crossing to the north and feed into Salish Creek as it currently does.

The bio-swale and wetland requirements are:

- West Coast Rain Forest character
- Native wetland planting with upper riparian planting
- Naturalized organic forms, including islands, reflective of similar natural systems
- Be visually integrated into the adjacent development parcels
- Manage off-site rainwater flows as closely to pre-development rates as possible
- Should use controlled orifices and other means to control off-site flow rates

3.7.2 East Drainage Swale

The University Boulevard bioswale south of Road B should drain along the property line to the existing east drainage swale culvert under the Ortona Road right-of-way. A rain garden is proposed to retain and detain rainwater runoff from this side of the site on the development parcel. The bio-swale and rain garden requirements are:

- West Coast Rain Forest character
- Native wetland planting with upper riparian planting
- Naturalized organic forms, including islands, reflective of similar natural systems
- Be visually integrated into the adjacent development parcels
- Manage off-site rainwater flows as closely to pre-development rates as possible

3.8 SIGNAGE + WAYFINDING

Block F is closely integrated with the trails of the Pacific Spirit Park and as such wayfinding signage at the trailheads, trail intersections and in the public park should include PSP park signage including tail name and statistics. At select areas Block F scale maps should be provided. They may include key neighbourhood facilities such as the Community Building, retail area, public transit, routes to UBC. A community board element should be considered at the Urban Village Square and Community Green. It is planned that the Community Association would manage this. The signs will be designed in keeping with the overall design theme of the West Coast Rainforest.

Opportunities to include Musqueam, ecological and sustainability content should be explored.

Vancouver Pacific Spirit Park

Vancouver Pacific Spirit Park

Chugach National Forest Boardwalk, Alaska

3.9 LANDSCAPE MATERIALS

A select list of materials will be developed for use in all of the public realm areas in order to create a unity among these spaces and a sense of the Block F neighbourhood. These materials should fit into the West Coast Rainforest/Natural design theme. Durable, sustainable and locally sourced materials should be the preferred choices. These materials include:

- Locally appropriate stone and boulders
- Woody material such as logs, preferably sourced from site, for use in soft landscape areas
- Heavy timber frames for outdoor structures
- Driftwood

Various paving materials should be used with a hierarchy of scale and use to help create the sense of unity within the public realm. Consideration will be given to permeable paving where drainage to adjacent soft landscape cannot be achieved. Typical paving materials should include:

- Cast-in-place concrete
- Unit pavers and permeable unit pavers
- Aggregate (crushed granite etc)
- Wood decking for boardwalks
- Asphalt

Typical construction materials should also include:

- Cast-in-place concrete
- Modular concrete block walls
- Wood cribbing
- Metalwork. Where metal is used its assembly methods and end of functional lifecycle deconstruction and recycling/upcycling should be considered.

3.10 SITE FURNISHINGS

A kit of site furnishings will be selected that is in keeping with the overall design theme and will be applied throughout the Block F public realm. Preference will be given to products that are manufactured from sustainably sourced and/or with recycled content, are recyclable/upcyclable at the end of their functional lifecycle, and are durable in the west coast environment. This kit of site furniture should include:

- Seating options
- Bike racks (single and multiple)
- Bollards
- Refuse and recycling containers

3.11 LIGHTING

As with the other public realm elements, the lighting fixtures will seek to create a unity through the Block F neighbourhood. There should be a distinct hierarchy of lighting ranging from street/vehicle lighting to neighbourhood scale pedestrian lighting and lower level pedestrian lighting in smaller scale spaces such as around the Community Building. Lighting should be provided for all key pedestrian routes including the main trails through the Forest Park in order to ensure walkability, neighbourhood permeability and safety at all times of the day and seasons of the year. Preference will be given to high efficiency lighting fixtures with high cutoff rates (to reduce light trespass) and that are dark sky compliant.

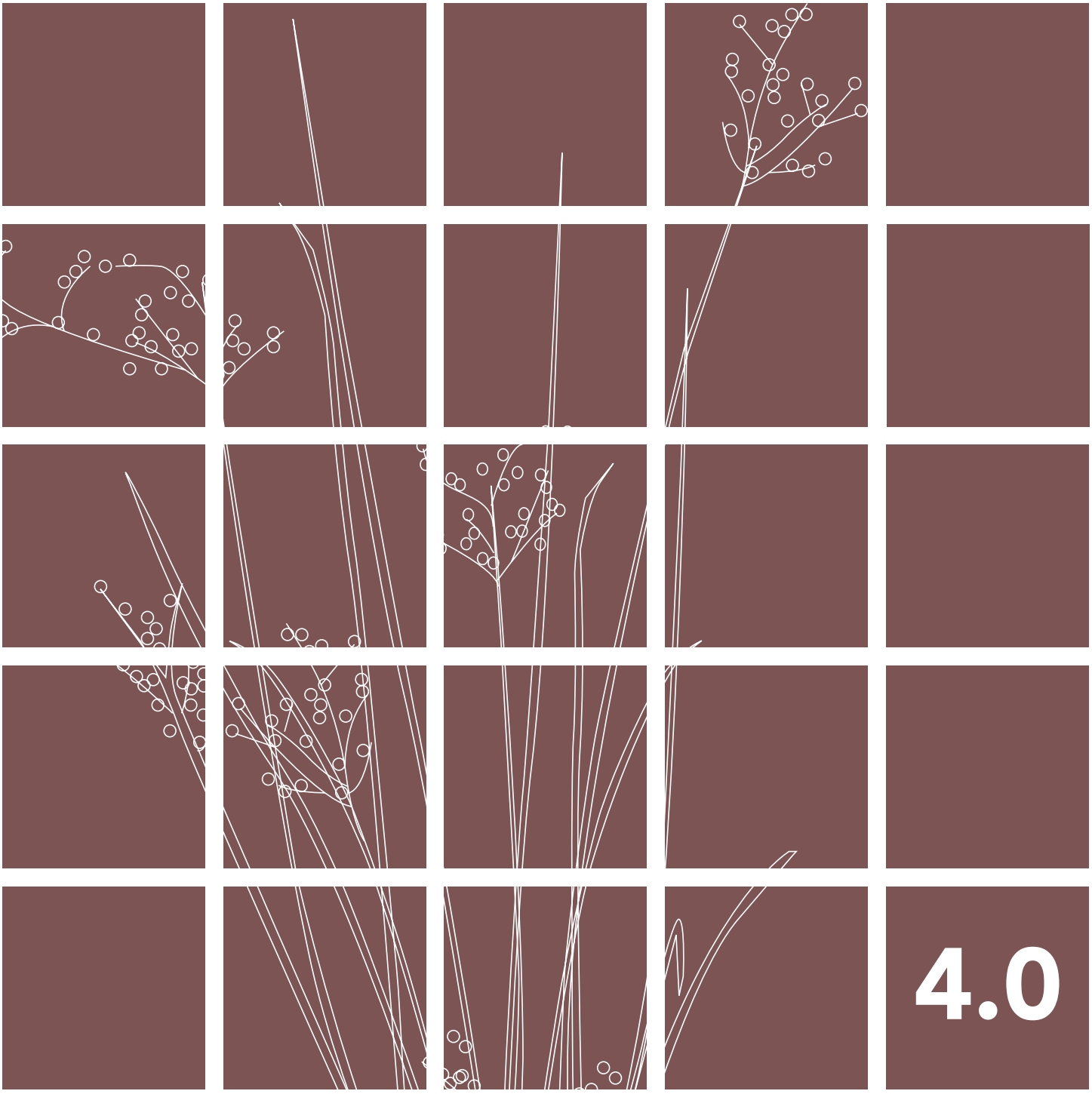
3.12 PLANTING

The planting in the public realm will be a critical element in achieving the design intent of a native West Coast landscape. The soft landscape areas should predominantly be large informal groups with naturalistic arrangements. Flowering plants should be used to compliment the typically evergreen native plant palette. Understory vegetation should be preserved and enhanced where there is no impact to public safety.

The use of native trees, shrubs and perennials should be maximized. The tree plantings should be focused on the use of evergreens to be in character with and expand the existing forest stand however deciduous trees should be used in the streetscape and other areas of the site where appropriate.

Plantings should be appropriate to the micro-climatic conditions such as forest understory, forest edge condition, and wetland. The tree plantings should also be indigenous to the area and reflective of the plant material important to Musqueam Nation.

Harbour Green Park, Coal Harbour



4.0

ROADS

4.0 ROADS

4.1 STREET CHARACTER

The character of each street is dictated by a combination of factors such as scale and proportion, character of adjoining buildings, layout and organization, adjacency to open space, and finally, materials, furnishings, tree and other soft landscaping. However, an overall unity within Block F will be achieved through a planned use of a project wide kit of parts. The overall character will seek to be an extension of the existing forest to maximize the visual and functional connections with the park and open spaces, the forest, and the Pacific Spirit Park.

The surrounding and internal roads should also include a sustainability component. This should be integral to the forest character through the inclusion of rain gardens and connections to bioswales to detain and treat the runoff, the use of ecologically functional planting to support the rainwater management intent, the exploration of reducing impervious paving, and seeking extensive tree canopy over the roadways to minimize the heat island effect of the paving.

4.2 SURROUNDING ROADS

Block F is surrounded on three sides by existing roads. Ortona Avenue and its partially undeveloped right-of-way bound the east property line. In the case of University Boulevard the existing character and layout will be largely be preserved. For Acadia and Toronto Roads the character and layout will be significantly enhanced over the current condition.

4.2.1 University Boulevard

The current character of University Boulevard at the forest edge will be preserved and enhanced with the development of Block F. An easement will be taken along this property line to allow for a wide vegetated buffer to the street. It will be planted with a mix of primarily evergreen with some deciduous trees to create a more diverse and native condition than currently exists. The narrow sidewalk that parallels the curb line will be replaced with a widened walkway that flows through the new forest edge planting.

4.2.2 Toronto Road

Only the east side of Toronto Road will be redeveloped by this project. The proposed design includes a new wide boulevard along the curb with regularly spaced street trees and a standard width sidewalk. The curb will stay in the current location.

4.2.3 Acadia Road

Only the north side of Acadia Road will be redeveloped by this project. The proposed design includes new on street parking laybys divided by landscaped bump outs and driveways from adjacent development parcels, new regularly spaced street trees, a standard width sidewalk and maintains the bike lane.

4.3 INTERNAL ROADS

There are two internal roads proposed in Block F. Both bisect the site from University Boulevard to Acadia Road. Road A is north of the Forest Park and Road B is south of the park. Both streets have enhanced public realm elements including site furniture, landscaped bump outs and a widened sidewalk on one side of the street. A pedestrian focused and traffic calming crossing for the Sword Fern / Iva Mann trail will be provided.

Road A, adjacent to the Village Centre, will have a light controlled intersection at University Boulevard.

A raised and widened pedestrian crossing will be provided where the Sword Fern / Ivan Mann trail crosses both Road A and B. These crossings will help reinforce the pedestrian priority and maintain the continuity of the trail across Block F.

4.3.1 Village Road / Road A

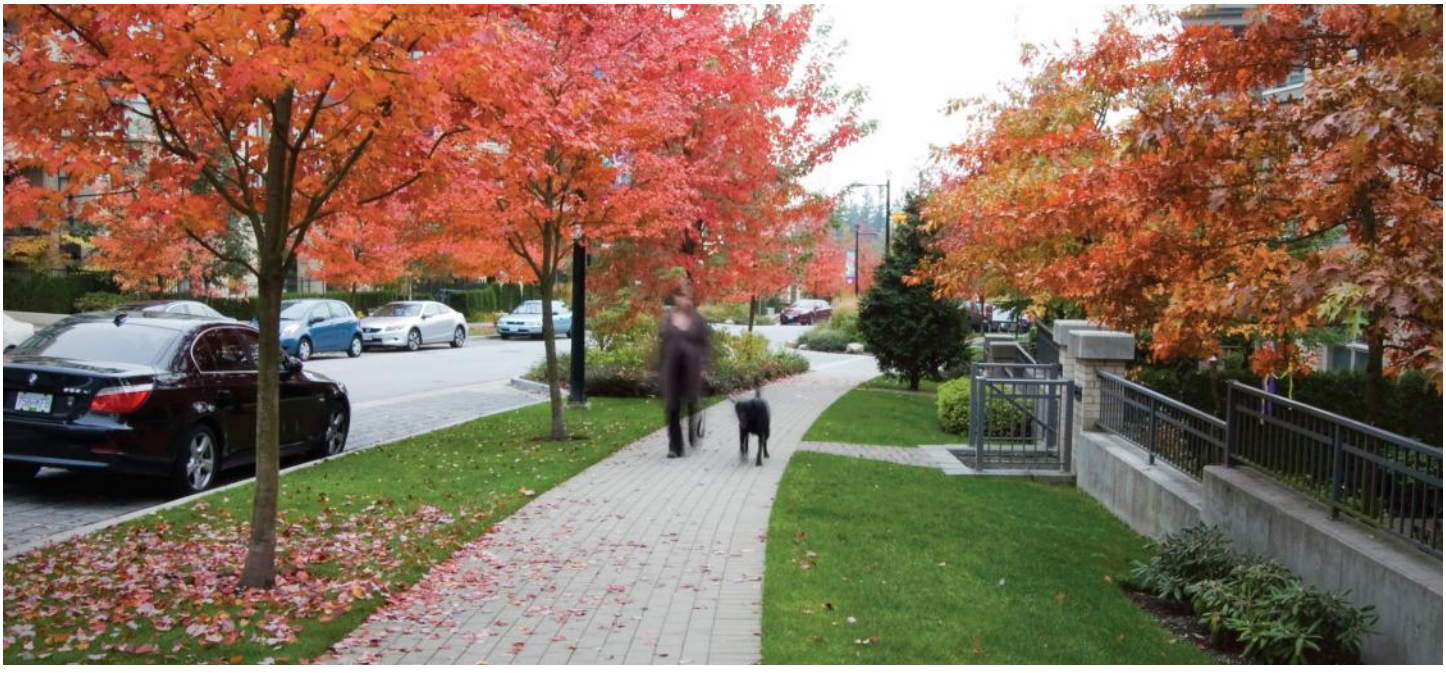
Road A, adjacent to the Village Centre, will have a light controlled intersection at University Boulevard. A widened sidewalk on the north side will accommodate additional pedestrian traffic for the hotel and commercial/retail land uses. The adjacent development parcels will have driveway accesses marked by landscaped bump outs. Bike lanes will be marked as a shared lane.

4.3.2 Forest Park Road / Road B

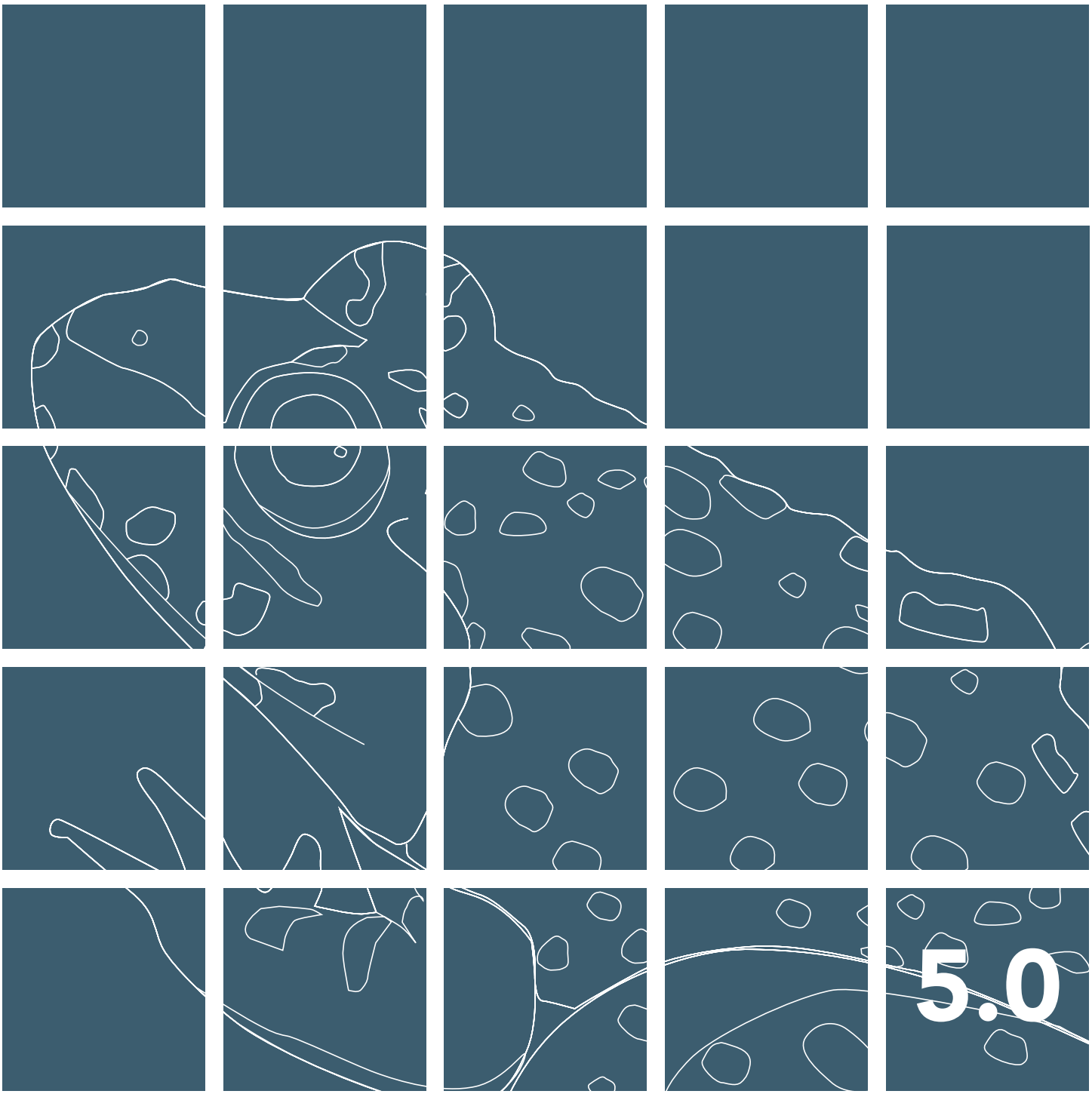
Road B, south of the Forest Park will not be signalized at University Boulevard. A widened sidewalk on the north side will facilitate connections to the park. The adjacent development parcels will have driveway accesses marked by landscaped bump outs. Bike lanes will be marked as a shared lane.

4.3.3 Forest Trail Crossing at Road A and B

A raised and widened pedestrian crossing will be provided where the Sword Fern / Ivan Mann trail crosses both Road A and B. Enhanced paving materials to demarcate the space and reduce vehicle speeds will be used. These crossings will help reinforce the pedestrian priority and maintain the continuity of the trail across Block F.



Simon Fraser UniverCity Green Streets



ARCHITECTURE

5.0 ARCHITECTURE

5.1 DESIGN PRINCIPLES

Principles which should guide the design are these:

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

5.2 GENERAL GUIDELINES

5.2.1 Siting of Buildings

The planning documents dictate minimum setbacks from property lines. The dimensions are set to moderate between an intimate street presence and the need for a healthy separation between public and semi-private spaces. Some relaxations to those setbacks should be considered with strong evidence that the intent of the setbacks is achieved.

Minimum separations between units and buildings are not prescribed. It is understood that the master plan combined with the talent of the design team and the diligence of the Design Panel will ensure that neighbourliness and privacy are achieved.

Buildings Define Street Edges

Buildings Define Greenbelt Edges

Buildings Form a Courtyard

Sensitive Siting of Buildings

Blending Private to Public

Notwithstanding, place buildings so that they honour the open space and orientation of other, adjacent buildings, and provide opportunities for buildings that will follow. Place buildings so that they respond to the street edge and help define the street grid.

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.

5.2.2 Integrate Architecture with Landscape

Design buildings to integrate the hard and soft landscaping with the building design.

Blend public-to-private. 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 the semi-private and private areas. Allow for visibility from the publically-accessible spaces into the semi-private areas for security and neighbourliness.

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 can be used by the general public.

Separation of Public and Semi-private Spaces

Public Pedestrian Access Routes

5.2.3 Water

The creative use of stormwater to be captured, cleaned and used for down-stream benefits is one of the defining features of this development. The design of individual developments should find ways to incorporate water into the landscaping. Utilize water in building design and landscaping. A range of approaches into the way in which water is utilized – formal or informal, still or moving – is encouraged. Some soft lighting of water features is encouraged, both for after-sunset enjoyment and for safety. Ensure that water features are safe.

Naturalistic Use of Water

5.2.4 Building Materials

The palette of building materials used on building should be honest and appropriate to this setting.

Use natural masonry products: real brick or stone. The use of cultured stone is not permitted. Find opportunities to incorporate real wood – cedar is recommended for its appearance and longevity – in areas where the wood will be protected. Cementitious siding, textured or painted concrete and metal or glass panels are all exterior materials that are encouraged.

Limit the palette of materials – avoid using too many different materials in order to provide a calm, cohesive appearance, but ensure that buildings have a richness of appearance and offer delight and charm.

Cedar Soffits Protected from Weather

Use of Real Stone

5.3 VILLAGE CENTRE

The Village Centre will provide a heart and focus to the community. The design of buildings, roads, parking and landscaping should support the community benefit of these features. Design to encourage public accessibility and use of open spaces, plazas and landscape features.

5.3.1 Commercial/Retail

5.3.1.1 General

The retail buildings have no back sides; that is, they are exposed on all four sides. The architecture must respect the aspect of this exposure; all sides should be designed to address the street and should not look like the back of the building.

Design buildings so that they form a variety of outdoor spaces that can be more intimate and that can allow for a more expansive use. Ensure that outdoor spaces benefit from sun exposure. Use scale, rhythm and materials that support a comfortable pedestrian scale.

Incorporate canopies and other weather projection for retail spaces. Provide courtyard areas and opportunities for outdoor display and outdoor furniture. Incorporate landscape beds and planters into courtyard and plaza areas. Provide a variety of seating options – built in and movable – for patrons and others to use.

In situations where outdoor patio and table spaces are proposed, provide designs that can allow for the use of outdoor heaters in a way that integrates with the design of the building.

Public Seating Space

Garbage and Recycling Enclosed within Building

Hanging Signage

Consider, where appropriate, the design of buildings that allow their storefront to open onto courtyard and plaza spaces, to encourage the integration of indoor and outdoor uses.

5.3.1.2 Garbage

Garbage collection and recycling areas are to be contained within a building. A loading bay for a larger format retailer must be predominantly incorporated within the building. A surface loading bay for smaller vehicles can be included in the open retail parking area.

Provide adequate ventilation of garbage rooms that will not negatively impact adjacent uses and users.

5.3.1.3 Signage

Provide front lit or ambient lit signage. Back-lit signage will not be allowed. Prepare a signage package that coordinates the design of individual tenants while allowing them their own identity. A comprehensive sign package will be required at the time of the development permit application for any commercial building or grouping of buildings.

5.3.1.4 Building Lighting

Use landscape lighting to provide safe and identifiable use of publically-accessible spaces after dark. Provide lighting that accentuates the landscaping. Provide building lighting that provides sufficient ambient lighting but that is not over-lit, harsh or glaring.

Building and Landscape Lighting

5.3.2 Hotel

The hotel is intended for longer stays and will have a more comfortable residential ambiance. The entry porte cochere, lobby, amenity spaces and outdoor spaces should reflect this aspect.

Treat the driveway and porte cochere as an auto court that is as pedestrian-oriented as possible. Use ground level materials such as cobbled pavers with various textures and patterns rather than asphalt. Incorporate significant soft landscaping into this area. Remember that the area faces south and can be used as a quiet outdoor refuge.

Orient some of the public areas of the hotel so that they can open onto the village square. Provide usable outdoor space for the hotel that integrates with the open space of the village centre.

Ensure that all service areas, including receiving, loading, garbage and recycling are contained within the building.

Provide signage on the hotel that is refined and subdued.

5.3.3 Community Building

The community building sits on top of and is integrated with the commercial building below. Create an architecture that is strong and celebratory, that indicates the common community use of the facility.

Through provision of a kiosk-style entry or other architectural device, provide strong grade-level presence for the community building. Provide in the design, opportunities for community-based messaging, a focal and gathering place. Provide ample covered outdoor space adjacent to the entry. Ensure that the entrance is highly visible.

Provide an outdoor gathering space on the south end of the community building space that will provide for an outdoor expansion of the indoor areas.

Provide expansive windows that allow views out from within the space, and views into the building from the plaza areas, all in aid of expressing its community use. Provide generous roof overhangs to protect the interior spaces from sun.

Hotel Entrance

Community Building Sketch

5.4 MULTI-FAMILY RESIDENTIAL BUILDINGS

5.4.1 Ground Orientation

Individual doors leading to streets and greenways from all first-floor units are strongly encouraged. Provide individual entry gates and identifiable front doors. Provide usable outdoor area for the use of each unit and in a way that facilitates social interaction. Setting the elevation of outdoor, private patios higher than the adjacent sidewalk is encouraged.

5.4.2 Building Entries

The front doors to lobbies of buildings should be readily visible from the street. Enhance the transition from public to front door. Views through the lobby to beyond are encouraged. Integrate entry lobbies with views through to forest/water/courtyards. Taller lobby spaces that permit a blending of outdoor to indoor are encouraged.

5.4.3 Tops of Buildings - Highrises

The tops of highrises should be part of the design of the building and not merely a mechanical appendage at the top. Be dramatic; be playful. Screening and other architectural elements above the habitable area of the building are not included in the height restrictions noted in the bylaws.

5.4.4 Roofs - Lower Buildings

For buildings up to 6 storeys, generous roof overhangs are encouraged. Flat roofs are preferred but not mandated. All roof-top mechanical equipment must be screened on all building types.

5.4.5 Outdoor Private Spaces

Large terraces, balconies and rooftop patios are encouraged. Provide usable ground floor terraces along streets and greenways. Incorporate gates for individual access to the individual terraces. Create some aspect of privacy through landscaping rather than solid walls. Designs that have streetfront private patios above the elevation of the street are encouraged. Patios should be set a minimum of 45 mm (1.5 feet) and a maximum of 1050 mm (3.5 feet) above the grade of the adjacent sidewalk. Where patios are set higher than 1050 mm (3.5 feet) a planter should be located in front of the wall at an intermediate height.

Individual Entry on a Street

Building Signage Close to Street

Building Entrance Visible from Street

Trellis over Parkade Entrance


Parkade Ramp with Special Approach to Design

5.4.6 Parking Garages

The master plan indicates those sites that are to have shared parkade ramps with an adjacent development. The ramp will be constructed by the first development and will equally straddle the property line.

Provide some cover or trellises over parkade ramps and enhance the parkade entries. Treat them as front doors and make them attractive to those looking down or passing by. Special design features for the side walls of parking ramps are strongly encouraged.

Where a parkade structure is exposed above grade it should be appropriately finished and an elevation difference of 450mm to 800mm (1'6" to 2'6" is ideal). In the rare case where a parkade wall extends higher than this, it should be set further back from the street. Refer to section 6.7 for additional information.

5.4.7 Residential Garbage

All garbage and recycling for residential buildings must be accommodated within the building. Provide a marshalling area adjacent to the top of the parking ramp to place garbage containers for a short term while they await the garbage truck. Integrate the marshalling areas into the hard landscaping so that they work even if not be used for temporary placement of garbage containers.

5.4.8 Building Signage

Integrate building signage with the entries closer to the street to aid in way-finding. Integrate the signage with landscaping and waterscaping.


Landscaping Used to Create Privacy


Usable Outdoor Private Space

Signage at the Street

5.5 CLUBHOUSE AND DAYCARE

Design this combined-use building so that each of the two components – clubhouse use and daycare use – have their own distinctiveness but act in concert with each other. Play with the design; create something that is distinctive and noticeable. Have the building make its mark. This is one building that may be very contemporary or very traditional.

Carefully design the building so that the exterior spaces are extensions of the interior spaces, that there is a flow from inside to outside. Note that surrounding the clubhouse and daycare is fully public space and it will be necessary to design the exterior spaces so they can be used by groups independently of the more public uses surrounding them.

Between the public space and the clubhouse, provide some usable outdoor space that is an extension of the clubhouse use and which has some separation from the public space. Provide a secure outdoor space for the exclusive use of the daycare facility in a manner that meets the licensing requirements of a daycare facility.

Provide covered outdoor areas for both the clubhouse and the daycare.

Provide controlled access to both parts of the building, paying special attention to the security needs of the daycare.

Provide short term drop off and pick up parking spots adjacent to the daycare component. This is the one building where up to five surface parking spaces may be provided for staff of the daycare.

Clubhouse and Daycare

6.0

PRIVATE REALM LANDSCAPES

DOCKSIDE GREEN

6.0 PRIVATE REALM LANDSCAPES

6.1 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 should be one of West Coast Natural. Each parcel should have an individual 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.

6.2 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 space should be designed so that it is a functional space suitable to the associated residential unit.
- Semi-private open space 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 street 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.

6.3 LEED / SUSTAINABILITY

The overall project that will be developed is inspired by the UBC REAP Principles and Requirements. This places an emphasis on the individual development parcels to achieve this level of overarching sustainability and possible certification.

- All aspects of the landscape design should incorporate principles of sustainability and should consider the REAP Guidelines.
- The collection of rainwater should be incorporated into environmental and landscape features.
- Where possible rainwater should be collected from rooftops.
- Where possible rainwater should be collected from paving areas, roadways, and landscape areas.
- Rainwater collected from road and building areas should treat the runoff for water quality.

6.4 PUBLIC FRONT ENTRY COURTS

The public entry courts should seek to minimize vehicle use, maximize visibility of the front doors and promote pedestrian and cycling connections with the community. Large purely aesthetic elements are discouraged in favor of functional landscape areas to promote a sense of community.

6.5 PRIVATE OUTDOOR SPACES

- All private outdoor spaces should be designed to be functional in size, in consideration of the location relative to the interior residential rooms and solar aspect.
- All patios at grade along a street frontage should have a good relationship and access to the street.

» Private patios should have a sense of privacy from adjacent patios. Solid fences and / or screens between patios is acceptable. Materials should be durable and attention to detail should match the building architecture. They should be part of the building architecture and integrated with the building design. Side screens max. height is 2m (6'-0").

6.5.1 Street facing private outdoor patios and entry courts

» All at grade outdoor patios and private entry courts that face Acadia, Road A and Road B should have access to the roads with a walkway. Units facing University Boulevard should have bridges over the bio-swale with walkways connecting to the sidewalk.

» Unit addresses should be visible on the patio enclosure, gate, and / or plinth.

» Ideally these patios and terraces would have a minor raised grade separation from the street frontage.

» Private patios and terraces should have a sense of transparency and connection to the street frontage. They should not be walled off with high hedges and / or fences. Max. Height of fence, hedge, rail, and planter wall from base of patio / terrace finish grade is 1200mm (4'-0").

6.6 SIDE YARD PRIVACY

» Buildings should be separated by landscaping elements such as natural forest along property lines or robust soft landscape areas

6.7 SITE GRADING

Where a development parcel abuts a tree retention area the grading of the site must protect the grades within the critical root zone of the tree and should not significantly alter the watershed from what the existing trees currently experience.

Where an exposed parkade wall is over the permitted height (refer to section 5.4.6) adjust the landscape grades to slope up to the permitted height or use landscape feature walls and/or planters to conceal the parkade wall.

6.8 TREE PRESERVATION COVENANTS

Tree preservation areas are defined in several areas across the project site area and in some cases are on development sites. These are in place to preserve significant and high value trees for the community at large and will be defined as covenants on park and development parcels. The covenant will prohibit disturbance during construction, except for the removal of dead or hazard trees.

Some parcels will have tree protection covenants where, if at all possible, the developer will be responsible for the protection and preservation of significant or high value trees. These trees are recognized as having high value to the community but may place undue restrictions on development form.

Good Relationship of Indoor to Outdoor

Interior Courtyard Patio Entry with Address

6.9 LANDSCAPE MATERIALS

The landscape materials selected should seek to reinforce the overall project approach to landscape and the design theme of West Coast Natural. Durable, sustainable and locally sourced materials should be the preferred choices.

- Landscape materials shall be durable, regional, and be used to create a strong design sense for the space.
- Landscape materials were possible should be reflective of the Musqueam nation and culture.
- Landscape materials shall be high quality with a more finely grained pedestrian detailed scale.

6.9.1 Paving

- Various paving materials should be used to create a hierarchy of use.
- Impervious pavements that cannot be drained to an adjacent soft landscape rainwater management feature should be minimized.
- Opportunities to utilize permeable paving should be explored. The use of asphalt should be minimized.

6.9.2 Walls

- Landscape walls should be utilized along street frontages for residential signage and addressing.
- Landscape walls should be designed in scale, proportion and materiality to complement the design theme of West Coast Natural.
- Retaining walls should be designed such that they are integrated into the overall landscape and not negatively impact the sight lines from adjacent development parcels.

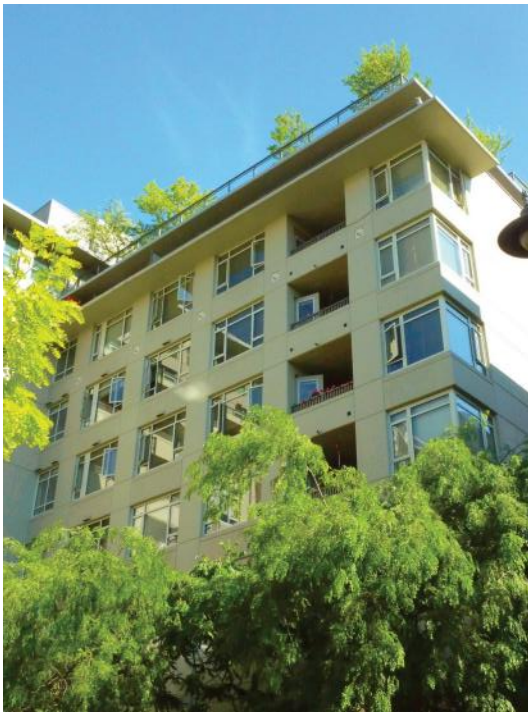
6.10 PLANTING

- Plant materials shall influence and contribute to the various habitats including Forest, Wetland, and Adaptive Landscape.
- Plant material selection shall be richly varied, celebrate all the seasons, be sensory, drought tolerant, and have an ecological and design purpose.
- A 50MM depth of composted bark mulch should

Poor Relationships to Sidewalk

Front Entry Patio, Arbutus Walk, Good Relationship to Sidewalk

Front Entry Patio, Address on Gate, Good Relationship to Sidewalk



Green Amenity Roof Deck, Arbutus Walk

be applied to all planting beds to minimize water loss due to evaporation.

6.10.1 Urban Ecology

- Landscape design and plant material selection shall encourage and create opportunities for urban wildlife to co-exist with humans and the urban landscape.
- Native plants shall be considered to enhance the urban ecology of the community and support the various native habitats and bird strategies.

6.10.2 Turf Grass

Minimize the use of high maintenance turf grass areas to a maximum of 40% of the total soft landscape area within the development parcel.

6.10.3 Urban Agriculture

Where appropriate, urban agriculture shall be incorporated into all landscaped areas of the development parcel including roofs, private patios, amenity roof gardens, amenity courtyards, mews and laneways.

6.11 PUBLIC-PRIVATE INTERFACE

The private landscape design is to integrate, to the degree possible, with the adjacent natural landscapes and public realm including street and park frontages in order to emphasize the sense of space and contiguous landscape.

- Match planting design species and layout to hide property lines.
- Observe all easement restrictions that may be in place.
- Blend the off-site topography into the existing surrounding off-site grades for a uniforma and coniguous surface.
- Minimize the use of fencing and walls along property lines between natural open spaces and open areas of development sites to minimize visual and physical barriers.
- Use planting at the base of the building to minimize the visual impact of any exposed parkade structure

6.12 GREEN ROOFS

Where noted in the architectural section buildings should have green roofs because they bring many benefits to the immediate development and overall environment. The green roofs should be living roofs with a

diversity of plant types and species that are native to BC.

- The selected plant species should reinforce the natural habitats for the bird population of the area.
- The selected plant species should be native and indigenous creating a true ecosystem in the development.
- Green roof areas will help achieve stormwater management requirements.

6.13 IRRIGATION

To accommodate the changing climate of the Vancouver area and the extended periods of drought, and to ensure a living functional landscape, a permanent irrigation system is required in the private landscape areas.

- All landscape areas over structures shall be irrigated with a high efficiency automatic irrigation system.
- All green roofs shall be irrigated with a high efficiency automatic irrigation system.
- All irrigation for non-lawn areas to be drip systems.
- All irrigation systems shall have automatic moisture sensors.
- Areas not over structures are highly recommended to be irrigated with a high efficiency automatic irrigation system.
- The irrigation system is to include the landscape portion of the off-site road right of way in front of the development parcel.

6.14 LANDSCAPE FEATURES

Landscape features within the private landscape should:

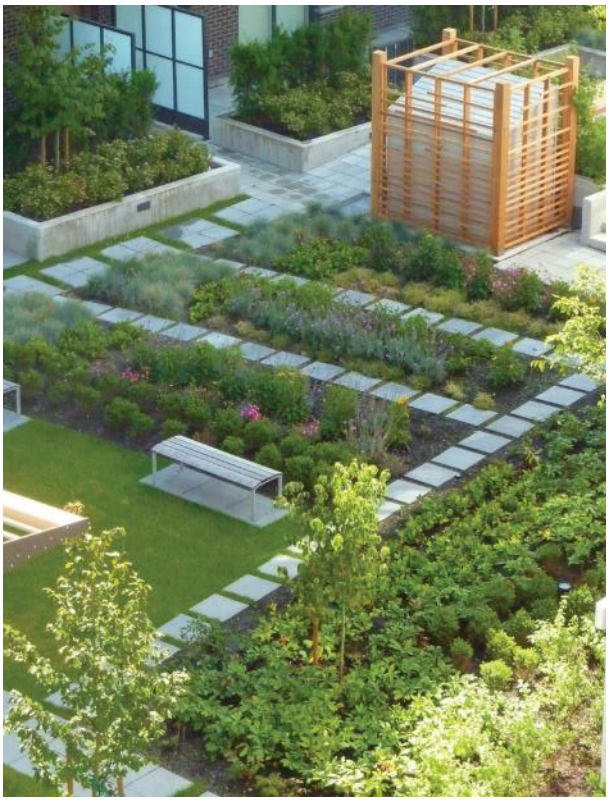
- Seek to be functional elements.
- Reinforce the West Coast Natural design theme.
- Avoid being large visual interest elements with low functional or sustainable use
- Integrate with adjacent off site landscape features such as wetlands or forest areas.
- Provide unique identity to the development parcel within the overall context of the project.

6.15 GROWING MEDIUM DEPTH AND MATERIALS

All planting areas over structure shall have adequate growing medium depth to promote healthy plant material. Minimum required depths are:

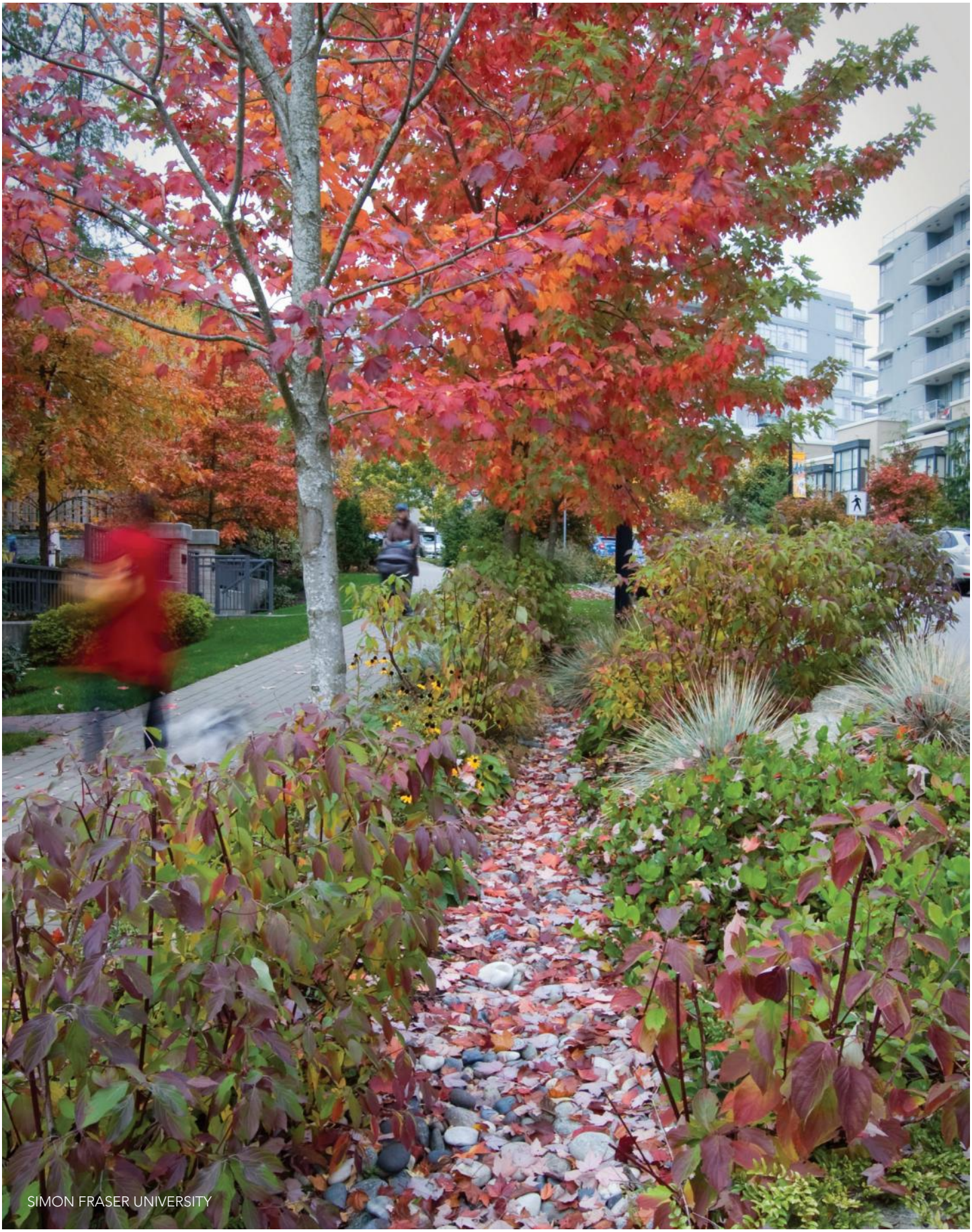
» Green Roof	150mm (6″)
» Grass	300mm (12″)
» Groundcover and Shrubs	450mm (18″)
» Trees	900mm (36″)

Where urban agriculture is proposed or integrated within the soft landscape avoid the use of growing mediums that contain bio-solids from municipal wastewater facilities.



7.0

STORM WATER MANAGEMENT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7.0 STORM WATER MANAGEMENT

7.1 PUBLIC REALM

The stormwater management plan should be designed to meet or exceed the Department of Fisheries and Oceans (DFO) Stormwater Management Guidelines for Volume Reduction, Water Quality, and Detention in the public realm.

Volume reduction and water quality should be addressed by the implementation of Best Management Practices (BMPs) such as rain garden infiltration systems and bioswales. These facilities absorb stormwater runoff while removing contaminants that are transported from roadways and other impervious areas. Rain gardens and bioswales also promote groundwater recharge through infiltration and can be tastefully integrated into community green space as functional and interesting features. The thickness of topsoil in the rain gardens and the boulevard areas should be increased to promote infiltration and retention of stormwater runoff, as well as to improve water quality.

Detention should be addressed by the two proposed detention ponds within the development site. The ponds are to have infiltrative bottoms and be sized to reduce post-development stormwater flow rates. Minimizing post-development stormwater flow rates protects downstream wetlands and habitat from increased flows and damaging erosion.

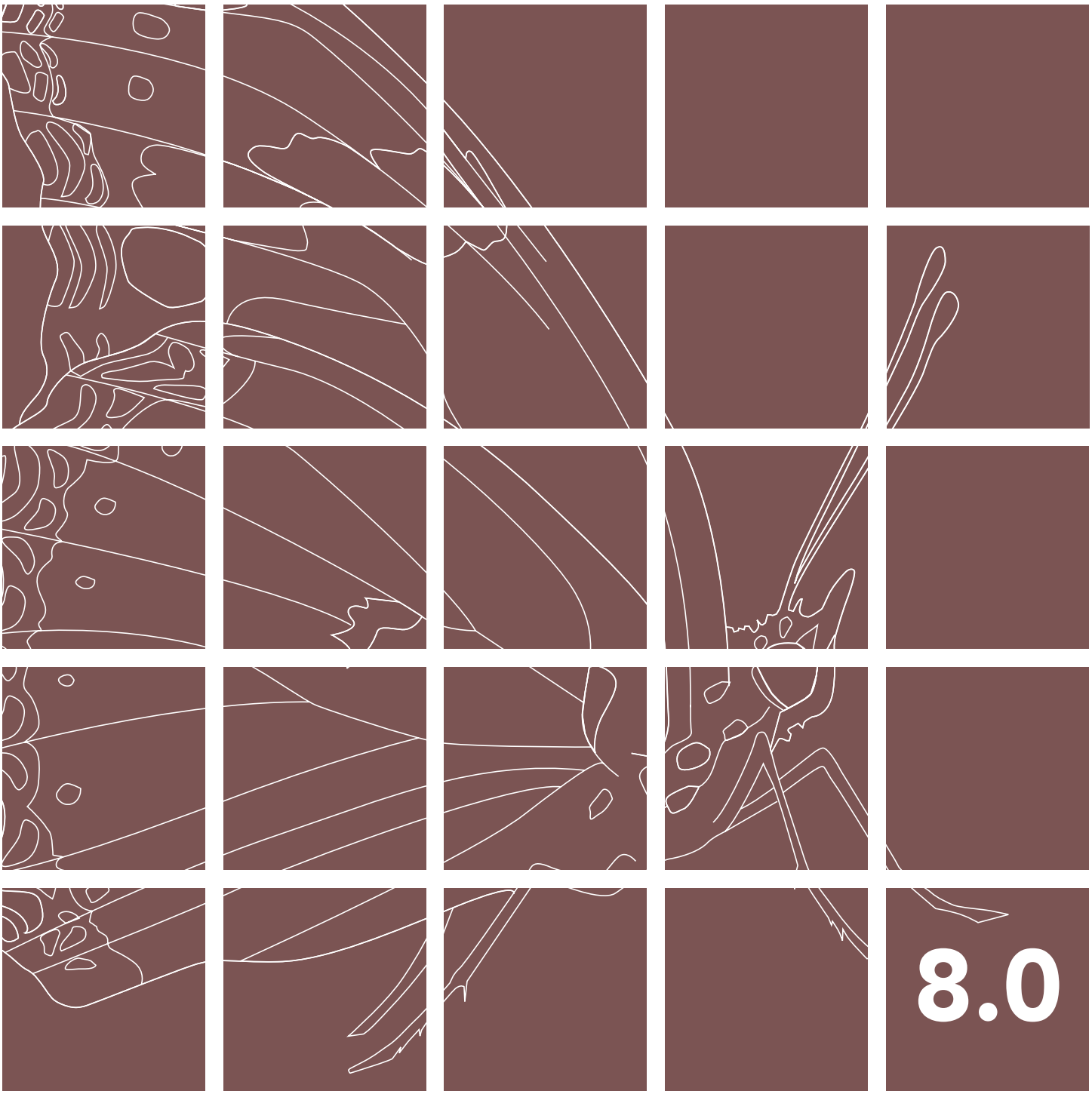
7.2 PRIVATE REALM

The stormwater management approach within the parcels should be designed to create integrated rainwater management facilities that address the sustainability design principles of REAP objectives.

Best Management Practices (BMPs) to be incorporated include designing the storm conveyance system to handle the peak flows for the 1:10 year and 1:100 year design storm events, to meet or exceed the DFO Stormwater Management Guidelines, to protect life and property, and use BMPs that meet environmental guidelines to minimize the effects of development on the natural environment.

BMPs to be considered for this development include:

- An erosion control plan to manage the quality and quantity of stormwater runoff from the site during construction.
- Reduce impervious areas and maximize pervious areas
- Source control absorbent landscaping where possible.
- A minimum depth of growing medium of 300mm in landscaped areas.
- Source control trapping hoods in all catch basins for environmental control. The hydrocarbons transported in surface water are captured within the catch basin, as they float on top of the water and rise above the trapping hood.
- Pervious pavements can be porous asphalt or concrete, concrete or plastic grid pavers, and permeable unit pavers. They allow water to drain through them to an underlying rock reservoir. On this site pervious pavement would be adequate to capture the 6-month / 24-hour rainfall. Pervious pavements are recommended for low volume traffic and pedestrian routes.
- Rain gardens consisting of a growing medium over a rock reservoir that exfiltrates stormwater to the surrounding soil.
- Oil and Grit separators placed on outlet pipes, sized to meet environmental water quality guidelines to treat 90% of runoff from the impervious areas.



8.0

PUBLIC ART

MARGUERITE HOUSE FIRST NATIONS PUBLIC ART

8.0 PUBLIC ART

8.1 PUBLIC ART

Public Art should be integrated into the overall design of the Block F Development. The art should be embedded in aspects of the parks, open space, and public realm. The Public Art plan should be focused around the culture and community of the Musqueam Nation with a focus on:

- The People
- The Forest
- The Streams
- Sustainability
- Community

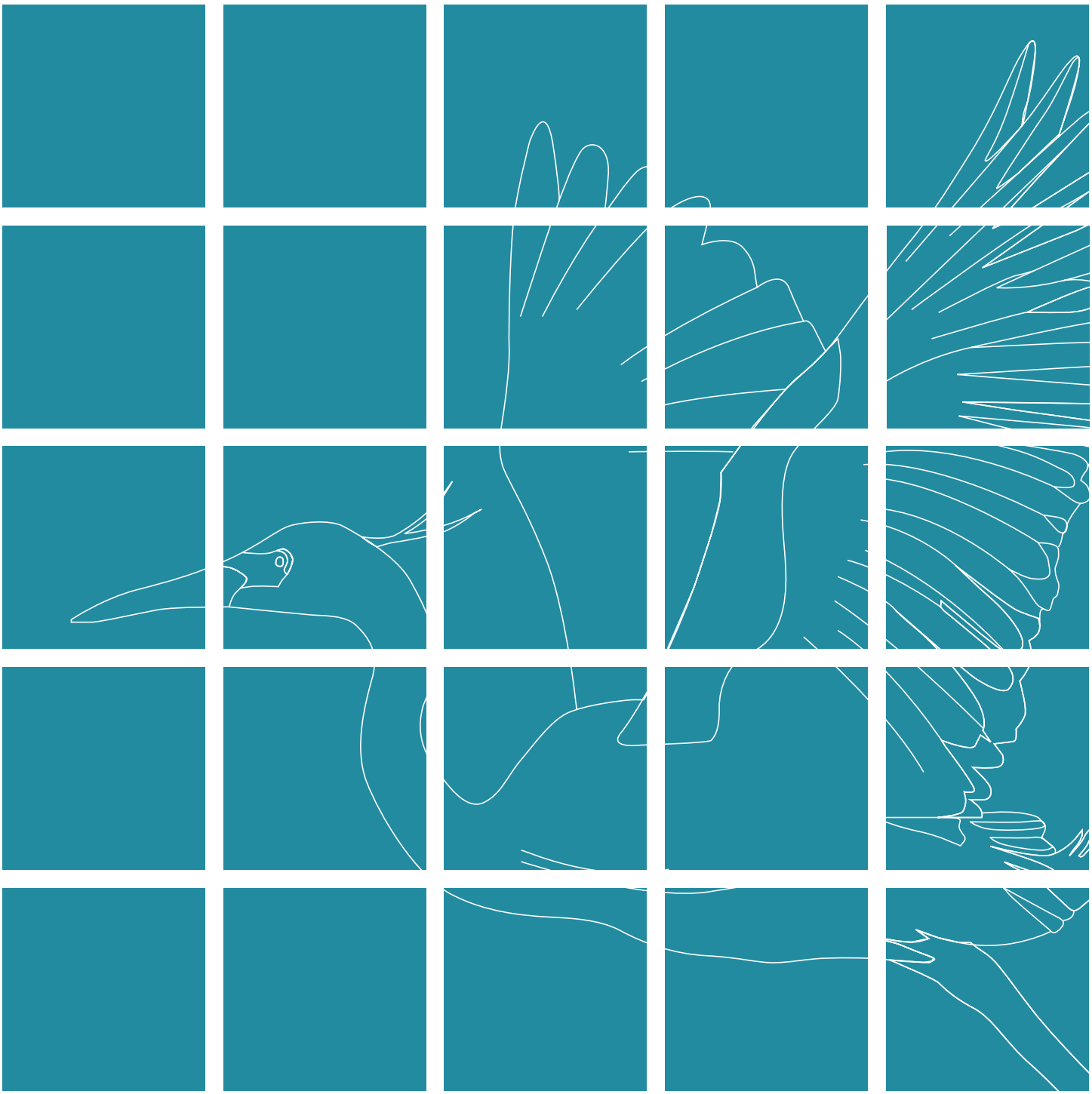
SEFC First Nations Public Art. Photo credit: Wilco.

All the art work should reinforce the principles of the project and be integrated in and with features of the site. Wherever possible the work of artists should be integrated with the overall design process.

All Public Art should involve artists, children, or elders from the Musqueam Nation. His does not mean that other Public Artists can not contribute and / or be involved, however each Public Art Project should have a Musqueam Artist.

Implementation and Requirements

Ideally every development parcel, public park and open space area should provide a public art contribution to the overall development. This would enrich the neighbourhood and potentially make it a destination point within the Pacific Spirit Park Trail System for residents and visitors to engage with the art and culture of the Musqueam Nation.



APPENDICES

APPENDIX A - RECOMMENDED PLANT LIST

Recommended Street Trees

Botanical Name	Common Name
ACADIA ROAD	
Acer cappadocicum '	Rubrum' Colliseum Maple
Acer platanoides ' Emerald Queen'	Emerald Queen Maple
ROAD A	
Acer rubrum 'Armstrong'	Armstrong Red Maple
Acer platanoides 'Cleveland'	Cleveland Norway Maple
ROAD B	
Acer rubrum 'Armstrong'	Armstrong Red Maple
Acer platanoides 'Cleveland'	Cleveland Norway Maple
Liquidamber styraciflua ' Worplesdon'	Worplesdon Sweet Gum
UNIVERSITY BOULEVARD	
In additional to the existing Street Trees	
Acer macrophyllum	Big Leaf Maple
Acer circinatum –	Vine Maple
	Pacific Crabapple
Pseudotsuga menziesii –	Douglas Fir
Thuja plicata –	Western Red Cedar
Cornus 'Eddie's White Wonder' –	White Flowering Dogwood
Amelanchier alnifolia	Saskatoon
TORONTO ROAD	
Acer rubrum 'Armstrong'	Armstrong Red Maple
Acer platanoides 'Cleveland'	Cleveland Norway Maple

Recommended Parks and Open Space Trees

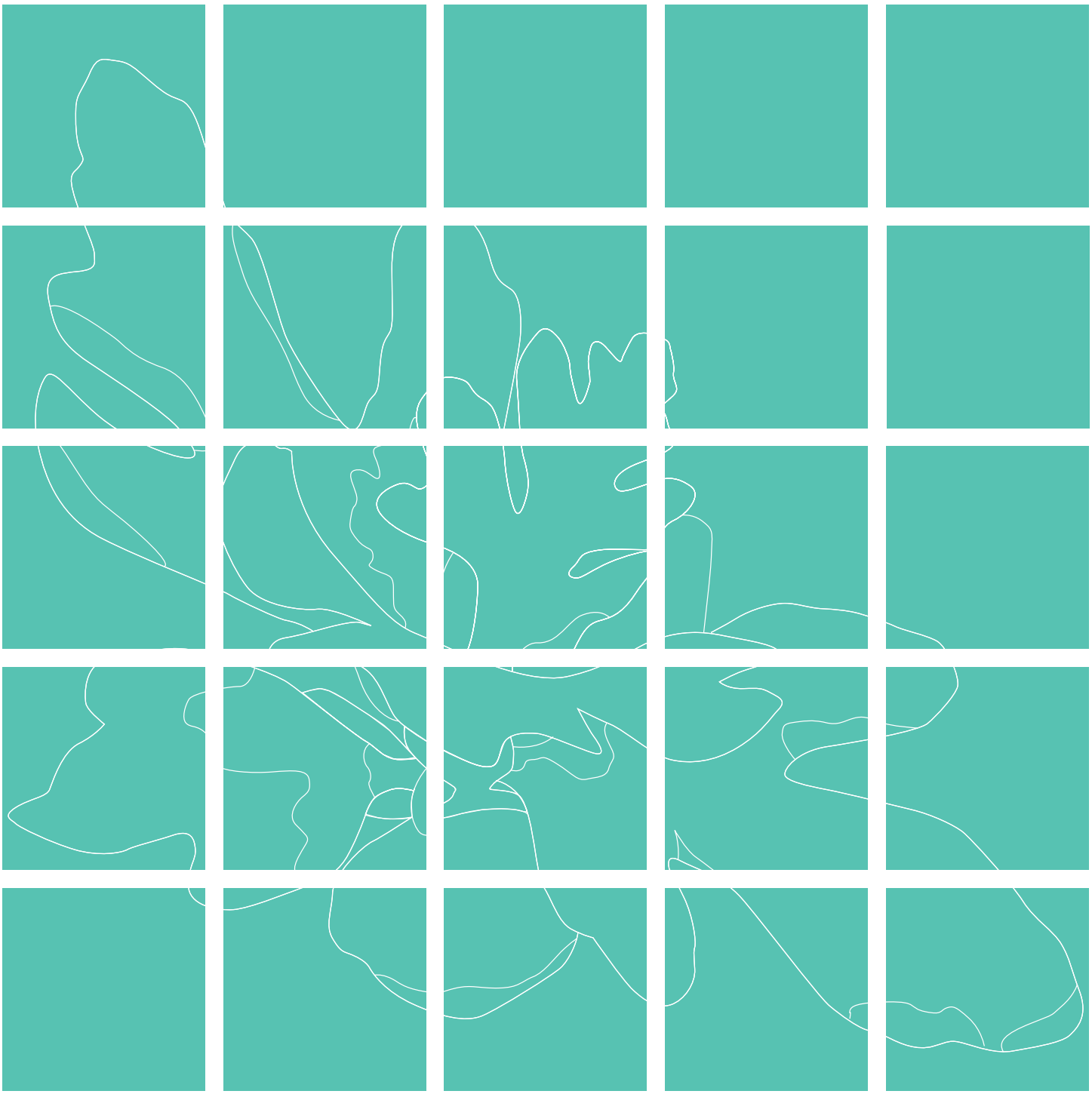
Botanical Name	Common Name
Acer circinatum –	Vine Maple
Acer douglasi –	Douglas Maple
Acer macrophllyum -	Big Leaf Maple
Acer rubrum 'Armstrong'	Armstrong Red Maple
Cornus controversa –	Giant Dogwood
Cornus kousa '	Kousa Dogwood Varieties
Cornus 'Eddie's White Wonder' –	White Flowering Dogwood
Picea sitchensis –	Sitka Spruce var.
Pinus contorta 'Contorta' –	Shore Pine
Pseudotsuga menziesii –	Douglas Fir
Thuja plicata –	Western Red Cedar
	Saskatoon
	Cascara
	Red Alder
	Pacific Crabapple
	Bitter Cherry
	Mountain Ash

Recommended Shrub and Groundcover Plant List

Botanical Name	Common Name	Sun/Shade Conditions
EMEREGENT PLANTS		
Carex aquatilis var dives(sitchensis)	Sitka Sedge	Full Sun/Part Shade
Carex obnupta	Slough Sedge	Full Sun/Part Shade
Carex rostrata	Beaked Sedge	Full Sun
Carex stipata	Sawbeak Sedge	Full Sun
Carex tumulicola	Berkeley Sedge	Full Sun/Part Shade
Deschampsia cespitosa	Tufted Hair Grass	Full Sun/Part Shade

Recommended Rain Garden Plant List

Botanical Name	Common Name	Sun/Shade Conditions
BOTTOM CHANNEL EXPOSURE SIZE		
EMEREGENT PLANTS		
Carex aquatilis var dives(sitchensis)	Sitka Sedge	Full Sun/Part Shade
Carex obnupta	Slough Sedge	Full Sun/Part Shade
Carex rostrata	Beaked Sedge	Full Sun
Carex stipata	Sawbeak Sedge	Full Sun
Carex tumulicola	Berkeley Sedge	Full Sun/Part Shade
Deschampsia cespitosa	Tufted Hair Grass	Full Sun/Part Shade
Eleocharis palustris	Creeping spikerush	Full Sun/Part Shade
Iris douglasiana	Douglas Iris	Full Sun
Iris missouriensis	Western Blue Iris	Full Sun
Juncus acuminatus	Tapered Rush	Full Sun/Part Shade
Juncus effusus	Common Rush	Full Sun
Juncus tenuis	Slender Rush	Full Sun
Scirpus lacustris	Hard Stemmed Bullrush	Full Sun
Scirpus microcarpus	Small Fruited Bullrush	Full Sun/Part Shade
SHRUBS - EVERGREEN		
Blechnum spicant	Deer fern Part	Sun/Shade
Ledum groenlandicum	Labrador Tea	Full Sun
Polystichum munitum	Western Swordfern	Partial Sun/Shade



APPENDICES
SUPPORTING TECHNICAL INFORMATION

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