REPORT

DEVELOPMENT SERVICES DEPARTMENT

To: Members of the New Westminster Date: January 26, 2020

Design Panel

From: Michael Watson, File: REZ00142

Senior Planner

Subject: 97 Braid Street – Application Background Presentation and Master Plan

Rezoning Submission

RECOMMENDATION

- 1) **THAT** the NWDP provide comment on and endorse the general design content of the Master Plan Submission and the Applicant Prepared Draft Design Guidelines; and
- 2) **THAT** staff work with the applicant to revise the Draft Design Guidelines to:
 - a. incorporate feedback from NWDP;
 - b. ensure the necessary design guidelines content, including that within the Master Plan Submission, is included in the Draft Design Guidelines; and
 - c. ensure the design guidelines represent industry best practices and are flexible, clear, organized and easily used.

EXECUTIVE SUMMARY

A revised Master Plan concept has been submitted in support of the rezoning application for a complete, mixed use, sustainable and transit-oriented master planned community called Sapperton Green at 97 Braid St. The proposed Master Plan concept would include up to 4.455 million square feet of residential floor space of mixed tenure including condo, market rental and affordable housing; 750,000 square feet of office commercial floor space; approximately 100,000 to 150,000 square feet of retail commercial floor space; a 35,000 square foot community centre and child care space, and parks and publically accessible open space.

At the <u>December 8, 2020 meeting of the NWDP</u>, the applicant presented the Master Plan Submission (Appendix B) and information on the project to the NWDP with the intent of presenting Design Guidelines for review by the panel at a subsequent meeting. The first draft of these Design Guidelines are attached in Appendix A for review by the New Westminster Design Panel. Staff have reviewed the Master Plan Submission and the Design Guidelines submitted by the applicant and have provided initial comments to the applicant are yet been incorporated. Staff are of the opinion that these two documents include a majority of the design content necessary for the Sapperton Green Development Permit Design Guidelines.

Staff are seeking comments from the NWDP on the general design content within the Master Plan Submission and the Design Guidelines submitted by the applicant.

Following NWDP review, staff would work with the applicant to revise the Draft Design Guidelines to: incorporate feedback from the NWDP; ensure the necessary design guidelines content, including that within the Master Plan Submission, is included in the Draft Design Guidelines; and ensure the design guidelines represent industry best practices and are flexible, clear, organized and easily used.

BACKGROUND

Background information on the application including the site context, application history and applicable policies and regulations were included in the <u>December 8, 2020 report to</u> the NWDP which can be accessed on the City's website at:

https://www.newwestcity.ca/database/files/library/NWDP_AGENDA_2020_12_08_Pack_age(1).pdf

PROJECT DESCRIPTION

The Master Plan for Sapperton Green proposes a complete community that will include a range of housing options including affordable housing, green and open spaces, employment space, neighbourhood-serving retail, and a community centre and child care.

This master planned community is proposed to include up to 4.455 million square feet of residential floor space of mixed tenure including condo, market rental and affordable housing; 750,000 square feet of office commercial floor space; approximately 100,000 to 150,000 square feet of retail commercial floor space; a 35,000 square foot community centre and child care space, parks and publically accessible open space. If the application is approved, it is expected that the development of the site would occur over 20-30 years.

The proposed Master Plan concept for this site would include:

- a residential floorspace of 390,192 sq. metres (4.2 million sq. ft.) for a projected 4,700 residential units, and would include:
 - o a minimum of 104,237 sq. metres (1.12 million sq. ft.) of secured market rental housing, and
 - o a minimum of 23,690 sq. metres (255,000 sq. ft.) of affordable housing consistent with the <u>City's Inclusionary Housing Policy</u>;
- employment-generating and office floorspace of 69,677 sq. metres (750,000 sq.ft.) to 139,354 sq. metres (1.5 million sq. ft.);
- approximately 9,290 sq. metres to 13, 935 sq. metres (100,000 to 150,000 sq. ft.) of retail commercial floor space;
- recreational amenities including a 3,251 sq. metre (35,000 sq. ft.) community centre and child care facility; and
- 7.9 acres (3.2 hectares) of publicly accessible open space (19% of site area) including:
 - 1.8 acres central park;
 - 3.5 acres of riparian area adjacent to Brunette River;
 - 0.75 acre transit plaza; and
 - pedestrian corridors, greenways, pocket parks and accesses to Hume Park and Brunette River.

The neighbourhood design minimizes roadways and emphasizes pedestrian and cycling connections including new connections to the Brunette Fraser Greenway and the Braid SkyTrain station.

The applicant has provided a draft Master Plan Rezoning submission which is under detailed review by City staff, and is intended to be used to develop various regulatory documents including the Development Permit Ares Design Guidelines, the Comprehensive Zoning District, policy support documents and legal agreements. The Master Plan Rezoning Submission is <u>attached</u> as Appendix B. Further information on the project is also available on the City's website at <u>www.newwestcity.ca/sappertongreen</u>.

DISCUSSION

Role of Development Permit Area Design Guidelines

Development Permit Area Design Guidelines are an important regulatory tool used to shape the form and character of sites and building on private property, ensuring all buildings and sites are designed to the community's high standards relating to urban design, site design, building massing and aesthetics and sustainability strategies. These guidelines help ensure a consistency and neighbourhood cohesiveness across a number of buildings, sites, developers and builders and are a keystone element in ensuring the overall neighbourhood development meets the vision, goals and objectives of the neighbourhood.

In the case of the Sapperton Green neighbourhood, the Development Permit Area is also established for the purposes of:

- protection of the natural environment, its ecosystems and biological diversity;
- protection of development from flooding of the Brunette River;
- establishment of objectives to promote energy conservation;
- establishment of objectives to promote water conservation; and
- establishment of objectives to promote the reduction of greenhouse gas emissions;

The final Sapperton Green Design Guidelines would need to address these elements in addition to building and site form and character.

Objectives for Development Permit Area Design Guidelines

The Development Permit Area Design Guidelines is an important document influencing the design and character of the Sapperton Green neighbourhood as it develops. The Development Permit Area Design Guidelines for Sapperton Green would be a standalone document which would be attached to the Zoning District for the subject site. The principles which have been established for the preparation of the design guidelines are that they would:

- be flexible to allow for development to easily respond to future trends and specific site considerations;
- be clear, organized, and representative of industry best practices so as to be easily used by design professionals, the public and City staff;
- meet requirements of section 488 491 of the Local Government Act, including only being applicable on private development sites (not publically owned road or spaces); and

The applicant has reviewed recent examples of documents which would meet the above noted objectives including the <u>City of New Westminster's Development Permit Area Design Guidelines</u> as well as design guidelines for two recent development projects: Design Guidelines for <u>100 Braid Street</u> and Design Guidelines for <u>Queensborough Eastern Node</u>.

DESIGN GUIDELINE CONSIDERATIONS

Staff has provided comments on the applicant's initial submission of Design Guidelines which is summarized in the discussion below. As a next step, the guidelines would be revised to incorporate both staff and NWDP feedback.

Design Guideline Content

The applicant has put considerable effort in developing the Master Plan Rezoning Submission (Appendix B) and the draft Design Guidelines (Appendix A). In the view of staff, these two documents include a majority of the content necessary for the Sapperton Green Development Permit Design Guidelines. In order to ensure that the necessary materials are included in a stand alone document and used as a regulatory tool, the design related content in the Master Plan Rezoning submission would need to be duplicated in the design guideline document.

Staff seeks NWDP endorsement of the general design content within these documents and would then ensure the necessary design guidelines content, including that within the Master Plan Submission, is included in the Draft Design Guidelines.

Comments from the Panel would be appreciated on the general design content of the Master Plan Submission and the Applicant Prepared Draft Design Guidelines.

Design Guideline Flexibility

The flexibility principle for the design guidelines is important as it would allow the development to be able to adapt over time as new best practices and techniques emerge and to respond to site specific considerations while still meeting still meeting the objectives and goals of the design guidelines. The approach used in other City documents is to ensure there are a number of clear objectives and goals and that each would have a list of considerations as to how that goal could be achieved. An example of this approach from the 100 Braid Street Design Guidelines is included below.

2.6 Noise

- All development and buildings shall be designed to minimize impacts from adjacent industrial and transportation activities. Consider the following:
 - Site buildings to minimize light intrusion from trucks and industrial site lighting into residential units, private and semi-private open spaces.
 - Organize internal unit configuration to locate bedrooms and, where possible, other living areas away from industrial and goods transportation activities. Employ technical approaches to noise abatement in residential buildings where required.
 - Where possible, locate all outdoor spaces away from noise sources.
 - Provide landscape buffers on the site. Use layered plantings of trees and shrubs.

Additionally, some of the guidelines provided may be too prescriptive and would limit the ability to revise and adapt the site design overtime. As an example, the guidelines in some cases reference specific setback numbers, rather than ranges. Further, the lot design guidelines section of the Design Guidelines includes detailed information about use, height, property lines, subdivision which would work again the ability to adapt and be flexible over time.

Comments from the panel would be appreciated on additional considerations for ensuring flexibility of the Design Guidelines.

Design Guideline Clarity and Usability

The principle to ensure the document is clear, organized and uses industry best practices is aimed at ensuring that the design guidelines are easily understood and used by the City, the public, architects, landscape architects, future owners, etc. This principle helps: 1) ensure that transparency with the public and other stakeholders; 2) assist with improved timelines both in the City review process as well as for architects, landscape architects and other design professionals when developing a building/site concepts; and 3) ensure relative consistency in interpretation across numerous users.

Currently the document includes four separate locations where document users would need to search for information, including: Precinct Guidelines, Streetscape and Public Realm, Private Development Sites – General Guidelines and Lot Guidelines. The Lot Guidelines themselves also contains multiple subsections including guidelines focusing on individual sites.

Much of this information can be removed from the document including most of the streetscape and Public Realm guidelines, which because Development Permit Area guidelines only apply to private property, would not be within the scope of the document. The Precinct Guidelines include very little information which could be combined with other sections of the document making the document easier to use.

Staff are recommending to continue to work with the applicant to ensure the Draft Design Guidelines are clear and organized which would include ensuring the document is easy to use by making certain there is not unnecessary duplication of information, the guidelines only include information within their effective scope (i.e. only private realm guidelines), and that the document has a clear and easy to follow structure.

Comments from the panel would be appreciated on additional considerations to ensure clarity and usability of the Design Guidelines.

ATTACHMENTS

A. Draft Sapperton Green Design Guidelines

Michael Watson,

Senior Planner

DESIGN GUIDELINES



BRAID STREET PRECINCT

Introduction

Braid Street Precinct forms the main frontage of the development along Braid Road and provides the gateway entry to the site and the linkage to Braid Station. This precinct includes mixed uses with emphasis on office and workspace. The proposed Neighbourhood Heart starts its access from the arrival point in this precinct.

Vision

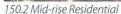
The office uses contemplated for this precinct will provide a variety of floorplate sizes that will be able to respond to different work-place opportunities. Retail at grade will enliven the streetscape and provide services and amenities to Sapperton Green and the surrounding Sapperton neighbourhood. Residential uses will provide further vitality and help promote workspace in mixed-use buildings. Flexibility to respond to market conditions and a variety of building typologies will be maintained.

Public Realm will be of high quality and is proposed to include an urban open space with activated edges, related to the retail activity. An east / west pedestrian / bicycle oriented space linking the Sapperton neighbourhood to the transit station is envisioned. This green element will be wide enough to provide active and passive open space in addition to pedestrian / bicycle connectivity – a linear park.

Links to the Central Valley Greenway to the west and Brunette Greenway to the north, will enable a high degree of connectivity to this precinct.









150.1 Mixed-Use



150.3 Mid-rise Residential

BRAID STREET PRECINCT



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BRAID STREET PRECINCT

Landscape

This precinct responds to the dominant retail and commercial mix as well as the urban character of Braid Road and the Braid Street Station. In contrast to the Station Precinct the landscape expression of this area should be balanced between hardscape and softscape. The intent is a campus-like appearance with three layers of planting; trees, low shrubs, groundcover/ lawn. The character of the planting should be formal and contained and support the various informal plazas and small gathering spaces that are defined by tree massing and placement.

The use of water although generally not encouraged could be used in this at carefully located at strategic points to encourage neighbourhood social gathering or interactive play. Storm water management features are also important elements in the Braid Street precint to illustrate the connection to natural system. The storm water collection is predominantly from the buildings and, where possible, should be expressed in close proximity to the building facade. Rain gardens along the street edges help to soften the road appearance as well as tie the precinct visually to the other areas of Sapperton Green.



52.1 Retail Spill Out Zone



152.3 Retail Zone



152.2 Plaza



152.4 Retail Spill Out Zone

BRAID STREET PRECINCT



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HUME PARK PRECINCT

Introduction

Hume Park Precinct is adjacent to Hume Park and Brunette River providing a connection between the natural context and the new community. This precinct is mostly residential in character with community uses. A variety of housing typologies will be provided to contribute to the vision of a mixed-use, transit oriented neighbourhood. The proposed Neighbourhood Heart is located in this precinct.

Vision

Housing types will transition from lower-density, ground oriented forms to multi-family forms further away. A significant public open space is proposed at the heart of the Hume Park precinct. This open space will create opportunities for both passive and active areas and will be connected to the other major open spaces in the neighbourhood and surroundings by a bicycle and pedestrian network.

The green edges of the precinct – Hume Park, the Brunette River and the new linear park, will all be brought into the site by green connections into and through the precinct.

A new north / south pedestrian / bicycle connection in the centre of the precinct will link the Brunette River, the central open space and the urban gateway plaza in the Braid Street precinct. Buildings will be formed to create and define public open space and tiered upward to the north to reduce shadow impact.

Land dedicated to vehicles will be minimized by providing the least amount of road to access all buildings. Roads will also serve as bicycle connections and have generous public realm.









154.1 Townhouse



154.3 Townhouse

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HUME PARK PRECINCT

Landscape

This precinct responds to the controlled and open park landscape expression of the neighbouring Hume Park to the west and the natural and lush river ravine edge to the north. The residential neighbourhood is comprised of both intimate pocket landscape spaces and an open park space. There is generally a higher ratio of landscape versus hardscape with the landscape comprised of three layers of green; trees, medium sized shrubs and ground covers.

The central park, which is a key part of the social and natural network, is comprised, open lawn areas bordered with a careful mix of native and adaptive non native planting, seating, urban agriculture, and adventure play opportunities. The expression of water through the use of rain gardens responds to the over riding principle of respecting the Brunette River watershed. Trees are used to create the structure and provide canopy and refuge. The overall feel of the Hume Park precinct is a balanced natural and urban landscape.



56.1 Residential Edge



156.3 Residential Edge Planting



156.2 Residential Edge Seating Node



156.4Residential Edge Streetscape

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STATION PRECINCT

Introduction

Station Precinct is located next to Braid Station focusing on office, commercial and residential uses in higher densities. Maximizing access to public transit and incorporating activities to encourage transit ridership will be provided to realize a true transit oriented development. A transit arrival plaza is located at the portal point of the community next to Braid Station.

Vision

This precinct is defined by its public realm and relationship to Braid Station. A public open space is contemplated at the intersection of the east / west pedestrian routes to Braid Station. Edged with pedestrian activity and retail / services uses, this gathering space will provide an interface between the precinct and the station and enhance the livability, security and connectivity of the station.

A signature project at the northern edge of this precinct will provide a gateway moment from the Highway 1 approaches and northerly transit vistas.

Mixed-use buildings are contemplated above the retail / services uses that will provide flexibility to enable response to changing market conditions and workspace opportunities manifested by differing floorplate sizes and a mix of residential, office and retail.

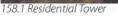




















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STATION PRECINCT

Landscape

The Station Precinct is the urban hub of the community. The mix of office, commercial, and residential and proximity to Braid Station provide intensity that will energize the plazas and open space. This area is characterized by urban, geometric forms with a higher percentage of hardscape to green landscape cover. The edges are permeable and encourage movement and activity in the form of patio spaces, outdoor dinning, and spill out from retailers. The Station Precinct could provide opportunities to express the commercial heritage of this area of Sapperton through appropriate materials and design.

Storm water collection and conveyance is carried out via water runnels that express the flow of water both at times of rain and during dry periods. These hard landscape elements will also provide opportunities to organize or define the hierarchy of the various plaza spaces. The flow of storm water moves to the northeast toward to the wetland where it is held and slowly released. The character of the landscape is predominantly hard. Soft landscape should be used to define edges and should be expressed in two layers; trees and low groundcover understory.

The overall feel of the Station Precinct is that of a vibrant, energetic neighbourhood centre.



160.1 Urban Planting



160.3 Water Element



160.2 Retail Spill Out Zone



160.4 Plaza Walkway Interface

STATION PRECINCT



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NEIGHBOURHOOD HEART

Introduction

The Neighbourhood Heart is located at the core of Sapperton Green at the intersection of the three precincts. It is connected to the station plaza through the linear park. It includes an arrival urban plaza and a generous central green park to provide a community focus as a meeting and gathering space with residents and visitors contributing to its vitality.

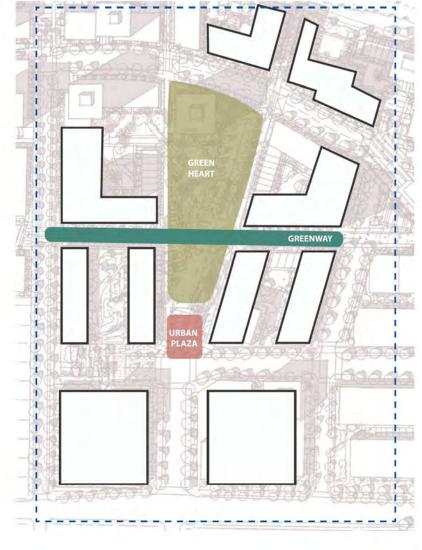
Vision

The Neighbourhood Heart will be the vibrant mixed use core of the neighbourhood. Acting as the centre of activity for Sapperton Green, it will be where people shop, live, work and play. Its location will provide great accessibility to the existing Sapperton community and future residents and employees of Sapperton Green.

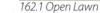
Community facilities and neighbourhood serving commercial uses, such as a grocery store, restaurants, and cafes on the ground floor of mixed use buildings will create a lively pedestrian realm and further define and animate the urban plaza.

The central park is a key element of the Neighbourhood Heart offering a large public open space closely associated with surrounding residential development. It will provide communal spaces for visitors and residents of Sapperton Green and accommodate a range of recreational uses including unstructured play, relaxation and social interaction.











162.2 Fountain Plaza



163.3 Plaza

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NEIGHBOURHOOD HEART

Neighbourhood Heart - Green

The Neighbourhood Central Park is the main landscape open space for the Sapperton Green neighbourhood. This space is the 'green' heart of the community with ample flexible open areas. Stormwater management rain gardens at the east edge offer a point of interest with a mix of urban and natural edges.

The Neighbourhood Central Park integrates seamlessly with the linear park and the southern green finger. This space makes room for ample seating opportunities, a play area, passive lawn, and a mix of naturalized planting and more urban plant expressions. The storm water management components connect directly with the water element and are clearly seen in the landscape. As with all the open space areas at Sapperton Green the adjacent residential ground floor units connect directly to the pathways that form the perimeter of the Neighbourhood Central Park.

Neighbourhood Heart - Urban

The South Plaza is a neighbourhood scale urban space directly south of the cross roads of the two neighbourhood linear parks. It is the south gateway to Sapperton Green and as such should express the character of this new neighbourhood. The scale of this space is urban but with strong neighbourhood focus. The plaza area is made up of open space of appropriate size to support local community functions, water elements that may provide opportunities for playful interaction, and perimeter spaces that are activated and support the adjacent retail.

The ground plane should be well detailed with rich materials that allude to an urban character, tree grates under plaza trees as well as ample seating.



163.1 Retail Spill Out Zone



163.3 Rainwater Management



163.2 Neighbourhood Park



163.4 Flexible Plaza Ared



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NEIGHBOURHOOD HEART



GENERAL GUIDELINES

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Intent

The overall public and private landscape expression at Sapperton Green will play a key role in integrating this new neighbourhood into surrounding Sapperton. The intent is to ensure that there is a seamless transition from the existing Sapperton parks, open space, road systems and neighbourhoods. To achieve this the Sapperton Green landscape design has embraced the adjacent landscape typology of Hume Park, Brunette River edge and the Braid Street/Braid SkyTrain Station.

These landscape typologies bring a mix of expression ranging from natural systems respecting local ecology to urban spaces that provide an intense level of activity. The ecological expression at Sapperton Green is expressed in a playful manner celebrating ecological diversity in the form of storm water features including rain gardens, storm water wetland and the Brunette Fraser Greenway. These will embrace Sapperton Green, proximity to Hume Park and the Brunette River. The urban spaces will reflect the history of this site and the vibrant day to day activities that energize and activate neighbourhoods.

To ensure that the Sapperton Green public and private open space design creates a strong sense of community we have prioritized walking, cycling, and transit as organizing elements. The design responds to human scale movement and interaction and provides opportunities for community building and will enhance the enjoyment and adaptability of the public realm while ensuring strong connections to the surrounding Sapperton community.

Vehicle movement is recognized but has been carefully planned to minimize road ROW widths and lengths to ensure efficient movement while minimizing its impact on this new neighbourhood.

Approach to Landscape Design

The landscape guidelines provide direction for the range of public and private realm landscapes that make up the community. They include key areas where the character of the landscape is important to creating the sense of place as well as contributing to the character and identity of Sapperton Green.

Design Approach: A wide variety of approaches to the landscape design may be encouraged to create variety and richness within the community. However all design solutions should satisfy a number of landscape design principles that are key to the overall approach to Sapperton Green.

Context and Character: Sapperton Green is located in the north east corner of historic Sapperton. Directly adjacent to this new neighbourhood is Hume Park, the Brunette River corridor, the transit hub of Braid SkyTrain Station and an active residential neighbourhood. The landscape design for Sapperton Green should aim to draw on these natural, urban and physical contexts.

Private / Public Realm Interface: The design of the private realm landscape must be complementary and supportive of adjoining public realm landscapes. For example, along park edges, the private realm landscape should be designed to take advantage of and complement the park setting and provide natural surveillance.

Sustainability: Sapperton Green has been planned as a vibrant sustainable urban community. All aspects of the landscape design should support this philosophy including satisfying the need for prudent water use, provision for biodiversity, appropriate rainwater management and responsible material selection. Sustainable aspects of the landscape design such as rainwater management and treatment features should be seen as opportunities to provide richness to the visual character of the development.

Goals

The proposed goals are guiding elements for both the public and private realm. The are intended to help achieve a coherent character and sense of place for all of Sapperton Green.

Unique Identity: Create a unique sense of place that celebrates the site's gateway location into New Westminster and the adjacent uses of Hume Park, Brunette River and the Sapperton residential neighbourhood.

Connectivity: Ensure site is connected to the neighbourhood and greater community. Provide activities and facilities for the surrounding neighbourhoods and the greater community. Create obvious physical connections within the site to landmarks, special places, work centres and amenities. Capitalize on the adjacent rapid transit network connection to the region.

Diversity: Create a dynamic mix of uses to support all-day activity, safety and a full sense of community. Provide for a range of types of homes, employment options, services and amenities that complement surrounding land uses and are accessible to all age groups. **Legacy:** Recognize and celebrate the history of the site and the larger Sapperton Community.

Innovation: Provide a design that is innovative, sustainable, timeless as well as responsive to market trends.

Design Excellence: Develop an outstanding neighbourhood with urban design language that is readily understandable to the general public. Provide a design that is efficient, functional and responds to the needs of target users while retaining the flexibility through design to adapt to changing future needs.

Sustainability: Ensure project is environmentally, socially and economically sustainable and contributes to the overall viability of the larger community.

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GENERAL GUIDELINES

Respectful Transitions: Ensure project respects and enhances the existing surroundings, specifically Hume Park, Brunette River and surrounding greenway, and residential areas.

General Guidelines

Sidewalks

Sidewalks on both sides of street separated from street edge with a boulevard strip. Broom finished cast in place concrete.

Bidirectional Bike Paths

Asphalt paving separated from adjacent sidewalk with feature paver strip. Painted markings to denote use and direction of travel. Designed to the standards outlined in the latest version of the BC Active Transportation Design Guide with input from city engineering requirements.

Multi-Use Pathway (MUP)

Asphalt paving separated with painted markings to denote shared use between pedestrians and cyclists.

Pedestrian and Bicycle Crossings

Typically raised to the level of adjacent sidewalk or bike and multiuse pathways to signal pedestrian and cyclist priority. Cast in place concrete with fine grain scoring pattern responding the pedestrian and bicycle scale. Designed with input from city engineering requirements.

Street Concept

The street network for Sapperton Green is intended to contribute to the overall open space framework. Street layout maximizes the opportunities for open space, contributes to permeability of the neighbourhood, facilitates logical connections to the existing Sapperton street grid. The street layout prioritizes bus movement and

ensures transit buses have direct and efficient access to the Braid Street Skytrain hub.

Parallel Parking Surface Material

Parallel on street parking areas should be a higher quality and visually different from asphalt road surface, concrete unit pavers with appropriate CIP concrete edge preferred.

Rain Gardens

Located throughout the site. planting shall encourage biodiversity and seasonal interest, respond to drought and saturated condition. See Rain Garden Planting.

Street Lights

Pedestrian Corridor Lights – character lights used throughout Sapperton Green for safety and security. Pole and luminare should be consistent throughout with pedestrian level lighting at 4.5m height facing sidewalk.

Street Furnishings

Derived from a overall family of elements that reflect a progressive urban character. See Public Realm Furnishings.

Tree grates

Urban character, permeable. Use the same tree grate throughout Sapperton Green.

Street Trees

Growing medium volumes to Canadian Landscape Standard.

Use of engineered soil root zones i.e. Silva cells, structural growing medium in contiguous trenches to attain volumes sufficient to support long term tree growth within boulevards. Species selection as per Street Tree Master Plan



166.1 Sidewalk at Residential Edge



166.2 Multi-Use Path with Lighting



166.3 Parallel Parking and Street Trees

STREETS



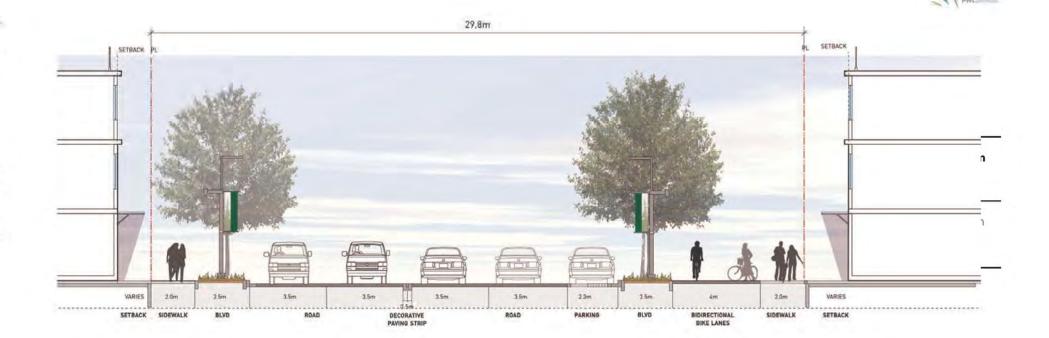
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Rousseau Street

Distinct entry to Sapperton Green. As such it should express pedestrian and bicycle movement in a positive manner, provide a strong interface with the adjacent commercial, office and retail uses on both sides of the street.

- Includes sidewalks on both sides of the street.
- Includes a bidirectional bikelane on the east side of the street.
- Additional setback on private property to allow for retail commercial spill out.
- Generous boulevards for street trees incorporate planting and hard surface, feature paver material.
- Parallel layby parking on east side.





167.1 Planted Boulevard



167.2 Painted Bicycle Crossing







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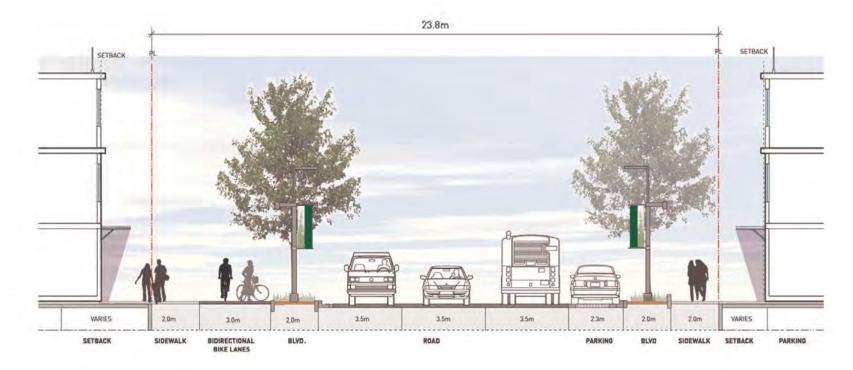
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STREETS

Transit Way

Character is a continuation of Rousseau Street responding to the commercial, retail and office uses at ground level.

- Additional setback on private property to allow for retail commercial spill out.
- Boulevards for street trees incorporate planting and hard surface, feature paver material.
- Includes sidewalks on both sides of the street.
- Includes a bidirectional bikelane on the north side of the street.
- Parallel layby parking on south side.





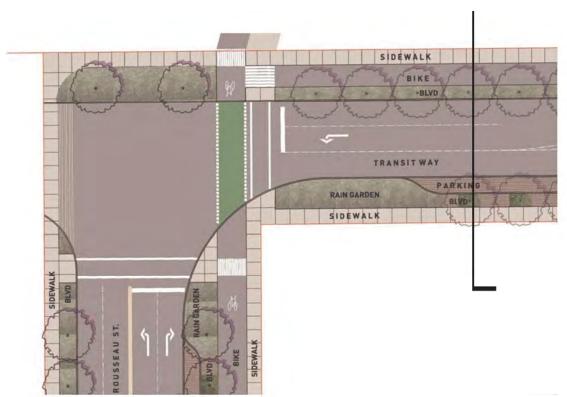




168.2 Bidirectional Bike Lane







STREETS

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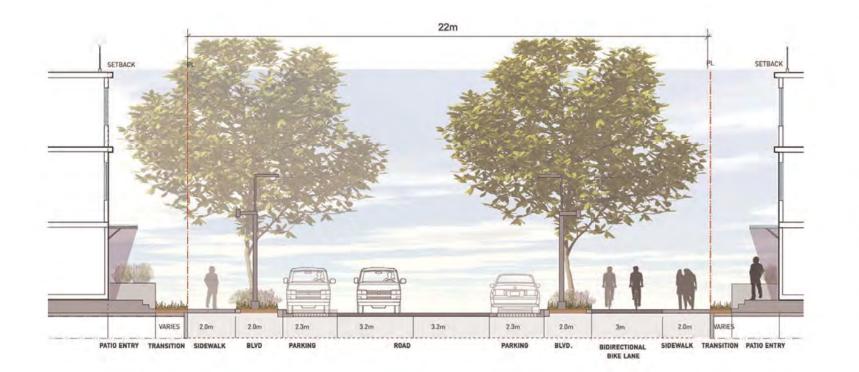


PWL

Road A

Street right of way dimensions responds to the adjacent residential scale.

- Sidewalks on both sides of the street.
- A bidirectional bike lane accommodates cyclists on the south side of the street.
- Street trees are planted in boulevard.
- Boulevards are typically soft material allowing access to the parallel parking layby
- Parallel parking on both sides.



Sapperton Green

Master Plan

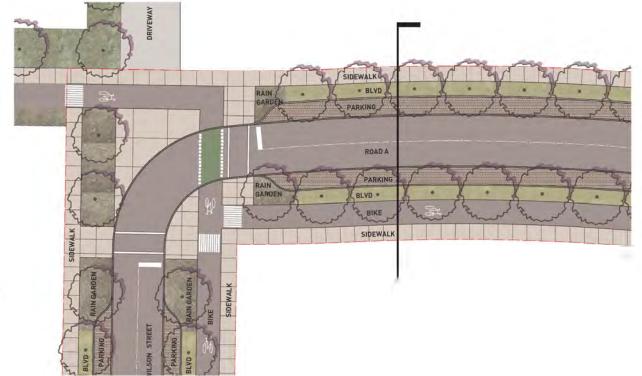
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170.1 Street Trees Boulevard



170.2 Residential Edge



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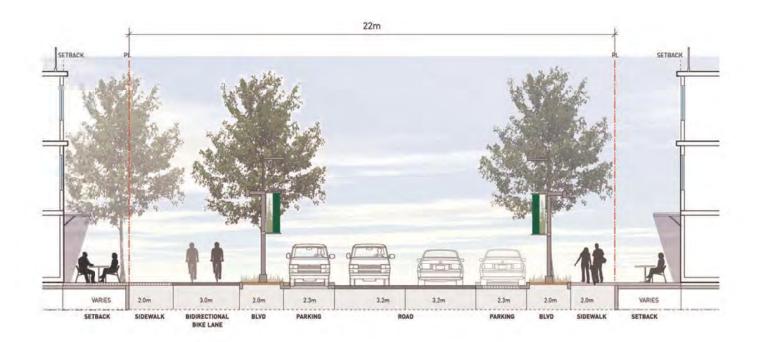
170.3 Rainwater Management

STREETS

Road B

Street right of way dimensions responds to the adjacent mixed use scale.

- Parallel parking on both sides.
- Boulevards are typically hard surface paver material with planting at the base of street trees
- Bikes accommodated off-street in bidirectional bike lane
- Sidewalks on both sides of street
- Additional setback on private property to allow for retail commercial spill out.

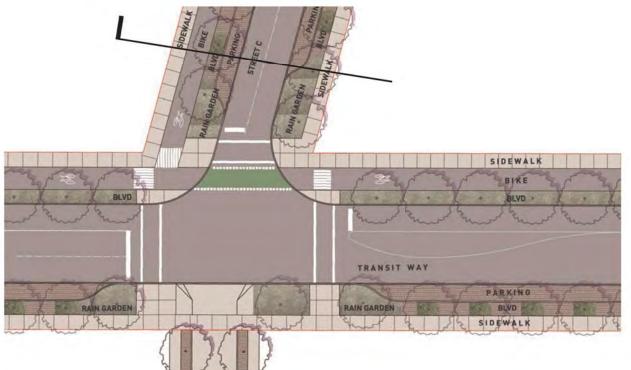




169.3 Rainwater Management





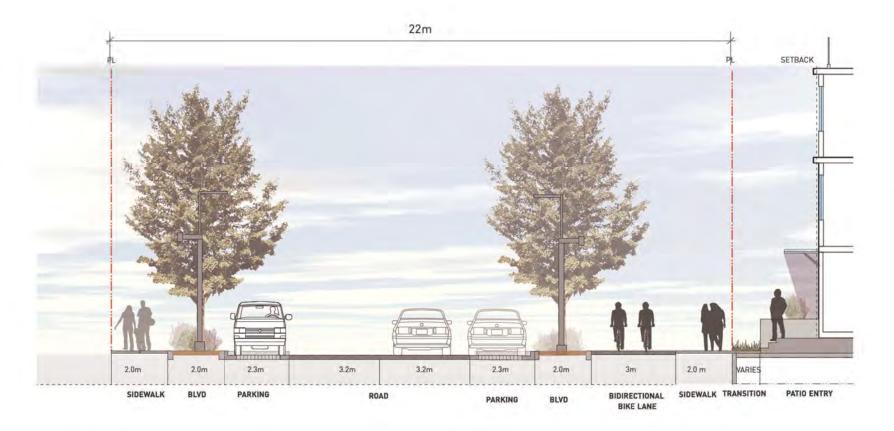


STREETS

Wilson Street Extension

Street right of way dimensions respond to the adjacent residential scale.

- Sidewalks on both sides of the street.
- A bidirectional bike lane accommodates cyclists on the south side of the street.
- Street trees are planted in boulevard.
- Boulevards are typically soft material allowing access to the parallel parking layby
- Parallel parking on both sides.











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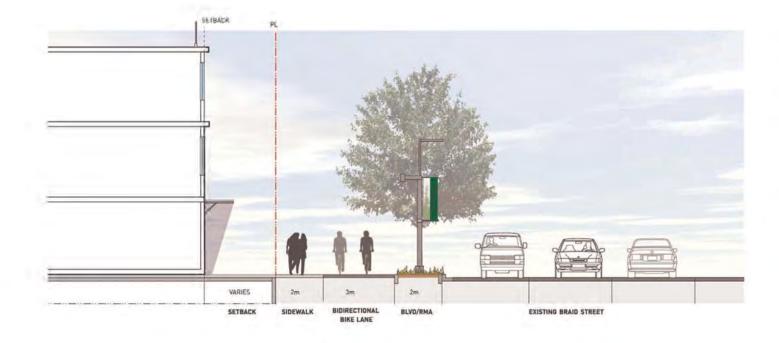
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STREETS

Braid Street

Supports active transportation adjacent to retail, commercial, office use and existing Braid Street.

- Setback to building
- Pedestrian sidewalk
- A bidirectional bike lane accommocates cyclists on the northside of the street. Potential for future connection along Braid.
- Street trees are planted in boulevard.
- Boulevards are typically soft material buffering users from the adjacent street
- Existing street edge

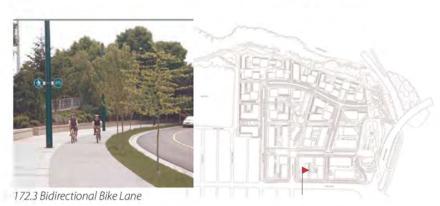








172.2 Painted Bicycle Crossing



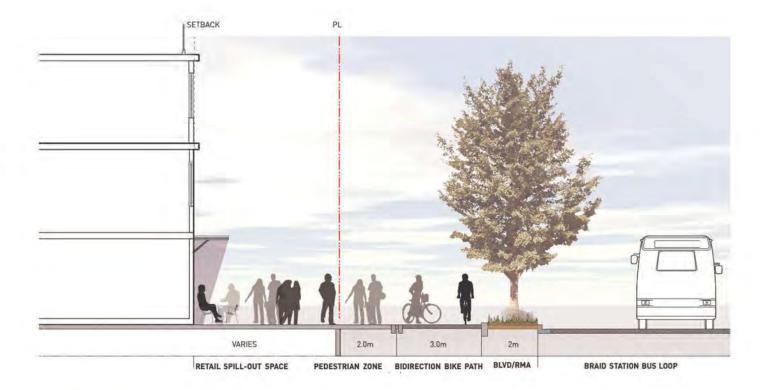


STREETS

Braid Station Bus Exchange

Adjacent transit and commercial use.

- Active retail spill out setback from building
- Pedestrian sidewalk
- A bidirectional bike lane accommodates cyclists connections.
- Street trees are planted in boulevard.
- Boulevards are typically soft material buffering users from the adjacent road and discourage cutting across the bus loop
- Existing bus loop





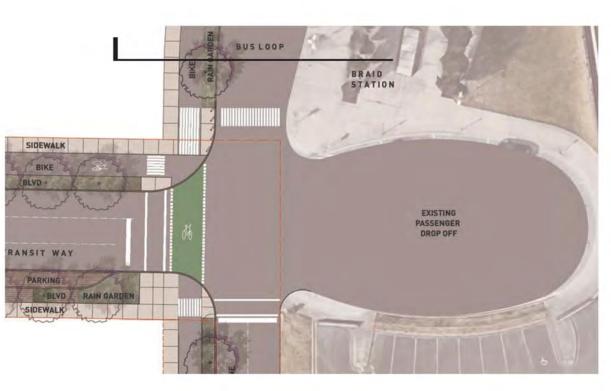
173.1 Retail Spill Out Zone

173.3 Bus Loop



173.2 Bidirectional Bike Lane







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LANDSCAPE ELEMENTS

General Hard Landscape Components

The character of the public realm plazas, nodes and greenways is defined by the proposed use, precinct identity, scale and layout. The realization of this character is through a conscious use of a family of hard landscape elements. These will reinforce the character of Sapperton Green as a progressive urban neighbourhood that embraces a biodiverse ecological approach to landscape.







174.3 Timber with Metal Fastening



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LANDSCAPE ELEMENTS

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Paving Materials

Paving materials play an important role in defining the character of public and private spaces and should be carefully considered with respect to aesthetic, scale, function, maintenance and cost.

Sidewalks, street crossings and curb let downs broom finished, scored, cast in place concrete shall be used for public sidewalks, pedestrian curb let downs and pedestrian street crossings. Exceptions to the use of concrete for public sidewalks include locations where public plazas or nodes occur directly adjacent to the sidewalk.

Consideration should be given to extending the paving material of public plazas and node to the back face of the street curb.

Paving materials for plazas and nodes in the public realm and courtyards and entry spaces in the private realm may include a wider use of options including concrete unit pavers, stone pavers and concrete. The material selection will relate to the detail design, function and program of the space, aesthetic character and maintenance parameters.

Paving materials for parks and greenways may take on a more ecological imperative that encourages permeability. Materials including crushed stone, timber board walk and permeable pavers should be considered and used where practical.







175.5 Painted Bicycle Crossing







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LANDSCAPE ELEMENTS

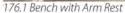
Site Furnishings

Site furnishings when coordinated with paving materials and lighting will help define the character of public places. The design intent for Sapperton Green is to employ a family of site furnishings that share common materials, colours, massing, shapes, forms and aesthetic values.

The family of furnishings may be broken down to respond to the three Sapperton Green open space areas that include; the Neighbourhood Heart (including the East-West Greenway), Station Plaza and the Brunette Fraser Greenway. The light industrial style will be visible throughout. The aesthetic value of the site furnishings should respond to the unique character of these three areas and strengthen their overall design expression and sense of place.

The family of furnishings includes benches, bike racks, drinking fountains, trash cans, recycling stations, tree grades/ guards and bollards. Generally, site furnishing materials should be made of metal and may include durable, rot resist, dense wood such as Ipe. Benches should have backs and arm rests to ensure ease of use for seniors and persons with limited abilities. The final design and product selection will be based on aesthetics, durability, availability and cost.







176.4 Custom Table Reflecting Sense Of Place







176.5 Seating with Backrest and Armrests



176.6 Character Element Bike Rack



176.7 Integrated Feature Seating



176.8 Table Tennis/Activity Furnishings

LANDSCAPE ELEMENTS

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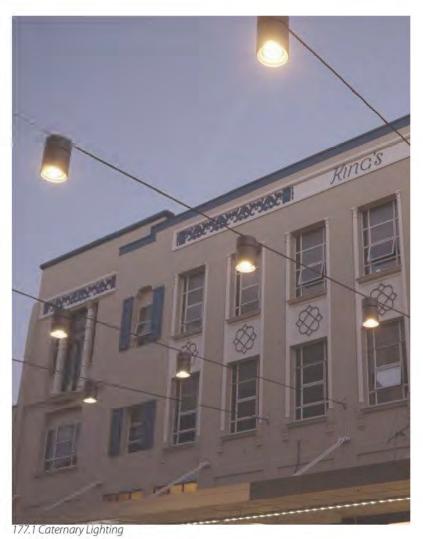
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Landscape Lighting

The selection of light fixtures including poles, luminaires, bollards, wall and step lights in the public realm should be part of a family of fixtures that are used throughout Sapperton Green irrespective of the precinct or identity area. These light elements have a strong visual presence and contribute to the overall look and feel of this new neighbourhood.

The same considerations should be given to lighting in the private realm. Light fixtures help define the extent of the private realm and as such the form, massing and colour reinforce the character and extent of private space.

Careful consideration should be given to the selection, placement and design of landscape lighting in the public and private realm. In general light distribution and intensity should strive to be dark sky compliant. Illumination levels should ensure safety and security. The USA Pattern Lighting Code Rating System or equivalent should be used as a guide to determine the appropriate light illumination values public and private landscape spaces. Lamp type and colour rendition/light temperature should be consistent throughout Sapperton Green in both the public and private areas.





177.4 Integrated Lighting



177.5 Integrated Seat Lighting



Realm lighting





177.3 Wall Light

177.6 Bollard Lights





177.7 Stair lighting

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LANDSCAPE ELEMENTS

Fences, Gates and Screens

The general intent of the Sapperton Green neighbourhood landscape design is to seamlessly transition from public, to private. Ideally this is done without the use of fences but rather by manipulating the landscape and careful selection of plant density and type including the strategic use of hedge material.

Where fences and gates are employed they should be made of durable materials such as metal. The character, form and massing should be light, airy and sympathetic to the family site furnishings and design intent for the neighbourhood.

Vertical screens should be employed to create privacy in the private realm. The same principles that applied for fencing should be embraced for screens. Screen material should be clean and simple with preference for frosted or opaque glass. Screens should not be employed in the public realm.



178.1 Visually permeable fence

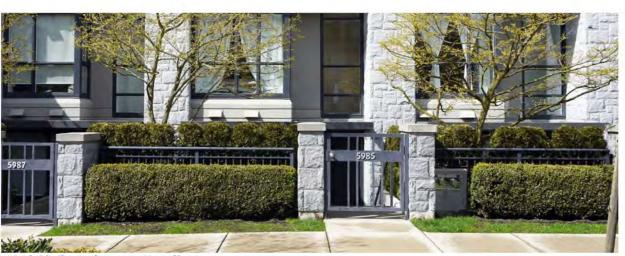


178.2 Vertical Screen





178.4 Gate



178.5 Public/Private Seperation Using Planting

LANDSCAPE ELEMENTS

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Guardrails and Handrails

Guardrails and handrails shall be provided where required by building code. These hard landscape elements should be constructed of metal with durable finish. The style and design should respond to the surrounding family of hard landscape elements.

Walls

Where retaining walls are necessary, they should be constructed and finished with durable materials.

Generally wall heights should be less than 1.2 metres. Where vertical heights exceed this walls shall be stepped. Care should be taken to ensure that the stepped wall design allows for sufficient room to include planting to soften the aesthetic appearance.

The material choice for the exposed wall finish should reflect the material palette and style of the adjacent of the public landscape space, adjacent architecture or character of the neighbourhood.

Timber and unit block walls are not allowed in the public realm and should only be employed in the private realm where they are out of public view.















179.8 Concrete Wall





179.6 Metal Wall



Design

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Guidelines

PLANTING STRATEGY

Street Tree Master Plan

Street tree species have been selected for the suitability to urban conditions, shape, branch height and four-season aesthetic value. The arrangement and placement of street trees encourages biodiversity and contributes to the shading of road and adjacent sidewalk surfaces. Care should be taken to ensure that the conflicts with street lighting and utility placement are addressed.

The urban forest at Sapperton Green is an important place-making element. Tree species must withstand urban conditions, provide seasonal interest, have minimal fruit or seed drop, be high branched and scaled to suit the size of space. Planting should be robust, easy to maintain and where applicable, drought tollerant when possible to limit amount of watering during summer months.

- Liquidambar styraciflua 'Worpleston'
- Acer platanoides columnar 15'
- Fagus sylvatica Dawcky 15' Stewartia pseudocamellia
- Quercus robur Crimschmidt 12'
- Tila cordata Corzam 15'
- Acer freemanii Autumn Blaze 35'
- Fraxinus oxycarpa Raywood 30'
- Carpinus betulus Frans Fontaine

Sweetgum Columnar Red Maple Columnar Beech Japanese Stewartia Crimson Spire Columnar Oak Corinthian Littleleaf Linden Autumn Blaze Maple Raywood Ash Frans Fontaine Hornbean



180.1 Liquidambar styraciflua 'Worpleston'



180.2 Fagus sylvatica Dawyck



180.3 Quercus robur Crimschmidt

HUME PARK

GARRETT STREET



ROAD A

180.4 Acer platanoides columnar



180.5 Acer freemanii Autumn Blaze



180.6 Fraxinus oxycarpa Raywood

PLANTING STRATEGY

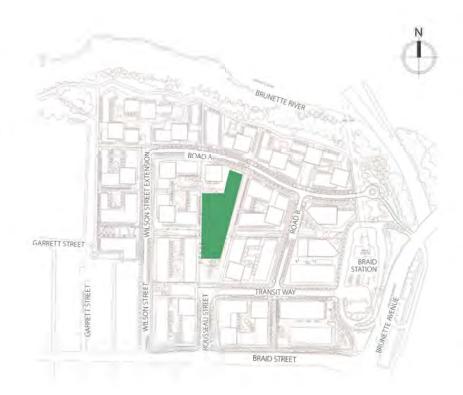
Community Green and Community Park

The Community Green and the Community Park may utilize a broader range of plant selection in comparison to plazas. In general plant selection shall include the use of adaptive plants and native plant species. Consideration should be given to height, width, form when incorporating native plants within the planting design as native plants in shrub form tend towards sizes that are larger than human scale.

In general planting areas should be incorporated to define spaces and create separation from active edges. Where possible design and selection of plant material should consider a layered planting approach that incorporates a ground cover and mid layer of plants with the upper story comprised of shade or ornamental trees. Plant selection should consider seasonal interest and reinforce the goals of ecology and sustainable urban design by including pollinator species. Design of Sapperton Green parks planting should consider maintenance requirements of Level 2 Groomed, Canadian Landscape Standard, current edition.

In general trees selection should contribute to character, neighbour-hood identity and spatial design through leaf shape, tree form, bark type. Trees provide a sense of vertical scale, define spaces, edges and corridors while softening the built form. Ideally trees are placed in groupings of conifers, deciduous shade trees and deciduous flowering trees. Tree species are either native or adapted non-native that may provide seasonal interest and are large scale.

In addition to overall park planting the Community Green and Community Park will incorporate rain garden planting along the eastern edge between the park open areas and the North-South Greenway. The character of the rain garden areas should respond to the ecological and environmental function, provide seasonal interest and a high percentage of pollinator plants.



Lawn areas should be planted with grass species that are drought tolerant, respond well to heavy use and compaction and thrive in sun and shade. The Community Green lawn should be designed so that it will accommodate year-round festival like activity.

Plant List

Acer circinatum

Acer platanoides 'Cleveland'

Acer rubrum 'Red Rocket'

Acer rubrum 'Sun Valley'

Amelanchier sp.

Arbutus unedo 'Compacta'

Buxus microphylla 'Winter Gem'

Carpinus betulus 'fastigiata'

Choisya ternata

Cornus nuttallii 'Eddies White Wonder'

Cornus sp.

Hamamelis sp.

llex crenata sp.

Liquidambar styraciflua 'Worpleston'

Malus diversifolia

Prunus laurocerasus 'Otto Luyken'

Pseudotsuga menziesii

Quercus coccinea

Quercus palustris

Rhododendron sp.

Rosa sp.

Sarcococca hookeriana humilis

Skimmia japonica

Spiraea bumalda 'Anthony Waterer'

Stewartia pseudocamellia

Thuja plicata

Vaccinium ovatum 'Thunderbird'

Viburnum davidii

Viburnum carlesii



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STREETSCAPE AND PUBLIC REALM

PLANTING STRATEGY

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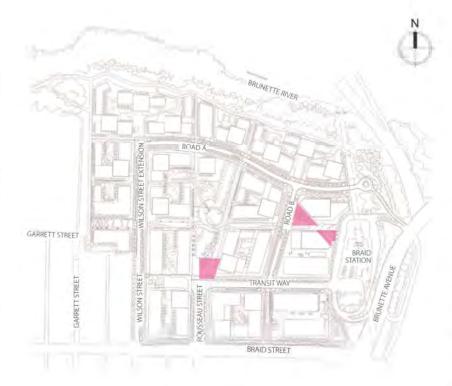
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Plazas

Plant selection for plazas should respond to the location, character, design aesthetic and scale of the urban space. Consideration should be given to larger plant massing, layered planting design, seasonal colour and preference for evergreen species to ensure winter interest. Typically plant species selection should be limited to those that have proven to respond to the extremes in micro climate found in urban conditions. In addition to this where possible in plaza plant selection should consider support of biodiversity and bird and insect habitat. In general plant material choice should adhere to the principle of the right plant for the right place.

Planting locations in urban plazas or similar urban conditions should respond in a positive way to drought, soil compaction and human interaction. For urban conditions consideration should be given to non-native, non-invasive introduced adaptive ornamental species with strong seasonal interest. These are plants that have been introduced into the lower mainland landscape and have proven to thrive in local climatic conditions.

Trees in urban plazas create an overhead canopy that provides a sense of human scale, define plaza edges, create summer shade and interesting shadow patterning on the ground. Tree selection should contribute to the identity and character of the plaza space. Careful selection of trees to ensure that fruit and seed drop is minimized in these areas will reduce conflicts with use and maintenance. Typically, trees shall be deciduous with branching height at or above human scale (2.1 metres). Plants and tree selection should consider maintenance requirements of Level 2 Groomed, Canadian Landscape Standard, current edition.



CPTED design principles should be employed with regard to selection and design of planting areas. Among other CPTED principles ensure that surveillance and views into plaza spaces from surrounding sidewalks, greenways and buildings are unobstructed.

Plant List Acer platanoides 'Cleveland' Acer rubrum 'Red Rocket' Acer rubrum 'Sun Valley' Buxus microphylla 'Winter Gem' Carpinus betulus 'fastigiata' Choisya ternata Fraxinus oxycarpa 'Raywood' llex crenata sp. Liquidambar styraciflua 'Worpleston' Quercus coccinea Quercus palustris Rosa sp. Rhododendron sp. Parrotia persica 'Ruby Vase' Platanus acerfolia

Sarcococca hookeriana humilis Skimmia japonica Spiraea bumalda 'Anthony Waterer' Stewartia pseudocamellia Vaccinium ovatum 'Thunderbird' Viburnum davidii Viburnum carlesii

Prunus laurocerasus 'Otto Luyken'

DesignGuidelines

PLANTING STRATEGY

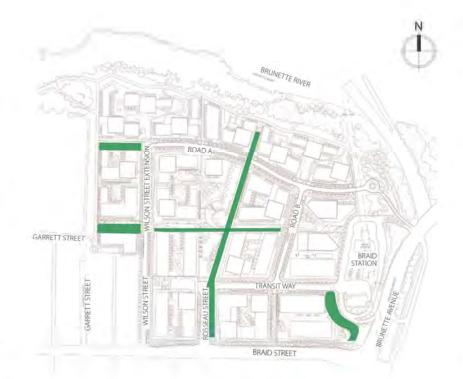
Greenways

Greenway planting shall typically have defined edges with an emphasis on an urban character. An urban character is generally a mix of open lawn areas and planting beds with shade and flowering trees within the plant beds.

Shapes and forms respect the geometry of the built form and walk-way systems but may be infused with broad curved lines to create interest and relate to the proximity of Sapperton Green to natural corridors and parks.

Plant beds are comprised of a mix of evergreen and deciduous material in mass planting. Shrubs shall provide seasonal interest and contribute to the ecological biodiversity and sustainable urban design of Sapperton Green greenways while minimizing maintenance. Design of greenway planting should consider maintenance requirements of Level 2 Groomed, Canadian Landscape Standard, current edition.

Trees should be used to define landscape spaces and corridors, create interest, soften the built form, reinforce human scale through the height of the underside of the canopy of sustainable urban design.



Plant List

Acer platanoides 'Cleveland'

Acer rubrum

Amelanchier sp.

Arbutus unedo 'Compacta'

Buxus microphylla 'Winter Gem'

Choisya ternata

Cornus sp.

Fraxinus oxycarpa 'Raywood'

Hamamelis sp.

llex crenata sp.

Liquidambar styraciflua 'Worpleston'

Parrotia persica 'Ruby Vase'

Platanus acerfolia

Prunus laurocerasus 'Otto Luyken'

Quercus coccinea

Quercus palustris

Rhododendron sp.

Rosa sp.

Sarcococca hookeriana humilis

Skimmia japonica

Spiraea bumalda 'Anthony Waterer'

Stewartia pseudocamellia

Vaccinium ovatum 'Thunderbird'

Viburnum carlesii

Viburnum davidii

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STREETSCAPE AND PUBLIC REALM

PLANTING STRATEGY

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Rain Gardens and Storm Water Wetland

Rain gardens and storm water wetland will form important components of an integrated approach to site drainage and rain water management. These features are designed to slow runoff, filter rain water and detain storm water during peak storm events releasing it slowly over time. Rain gardens and the edges of storm water wetland will likely see periodic inundation with water. As such plants selection should include a range of species that can withstand periodic flooding of soils. Plant selection should consider CPTED design and seasonal interest and contribute to ecological habitat for birds and insects and plant biodiversity. Ideally plant selection for the Storm Water Wetland is biased toward native species.

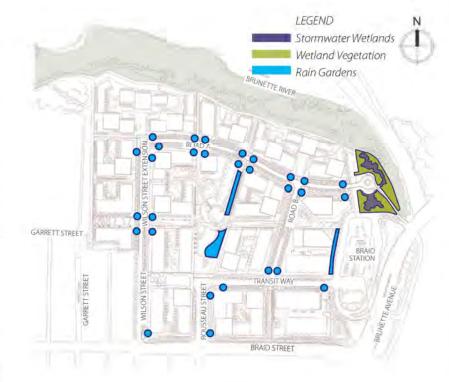
Natural Planting

Natural planting areas of Sapperton Green include the Brunette Fraser Greenway area up to the storm water management wetland at the north east corner of neighbourhood. In addition to these areas natural planting should include pockets within the Community Park located along the rain garden edge to contribute to the overall expression of this natural edge and the ecological goals of Sapperton Green.

The character of the natural planting areas should reflect a landscape that is informal, respond to the unique plant palette of the native forest and take on organic shapes and forms. The planting design should reflect a layered approach and include a ground cover zone, a shrub zone and a tree canopy zone. Design of natural planting should consider maintenance requirements of Level 3 Moderate, Canadian Landscape Standard, current edition.

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Trees shall be primarily native in undefined groups of varied height, density, and species. Evergreen and fruiting species are encouraged. The use of non native trees that contribute to the biodiversity and ecology of Sapperton Green are acceptable.

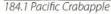


Shrub and ground cover material should include native species but as with trees, non native, non invasive introduced species that contribute to the insect habitat/pollinators and biodiversity are acceptable.

Plant List

Acer circinatum / Vine Maple
Acer macrophyllum / Big Leaf Maple
Alnus rubra / Red Alder Black
Cornus nuttallii / Western Flowering Dogwood
Malus diversifolia / Pacific Crabapple
Populus trichocarpa / Bitter Cherry
Prunus emarginata / Cottonwood
Pseudotsuga menziesii / Douglas Fir
Thuja plicata / Western Redcedar
Tsuga heterophylla / Western Hemlock







184.2 Western Flowering Dogwood



184.3 Red Alder



184.4 Western Redcedar



184.5 Vine Maple



184.6 Big Leaf Maple



184.7 Bitter Cherry



184.8 Douglas Fir Cone

PLANTING STRATEGY

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Private Realm Landscape Planting

Private Realm

In general the same reccomendations for landscape planting noted in the Community Green, Community Park and Plazas apply to the private realm.

Plant selection in the private realm not only provides seasonal interest with a mix of evergreen and deciduous material but ensures a connection to the natural landscape. Plant selection should help to provide vertical scale and structure and through their unique leaf, branching and bark character. The private realm planting should contribute to the identity of a Sapperton Green with emphasis on the character of its surroundings, i.e Hume Park precinct planting should respond to a more park like plant selection and organization.

Trees in the private realm provide opportunities to define scale, mark individual ground base units and main entries as well as contribute to neighbourhood character. In general tree species should be predominantly deciduous to ensure access to winter sun and summer shade. Evergreen trees may be incorporated as feature elements and for screening.



185.1 Mix of Evergreen and deciduous plant material



185.2 Perennial Planting Beds with Trees



Design Guidelines



185.3 Planting provides vertical scale



185.4 Planting texture reinforces character

PUBLIC REALM CHARACTER AREAS

Neighbourhood Heart

The Neighbourhood Heart at Sapperton Green includes two very distinct expressions; The Urban Heart and the Green Heart. The Green Heart is further divided into two character areas; the Community Green and the Community Park. These active, neighbourhood spaces merge together to bring a vibrant and coherent sense of community through the careful use of materials, furnishings, lighting, and signage.

General Guideline Principles

- Open space design should respond to the Neighbourhood Hearts function as the main public, community gathering space, entry and identity building element for Sapperton Green.
- The character and appearance should be unique to Sapperton Green and reflect the image of a vibrant neighbourhood within Sapperton.
- The shapes, forms and design expression reinforce the character of the three Sapperton Green precincts; Hume Park Precinct, Braid Street Precinct and Station Precinct.
- Use a family of hard landscape elements to ensure a cohesive and identifiable design expression.
- The hard landscape elements respond to the aesthetic, character and durability goals of the project.
- Landscape respond to a character gradient; urban expression (Urban Heart) to more natural expression (Community Park).
- Where practical grade changes are less than 5% to ensure full accessibility. Integrate grade into the overall design expression as an element that contributes to the program and definition of the space.



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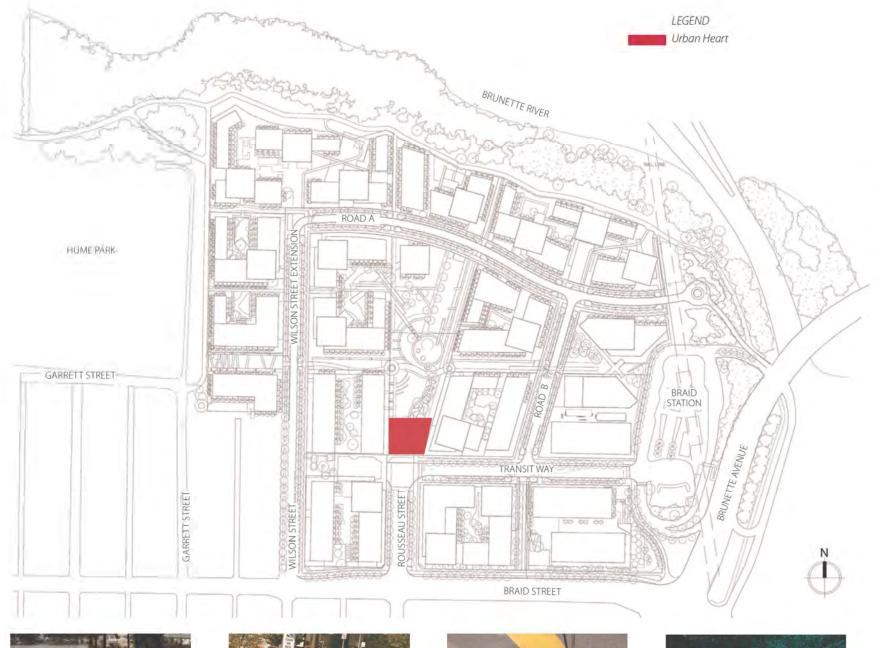
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Urban Heart

The Urban Heart creates a gateway opportunity to the Sapperton Green community. It is comprised of active retail edges bordering a programmable open plaza that encourages vibrant events including; market days or outdoor theatre entertainment for local residents and the city at large. Feature lighting, overhead structures and water elements reinforce the sense of excitement and energy defining the spaces and providing scale and local character. The Urban Heart will also provide opportunities for quiet enjoyment.

- Street level hard surface plaza neighbourhood gathering space large enough to facilitate a range of activities.
- · Ground plane material selection, and pattern should contribute to the overall identity of the Urban Heart while creating interest and breaking down the scale of the space. Consider concrete unit pavers with local stone accent pavers.
- Furnishings should reflect a family of elements that defines this
- Consideration should be given to a feature element that may include water as a playful expression. Water expression should provide full flexibility and not reduce the size of the plaza as a community gathering space.
- Plaza interface with the edge of adjacent built form should respond to the potential spill out from retail patios. Definition of these patio spaces should be sympathetic to the overall design of the urban heart and contribute to its identity and energy.
- Feature lighting, power, water for events integrated with overall design.
- Strategic use and placement of shade trees to define space and provide shade.





187.1 Flexible Plaza for Event





187.3 Character Element



187.4 Lighting

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PUBLIC REALM CHARACTER AREAS

Green Heart

The Green Heart is the park and open space portion of the Neighbourhood Heart. It is comprised of the Community Green and the Community Park. These two landscape spaces offer both active and passive uses to the neighbourhood and are the 'everyday' park for the community. The Green Heart's proximity to the proposed Community Centre encourages a strong programming relationship with the park spaces. The Green Heart provides soft landscape space for community gatherings, weekend and daily activities and offers a wide range of program options.

Community Green

The Community Green is directly north of the Urban Heart. Although it is primarily a soft landscape green space it supports the Urban Heart Plaza by providing a flat, all season lawn area that will allow opportunities for larger festivals and gatherings that otherwise could not be accommodated on the Urban Heart Plaza. Its character is similar to the festival lawn at Westminster Pier Park. The Green Plaza takes advantage of the 4 metres of grade change at its northwest edge by incorporating a stepped lawn/ tree planted, amphitheatre-like seating opportunity. This southeast facing seating edge supports the active uses of the adjacent lawn area while creating a passive grade transition to the East-West Neighbourhood Greenway.

Furnishings and hard landscape including lighting should draw from the palette of elements related to the Neighbourhood.

A feature rain garden expression on the east edge of the Community Green creates an opportunity for a more natural landscape expression. The character of the rain garden should respond to its more urban location and provide opportunities for boardwalk or lookouts within the rain garden.



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Community Park

The Community Green transitions to the Community Park, a more natural/urban park-like expression north of the East-West Neighbourhood Greenway. This open space should have a positive relationship to the East-West Greenway ensuring a seamless connection. The north end of the Community Park should be identified with an urban node at the sidewalk interface with Road A. This node should identify connections to the Brunette Fraser Greenway to the north. The Community Park will be attractive to all ages and abilities incorporating a large adventure play area and open lawn areas. Grade change should be incorporated into the overall design expression and be used to create usable space for sitting or plan. A continuation of the urban rain garden on its east boundary forms a passive barrier between the park and the North-South Greenway. Pockets of more intimate landscape expressions along the perimeter paths will provide opportunities for seating.

Hard landscape materials should be derived from the paving material palette developed for the Urban Heart. Materials for the adventure playground should be durable, robust; include heavy timber, logs, boulders, etc. Proprietary products should be limited to elements that can be incorporated into the natural structures.



189.1 Amphitheater Seating

189.2 Playground



189.3 Planting



189.4 Greenway

Design Guidelines

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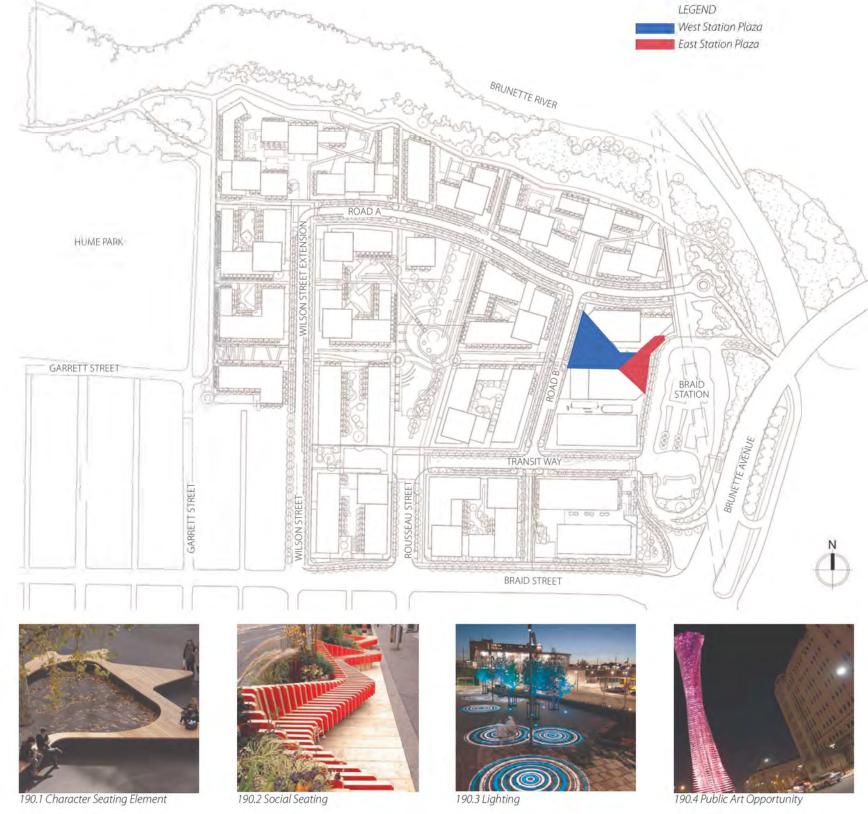
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PUBLIC REALM CHARACTER AREAS

Station Plaza

Station Plaza is located at the east end of the east-west linear park/ greenway on the west side of the Braid SkyTrain Station. It is the retail/commercial, office hub of Sapperton Green. The urban land-scape design should consider the transportation and manufacturing heritage of the site to create a distinct, recognizable character for the Sapperton Green neighborhood.

- East-west linear park/ greenway expressed in as the southern edge of the West plaza design.
- Furnishings are urban in character, clean simple lines, mixture
 of hard, durable wood and metal and are sympathetic to the
 shapes and form of the Neighbourhood Heart but have their
 own unique look and feel to reinforce the character of the Station Plaza.
- Paving is robust, and include concrete unit pavers, local stone in sizes and shapes that respond to the urban character.
- Feature paving shall add character and define spaces including retail commercial spill out edges adjacent to building.
- West plaza interface with retail commercial building edge encouraged. Paving material selection, planters and bollards preferred over fencing to define this edge.
- Feature seating opportunities encouraged as defining elements
- Tree placement and selection should define a central zone in the West Plaza.
- Overall organization and placement of elements should respond to southwest orientation of west plaza.



PUBLIC REALM CHARACTER AREAS

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Sapperton

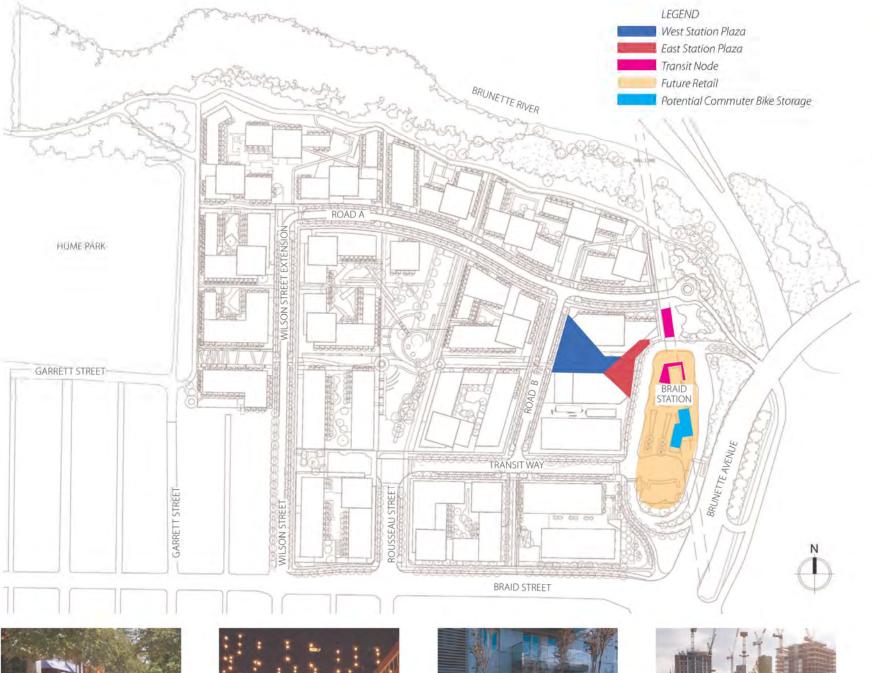
Master Plan

Green

2020

Transit Plaza

- East plaza materials and furnishings follow the precedent set with the west plaza.
- East-West Greenway expression terminates where the west plaza merges with the east plaza.
- Overhead catenary type lighting to be considered at the east plaza to create a sense of place.
- Ensure a clear delineation of pedestrian crossing point from the east plaza to the transit plaza at Braid Station.
- Ensure strong multi-use path connection from Station Plaza east to Brunette Fraser Greenway.
- Consideration of bike storage lockers/ facility north of transit node under SkyTrain guideway. Arrangement and alignment with bike storage to allow for views to storm water ponds from Station Plaza – east.











Design Guidelines

191.1 Retail Spill Out Area

191.2 Caternary Lighting

191.3 Seating

PUBLIC REALM CHARACTER AREAS

East-West Greenway

The East-West Greenway is a pedestrian only primary neighbour-hood connector to Braid Station from Hume Park/ Central Valley Greenway and the neighbourhood to the west. The character of the greenway is that of a park like, urban green that responds to its mid point location in the Sapperton Green neighbourhood.

This East-West Greenway open space incorporates a dual path system to allow for direct access from the adjacent residential units. The south walkway will be expressed as a wider dominant path incorporating seating along its length. Grade changes will not exceed 1:20 slopes. Creative solutions to sloping walkways to allow a fully accessible circulation will include zig-zag paths incorporating planted areas and shade trees. These paths will ensure a park like character grade transition.

Node points at important intersections of the East-West Greenway park will be incorporated to identify the greenway, recognize the intersection of the greenway with other paths and roads and create opportunities to reinforce the sense of place and character of Sapperton Green. These locations include the interface with the Central Valley Greenway at Hume Park, street crossings and entry points to the Green Park. Character elements including way finding signage, benches, lighting and feature paving will provide identity and link these nodes to the overall open space expression of Sapperton Green.

The hard landscape elements and paving treatment of the East-West Greenway should draw from the family of elements developed for the Neighbourhood Heart.



PUBLIC REALM CHARACTER AREAS

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North-South Greenway

The North-South Greenway runs the length of Sapperton Green on the east side of Rousseau Road continuing north along the east edge of the Green Heart. It crosses Road A and continues through the private development parcel to make a connection with the Brunette Fraser Greenway at a well-developed node point.

It creates an active movement corridor, where pedestrian and bike paths do side by side. This contributes to the overall permeability of the neighbourhood. Adjacent residential ground based units will connect to this multi-use path system to create energy and reinforce the community feel. The North-South Greenway alignment should be off set from the property line to ensure a 1.2 metre buffer between the private entry walkways and the multi-use path.

A rain garden on the west side of the North-South Greenway ensures storm water from the greenway surface is managed and expressed in a way that is clearly visible reinforcing one of the neighbourhood green initiatives. The rain garden will also provide a passive barrier between the North-South Greenway and the park minimizing conflicts with park users and cyclists. Bridge like elements at reasonably spaced intervals will ensure a degree of permeability and connection across the rain garden.

The network of nodes outlined for the East-West Greenway shall be employed for the North-South Greenway. Hard landscape materials should to the family of elements proposed for the Neighbourhood heart.





193.1 Tree Canopy



193.2 Seating and Planting Edge



193.3 Multi-Use Pathway



Design Guidelines

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193.4 Rainwater Amenity Residential Edage 126 of 167

PUBLIC REALM CHARACTER AREAS

North-South Greenway



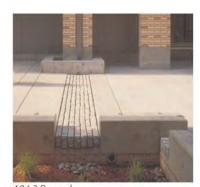
94.1 Rainwater Amenity



194.2 Retail Spill Ou



Park East Including North-South Greenway



194.3 Runnel



PL SETBACK
PL SIDEWALK SETBACK
PL SETBACK
PL

Rousseau Street Including North-South Greenway

PUBLIC REALM CHARACTER AREAS

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East-West Greenway

The East-West Greenway is the most prominent pedestrian route within Sapperton Green. It is part of the overall Sapperton Green movement system, but more importantly it is a community organizing element.

The greenway forms a strong, linear connection from the west to the east through the Sapperton Green neighbourhood. In doing so, it connects Hume Park and the rest of Sapperton with the Braid Street SkyTrain Station. More importantly, it allows people to move via an open space through Sapperton Green, making connections with parks, a community centre, urban plazas and other fine-grain pedestrian and street networks.

The East-West Greenway is typically bordered on both sides by ground based residential units. The entries and patios for these units will interface directly with the East-West Greenway paths. In doing so, it will add to the animation of the greenway paths and create a vibrant, active edge.

For most of the greenway length there will be a path on either side of the greenway. This simple hierarchy adds interest and creates differentiated spaces. The 3.0 metres wide, south path will encourages one to stop and linger. While the 1.5 metres, north path encourages movement with purpose.

When the greenway interfaces with the Station Plaza, it remains in its 3.0 metre wide expression ensuring positive movement to Braid Station.



195.1 Residential Edge





12.2m RIGHT OF WAY

ACCESSIBLE PATH

TRANSITION

COMMUNITY CENTRE

EAST WEST GREENWAY BUFFER RETAIL SPILL OUT

LAWN

TRANSIT PLAZA

East-West Greenway

PATIO

TRANSITION WALKWAY



East-West Greenway at Transit Plaza

Design Guidelines

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195.2 Retail Spill Out

PUBLIC REALM CHARACTER AREAS

Brunette Fraser Greenway

The Brunette Fraser Greenway runs along the northern boundary of Sapperton Green connecting to the Central Valley Greenway at Hume Park and Braid Street, east of Brunette Avenue.

The development of Sapperton Green will see the Brunette Fraser Greenway relocated and reconfigured to ensure it sits outside this setback protecting the sensitive river edge and natural riverbank. The reconfiguration of the path will include hard surface paving and widening to allow for multi-use capability and where possible improved slope conditions and accessibility.

The alignment of the greenway multi-use path will take advantage of natural clearings, locations of existing shade trees and topography to create opportunities for passive recreation in meadow like settings, views to the Brunette River and ecological and natural systems interpretative signage.

A number of public connections from the south through the private development parcels will reinforce the principle of neighbourhood permeability. These connections should read as public spaces. Paving treatment should be unique and consistent with materials used for the Neighbourhood Heart and Greenways. Node points at the interface of these connection points to the public sidewalk should be clear and legible and contain way finding signage. Where possible these connection points will provide visual access to the Brunette Fraser Greenway from the Road A and Braid Station.

196.1 Interpretive Signage

196.2 Seating



PUBLIC REALM CHARACTER AREAS

Brunette Fraser Greenway

Sensitive replanting will be carried out along the length of the greenway to improve its character and encourage biodiversity. Plant material selection should feature native plants.

The materials employed in the Brunette Fraser Greenway should respond to its natural setting. The multi-use pathway should be asphalt. Node points along the greenway should consider the use of permeable unit pavers. The character of the furnishings including benches, picnic tables, bike racks, trash cans and bollards should reflect an aesthetic that responds to the natural character of this landscape. The use of heavy timber elements for seating with backs and arm rests is encouraged. Lighting should respond to levels that meet minimum standards for safety and security.

Consideration should be given to a potential future connection from the Brunette Fraser Greenway to the Crane Site to the northwest. Possible location for this connection is in the proximity of the SkyTrain guideway alignment.

Heavy timber elements, node paving should be hard surface/ permeable. Lighting should respond to levels that meet minimum standards for safety and security.





Brunette Greenway



Brunette Greenway

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Sapperton Green

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Design Guidelines

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PUBLIC REALM CHARACTER AREAS

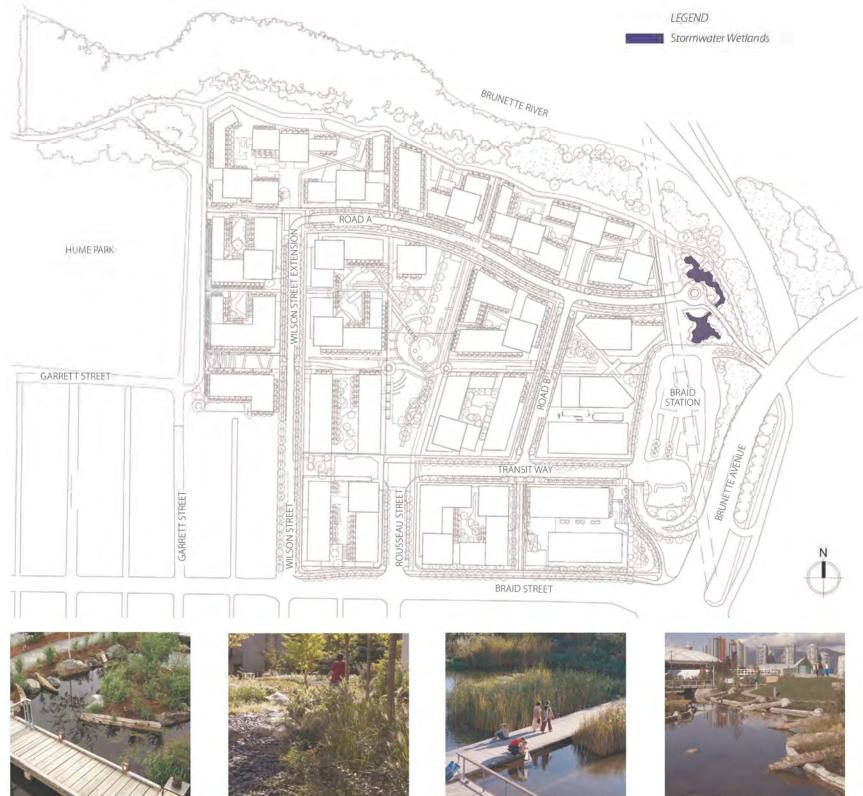
Storm Water Wetland

The storm water wetland is located at the north east corner of Sapperton Green. This is a naturally low area and continuation of the natural landscape expression of the Brunette Fraser Greenway. The storm water wetland is an important component of the overall Sapperton Green storm water management strategy. It provides an opportunity to improve biodiversity and create an interpretive element for the community.

- Interface with the storm water wetland and the Brunette Fraser Greenway to the east and the connector from the greenway to Braid Station on the west side is encouraged.
- The interface should include opportunities for boardwalk like look outs, interpretive signage, seating and bicycle racks.
- Character of these elements should be similar to the hard landscape elements developed for the Brunette Fraser Greenway.
- Planting should encourage bird and insect habitat, biodiversity and respond to the conditions presented by the storm water wetland.

198.1 Boardwalk

198.2 Planting



198.3 Walkway Through Wetland

198.4 Wetland Edge Page 131 of 167

COMMUNITY CENTRE

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PWL

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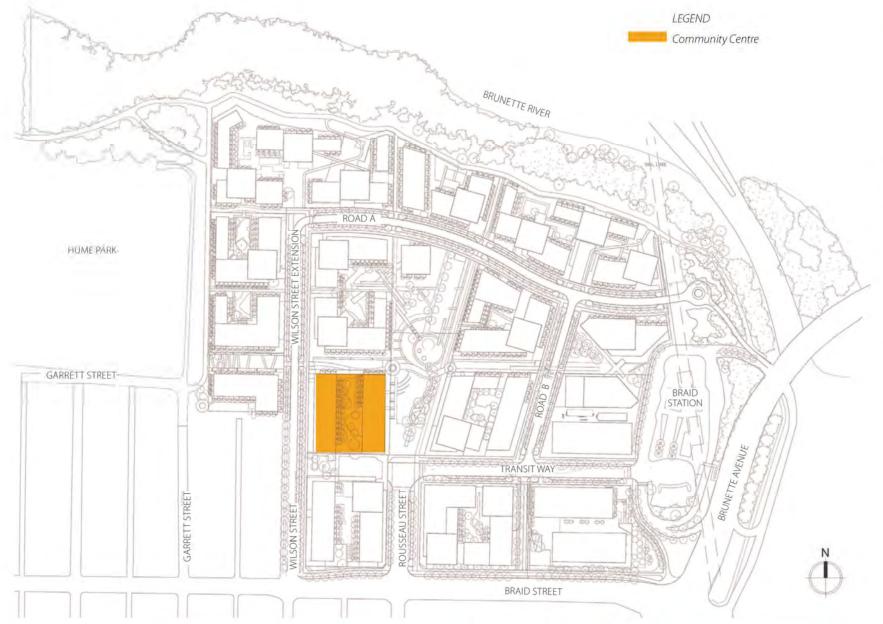
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Community Centre

The community centre is the structured heart of Sapperton. Located within the Neighbourhood Heart it contributes to the vibrant energy, activity and social structure of Sapperton Green and Sapperton. The Community Centre landscape should have:

- A welcoming front door that is highly visible.
- Front door should incorporate a landscape space with distinct paving and planting that reinforces the sense of place and separates it from the surrounding public realm.
- Front door expression shall include seating, bicycle racks and lighting that ensures a strong night time presence.
- Where possible indoor/ outdoor visual or physical connections are encouraged to create active edge and seamless transition.
 Orientation and connection to outdoor play areas, park, greenways and plazas.





195.1 Landscape Space



195.2 Welcoming Front Door



195.3 Bicycle Facilities



Design Guidelines

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195.4 Visual Connection Page 132 of 167

DAY CARE

Day Care

The Sapperton Green day care is an important neighbourhood amenity that reinforces the goal of creating a balanced, complete community. Design considerations for the day care landscape should include:

- A dedicated, welcoming front door that is highly visible, secure and easily accessible for vehicle drop-off.
- A strong physical and visual connection between indoor and outdoor activity spaces.
- Strong visual connection of outdoor, active space to the surrounding neighbourhood.
- Solar orientation and solar cover that will provide opportunities for both sunny and shaded areas.
- Sufficient area to ensure compliance with local or provincial spatial requirements for various age groups and areas of active
- If placed on roof deck, sufficient depth over slab is necessary to allow for footings and growing medium depths that comply with the Canadian Landscape Standard - current edition.



CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN, CPTED

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CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts. Generally speaking, most implementations of CPTED occur solely within the urbanized, built environment. Specifically altering the physical design of the communities in which humans reside and congregate in order to deter criminal activity is the main goal of CPTED.

CPTED principles of design affect elements of the built environment ranging from the small-scale (such as the strategic use of landscape materials) to the overarching, including building form of an entire urban neighbourhood and the amount of opportunity for "eyes on the street".

Natural Surveillance

Natural surveillance increases the threat of apprehension by taking steps to increase the perception that people can be seen. Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction among legitimate users of private and public space.

Natural Surveillance is strongly emphasized by our design:

- All of the streets have retail, residential or office windows overlooking the streets.
- All of the streets are intended to be active with pedestrian traffic, bicycle traffic and vehicular traffic.
- Landscape design provides cues for access for designated points of entry.
- The lighting design will avoid poorly placed lights that create blind spots, all areas of the public realm will be well lit such as sidewalks, pathways, stairs and parking areas.
- Additionally, the lighting will not be so bright to create blind spots, deep shadows or glare.

Natural Access Control

Natural access control limits the opportunity for crime by taking steps to clearly differentiate between public space and private space. By selectively placing entrances and exits, fencing, lighting and landscape to limit access or control flow, natural access control occurs.

Natural Access Control is utilized in our design by providing:

- Residential units with entrances at grade, where the landscape creates a clearly identifiable point of entry.
- Use structures such as canopies and residential entry elements to invite persons to reception areas and access to the front door of a unit.

Eliminates design features that provide access to roofs or upper levels. Roof access to amenity areas will be secure and will provide access only to the occupants of the building.

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Natural Territorial Reinforcement

Our design promotes territorial reinforcement by the creation of semi-public and private spaces for the residential access points on the street. An environment designed to clearly delineate private space does two things. First, it creates a sense of ownership. Owners have a vested interest and are more likely to challenge intruders or report them to the police. Second, the sense of owned space creates an environment where "strangers" or "intruders" stand out and are more easily identified.

- Maintained premises and landscaping such that it communicates an alert and active presence occupying the space.
- Provide trees in residential areas. Research results indicate that, contrary to traditional views within the law enforcement community, outdoor residential spaces with more trees are seen as significantly more attractive, more safe, and more likely to be used than similar spaces without trees.
- Display security system signage at access points. Territorial reinforcement measures make the
 normal user feel safe and make the potential offender aware of a substantial risk of apprehension
 or scrutiny. When people take pride in what they own and go to the proper measures to protect
 their belongings, crime is deterred from those areas because now it makes it more of a challenge for
 criminals.

Underground Parking Facility

The underground parking facility is intended to be designed for pedestrian safety by accommodating:

- Higher ceilings than the minimum clearance required to convey openness.
- Well lit environment achieving lighting between 60-70ft candles rather than the minimum 5ft candles required by code.
- Parkade surfaces will be painted white to reflect lighting, greatly assisting in the perception of a safe environment.
- Sufficient room for circulation and maneuverability for automobiles to assist drivers with easy access to and from the parking space and access to exits.

Design Guidelines

In summary, this project has employed CPTED principles to respond to crime prevention.

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GREEN INFRASTRUCTURE AND ECOLOGICAL NETWORK

These Design Guidelines support sustainable building and landscape practices and a responsible approach to water, energy and waste management including opportunities to reduce greenhouse gas emissions. The greenway and nearby riverbank bicycle and walking trails should be protected and enhanced by this development.

OVERALL STRATEGIES

Water Conservation

Manage rainwater on-site with designs that encourage infiltration, evapotranspiration and water re-use, for example:

- Create and re-use bio-retention areas, such as swales, raingardens, vegetated islands and overflow ponds.
- Include catch basin restrictors and oil/grit separators as appropriate.
- Rain gardens for infiltration and treatment should consist of gravel trenches with permeable soils and suitable vegetation.
- Overflow piping could divert excess overflow into the stormwater system.
- Celebrate the use of rainwater as an active landscape element.
- Encourage the visible path of rainwater from building roofs to stormwater systems
- Consider poured in place curbs with cuts for water inlets for drainage into landscape islands or the use of wheel stops.
- Consider water conserving appliances and fixtures wherever possible.
- Low flow or low flow/high flow choice toilets and urinals operated by hand or sensors are encouraged.







Energy Conservation

- Commercial or office components of buildings should be designed to ASHRAE 90.1 in accordance with the new BC Energy Step Code. Energy efficient heating, air conditioning and ventilation will be used.
- Install energy conserving fixtures and appliances. HVAC systems to contain no CFCs.
- Use efficient light sources on site to reduce energy costs and to create a natural colour balance for safety and security. LED lighting is also recommended.
- Consider energy monitoring systems.
- Encourage strategies to reduce the heat island effect.
- Consider enabling buildings to be connectable to a future
 District Energy System

Waste Management

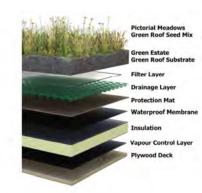
- On-site recycling and waste receptacles serving tenants and employees will be provided on each site in locations that are convenient for collection and pick-up.
- Location and design of the recycling/waste facilities will be determined at the detailed design stage.
- Recycling facilities for construction waste including concrete, asphalt, rebar and wood will be utilized on all sites.
- Recyclable metals shall be sent to recycling and salvage facilities.

Materials

- · Durable building materials are encouraged.
- Mass walls or rainscreen walls are to be used for building exteriors.
- Low emitting materials: (VOC) for paint, flooring, sealants,
- etc., should be specified.







BUILDING LOCATION AND SITTING, TOWER FLOOR PLATE AND SEPARATION

In general, buildings will be sited to enhance and reinforce the surrounding streetscape and open space. Location of built form shall capitalize on solar orientation.

- · Ground orientated residential units should set back a minimum of 4m to accommodate semi-private open space and an entry transition zone.
- To define an enclosed road space, a strong streetwall character is encouraged in retail commercial areas.
- In areas with ground floor office, a setback minimum of 3m allows for a landscape buffer to improve privacy.
- Buildings exceeding 150 feet in length should have architectural articulation to break down the massing.
- Towers of more than 12 stories should be separated by a minimum distance of 80'.
- If two rows of towers face the same street, consider the opportunity to stagger tower locations to minimize overlook and maximize view potential.

Middle Shaft (Residential Point Towers)

Compact slim towers and small floor plates minimize shadowing, maximize separation, and views between buildings. They also improve privacy and reduce overlook impacts on adjacent streets, parks, open spaces and properties. The following standards will apply:

- 1. Design and articulate the floor plates to break down the mass of the building and to create "street interest" and enhance skyline character.
- 2. Residential tower floor plates above the podium height will not exceed a maximum area of 860m² (excluding balcony, inclusive of internal elevator cores, servicing and circulation components) and should be designed to achieve proportionately slender

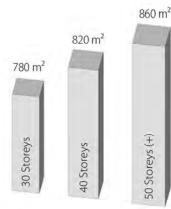
tower profiles based on the suggested guideline (Image203.1):

- $0 30 \text{ Storeys} = 780\text{m}^2 \text{ (excluding balcony)}$
- 0 40 Storeys = Up to $820m^2$ (excluding balcony)
- 0 50 Storeys = Up to 860m^2 (excluding balcony)
- 3. Provide a minimum spatial separation of 80' between residential towers to maximize access to sky views, natural daylighting, adequate privacy, minimize wind conditions and collective shade on the streets, parks and open spaces (Image203.2).

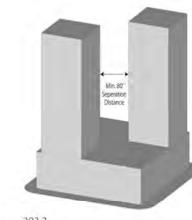
Uninterrupted Tower Shafts

To allow for different tower expressions and juxtaposition of form, a portion of the tower shaft may vertically extend down to grade in order to allow for an uninterrupted tower expression when incorporated into a podium or larger development scheme, subject to the following:

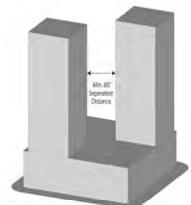
- 1. A minimum of 25% of the principal tower face may extend to grade without interruption by a Podium. Image203.3 is a calculation of minimum allowable area of Uninterrupted Tower Shaft.
- 2. The setback to accommodate an uninterrupted tower shaft will count towards the allowable setback set out by the frontage standards for frontage streets (Image203.4).
- 3. When deployed at corner locations, the exposed at grade portion of the tower will be designed to create a highly animated and active condition, with entrances, in order to positively reinforce and celebrate the corner.
- 4. Introducing design elements at-grade to mitigate the effects of wind that are integrated with the architecture of the building or landscape design.







203.2



Master Plan

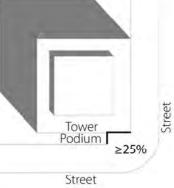
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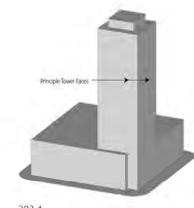
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203.3



203.4

Design Guidelines

WAYFINDING AND SIGNAGE

Wayfinding

To accommodate signage within the development the following should considered:

- Building design with integrated spaces for signage that respect architectural features and scale.
- Integrated task-oriented illumination for signage facing the street, pedestrian walkways or trails that avoid glare light spillover onto adjacent land and residential uses.
- Building identification signage as large scale design elements including parapet signage, awnings, banners or plaques that are visually appealing, attractive and visible to pedestrians and motorists and generally facing away from residential uses.
- Directional signage for pedestrian walkways, parking and service areas.
- Clear and distinct graphics on all signage, coordinated with the image of the overall development.
- No signage should be permitted on fences.
- Minimize light pollution from signage on residential areas (if applicable).

Signage

Generally signage throughout Sapperton Green should respond to the character and materials of the specific area and use. Signage should be integrated with the design, be dynamic, creative and vibrant. Lighting of signage should generally be indirect and designed to accentuate the identity element while preserving the night sky. Local sign bylaws must be respected.



















oject Signage

tinctive Elements Page 137 of 167



MATERIALS, COLOUR AND LIGHTING

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Materials + Colour

Exterior building materials should embody the project philosophies of timelessness and sustainability and reinforce the underlying character of the precinct in which they reside.

Materials and colour selection shall be aesthetically pleasing and compatible with the character of the precinct.

Colour schemes shall reinforce the architectural quality and industrial heritage of the development.

The overall concept of integrating buildings into the overall site design should be supported with an earth-toned colour palette. Bright colours are limited to discreet elements including entries, corporate identities and architectural and structural features.

Natural material colours are encouraged including galvanized metals, timber, stone and concrete.

Lighting

Lighting design should provide even illumination of the building and outdoor spaces. Strong spotlights and hotspots are to be avoided.

Concealed lighting, up-down lighting or other strategies to reduce glare are to be considered.

Glare to adjoining sites, with particular attention to neighbouring residential uses, shall be minimized.

Particular attention shall be paid to elimination of light pollution and glare to the Brunette River.

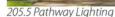




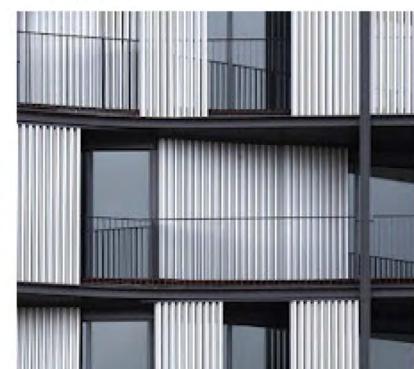
201.5 Feature Lighting











Design Guidelines





CPTED (CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN)

The design of this development supports an overall sense of safety and security. Building and landscape design should consider the following:

- Exterior lighting directed to specific areas of the site, generally away from public view.
- Elimination of dead ends and hidden recesses or alcoves.
- Appropriate lighting levels that illuminate pathways around property, doorways, and front entries.

Consider a hierarchy of defensible spaces using precautions such as:

- Strategic use of fencing, landscaping and signage around the perimeter of each lot to indicate 'private space'.
- The assessment of appropriate site access for a range of user groups.
- Strategic location and type of fencing including gate access.
- Address indicators that are easily seen from the road and clearly direct traffic to their destination.
- Assessing the impact on this development of user groups from adjacent structures and facilities.

Consider surveillance strategies such as:

- Front entries that are well glazed with no areas of concealment either inside or outside (ie. cement columns which may block sight lines or provide concealment).
- Fencing material that allows for surveillance in and out of the property and is resistant to graffiti (ie. wrought iron).
- Landscaping material that does not impede sight lines around corners, in and out of suites or into doorways.
- Maintenance of landscaping materials at a height appropriate for surveillance.
- 'Open' design of outside staircases that eliminate blind corners and areas of concealment.











206.3 Clear Sightlines Page 139 of 167

^{*} Refer to the New Westminster Police Service's Crime Prevention Through Environmental Design)

LOTS WITHIN SAPPERTON GREEN

There are 8 distinct lots within Sapperton Green, ranging from mixed use to residential.



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GENERAL

Building Articulation

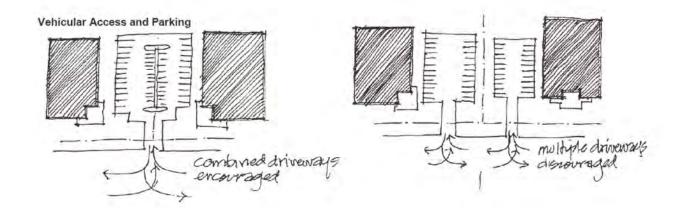
- Building articulation can be achieved utilizing glazing, canopy and shading systems, as well as exposed structural components.
- Feature banding to break up perceived wall height may be used to assist in achieving horizontal articulation.
- · Highly visible circulation and building systems are encouraged.
- Vertical service elements, such as stair and elevator shafts, that are located to the perimeter of the building, may be used to assist in articulation, as well as express their function.
- Rooftop mechanical systems, elevator penthouses and other appurtenances should be integrated into the form of the building and screened from view.

Recycling and Garbage Facilities

 Recycling and garbage holding must be provided within the building envelope of new residential buildings, except for townhouse buildings where a screened exterior location may be permitted.

Vehicular Access

- Direct access onto Braid Street should be minimized.
- Shared driveways to abutting properties should be provided where possible as illustrated below to
 maximize safety, minimize impervious surfaces, and increase the landscaped buffer bordering the
 properties. The city standard crossing width should not be increased.



Pedestrian Access

- Ground-oriented pedestrian "green fingers" through large footprint buildings are encouraged to create connections to on-site circulation routes and amenities, consistent with a campus-like environment. Such circulation through buildings should be clearly identified and designed for use by the general public.
- Larger sites that are developed with more than one building should provide weather protected pedestrian linkages to connect building entries within the site, and public access routes should be integrated into development sites for convenient public access to adjacent properties, SkyTrain stations and city greenway and bikeway networks. Atria and galleria are highly recommended.
- Bridge/walkway systems with weather protection are encouraged for upper-floor connections between buildings on the same parcel.



COMMERCIAL

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Guidelines

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Design

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General Character and Intent

The commercial uses are generally located in the southern and eastern part of the site close to traffic artery, Braid Street, Burnette Highway, Braid Station and bus terminal. Primarily commercial with elements to support an active and vibrant community, including central park space, shops and services, schools, childcare and community centre at the mixed use zone along Rousseau Street and Transit way, and around the station.

Architectural Components

The intent for architectural components and materials is to recognize the area's unique light industrial context and character:

- · Reinforce the near view with high-quality materials, detailing and active storefronts.
- Express a finer grain urban fabric by articulating smaller structural bays and modules.
- Larger tenant signage to reflect/complement architectural character of the community wherever possible.
- Storefronts should be transparent at grade and are encouraged not to contain long blank walls.
- High clearance warehouse-type spaces should have clerestory windows at the upper storey of the facade.
- Building interface with the public realm should emphasize details and proportions at the scale of the pedestrian with particular consideration to the objectives of animated streetscapes and showcasing functional outdoor workspaces.
- Reference the "heavy duty" context with details and expression.

Windows

Windows at grade are important to enhance pedestrian interest.

 Maximize transparency through use of high transom, low sill window designs, as well as operable windows where appropriate.

- Where windows cannot be used, use other means to add visual interest such as expressed vertical elements, vines, murals, and detailing. Avoid long stretches of blank wall.
- Uses and functions which do not lend themselves to enhancing pedestrian interest should be located away from ground floor windows.
- · Use of mirrored or highly reflective glazing, window decals or other vision obscured treatments are highly discouraged, and may not be permitted, especially at grade.
- · Bird friendly design is encouraged.

Entrances

The intent is to create buildings and spaces that relate to and respect the public realm as well as to showcase functional workspace. Characteristics of these buildings include:

- · Main building entries should be clearly identifiable, transparent and accessible from the street.
- Locate secondary entrances and individual small tenant entries with frequency along adjoining sidewalks. Separate uses or accessory retail spaces should have separate and distinct entries.
- Reinforce visually and physically, the connection of interior spaces to the public realm. Strategies, such as operable folding storefronts and roll-up doors, are encouraged to introduce opportunities for outdoor workspace.
- Provide pedestrian interest and comfort at entries through specifically designed seating, signage, lighting and features that indicate the building's use and function.

Exterior Walls and Finishing

- · Exterior building design should reflect the industrial and institutional urban context and be of high-quality durable materials.
- Exterior materials that are encouraged included:
- · Contemporary metal cladding systems;

- Heavy timber structural elements; Glass and steel:
 - Masonry, architectural concrete or brick.
 - Stucco and vinyl are discouraged as primary exterior materials and may not be permitted by the Building By-law.
 - Roofs, especially visible from above, should be architecturally treated and/or landscaped.





COMMERCIAL











10 4 Bar



210.5 Outdoor Patio

RESIDENTIAL

MCM

Musson Cattell Mackey Partnership



Sapperton

Master Plan

Green

April 2020

General Character and Intent

The residential uses are generally located to the northern and western part of the site adjacent to the natural context, Brunette Fraser Greenway, and park space, Hume Park. It is primarily residential with elements to support an active and vibrant community, including central park space, shops and services, childcare and community centre at the mixed use zone closed to Braid Road and Transit station hub.

- The character of the community will respond to the distinctive natural and built environment at Sapperton Green.
- · Building form should facilitate social interaction and a sense of community among the residents of the neighbourhood, with surrounding areas and with the master site as a whole.

Building Style and Architecture

- No specific design theme is envisaged, however building style and architecture must be simple in form, subtle in details.
- Buildings will be designed to address the potential technical and physical issues particular to west coast climatic conditions in order to ensure long-lasting structures.
- Consideration will be given to a range of measures that keep birds from striking tall structures.
- Consideration should be given to incorporating appropriate flexibility and adaptability to future changes in activities and technology – accommodating the possibility of retrofitting and reconfiguration as the neighbourhood evolves over time.

Materials

- · Exterior finishes and detailing on all buildings will be of a durable quality suitable to west coast climatic conditions.
- Building materials with low environmental impacts will be encouraged where economically feasible. This could include use of recycled and recyclable materials, locally sourced products, and materials with recycled content and materials with low embodied energy.
- Building materials should be selected from a palette of materials deemed appropriate for a predominantly residential neighbourhood to provide some cohesiveness and recall the master site as a whole.



211.2 Residential Tower

211.4 Low-rise Residential





Design Guidelines

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RESIDENTIAL

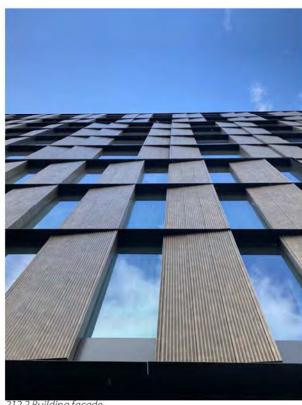


212.1 Apartment















NATURE OF EACH FRONTAGE; SETBACK

Musson Cattell Mackey

Partnership

OuadReal

- The intent for front yard setbacks is to provide opportunities for building articulation, to step outward as building heights increase and to establish a consistent street wall and building shoulder.
- · At Grade
 - 1. Residential, front yard, minimum 15'
 - 2. Retail, front yard, minimum 1'
 - 3. Commercial, front yard, minimum 1'
- Above Ground Level
 - 1. Residential, front yard, minimum 0'
 - 2. Commercial, front yard, minimum 0'
- Minimize building setbacks to create a pedestrian-scaled street environment.
- Provide a consistent range of building setbacks to create a generally continuous street wall.
- Building setbacks should be proportional to the size/character of the oad and the height of the building.
- Provide building step backs for buildings greater than 6 storeys.
- The intent for the stepping of building setbacks is to reduce apparent bulk and massing as height increases to improve access to daylight and views on the adjacent public realm and developments, and minimize wind impacts.
- Commercial Frontage
 Continuous street-oriented commercial frontages
 - Provide continuous and street oriented at-grade commercial or public uses for all ground level frontages identified as Mandatory Commercial Street Frontage.
 - Provide continuous, street-oriented commercial, residential and/or employment living uses for all ground level frontages identified as Optional Commercial Street Frontage and/or Secondary Active Street Frontage.

Sidewalk cafés, restaurants and stores

- The building design along Mandatory Commercial Street Frontages should enable stores, cafés and restaurants to spill onto frontage zones to provide sidewalk cafés or outdoor display, while ensuring a clear pedestrian through zone.
- All buildings facing Mandatory Commercial Street
 Frontage, Optional Commercial Street Frontage,
 Secondary Active Street Frontage, and Primary
 and Major nodes shall include pedestrian-oriented
 lighting designed to illuminate the sidewalk.
 Pedestrian-oriented lighting is also encouraged for all
 other commercial and multiple-unit buildings.
- Residential Frontage

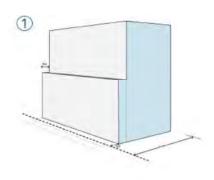
Continuous ground-oriented residential frontages

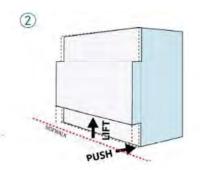
1. Provide continuous and ground-oriented individual residential or employment living uses in the first floor of all buildings along frontages identified as Residential Street Frontages or Employment Living Street Frontage. Breaks in the continuous frontage can be considered for access to concealed vehicle parking or loading, provided they are carefully designed to respect the character of the street.

Residential entrances

- Entrances for ground-level units and building lobbies should be located near the street grade. Residential entries should be oriented to the street, separately and clearly identified. Step individual entrances with the slope.
- Building lobbies should be enhanced through the use of elements such as low walls, steps, special paving, special planting features, architecturally integrated canopies projecting from the building

and special lighting while ensuring direct sight lines into the lobby. Building entrances should be seen as 'punctuation' in the overall streetscape.

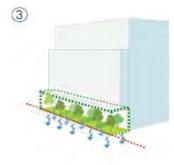


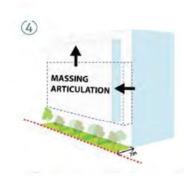


Sapperton Green

Master Plan

April 2020









Design Guidelines

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LOT 1

Lot 1 is located at the southern edge of Sapperton Green, bounded by Braid Street to the south, Rousseau Street to the west, and Transit Way to the north. This lot falls within the mixed-use zone of Sapperton Green and will see residential buildings in medium density block form above commercial buildings, purely commercial buildings. The range of program options and includes:

- Purely commercial buildings.
- Mid-rise apartment buildings.
- Retail or other frontage activating function on ground level.
- Proposed market rental and condominium buildings to encourage social integration.

Use: 1A, Mixed-use 1B, Mixed-use

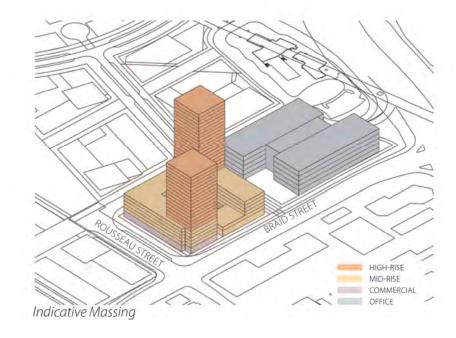
Building Form: Linear building block, point tower

Maximum Building Height: 1A, 32 storey
As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page110.

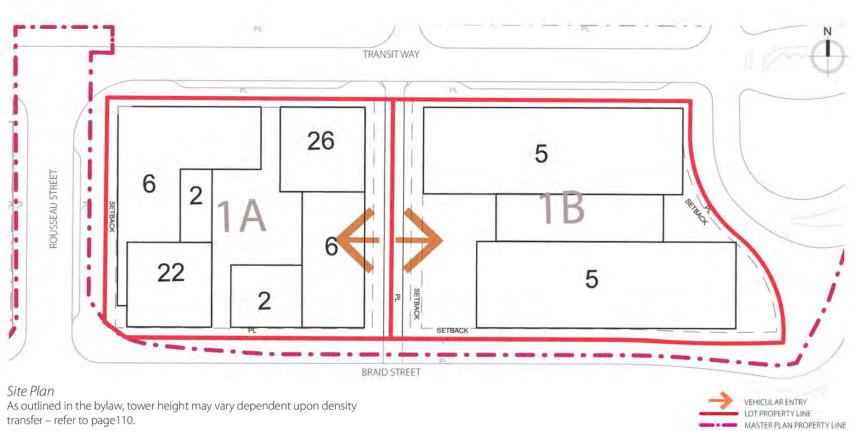
Maximum Podium Height: 6 storey

Maxi. Residential Tower Floorplate: 8073sf/750sm

(excluding balcony)







LOT 1

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Sapperton Green

Master Plan

April 2020

Lot 1: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway Path
 - · Lighting (on gate or other)
- 2 BUILDING ENTRY
 - Well defined
 - Strong relationship to streetscape and lobby
- 3 RETAIL/COMMERCIAL EDGE
 - Accommodate patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - Walkway connections at appropriate locations
- 5 PRIVATE PATIO/YARD
 - At each ground based courtyard unit
 - Direct connection to courtyard space
- 6 AMENITY PATIO
 - · Positive relationship to indoor amenity
 - · Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - Program to encourage use by residents



Design idding Guidelines

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LOT 2

Lot 2 is located at the eastern edge of Sapperton Green, where Braid Station and bus terminal sit, the east end of Transit Way. This lot falls within the mixed-use zone of Sapperton Green retail transit station uses. The range of commercial options will include:

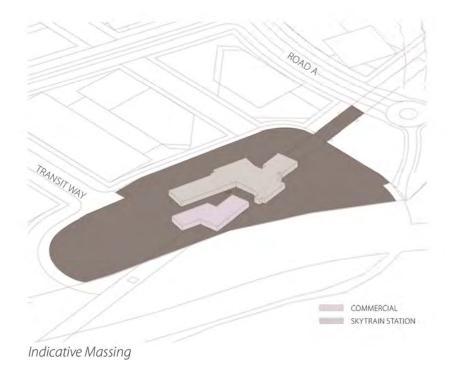
 Retail or other frontage activating function to be on ground level. Use: 2, Commercial

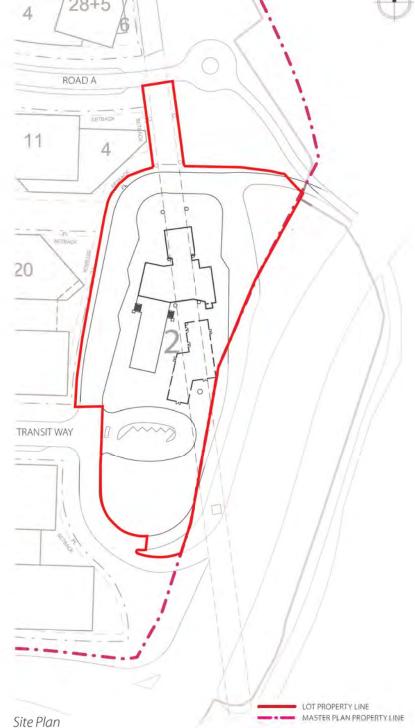
Building Form: Linear building block

Maximum Building Height: 2 storeys under transit viaduct

As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.





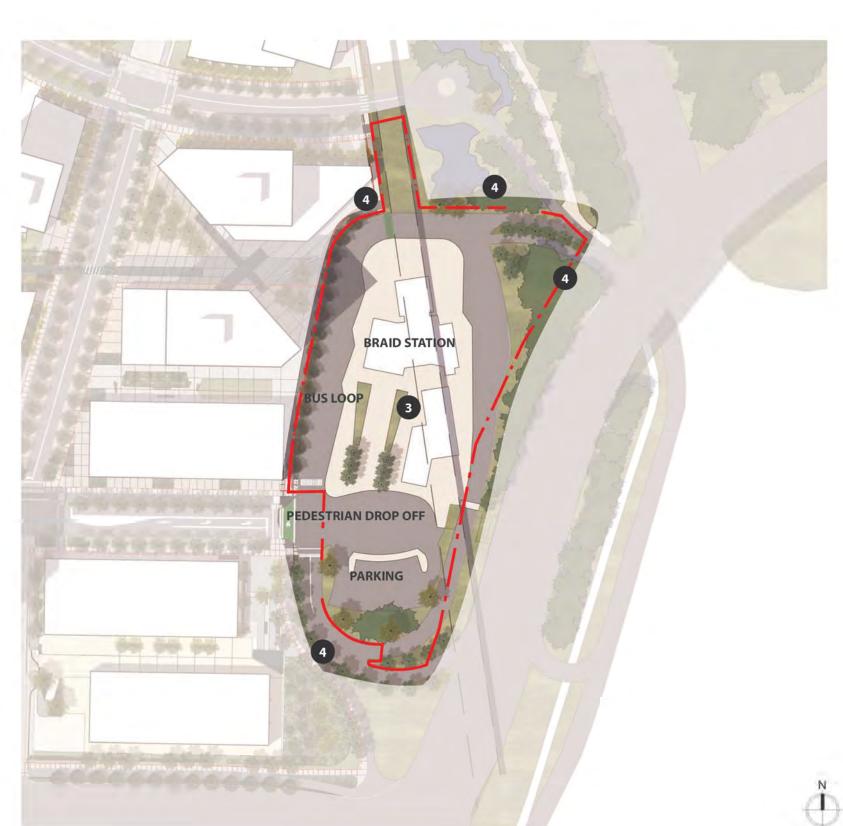


As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

LOT 2

Lot 2: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway Path
 - · Lighting (on gate or other)
- 2 BUILDING ENTRY
 - Well defined
 - Strong relationship to streetscape and lobby
- RETAIL/COMMERCIAL EDGE
 - · Accommodate patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - · Walkway connections at appropriate locations
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 - Direct connection to courtyard space
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 - · Positive relationship to indoor amenity
 - · Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - Program to encourage use by residents





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LOT 3

Lot 3 is located at the western edge beside Braid Station, bounded by Transit Way to the south, Road B to the west, and Road A to the north. This lot falls within the mixed-use zone of Sapperton Green and will see a tower form above a podium building. The range of program options include:

- Purely commercial buildings.
- Retail or other frontage activating function to be on ground level.

Use: 3A, Mixed-use 3B, Mixed-use

Building Form: Linear building block, point tower

Maximum Building Height: 3A, 26 storey
As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page110.

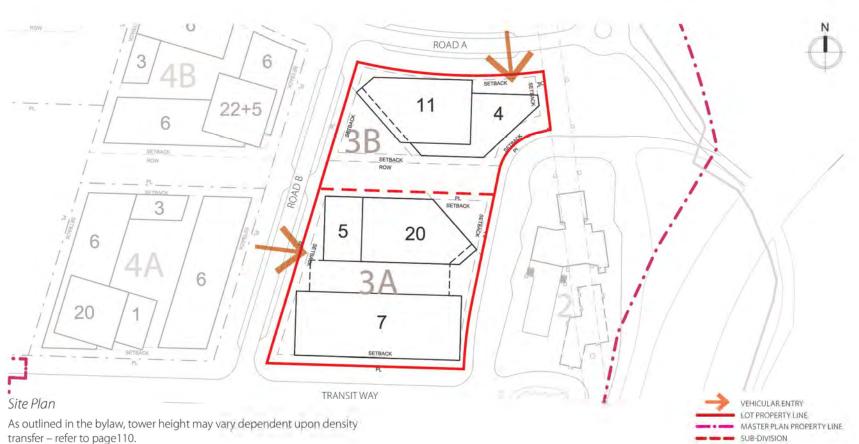
Maximum Podium Height: 8 storeys

Maxi. Commercial Tower Floorplate: 13993sf/1300sm

(excluding balcony)







LOT 3

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QuadReal



Sapperton Green

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Lot 3: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway
 Path
 - · Lighting (on gate or other)
- 2 BUILDING ENTRY
 - Well defined
 - Strong relationship to streetscape and lobby
- 3 RETAIL/COMMERCIAL EDGE
 - · Accommodate patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - · Walkway connections at appropriate locations
- 5 PRIVATE PATIO/YARD
 - · At each ground based courtyard unit
 - · Direct connection to courtyard space
- 6 AMENITY PATIO
 - · Positive relationship to indoor amenity
 - · Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - Program to encourage use by residents



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LOT 4

Lot 4 is located at the central of Sapperton Green, flanked by the Central Park to the west, bounded by Road A to the north, Road B to the east, and Transit Way to the south. This lot falls within the residential zone to the north of Central East-West Greenway, and mixed-use zone to the south. In the residential zone, this lot will see residential buildings in medium- to high-density tower forms. In the mixed-use zone beside the Urban Heart Plaza, the block will see retail use or other frontage-activating use at ground floor with a medium density residential podium and a mid-rise residential tower above. The range of housing option includes:

- Mid-rise apartment buildings.
- Retail or other frontage activating function to be on ground level at Lot 4A facing to central park and transit way.
- Townhouses or ground-floor-orientated units, oriented to the street or parks and open spaces such as Central Park, Central East-West Greenway. Townhouses will be accessible from the ground floor.
- Affordable rental, market rental and condominium buildings proposed to encourage social integration.



Use: 4A, 4B, Mixed- use 4C, Residential

Building Form: Linear building block, point tower

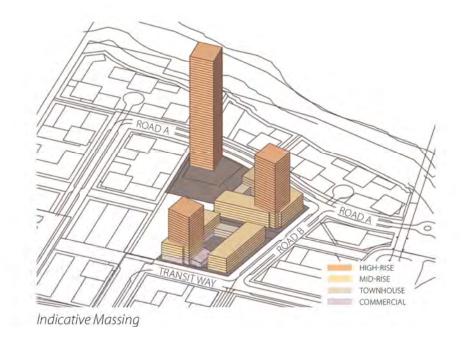
Maximum Building Height: 4A, 26 storey
As outlined in the bylaw, tower
height may vary dependent upon
density transfer – refer to page110.

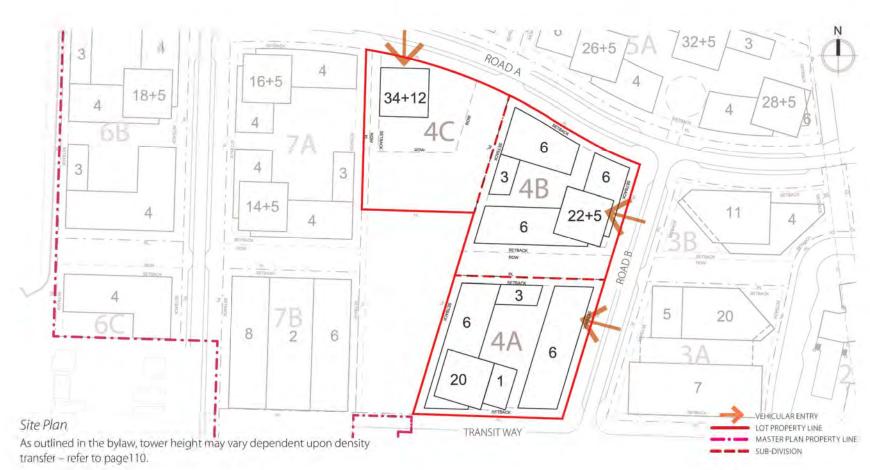
4A, 26 storey
4B, 34 storey
4C, 52 storey

Maximum Podium Height: 6 storeys

Maxi. Residential Tower Floorplate: 8611sf/800sm (excluding balcony)

1.5.4





LOT 4

M C M

Musson Cattell Mackey Partnership





Sapperton Green

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Lot 4: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway
 Path
 - · Lighting (on gate or other)
- 2 BUILDING ENTRY
 - Well defined
 - Strong relationship to streetscape and lobby
- 3 RETAIL/COMMERCIAL EDGE
 - · Accommodate patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - · Walkway connections at appropriate locations
- 5 PRIVATE PATIO/YARD
 - · At each ground based courtyard unit
 - Direct connection to courtyard space
- 6 AMENITY PATIO
 - · Positive relationship to indoor amenity
 - · Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - Program to encourage use by residents



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LOT 5

Lot 5 is located at the northern edge of Sapperton Green, flanked by the Brunette River and Brunette Fraser Greenway to the north and Road A to the south. This lot falls within the residential zone of Sapperton Green and will see residential buildings in medium- to high-density tower forms. The range of housing options include:

- Townhouses or ground-floor-orientated units, oriented to the street or parks and open spaces such as the Brunette River. Townhouses will be accessible from the ground floor.
- Proposed market rental and condominium buildings to encourage social integration.

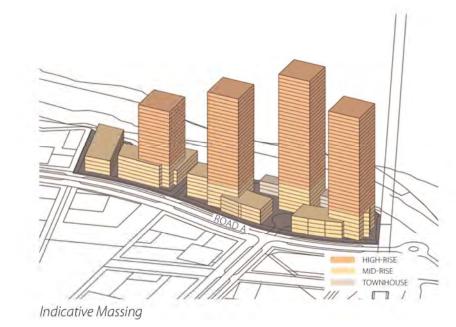
Use: 5A, Residential 5B, Residential

Building Form: Linear building block, point tower

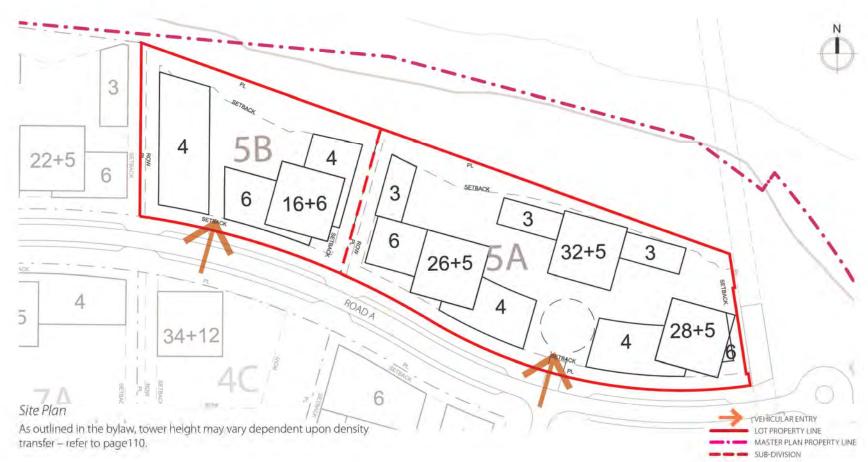
Maximum Building Height: 5A, 44 storey
As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

Maximum Podium Height: 6 storeys

Maxi. Residential Tower Floorplate: 8611sf/800sm (excluding balcony)







LOT 5

Lot 5: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway
 Path
- 2 BUILDING ENTRY
 - · Well Defined
 - Strong Relationship to streetscape and lobby
- RETAIL/COMMERCIAL EDGE
 - · Accommodate Patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - Walkway connections at appropriate locations
- 5 PRIVATE PATIO/YARD
 - · At each ground based courtyard unit
 - Direct connection to courtyard space
- 6 AMENITY PATIO
 - · Positive relationship to indoor amenity
 - Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - Program to encourage use by residents





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LOT 6

Lot 6 is located at the western edge of Sapperton Green, flanked by the Brunette River and Brunette Fraser Greenway to the north and Hume Park to the west. This lot falls within the residential zone of Sapperton Green and will see residential buildings in medium- to high-density tower forms. The range of housing options will include:

- Townhouses or ground-floor-orientated units, oriented to the street or parks and open spaces such as Hume Park Central East-West Greenway. Townhouses will be accessible from the ground floor.
- Market rental and condominium buildings proposed to encourage social integration.

Use: 6A, Residential

6B, Residential

6C, Residential

Building Form: Linear building block, point tower

Maximum Building Height: 6A, 42 storey

As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page110.

6B, 30 storey 6C, 6 storey

Maximum Podium Height: 6 storey

Maxi. Residential Tower Floorplate: 8611sf/800sm

(excluding balcony)







LOT 6

4

Lot 6: Private Realm Guideline Diagram

ENTRY TO INDIVIDUAL GROUND BASED UNITS

- Gate
- Address
- Stoop or patio
- Planting
- Direct Connection to Public Sidewalk or Greenway
 Path
- · Lighting (on gate or other)

2 BUILDING ENTRY

- Well defined
- Strong relationship to streetscape and lobby

RETAIL/COMMERCIAL EDGE

- · Accommodate patio spill out/active use
- Strong relationship to streetscape

PUBLIC TO PRIVATE TRANSITION

- Soft transitions where possible
- Planting as edge
- Transparent Fence
- Walkway connections at appropriate locations

PRIVATE PATIO/YARD

- · At each ground based courtyard unit
- Direct connection to courtyard space

6 AMENITY PATIO

- · Positive relationship to indoor amenity
- · Program to encourage use

PRIVATE COURTYARD

- Active/passive spaces
- Program to encourage use by residents



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LOT 7

Lot 7 is located at the centre of Sapperton Green, flanked by Central Park to the east, bounded by Wilson Street extension to the west, Road A to the north. This lot falls within the residential zone to the north of the Central East-West Greenway, and mixed-use zone to the south. In the residential zone, this Lot will see residential buildings in medium- to high-density tower forms. In the mix-use zone beside the Urban Heart Plaza, this Lot will see the Community Centre, retail use or other frontage-activating use at ground floor with medium density residential block above. The range of housing option includes:

- Townhouses or ground-floor-orientated units, oriented to the street or parks and open spaces such as Central Park, East-West Greenway. Townhouses will be accessible from the ground floor.
- Affordable rental, market rental and condominium buildings proposed to encourage social integration.
- Community centre provided at podium of Lot 7B with entry facing plaza, and entry from central Greenway.

Key Plan

Use: 7A, Residential 7B, Mixed- use

Building Form: Linear building block, point tower

Maximum Building Height: 7A, 28 storey

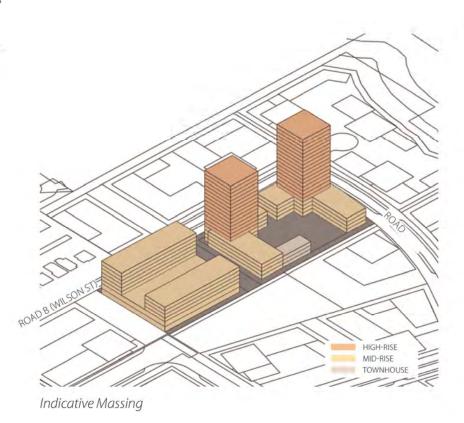
As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

Maximum Podium Height: 8 storey

Maxi. Residential Tower Floorplate: 8073sf/750sm

(excluding balcony)

Residential Tower Separation: 80 Feet





As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

LOT 7

4

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Sapperton Green

Master Plan

April 2020

Lot 7: Private Realm Guideline Diagram ENTRY TO INDIVIDUAL GROUND BASED UNITS

- Gate
- Address
- Stoop or patio
- Planting
- Direct Connection to Public Sidewalk or Greenway
 Path
- · Lighting (on gate or other)



- Well defined
- Strong relationship to streetscape and lobby

RETAIL/COMMERCIAL EDGE

- Accommodate patio spill out/active use
- Strong relationship to streetscape

PUBLIC TO PRIVATE TRANSITION

- Soft transitions where possible
- Planting as edge
- Transparent Fence
- Walkway connections at appropriate locations

PRIVATE PATIO/YARD

- · At each ground based courtyard unit
- Direct connection to courtyard space

6 AMENITY PATIO

- · Positive relationship to indoor amenity
- Program to encourage use

PRIVATE COURTYARD

- Active/passive spaces
- Program to encourage use by residents



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LOT 8

Lot 8 is located at the entry point to Sapperton Green, bounded by Rousseau Street to the east, Braid Street to the south and Wilson Street extension to the west. This lot falls within the mixed-use zone, and will see residential buildings in medium- to high-density block forms. This lot will see retail use or other frontage-activating use at ground floor with medium to high density residential block above. The range of housing options include:

- Mid-rise apartment buildings.
- Townhouses or ground-floor-orientated units, oriented to the street.
- Townhouses will be accessible from the ground floor.
- Affordable rental, market rental and condominium buildings proposed to encourage social integration.

Use: 8, Mixed- use

Building Form: Linear building block, point tower

Maximum Building Height: 24 storey

Maximum Podium Height: 8 storey

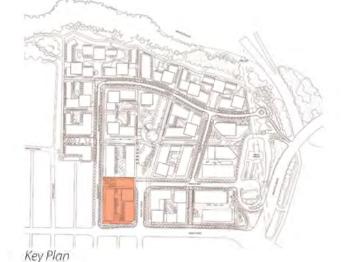
As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

Maxi. Residential Tower Floorplate: 8073sf/750sm

(excluding balcony)







As outlined in the bylaw, tower height may vary dependent upon density transfer – refer to page 110.

LOT 8

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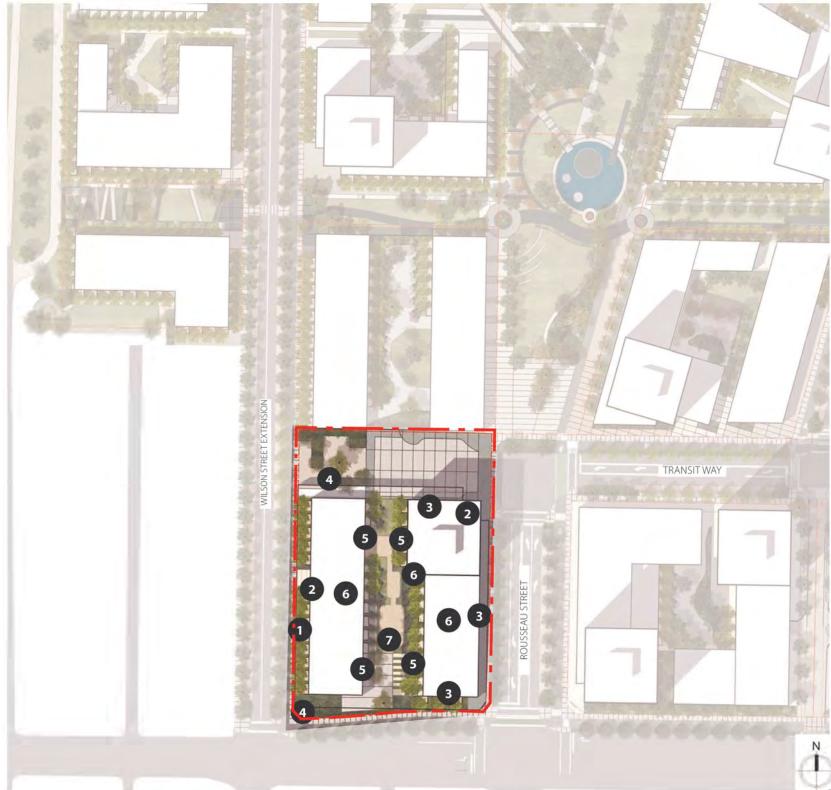
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Lot 8: Private Realm Guideline Diagram

- ENTRY TO INDIVIDUAL GROUND BASED UNITS
 - Gate
 - Address
 - Stoop or patio
 - Planting
 - Direct Connection to Public Sidewalk or Greenway
 Path
- BUILDING ENTRY
 - · Well Defined
 - Strong Relationship to streetscape and lobby
- RETAIL/COMMERCIAL EDGE
 - · Accommodate Patio spill out/active use
 - Strong relationship to streetscape
- 4 PUBLIC TO PRIVATE TRANSITION
 - Soft transitions where possible
 - Planting as edge
 - Transparent Fence
 - Walkway connections at appropriate locations
- 5 PRIVATE PATIO/YARD
 - · At each ground based courtyard unit
 - Direct connection to courtyard space
- 6 AMENITY PATIO
 - · Positive relationship to indoor amenity
 - Program to encourage use
- 7 PRIVATE COURTYARD
 - Active/passive spaces
 - · Program to encourage use by residents



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ACKNOWLEDGMENT





ABOUT QUADREAL



Owner

Headquartered in Vancouver, BC. QuadReal Property Group is a global real estate investment, operating and development company. QuadReal manages the real estate and mortgage programs of BCI (BC Investment Management Corporation).

In Canada, we are an established real estate operator and developer. Globally, we invest strategically with long-term partners offering local experience in dynamic Global Cities such as New York, London and Hong Kong. Our office, retail, residential and industrial portfolio spans 23 Global Cities across 17 countries. We will be measured by our ability to deliver prudent growth and strong real estate investment returns. Our success is a team effort, supported be a creative, entrepreneurial work environment that attracts and rewards exceptional talent.

We focus on peerless service to tenants and residents, working with the best in-class partners, and building trusting relationships based on a foundation of respect and integrity. Above all we understand that our properties are more than just bricks and mortar, they are places where people live, shop and play. We are proud to create environments that enhance the lives of the people and communities we serve, now and for generations to come.

QuadReal offers breadth and depth of management experience and engagement to tenants, residents and their visitors. In Canada, the portfolio includes 40 million square feet of real estate and 12,000 residential rental suites.



The Post Vancouver, BC.



First + Main Vancouver, BC.



Sapperton Green
New Westminster, BC.



Broadway Tech Vancouver, BC.

PROJECT TEAM



Architects Designers Planners

Design that creates value, service that builds trust. MCM is an established full-service architectural practice based in Vancouver, Canada.

As one of Vancouver's most comprehensive architectural firms, MCM has been shaping the built environment for over 50 years, with over 400 projects, employing a complement of some 100+ architects, technicians and designers Included in the composition of MCM is MCMI, it's affiliated interior design firm, to provide value-added service to all our clients.

We couple our clients' visions and resources with creativity, quality management, construction expertise and exceptional service. MCM's portfolio includes, but is not limited to commercial, residential and master planning projects. Our strength is an experience. Our promise is reliability.



Civil Consultant

Aplin Martin is an innovative, multidisciplinary firm of civil engineers, urban planners, architects, and land surveyors delivering cost-effective design solutions for land development and public works projects based in Vancouver, Canada.

Making Sustainable Communities a Reality is not just our Value Statement to our customers, it is also our Value Statement for our employees, who along with their families, live in the same communities that we help to shape and develop. From creating a Master Community Plan to designing the infrastructures that supports our vibrant communities, sustainable development is at the core to what we do to ensure that the work we design today meets the needs of the present community without compromising the ability of future generations.



Landscape Architects

PWL is a full-service landscape, architecture and urban planning firm with a 40 year history of creating award winning projects, based in Vancouver, Canada.

Since 1976 PWL has approached the challenges with innovation and a driven search for meaningful solutions. Solutions that reflect the firm's vision of place making, engaging people and being inspired by nature.

PWL's collaborative approach has led to the construction of some of North America's most celebrated and iconic landscapes, including numerous projects that have won awards for design excellence and social sustainability. PWL takes pride in its keystone contribution to the variety of public and private urban and natural places that Vancouver's residence and visitors today enjoy.



Transportation Consultant

Bunt & Associates Engineering Ltd. (Bunt) is one of the largest specialist transportation planning and engineering consulting companies in Western Canada.

We place high value on outstanding service, building long-term client relationships, and fostering a family-friendly and supportive culture within all of our offices located in Calgary, Edmonton, Vancouver, and Victoria.

We are proud of our involvement in all types of transportation projects ranging from high profile, dense, and complex urban sites and corridors to individual sites and intersections.

Reputation is everything. Bunt has been the transportation consultant of choice for hundreds of repeat public and private sector clients for more than 25 years.



Urban Planning + Development

Brook Pooni Associates is a leading urban and land development consultancy based in Vancouver, Canada.

With more than 20 years of public and private sector experience, involving over 600 projects, our expertise spans across Metro Vancouver, Western Canada and the United States. Since our inception in 1988, we have helped shape the region though our contribution to land development projects. Our clients have come to rely on our insight into local development realties, political context and community interests. In our work we seek to balance client objectives with municipal requirements.

We are able to craft effective solutions for our clients and are pioneering new and better ways to build communities though communicating and balancing the needs and views of the public and the municipality with the realities ad trends of the development industry.

MCM

Musson Cattell Mackey Partnership



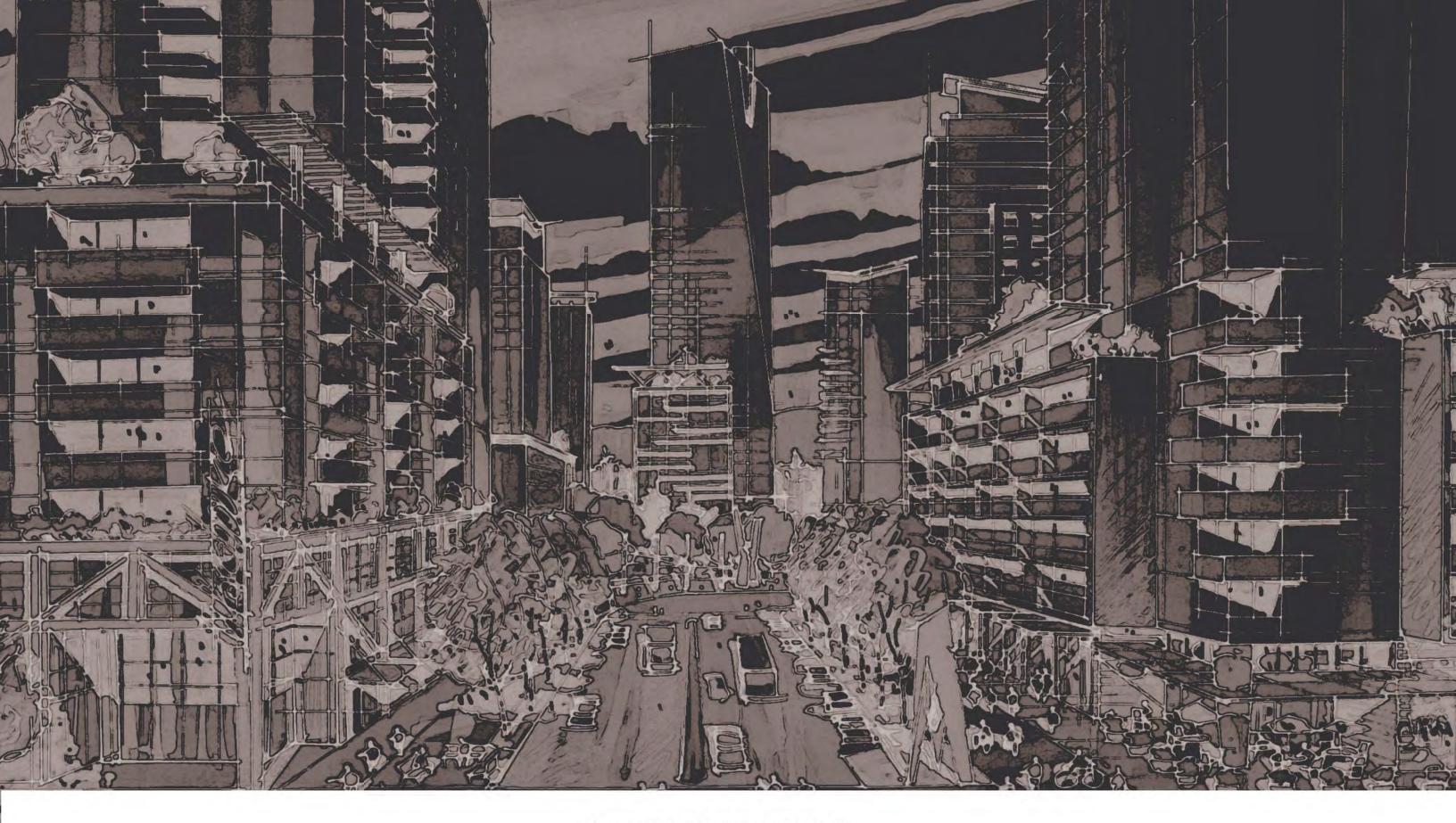
Sapperton Green

Master Plan

April 2020

Adanowledgment

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Musson Cattell Mackey Partnership Architects Designers Planners