OUR CITY

NEW WESTMINSTER

Official Community Plan

Development Permit Areas

AMENDMENTS TO OFFICIAL COMMUNITY PLAN DEVELOPMENT PERMIT AREAS – SCHEDULE B OF THE OFFICIAL COMMUNITY PLAN (BYLAW NO. 7925, 2017) (APRIL 2023)

This is a consolidation of the bylaws listed below. The amendment bylaws have been combined with the original bylaw for convenience only. This consolidation is not a legal document. Certified copies of the original bylaws should be consulted for all interpretations and applications of the bylaws on this subject.

Bylaw Number	***Effective Date***	
8039, 2018	*October 1, 2018*	*(Electric Vehicle Infrastructure)*
8151, 2019	*January 27, 2020*	*(DPA General Exemptions and Minor Updates)*
8261, 2021	*September 27, 2021*	*(831 Sixth Street)*

The bylaw numbers identified in this consolidation refer to the bylaws that amended the principal Bylaw No. 7925, 2017. The number of any amending bylaw that has been repealed is not referred to in this consolidation.

Original bylaws may be obtained from the Legislative Services Department.

DEVELOPMENT PERMIT AREAS

INTRODUCTION

[BYLAW NO. 8151, 2019]
Eight categories of Development Permit Areas are identified in this Official Community Plan. Development Permit Areas are identified in this Plan to provide guidance to potential investors and outline the city's expectations regarding future growth and development. By conforming to the guidelines, new development helps to achieve the vision and goals included in this Plan.

Where a parcel falls within more than one Development Permit Area, one Development Permit may be issued if the guidelines for each Development Permit Area are addressed.

[BYLAW NO. 8151, 2019]
Unless otherwise noted in the Development Permit Area, where a certain development type is not specifically covered by the Development Permit Area, applicable guidelines from other Development Permit Areas should be combined and used collectively.

DEVELOPMENT PERMIT AREAS

1.0 RESIDENTIAL NEIGHBOURHOOD [DPA MAPS 1.1 - 1.6]
1.1 Laneway and Carriage Houses
1.2 Ground Oriented Housing
1.3 Infill Townhouse and Rowhouses
1.4 Multiple Unit Residential
1.5 High Rise Residential
1.6 Terry Hughes Residential

2.0 RESIDENTIAL CORRIDORS [DPA MAP 2.0]
2.1 Upper Twelfth Street
2.2 Sixth Street

3.0 COMMERCIAL CORRIDORS [DPA MAP 3.0]
3.1 Upper Twelfth Street
3.2 East Columbia Street

4.0 MIXED USE NODES [DPA MAP 4.0]
4.1 Uptown
4.2 Eighth Avenue & McBride Boulevard
4.3 Braid Street & Brunette Avenue
4.4 100 Braid Street

5.0 MIXED USE NEIGHBOURHOODS [DPA MAP 5.0]
5.1 Victoria Hill
5.2 Sapperton Green
5.3 Brewery District

6.0 EMPLOYMENT LANDS [DPA MAP 6.0]
6.1 Twentieth Street
[BYLAW NO. 8151, 2019]
6.2 Brunette
6.3 Mixed Employment Area
6.4 Industrial
6.5 Intertidal

7.0 NATURAL FEATURES [DPA MAP 7.0]
7.1 Brunette River

8.0 STUDY AREAS [DPA MAP 8.0]
8.1 Bent Court
8.2 Lower Twelfth Street & Sharpe Street

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[BYLAW NO. 8151, 2019]

GENERAL EXEMPTIONS

A Development Permit will not be required for:

- Construction of single detached dwellings and non-residential structures accessory to single detached dwellings, and consequential site alterations.
- In relation to an existing building or structure, any of the following maintenance work, provided the work not involve a change in the exterior design or material composition of the building or structure: repainting or recladding of a building, roof repair including replacement of shingles, restoration or replacement of windows, doors, stairs or exterior trim elements, and replacement of awnings.
- Maintenance of landscaping that does not involve a change in design.
- Exterior building or structure painting.
- Construction of accessory buildings or structures with a floor area equal to or less than 10 square metres (108 square feet).
- Construction, building alterations or site alterations associated with approved temporary use permits.
- Internal alterations made to buildings and structures
- Signs.
- Subdivision of land

JUSTIFICATION

The Local Government Act authorizes municipalities to designate, with appropriate justification, Development Permit Areas (DPAs) in the Official Community Plan for several purposes. DPAs may be to establish objectives for the form and character of intensive residential development, or commercial, industrial or multi-family residential development. A unique justification for form and character guidelines is outlined in each Development Permit Area for this Plan.

DPAs may also be designated to protect the natural environment, its ecosystems and biological diversity; and to establish objectives to promote energy conservation, as they are in this Plan. The justification for designating DPAs for each of these objectives is provided below.

Energy Conservation

The City's Community Energy and Emissions Plan sets specific targets and objectives for energy efficiency and greenhouse gas reduction to mitigate climate change. The City's target for 2030 is to reduce community-wide greenhouse gas emissions by 15%. Emissions contribute to global climate change by altering temperatures and precipitation patterns, raising sea levels, and negatively impacting ecosystems and food production. Being smart about how energy is used and taking action to reduce greenhouse gas emissions can lead to increased human physical activity, improved air quality and improved health of community members.

In New Westminster, buildings are a significant source of greenhouse gas emissions (accounting for 41% of all emissions in 2011), and represent a major part of the city's annual electricity and natural gas consumption. Therefore, continuous improvements in energy conservation, energy efficiency and greenhouse gas reductions for new and existing buildings been prioritized where applicable.

Protection of the Natural Environment, its Ecosystems and Biological Diversity

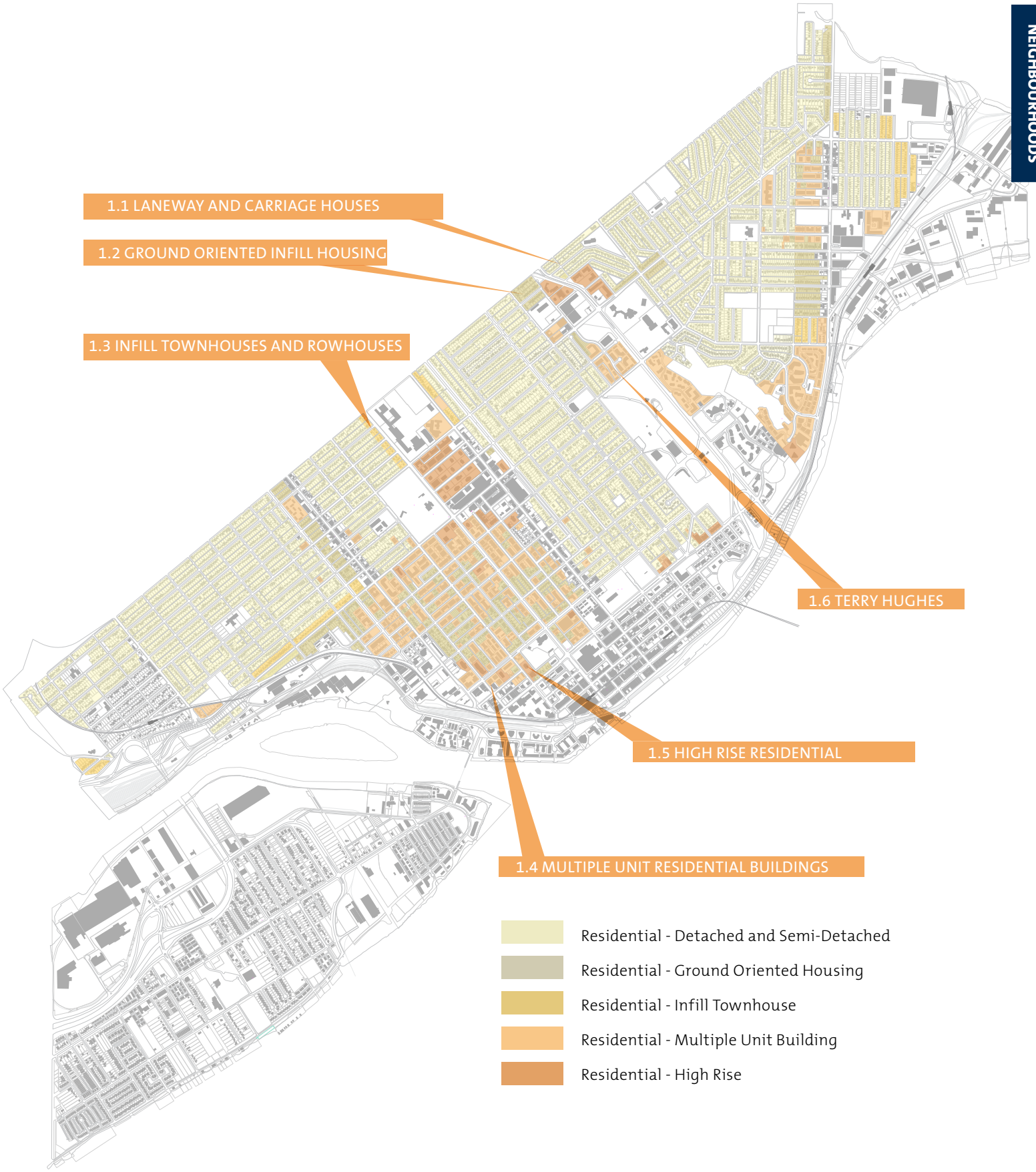
New Westminster has ageing infrastructure, requiring upgrades to meet current demands and regulatory guidelines. The City has started the transition from combined sewers to separated sanitary and storm sewers. However, reducing the frequency, size and impacts of combined sewer overflows into the Fraser River until a separated system is achieved (projected for the year 2075) is necessary. Due to the historic nature of the City's system capacity, concerns will remain even once the system has been separated. Additionally, improving the current and future quality of stormwater discharged into receiving waters is pertinent.

Building and site design has a direct effect on stormwater and runoff quantity and quality. Management of urban design determines the health of New Westminster's watersheds and receiving waters, including high-value habitats along shorelines of the Fraser and Brunette rivers, and in the Glenbrook Ravine.

The objectives of guidelines related to stormwater management in this plan are:

- to reduce the volume of water in our sewers to reduce combined sewer overflows and flooding,
- to improve water quality to protect our receiving waters,
- to return rainwater where possible to natural watershed pathways, and
- to become a resilient community by reducing peak flows in the piped stormwater system to provide additional capacity to allow for climate-related changes in rainfall patterns.

1.0
RESIDENTIAL NEIGHBOURHOODS



1.0 RESIDENTIAL NEIGHBOURHOOD
INTRODUCTION



Single Detached Dwellings in McBride Sapperton.

INTRODUCTION

There are six Development Permit Areas in this section, which are identified on Maps 1.1 – 1.6. Each Development Permit Area in this section focuses on a different housing form. Combined, these areas cover each of the city's residential neighbourhoods and allow a range of housing forms which will help create diverse and intergenerational neighbourhoods. The guidelines in these Development Permit Areas focus on ensuring that each housing form is properly integrated in with the existing neighbourhood context. The guidelines also focus on the provision of good quality housing with a high quality design.



Multi-unit residential development in Brow of the Hill.

Residential Neighbourhoods Development Permit Areas

1.1 Laneway and Carriage House

1.2 Ground Oriented Housing

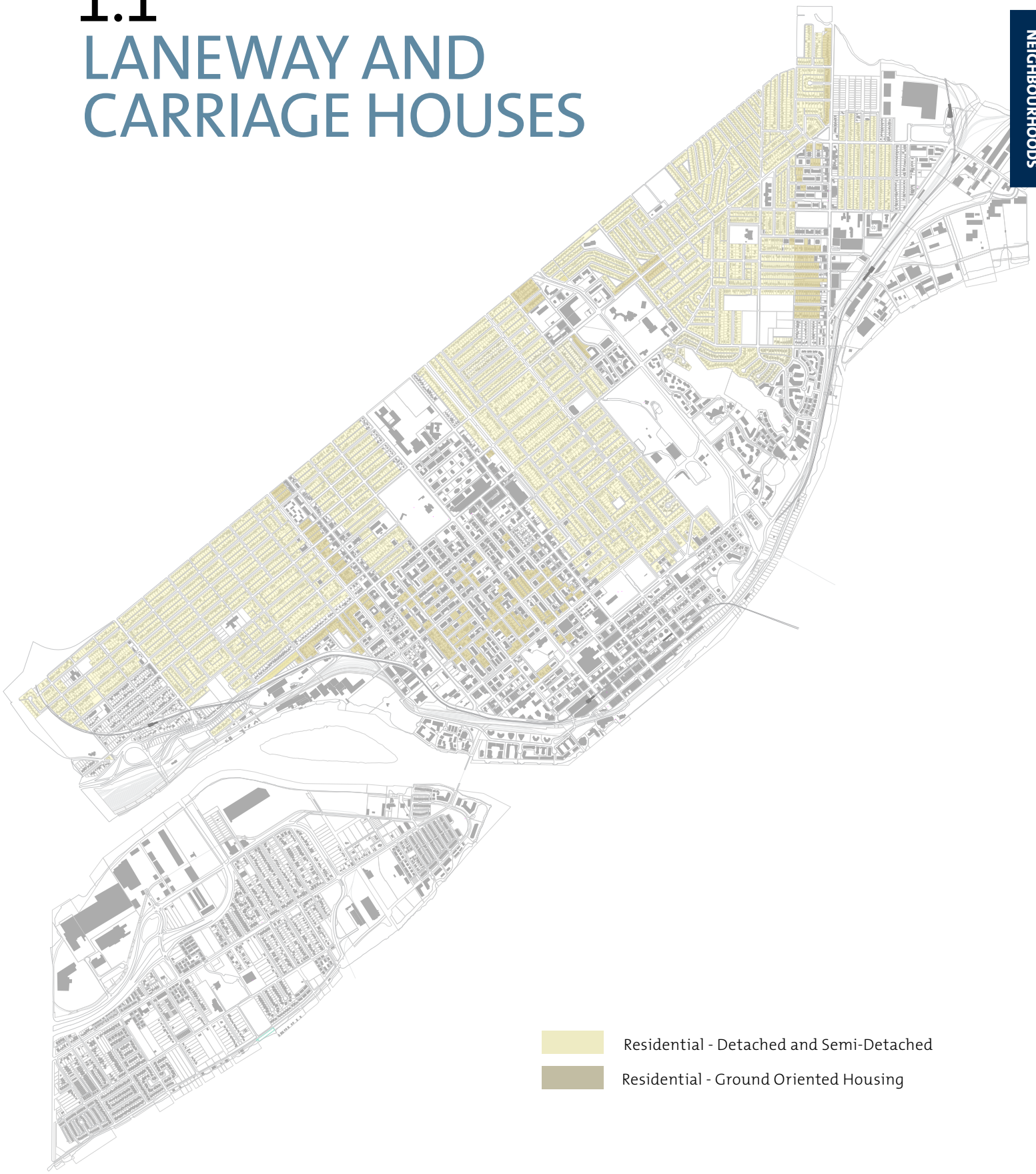
1.3 Infill Townhouse and Rowhouse

1.4 Multiple Unit Residential

1.5 High Rise

1.6 Terry Hughes

1.1 LANEWAY AND CARRIAGE HOUSES



1.1 LANEWAY AND CARRIAGE HOUSES
INTRODUCTION



INTRODUCTION

The Laneway House (LWH) and Carriage House (CH) intensive residential area, identified as Development Permit Area 1.1 [See Map 1.1], is designated in order to provide an opportunity for an innovative infill housing type.

LWHs and CHs are compact, detached, ground oriented dwellings located in back yards. LWHs are located on properties with a lane. CHs are located on properties without lanes. LWHs and CHs are permitted to be rental units but not strata titled.

LWHs and CHs increase the availability of ground oriented housing in existing residential neighbourhoods. Located in rear yards, LWHs and CHs will have minimal impact on the existing streetscapes. Lanes will develop with LWHs providing "eyes on the lane", creating safe, pedestrian oriented neighbourhood places. Units which include main living spaces, a bedroom and bathroom on the ground level are encouraged to provide options to age in place.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of intensive residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

These guidelines apply to the laneway and carriage house, and not the principal house.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

GENERAL PRINCIPLES

Guiding Principles for these forms of infill are:

- Design infill buildings to be good neighbours by minimizing shade, shadow and overlook onto adjacent properties.
- Design buildings for durability and sustainability.
- Provide livable spaces with optimum daylight and ventilation, access to ground level private open space, and functional, efficient interiors.
- Design outdoor spaces as a valued year round asset.
- Balance efficient space planning with comfort and flexibility.

1.1.1 SUSTAINABILITY

Intent: All forms of infill buildings are encouraged to consider additional current and future opportunities for sustainable design where possible including:

- Passive solar design integrated into the architecture and landscape design.
- Energy efficient design and internal infrastructure including structural supports for future solar panels.
- Opportunities for natural ventilation to optimize air quality and reduce mechanical cooling.
- Healthy, durable building materials.
- Drought resistant, low maintenance plants.
- Architecture and landscape design that integrates water conservation and rainwater management including the use of rain barrels and rain gardens, and maximizing permeable surfaces.
- Secure storage for bicycles.
- Safe, pleasant pedestrian connections to the street and the lane.

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.



Example of a rain garden and permeable surface.





Well designed compact spaces increase livability.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

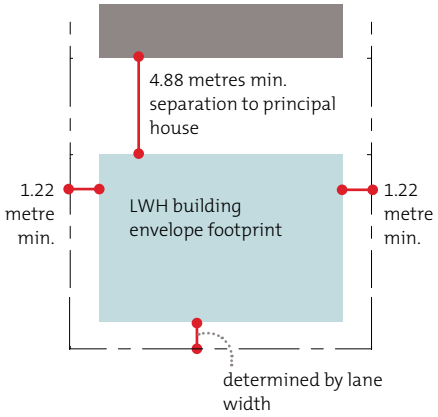


Fig. 1 - LWH setbacks.

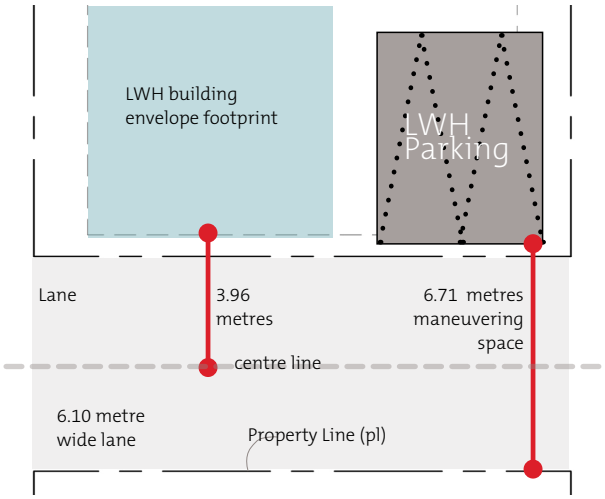


Fig. 2 - Setbacks from the lane.

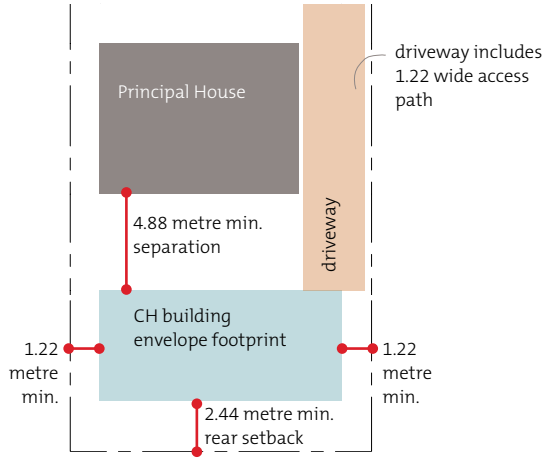


Fig. 3 - CH setbacks.

1.1.2 SETBACKS

Intent: Setbacks optimize privacy between developments, access to sunlight and opportunities for open space. LWH setbacks from the lane support the development of attractive, urban lanescapes balancing a close proximity of the LWH to the lane with space for landscaping. Additional details about setbacks can be found in the Zoning Bylaw.

- Minimum 1.52 meter (5 foot) side setback is required from a flanking street.
- Minimum 1.22 metre (4 foot) setback is required from an interior side property line and from a flanking lane. The side setback on a flanking lane must accommodate landscaping.
- A 0.91 metre (3 foot) setback from the rear property line must be included to accommodate landscaping.
- In addition, the side or rear setback of a LWH from a property line abutting a lane should be increased to accommodate a future 6.10 metre (20 foot) wide lane.

Parking and building locations for illustrative purposes only

WHAT IS THE FUTURE OF LANES?

The City would like to see full width lanes, which are 6.10 meters (20 feet) wide, throughout New Westminster. The highest priority is for lanes to be developed behind major streets, including the major road network, arterials, city collectors and neighbourhood collectors, and behind greenways and bikeways (as shown in the Master Transportation Plan). Providing lanes in these locations would allow for the removal of crossings on these high traffic routes and facilitate safer vehicular access at the rear of the property. Over time, this change would reduce the number of conflicts on major streets and improve bicyclist and pedestrian safety on greenways and bikeways.

The siting of laneway houses takes into account this desire to have lanes, and maintains the opportunities for narrow lanes to be widened in the future (i.e. a laneway house cannot be built in the location of a potential future lane).

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

- One interior side setback may be reduced to a minimum 0.61 metres (2 feet) in order to accommodate a single storey accessible unit that has a functional plan for aging in place.
- A minimum 2.44 metre (8 foot) rear setback is required from rear lot lines abutting another property. Rear setbacks greater than 2.44 metres are encouraged to accommodate private outdoor space.
- Additional setbacks may be required from a lane when a LWH is built on the same side of the lane as above ground electrical lines. Setbacks will be based on CSA standards and the Canadian Electrical Code.

1.1.3 SEPARATION TO MAIN HOUSE

- A minimum distance of 4.88 metres (16 feet) is required, measured from the closest building face of the principal house and the closest face of the LWH or CH.
- Reductions to this requirement, up to a maximum of 0.91 metres (3 feet) may be considered if a reduced separation is needed to:
  - Accommodate thicker energy efficient walls.
  - Facilitate the retention of an existing tree.
  - Facilitate a single storey accessible unit.

1.1.4 BUILDING SIZE AND MASSING

Intent: Careful attention to the size and mass of CHs and LWHs is key to successfully fitting these new housing forms into residential neighbourhoods. Efficient and compact building design is expected.

These Guidelines aim to minimize the impact of shade, shadow and overlook on neighbouring properties. They also direct the highest portion of the building towards the centre of the lot, the lane, and for corner lots, towards the flanking street. Integration of the upper level into the roof form, rather than increasing height by "adding" a roof form above the second level, is required to create a compact building form.

Additional information about density and height can be found in the Zoning Bylaw.

General Building Envelope Guidelines

- The building envelope footprint is constrained by the relevant setbacks.
- All decks, balconies and bay windows are required to be within the building envelope.
- Decks and balconies are not allowed to be enclosed or covered.
- Creative solutions for optimizing developments on sloping sites are strongly encouraged.
- For corner lots, the flanking street elevation is the "front" of the LWH or CH and design elements that reinforce this public side of the building are strongly encouraged, including porches and front gardens.

Exterior Stairs

Exterior stairs, except those to the main level, are not permitted.

Projections

Projections are permitted within the required setbacks and building envelope only as follows:

Separation to Main House

- Eaves up to 0.61 metres (2 feet).
- Unenclosed porches off the main level up to 1.22 metres (4 feet).
- Cantilevered canopies over entrances up to 1.22 metres (4 feet).
- Steps and ramps from first floor to grade – no maximum projection.

Side Yard

- Eaves up to 0.61 metres (2 feet).
- Window boxes and planter boxes up to 0.30 metres (1 foot).

LWH Rear Yard

- Eaves up to 0.61 metres (2 feet).

CH Rear Yard

- Eaves up to 0.61 metres (2 feet).
- Unenclosed porches off the main level up to 1.22 metres (4 feet).
- Cantilevered canopies over entrances up to 1.22 metres (4 feet).
- Steps and ramps from first floor to grade – no maximum projection.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

Building Envelope

Intent: The Building Envelope is intended to optimize daylighting and minimize shade and shadowing on neighbours, the principal house and open space.

Envelope heights are measured from a horizontal base height plane, established at the mid-point of the envelope at existing grade on each side elevation. On flat sites, these values on each side elevation are the same. Sites that slope across the width of the property will have different values. When this is the case, the average of these two values is used to establish the base height plane.

The figures on this page illustrate building envelopes constructed on flat sites. Figures 7-11 on the next page illustrate how to construct building envelopes on sloping sites.

WHAT IS BUILDING ENVELOPE?

The building envelope is the three dimensional space the LWH or CH house must be located within. The building envelope is generally defined by side and rear setbacks, separation from the main house, and height. The building envelope is shown in dark blue in the figures in this Development Permit Area. As the figures show, the building envelope tends to be larger than the maximum unit size that would be permitted. The unit is shown in light blue in the figures. This means that it is possible to configure a LWH or CH in different ways, while still fitting within the envelope.

LWH Mid-Block Lot Building Envelope

- A LWH will be constructed within a maximum building envelope, determined by:
  - projecting up from the base height plane at the rear setback to the maximum building height,
  - projecting up 5.49 metres (18 feet) from the base height plane 4.88 metres (16 feet) from the closest wall on the rear elevation of the principal house and then inclining inward at a 45 degree angle to the maximum building height, and
  - projecting up 1.83 metres (6 feet) from the mid-point of the building envelope on the interior side property lines, and then inclining inward at a 45 degree angle to the maximum building height.

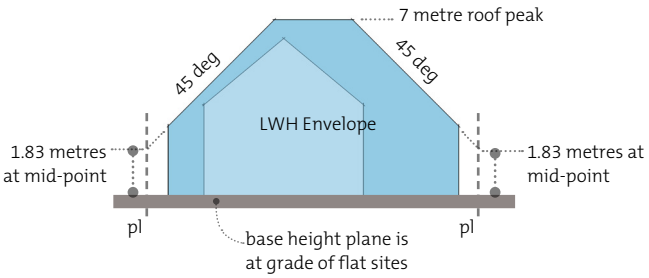


Fig. 4 - Rear (lane) elevation.

The light blue LWH/CH buildings shown within the dark blue building envelopes are for illustrative purposes only.

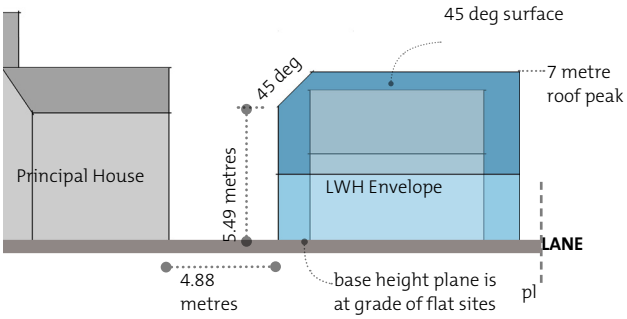


Fig. 5 - Side elevation.

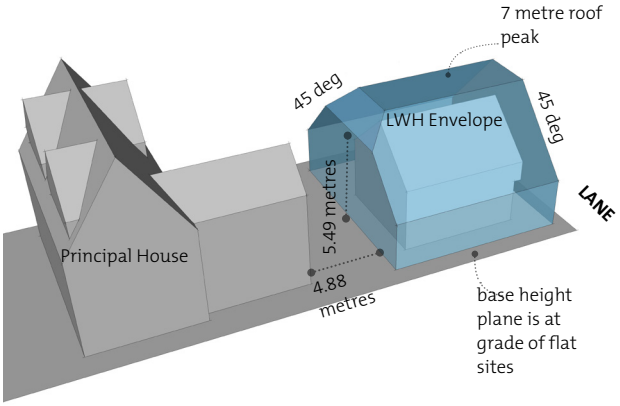


Fig. 6 - 3D view.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

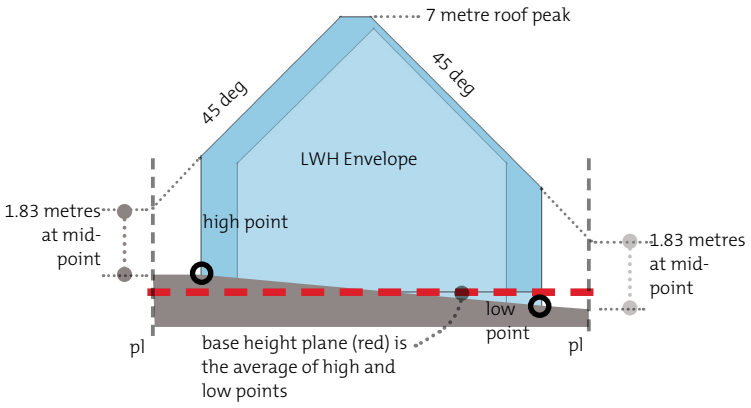


Fig. 7 - Lane elevation with cross slope.

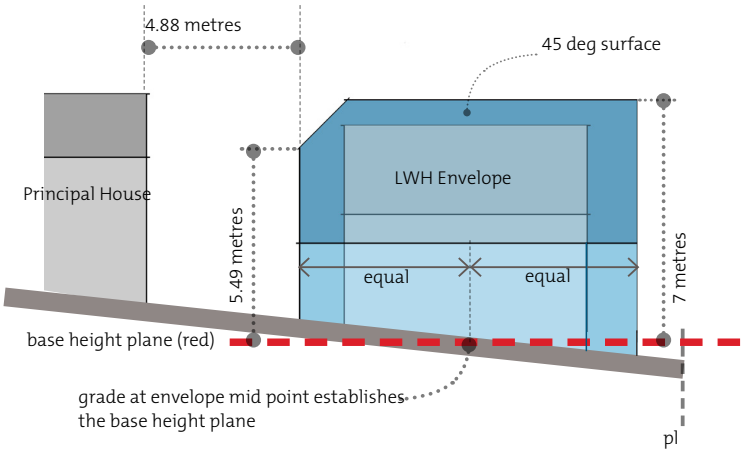


Fig. 8 - Side elevation.

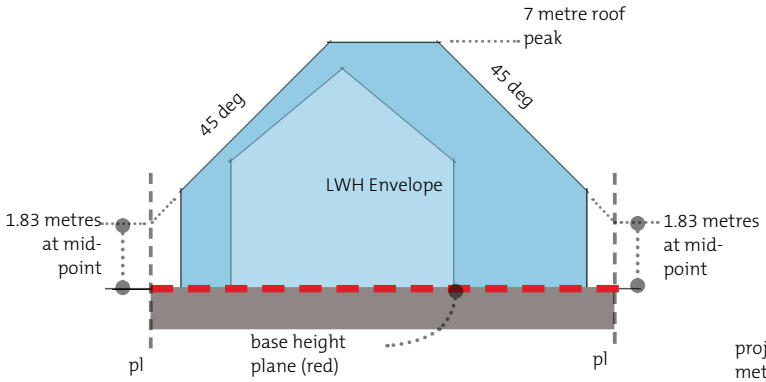


Fig. 9 - Rear (lane) elevation without cross slope.

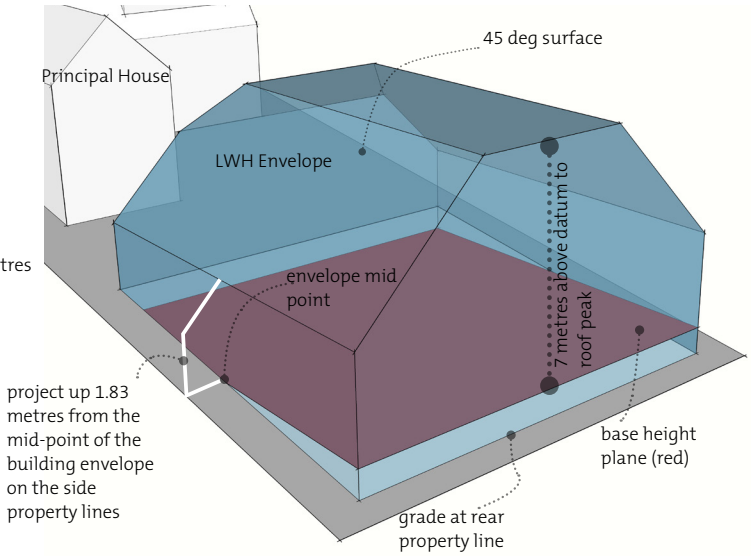


Fig. 10 - Height of rear building envelope measured from base height plane

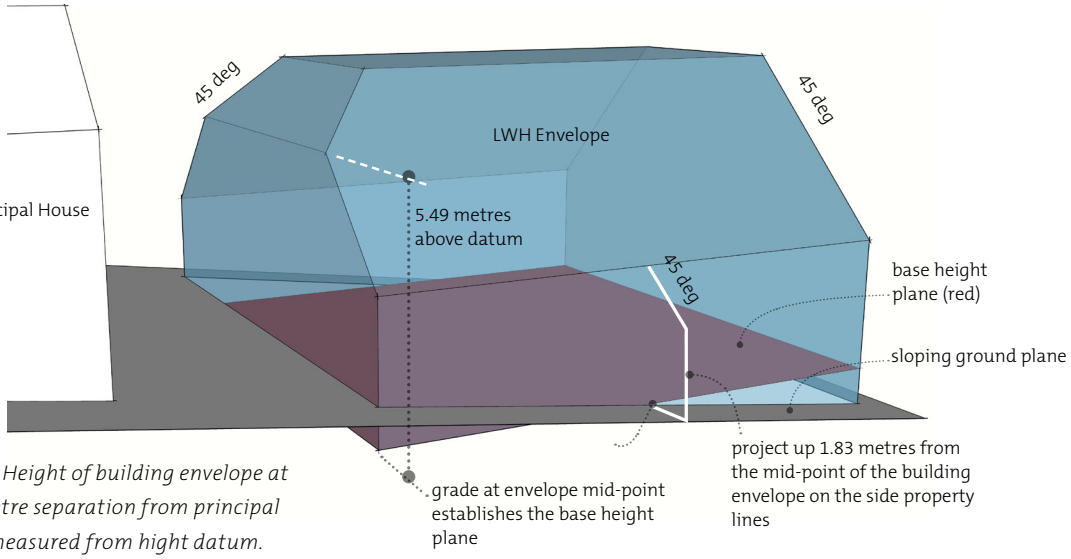


Fig. 11 - Height of building envelope at 4.88 metre separation from principal house measured from hight datum.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

LWH Corner Lot Building Envelope

- The same guidelines as LWH mid-block development apply, but increased height at the exterior side setback (facing the flanking street) by projecting up from the exterior side property line and the corner cut (refer to Figure 12 below) to the maximum building height is allowed.

The light blue LWH/CH buildings shown within the dark blue building envelopes are for illustrative purposes only.

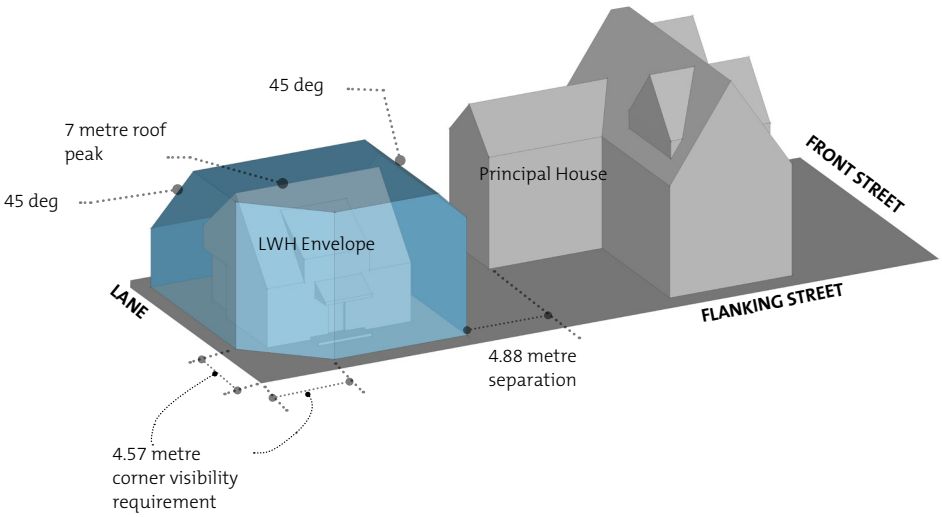


Fig. 12 - Perspective view.

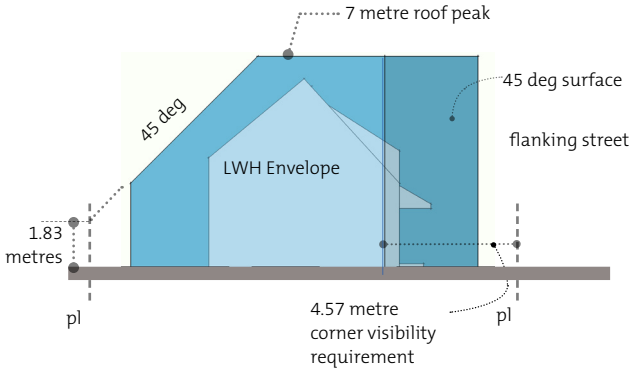


Fig. 13 - Rear (lane) elevation.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

CH Mid-Block Lot Building Envelope

- To optimize daylight and minimize shade and shadowing of neighbours, the principal house and open space, a CH will be constructed within a maximum building envelope determined by:
  - projecting up 1.83 metres (6 feet) from the interior side property lines and then inclining inward at a 45 degree angle to the maximum building height,
  - projecting up from the rear property line 3.05 metres (10 feet) and then inclining inward at a 45 degree angle to the maximum building height, and
  - 4.88 metres (16 feet) from the back face of the principal house projecting up 5.49 metres (18 feet) and then inclining inward at a 45 degree angle to the maximum building height.

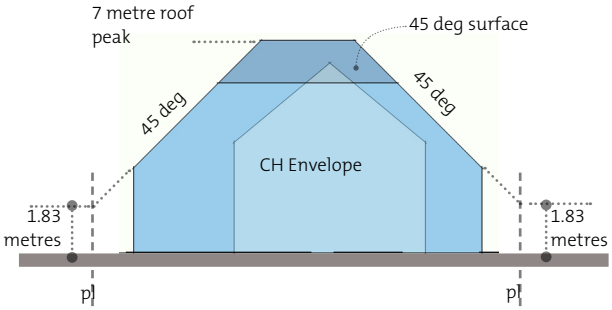


Fig. 14 - Rear elevation.

LWH/CH buildings within the blue building envelopes are for illustrative purposes only

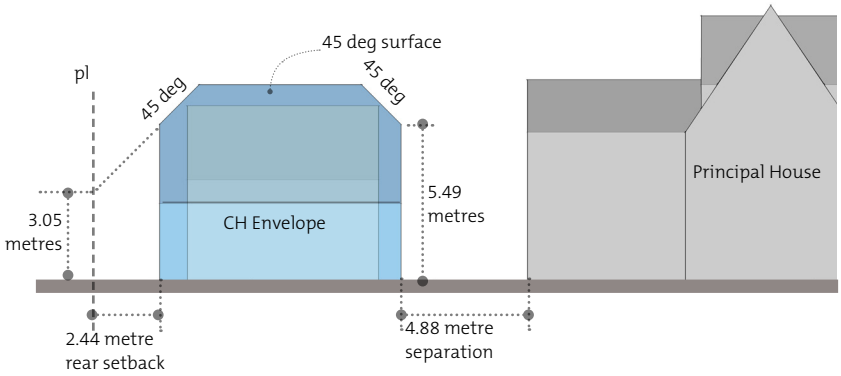


Fig. 15 - Side elevation.

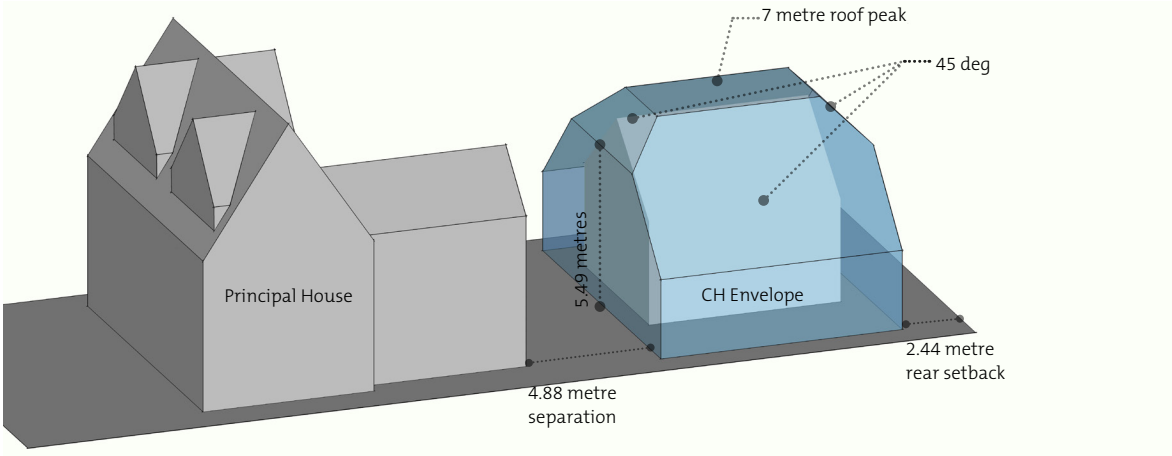


Fig. 16 - Perspective view.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

CH Corner Lot Building Envelope

- The same guidelines as mid-block apply, but allow increased height at the exterior side setback (flanking street elevation) by projecting up from the exterior side setback to the maximum building height.
- Minimizing the visual impact of parked cars on the streetscape is strongly encouraged.
- Parking between the CH and principal house is strongly discouraged.

1.1.5 SITE COVERAGE

- The LWH or CH shall not exceed 10% site coverage unless it can be demonstrated that 10% site coverage prohibits a single storey accessible unit that has a functional plan for aging in place, in which case site coverage can be increased to 15%.

The light blue LWH/CH buildings shown within the dark blue building envelopes are for illustrative purposes only.

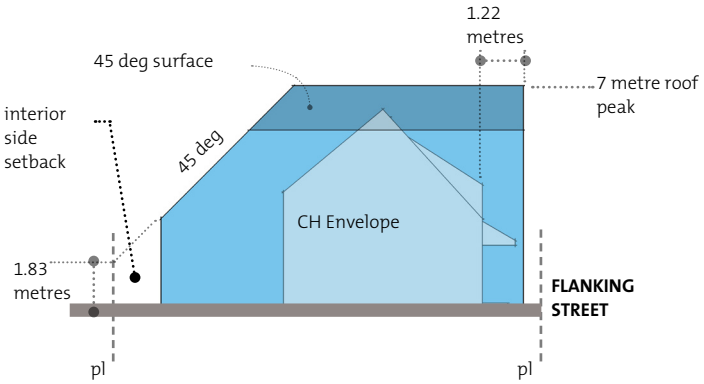


Fig. 17 - Rear elevation.

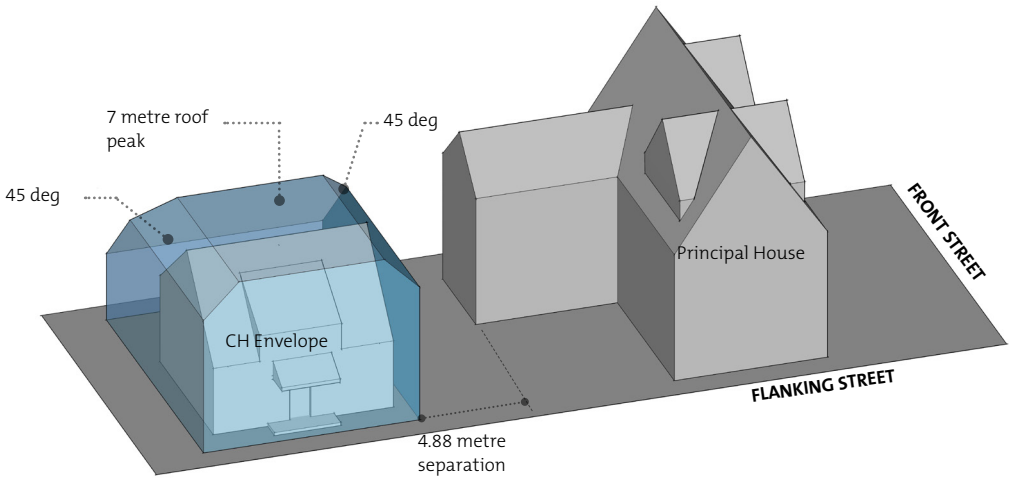


Fig. 18 - Perspective view.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

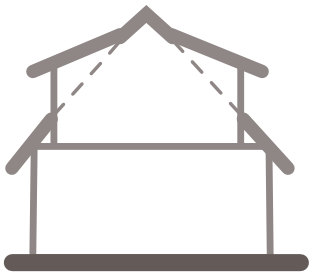
1.1.6 ROOF FORMS

Intent: Roof forms are critical to the design of compact buildings. The height, shape and opportunities for windows impact shade, shadowing and overlook on neighbouring properties, the principal house and open space.

- Upper floor areas are required to be integrated into the roof form.
- One simple, primary roof form is encouraged with secondary roof forms, including dormers, integrated to increase head room and opportunities for glazing.
- Total dormer width on each elevation should not exceed 40% of the width of the upper storey.
- Flat roofs or shallow pitched roofs, especially for two storey buildings, can contribute to the visual bulk and increase shade and shadowing. Locate the tallest portion of the building adjacent to the lane or flanking street and/or near the centre of the lot.
- Projects with a flat or shallow pitched roof must reduce the area of the second floor to 80% of the area of the ground floor, excluding the carport, to achieve a compact overall building form.
- For one storey developments, floor to ceiling heights should generally not exceed 3.65 metres (12 feet).



Not allowed: roof form added to second level.



Required: second level integrated into roof form.



Example of dormer integrated into simple roof form. (Photo: lanefab.com)



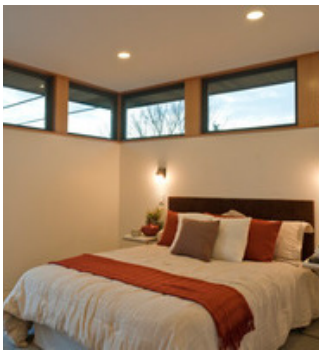
Example of a compact building form that integrates the second floor into the roof form. (Photo: smallworks.ca)

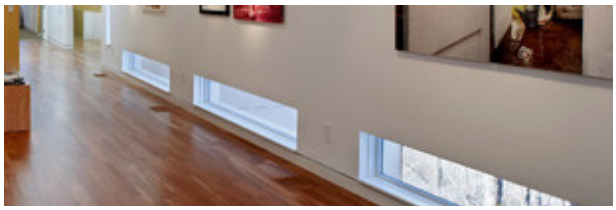


Example of recommended flat and low sloping roof form. (Photo: lanefab.com)

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES







Example of skylights, clerestory and floor level windows. (Photo: lanefab.com)



Example of planting adjacent to a screen/fence.

1.1.7 PRIVACY AND OVERLOOK

Intent: Optimizing privacy for all dwelling units is essential for successful LWH and CH developments, especially the design of upper level windows, balconies and decks where there is increased potential for overlook.

Upper Level Decks and Balconies

- All upper level decks must be located within the building footprint, excluding carports.
- Upper level decks and balconies are permitted on exterior side setbacks and on elevations facing the lane. It must be demonstrated how opportunities for overlook can be avoided.
- Other upper level deck and balcony locations may be considered where opportunities for overlook can be demonstrated to be avoided.
- Upper level decks and balconies may not be enclosed or covered to avoid contributing to building bulk.
- Roof top decks may be considered on one level units if it can demonstrated how opportunities for overlook can be avoided.

Windows

- All dormers are required to have windows.
- Skylights, translucent eye level windows, floor level and clerestory windows (with sills above 1.75 metres / 5.75 feet) are required on the upper level. Clear eye level windows are permitted on the lane elevation and exterior side setback elevation and may be permitted on portions of the building that can be demonstrated not to impact privacy or create overlook on existing or future neighbouring site development.

Fences and Screens

The Zoning Bylaw includes additional detail about fence height.

- Fences or obscuring evergreen hedges are encouraged on all interior side property lines and on rear property lines for CHs.
- The design of open space should balance requirements for privacy with the value of sunlight and of views “out”.
- All screen and fence material should be attractive, durable, and contribute to the quality of the residential landscape design.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

1.1.8 OPEN SPACE AND LANDSCAPE DESIGN

Intent: A consequence of infill housing is the reduced amount of open space. There is an expectation that the landscape design will optimize livability and support sustainability goals.

Site Plans are required to indicate the location and size of private outdoor spaces and trees. The Site Plan must also include a drainage plan identifying the direction of run-off, areas of infiltration and areas of permeable and non-permeable surfaces to ensure rainwater is infiltrated before entering the municipal system and is not directed onto neighbouring properties.

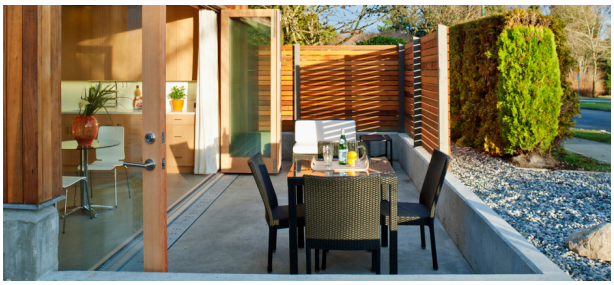
Private Open Space

- A minimum of 14.86 square metres (160 square feet) of clearly defined, at grade, private open space with direct access from the interior and a minimum dimension of 1.83 metres (6 feet) is required for exclusive use by LWH or CH residents.

Soft Landscaping, Planting and Trees

- Trees are a key element in the landscape design. The design and location of all outdoor spaces should focus on the retention of existing trees. See the Tree Protection and Regulation Bylaw.
- Provide trees on properties without trees and provide additional trees on all other properties.
- To optimize function, livability and the visual potential of the space between the LWH or CH and the principal house, a combination of hard and soft landscaping, including trees, is recommended.
- Consider using plants, trees and minor changes in grade to define open space and optimize soft landscaping.
- Planting strips are required on the public side of screens or fences.
- Drought tolerant plants at grade and deciduous trees on the south and west elevations are encouraged.
- Trees and plants should be suitable for the local climate.
- Green walls and/or walls designed to support climbing plants are encouraged.
- Areas of soft landscaping are required between the lane and LWH.





Examples of landscape design and private outdoor space. (lanefab.com)

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

1.1.9 RAINWATER MANAGEMENT AND PAVING MATERIALS

- The choice of hard surface/paving materials should support the best landscape design practices.
- Areas of impermeable paving should be minimized. Areas of asphalt should be avoided.
- Permeable surfaces are encouraged for driveways and vehicle maneuvering spaces, including permeable unit pavers, gravel, and wheel paths integrated into planted strips.
- Permeable surfaces are highly recommended on pathways and patios, where they do not impede access for persons with a disability.
- Landscape design that incorporates rainwater retention, infiltration and harvesting including rain gardens, permeable surfaces, rain barrels and swales is strongly encouraged.



Examples of permeable paving materials.

INTEGRATED STORMWATER MANAGEMENT PLAN
The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

1.1.10 EXTERIOR LIGHTING

Intent: Carefully considered exterior lighting creates safe, welcoming and clearly identified building entrances, lanes, and access pathways. LWH and CH lighting is expected to be neighbour-friendly and to avoid glare into neighbouring and principal houses' outdoor or indoor spaces.

General Lighting Guidelines

- Energy efficient LED, non-glare, down cast photocells in "warm colour temperatures" ranging from 2700K to 3000K, are recommended.
- All light fixtures should complement the architecture and landscape design.
- Motion sensor lights are discouraged.

Laneway Lighting Guidelines

- Pedestrian level lighting, not to exceed 3.66 metres (12 feet) high, is required along the lane to increase safety and visibility.

LWH and CH Building Lighting Guidelines

- Exterior lighting is required at CH and LWH entries, complementary to the overall design.



Examples of entry lighting. (Photo: smallworks.ca)

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

1.1.11 ARCHITECTURAL EXPRESSION INCLUDING LANE FRONTAGE

Intent: These Guidelines encourage LWH and CH designs that enhance existing neighbourhoods. A specific architectural approach is not intended, but a clear expression of residential use, design excellence and innovation is expected.

General Design Considerations

- Textured, durable, high quality cladding materials should be used.
- Trim should be located and scaled to outline openings, reinforce building proportions and provide a transition between materials.
- Weather protection and passive energy performance should be inherent in the design. This could include long lasting materials with low maintenance costs and/or overhangs to protect the building envelope.

LWH and CH Entrance Guidelines

- Entrances to LWHs and CHs on corner lots should be oriented to the flanking street.
- LWH and CH entrances should incorporate a landing or "stoop", connected to the access path leading to the street, and to the lane for LWH.
- LWH entries are encouraged to be visible from the lane but not located directly on the lane (i.e. recessed or set back into the building envelope).
- LWH entrances should be welcoming, weather protected, and be adequately sized to allow a person in a wheelchair or with a baby stroller to exit the property at the lane and safely wait.



Example of well crafted details, trim and high quality, durable cladding. (Photos: lanefab.com)

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

Lane Frontage Guidelines

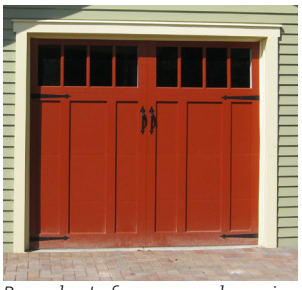
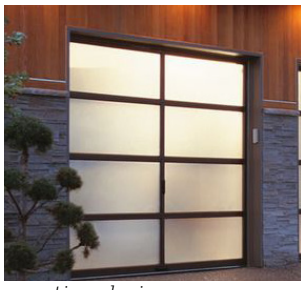
Intent: Careful consideration of the form and character of LWH lane frontages supports the development of lanes as interesting, active, pedestrian oriented public spaces.

- All lane elevations, especially those without doors facing the lane, should be articulated and include design elements that are identified with traditional "front" street elevations. This could include bay windows, planters, window boxes, windows indicating main living spaces, street address, entry gates, lighting and/or cladding material that reinforce this as the public oriented building face.
- The width of LWH lane frontages impacts the quality and scale of the "lanescape". Careful use of materials, colours and form should be used to articulate "wide" lane elevations.
- The residential address should be clearly visible to vehicles and pedestrian on the lane and on the street.
- Garage doors are intended to enhance the lane elevation. They should be consistent in quality, materials and details with the overall design and are required to be partially glazed.





Example of address signs.

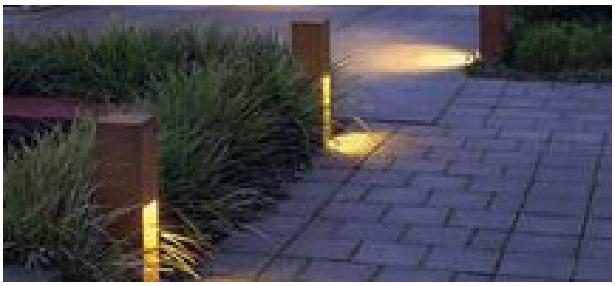



Precedents for garage doors incorporating glazing.

1.1.12 PEDESTRIAN AND SERVICE ACCESS PATH

Intent: Pedestrian access from the front street to LWHs and CHs for emergency responders, deliveries and visitors that includes signage and lighting is an important livability consideration.

- A clear access route with a hard surface is required from the street to the entrance of the LWH or CH for access. This access shall be a minimum width of 0.91 metres (3 feet) where an existing principal house is retained and a minimum width of 1.22 metre (4 feet) where a new principal house is constructed.
- No projections, other than eaves, are permitted into the access route.
- The street access and access path should be adequately lit.
- An address sign is required at the street entrance of the access route and on the lane to clearly identify the LWH or CH.





Examples of pathway lighting.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

1.1.13 PARKING

Additional details about the number and size of parking spaces are included in the Zoning Bylaw.

Parking Access and Location

- Parking is required to be accessed from a lane where such lane is developed and is already used for parking access by a majority of the properties on the block.
- Parking is required to be accessed from a street where a lane is not developed and is not used for parking access by a majority of the properties on the block.
- Where driveway access is onto a major road network, arterial, city or neighbourhood collector street, greenway or bikeway (as defined by the Master Transportation Plan), backing onto the street is not permitted and therefore an on-site turnaround, designed to the satisfaction of a Transportation Engineer and approved by the City, is required.
- Where a lot is fronted by a major road network, arterial, city or neighbourhood collector street (as defined by the Master Transportation Plan), a dedication is required to facilitate the creation of a 6.10 metre (20 foot) lane prior to the construction of a LWH or CH.
- Where parking access is taken from the street and where there are lane dedications, the rear setback of the CH will be based on the LWH, not CH standard.
- Two access points may be permitted until principal house is rebuilt.

Parking Type

Intent: Optimizing open space, reducing shade and shadowing on neighbouring properties, and minimizing building "bulk" along the lane are key design considerations. To that end, parking pads are preferred. One parking space in a carport and one space in a garage may be permitted. The garage space would be included in bulk regulations (i.e. permitted floor space ratio (FSR)).

Parking pads and carports should be flexibly designed to provide additional outdoor space when not used by cars.

General

- No small car spaces are permitted.
- No tandem spaces are permitted.



Examples of permeable pavers.



Examples of a driveway with a central grass strip.

WHAT ARE THE DIFFERENT PARKING TYPES?

Parking Pad

A portion of a site that has a surface which is intended to be used primarily for parking or storing a vehicle.

Carport

A portion of a site that has a surface which is intended to be used primarily for parking or storing a vehicle, and which has a roof structure but is not enclosed.

Garage

A building, or portion of building, with the primary purpose of parking or storage of a vehicle.

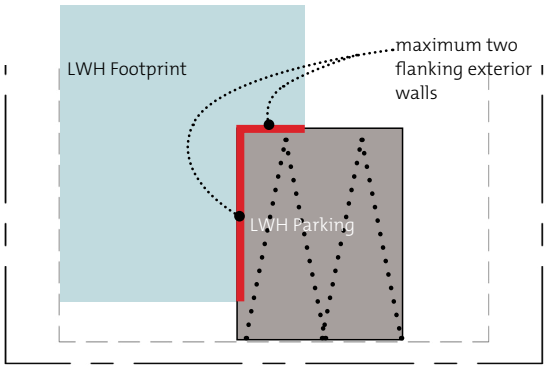


Fig. 19 - Parking pads extending into the building foot print.

1.1 LANEWAY AND CARRIAGE HOUSES
DEVELOPMENT PERMIT GUIDELINES

Parking Pads

- One parking space is required to be a parking pad.
- Parking pads extending into the LWH or CH footprint shall not be flanked by more than two walls - refer to Figure 19.
- Permeable parking pad surfaces, including unit pavers, installed over a bed of sand and gravel, dust-free stone/gravel and grass pavers are highly recommended.

Carports

- Carports are intended to provide weather protection for parked cars only and may not be enclosed.
- Only one single car carport is permitted.
- Carport roofs may extend 0.45 metres (1.5 feet) beyond the perimeter of the parking stall.
- Flat roofs are required in order to minimize shade and shadowing.
- The carport enclosure should be limited to the structure required to support the roof.
- Screening materials, such as wood trellises or metal louvers may be used, but good visibility into the parking area shall be maintained.
- "Garage" doors are not permitted.

Garages

- Only one single car garage is permitted.
- Detached garages are not permitted.

Attached Principal House Parking

- Parking spaces attached to the principal house on a CH property count towards the parking requirement.
- Existing parking spaces attached to the principal house and accessed from the front street on LWH property count towards the parking requirement. However, the Site Plan must show how two future parking spaces can be accommodated at the rear of the property, in accordance with these guidelines. The parking spaces will be required to be relocated to the rear of the property, and not attached the principal house, at the time of redevelopment of the principal house.



Example of a carport used as flexible outdoor space. (Photo: Ramsay Worden Architects)

[BYLAW NO. 8039, 2018]

Electric Vehicles

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.

1.1.14 BICYCLE PARKING

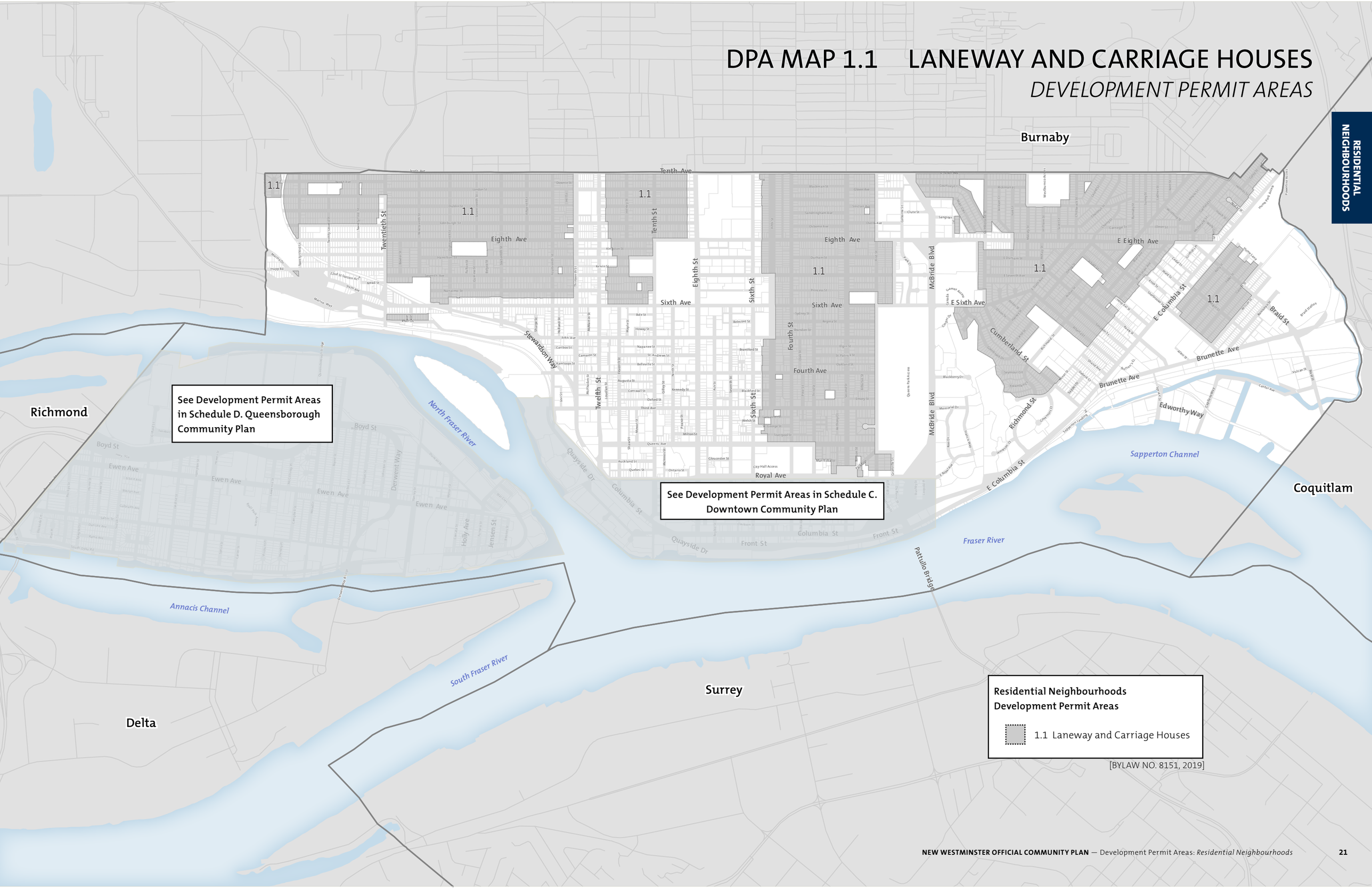
- All CHs and LWHs are encouraged to provide at least one bicycle parking space for each unit.
- Bicycle parking should be secure and weather protected.

1.1.15 GARBAGE AND RECYCLING

- Adequate space for garbage and recycling containers should be provided for all dwelling units on the property and screened from view.
- Parking type design should consider the location and screening of garbage/recycling containers.

DPA MAP 1.1 LANEWAY AND CARRIAGE HOUSES

DEVELOPMENT PERMIT AREAS



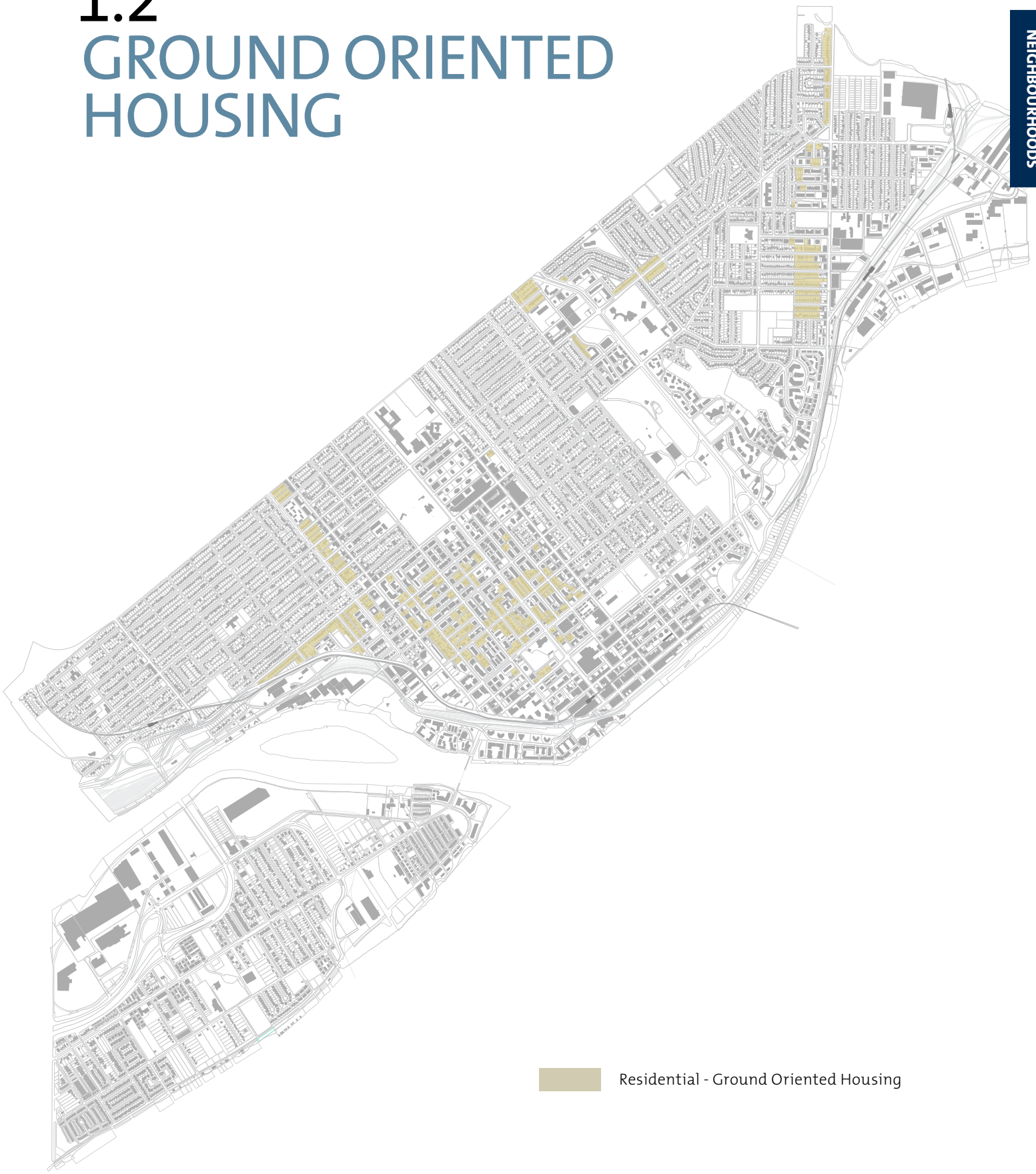
Residential Neighbourhoods Development Permit Areas

1.1 Laneway and Carriage Houses

[BYLAW NO. 8151, 2019]

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1.2 GROUND ORIENTED HOUSING



1.2 GROUND ORIENTED HOUSING
INTRODUCTION

INTRODUCTION

The Ground Oriented Housing intensive residential area, identified as Development Permit Area 1.2 [See Map 1.2], is designated in order to provide an opportunity for innovative infill housing forms. Typically a ground oriented unit has a separate, exterior entrance directly accessible (without passing through a common lobby or corridor) from a street or open space. Allowing new ground oriented housing forms will increase the diversity of housing choice in New Westminster.

Development permit guidelines will be developed for ground oriented housing forms that will ensure that new buildings have a high quality design and are complementary to surrounding housing forms. In the meantime properties will be evaluated through the rezoning process against the objective of creating livable units in well-designed building with high quality open space.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of intensive residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

Applications to develop a laneway or carriage house on properties located within this Development Permit Area, in accordance with existing zoning, must instead comply with the guidelines included in the Laneway and Carriage House Residential Neighbourhood Development Permit Area.

Applications to develop infill townhouse or rowhouse properties located within this Development Permit Area must instead comply with the guidelines included in the Infill Townhouse and Rowhouse Residential Neighbourhood Development Permit Area.

DPA MAP 1.2 GROUND ORIENTED HOUSING

DEVELOPMENT PERMIT AREAS

Burnaby

Richmond

Coquitlam

Surrey

Delta

North Fraser River

Fraser River

Annacis Channel

South Fraser River

Sapperton Channel

Tenth Ave

Eighth Ave

Sixth Ave

Fourth Ave

E Eighth Ave

E Sixth Ave

Twentieth St

Tenth St

Eighth St

Sixth St

Fourth St

Twelfth St

McBride Blvd

Stewardson Way

Cumberland St

E Columbia St

Brunette Ave

Braid St

Edworthy Way

Richmond St

Royal Ave

Columbia St

Front St

Quayside Dr

Pattullo Bridge

1.2

See Development Permit Areas in Schedule D. Queensborough Community Plan

See Development Permit Areas in Schedule C. Downtown Community Plan

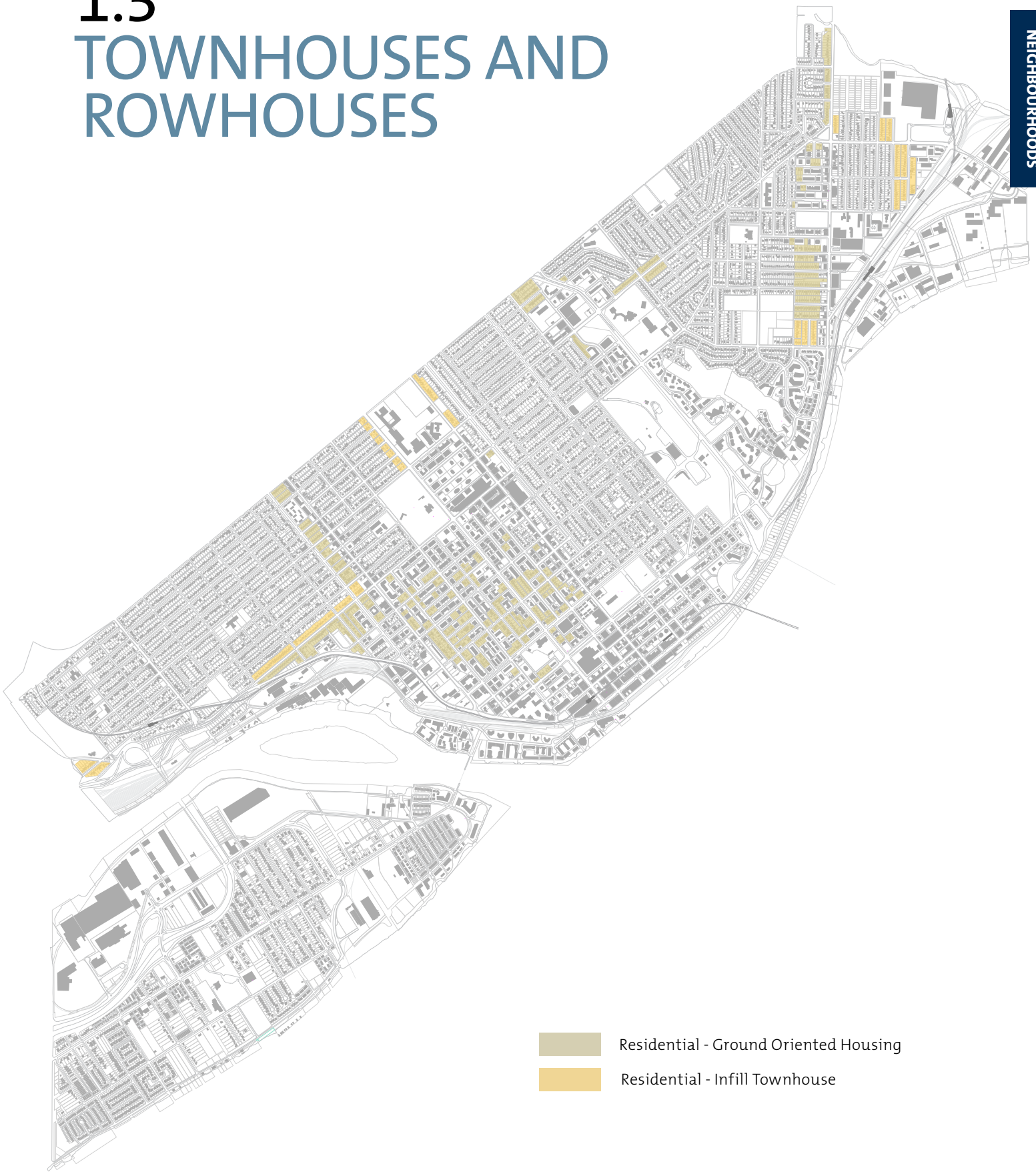
Residential Neighbourhoods Development Permit Areas

1.2 Ground Oriented Housing

[BYLAW NO. 8151, 2019]

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1.3 TOWNHOUSES AND ROWHOUSES



1.3 TOWNHOUSES AND ROWHOUSES
INTRODUCTION

INTRODUCTION

The Infill Townhouse (TH) and Rowhouse (RH) multi-unit residential area, identified as Development Permit Area 1.3 [See Map 1.3], is designated in order to provide an opportunity for an innovative ground oriented housing type. TH and RH provide ground oriented, attached, family friendly housing forms in residential neighbourhoods, increasing housing choice.

THs and RHs are attached, ground oriented, family oriented units. RHs are fee simple developments with parking on each fee simple lot. THs are strata title developments which may have shared or designated parking typically at the rear of the property. For the purpose of this Development Permit Area a street oriented development is one in which all of the units on shallow lots face the street. A courtyard oriented development is where units on a deep lot face an internal courtyard.

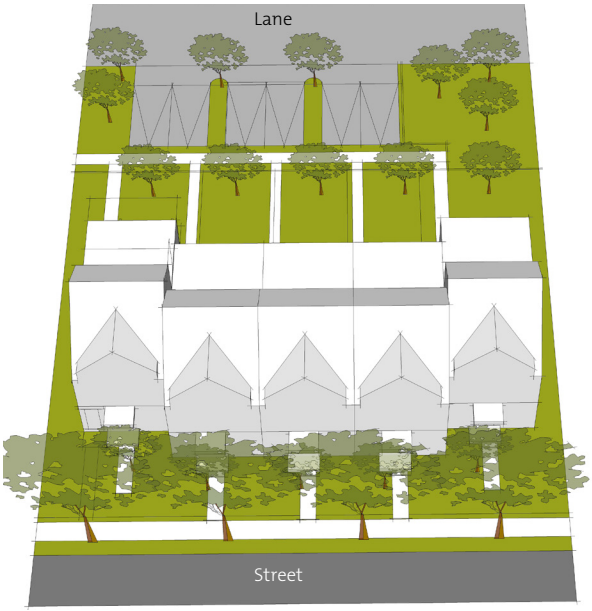
This Development Permit Area establishes guidelines that will shape the development of THs and RHs. The intent of this area is to encourage small scale infill projects that are complementary to the existing single detached dwelling context through appropriate building form, scale and location. Small projects, with a low number of units, are anticipated. Back-to-back and stacked THs are not permitted.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

[BYLAW NO. 8151, 2019]

Applications to develop properties located within this Development Permit Area for commercial uses, in accordance with existing commercial zoning, must instead comply with the guidelines included in the Brunette Employment Lands Development Permit Area.



Street oriented development.



Courtyard oriented development.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

GUIDING PRINCIPLES

These ground oriented housing forms will impact the neighbourhood fabric and streetscapes.

Guiding Principles for these forms of infill are:

- Design infill buildings to be good neighbours by minimizing shade, shadow and overlook onto adjacent properties.
- Design buildings for durability and sustainability.
- Provide livable spaces with optimum daylight and ventilation, access to ground level private open space, and functional, efficient interiors.
- Design outdoor spaces as a valued year round asset.
- Create streetscapes that are pedestrian and cyclist friendly, contributing to well-connected neighbourhoods.
- Maintain a scale of development that is compatible with single detached dwelling neighbours.
- Contribute to vibrant, engaging streetscapes.
- Balance efficient space planning with comfort and flexibility.

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.



TH/RH streetscape precedent.

1.3.1 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

All infill housing developments are expected to follow CPTED principles including:

- Clearly defined boundaries including private, semi-private and private space.
- The ability to provide surveillance from indoor and outdoor spaces.
- Providing secure access points including gates, lighting and locks.
- Landscape design that does not interfere with sight lines, lighting or provide opportunities for concealment.

1.3.2 SUSTAINABILITY

All forms of infill buildings are encouraged to consider additional current and future opportunities for sustainable design where possible including:

- Passive solar design integrated into the architecture and landscape design.
- Energy efficient design and internal infrastructure including structural supports for future solar panels.
- Opportunities for natural ventilation to optimize air quality and reduce mechanical cooling.
- Healthy, durable building materials.
- Drought resistant, low maintenance plants.
- Architecture and landscape design that integrates water conservation and rainwater management including the use of rain barrels and rain gardens, and maximizes permeable surfaces.
- Secure storage for bicycles.
- Safe, pleasant pedestrian connections to the street and the lane.

1.3.3 SETBACKS

Intent: Setbacks provide adequate separation between neighbours, support a streetscape with transitions between varying front yard depths and optimize functional front and back yards.

Additional information about projections into setbacks can be found in the Zoning Bylaw.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

Side Setbacks

Intent: The purpose of side setbacks for THs or RHs which have a unit side wall facing the side setback is to provide adequate spacing between the side walls of the TH or RH units and the side wall of the buildings on adjacent properties. Where TH units have rear or front walls oriented towards the side setback, the setback is larger to ensure privacy between properties and to allow for the provision of adequate open space for TH units.

- Where a side wall of a TH or RH unit faces a side setback, such as in a street fronting RH development, the side setback shall be 1.83 metres (6 feet).
- Where the rear or front wall of a TH or RH unit faces a side setback, such as in a courtyard style development, the side setback shall be 4.27 metres (14 feet).
- Developments with a mix of street fronting and courtyard THs are required to provide side setbacks appropriate to each unit type.

Front Setbacks

Intent: The purpose of the front setbacks is to optimize valuable front outdoor space. The front setback also maintains the TH or RH compatibility with adjacent single detached dwellings.

- The minimum TH and RH front setback is 4.27 metres (14 feet), except street oriented interior end units where the minimum setback is 5.79 metres (19 feet).
- Front porches are allowed to encroach into the front setback to encourage livable porches, provide a buffer from traffic noise and contribute to a friendly, animated streetscape.

Rear Setbacks

Intent: The purpose of rear setback is to ensure transition to SDD properties and to provide an area for useable at grade open space or parking.

- Rear setbacks are required to be 7.62 metres (25 feet) minimum from the rear property line.

Building Separation

- The minimum courtyard width is 8.53 metres (28 feet) measured between the main building façades.

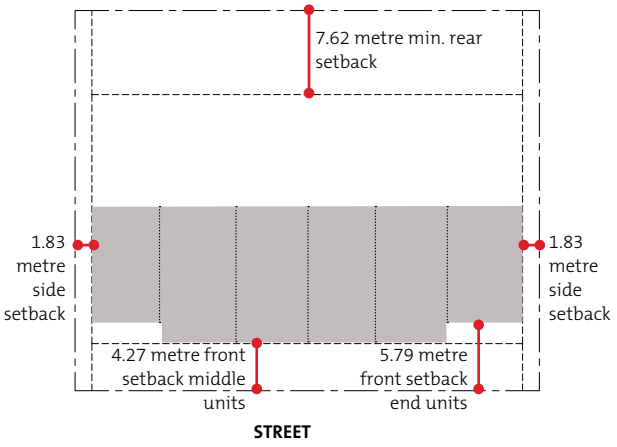


Fig. 1 - Street oriented mid-block setbacks.

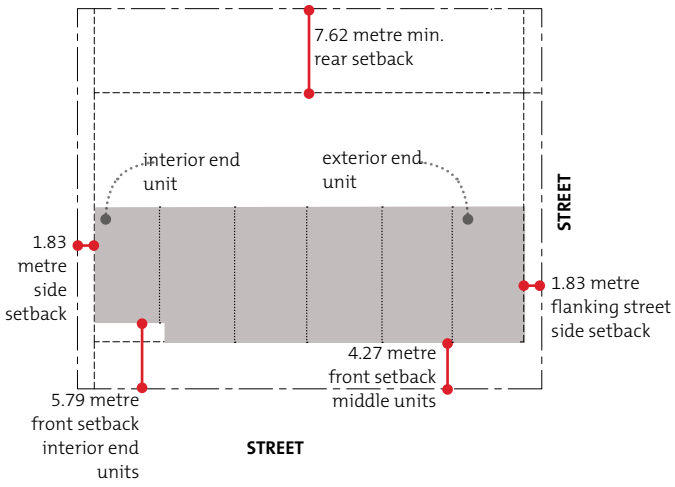


Fig. 2 - Street oriented corner setbacks.

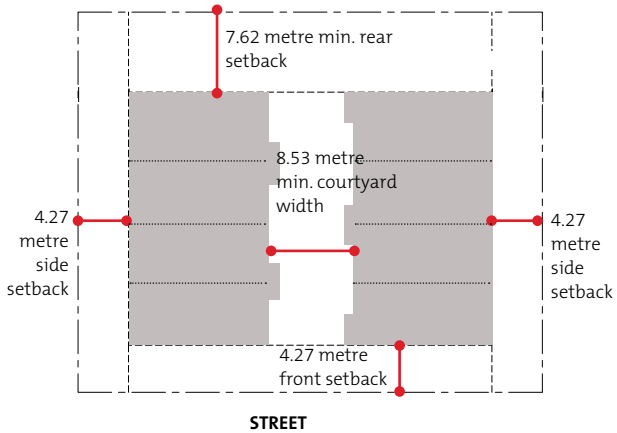


Fig. 3 - Courtyard development setbacks.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

1.3.4 BUILDING SIZE AND MASSING

Intent: Careful attention to the size and mass of THs and RHs are key to successfully fitting these housing forms into residential neighbourhoods. These Guidelines aim to minimize the impact of shade, shadow and overlook on neighbouring properties. They also direct the highest portion of buildings towards the centre of the lot. Integrating the third level plan into the roof form, rather than increasing height by "adding" a roof form above the second level, is required to create a compact building form. Additional information about density and height can be found in the Zoning Bylaw.

General Guidelines

- The maximum building length is 38.10 metres (125 feet) to minimize the massing of buildings and to ensure that new buildings are complementary to surrounding single detached dwellings.
- Each TH or RH development should be both unique from and complementary to any adjacent TH or RH developments.

Projections

Projections are permitted within the required setbacks and building envelope only as follows:

Front Yard

- Eaves up to 0.61 metres (2 feet).
- Unenclosed porches off the main level up to 1.22 metres (4 feet).
- Cantilevered canopies over entrances up to 1.22 metres (4 feet).
- Steps and ramps from first floor to grade – no maximum projection.
- Bay windows of not more than 1.82 metres (6 feet) in length or one storey in height up to 0.61 metres.

Side Yard

- Eaves up to 0.61 metres (2 feet).

Rear Yard

- Eaves up to 0.61 metres (2 feet).
- Unenclosed porches off the main level up to 1.22 metres (4 feet).
- Cantilevered canopies over entrances up to 1.22 metres (4 feet).
- Steps and ramps from first floor to grade – no maximum projection.
- Bay windows of not more than 1.82 metres (6 feet) in length or one storey in height up to 0.61 metres.





TH/RH streetscape precedent. (Left photo: Stewart Howard Architects. Right photo: Ramsay Worden Architects.)

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

Courtyard Developments

Intent: The purpose of the building envelope is to optimize daylight and minimize shade and shadowing on neighbours including lots with single detached dwellings.

TH building envelopes:

- will be constructed within a maximum building envelope projecting up 1.83 metres (6 feet) from the interior property line and then inclining inward at a 45 degree angle to the maximum building height, and
- projecting up 1.83 metres (6 feet) from rear property line and degree angle to the maximum building height.

WHAT IS BUILDING ENVELOPE?

The building envelope is the three dimensional space the TH or RH house must be located within. The building envelope is generally defined by front, side and rear setbacks, and height. The building envelope is shown in dark blue in the figures in this Development Permit Area. As the figures show, the building envelope tends to be larger than the maximum building size that would be permitted. The building is shown in light blue in the figures. This means that it is possible to configure RH or TH buildings in different ways, while still fitting within the envelope.

The light blue TH/RH buildings shown within the dark blue building envelopes are for illustrative purposes only.

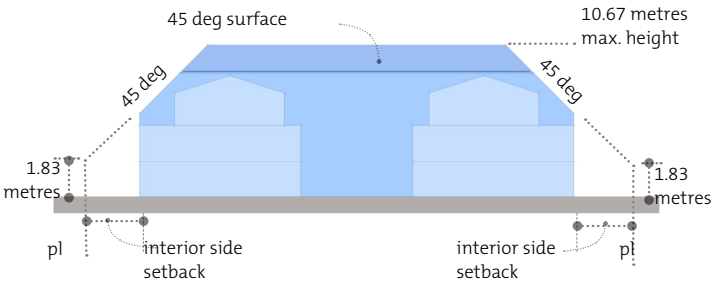


Fig. 4 - Courtyard development rear view.

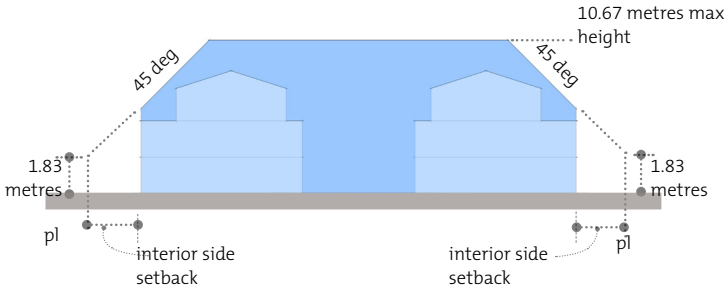


Fig. 5 - Courtyard development front view.

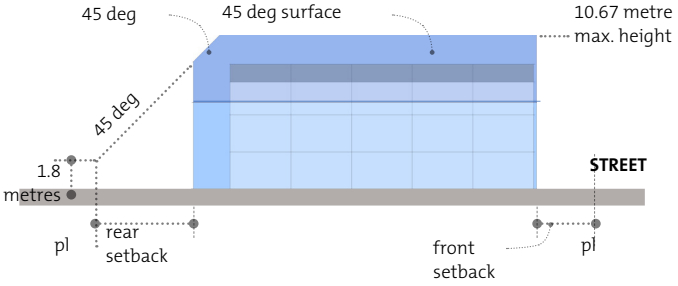


Fig. 6 - Courtyard development side view.

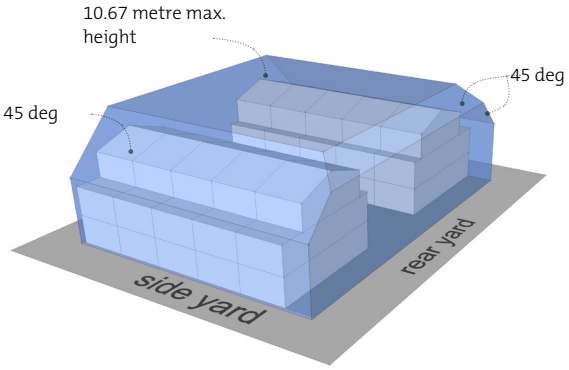


Fig. 7 - Courtyard development 3D view.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

1.3.5 HEIGHT AND ROOF FORMS

Intent: Roof forms are critical to the design of infill housing. The height, shape and opportunities for windows impact shade, shadowing, overlook on neighbouring properties and open space. Additional regulations regarding height are included in the Zoning Bylaw.

- The maximum height of units is two and a half storeys above grade, except for the internal end unit of a street fronting development which can be a maximum of two storeys.
- Buildings shall not read as more than three storeys on any side of a lot, regardless of the slope of the lot.
- Roof forms designed to reinforce the identity of individual units are preferred.
- Upper floor areas should be integrated into the roof form.
- Simple roof forms are preferred.
- Top floors are encouraged to step back to minimize shade and shadow on outdoor spaces.
- In order for buildings to integrate with the existing topography of a sloping site, building sizes (lengths and widths) may need to be reduced and/or floor slabs may need to be stepped.

1.3.6 ARCHITECTURAL EXPRESSION

Intent: These Guidelines encourage new development that emphasizes livability and responds to the West Coast climate through:

- the use of durable, long lasting and high quality materials,
- passive design elements, including solar shading on the west and south elevations,
- outdoor spaces located to optimize sun and surveillance, and
- generous areas of glazing to optimize daylight.

Overall Expression Including Streetscape

- Simple, contemporary building forms combined with primary roof shapes are encouraged.
- Roof forms that clearly express individual units are encouraged.
- Third floor areas are encouraged to be integrated into the roof form.
- Dormers are encouraged where they are clearly secondary to the primary form, where the highest point on the dormer is lower than the primary ridge height and the combined dormer width does not exceed 50% of the width of the upper storey.
- End units in street facing or courtyard developments or corner units adjacent to the street, should include design elements and materials that express the street elevation as the public face including bay windows, generous glazing and landscape design where orienting the front entrance to the street is not practical.
- RH and TH developments should contribute to walkable and appealing streetscapes.
- Each development should provide architectural diversity to ensure a varied streetscape.





Examples of simple, contemporary building forms with front gardens and gates. (Left photo: Ramsay Worden Architects).

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

Entrance Guidelines

- Entrances should be expressed in the overall form as a welcoming, sheltered design element.
- Entrances should be clearly visible and identifiable from the street and sidewalk, or internal courtyard. This can be achieved through articulating the building massing and framing entrances with secondary roof elements (such as canopies).
- Activate the transition zone between private entrances/ outdoor living spaces and the public realm or interior courtyards with stoops, stairs, private yards and porches.
- Units should be elevated slightly from grade to create privacy and a transition zone from the street. In the case of entries on sloping sites, where raising all entries above grade may not be possible, entry levels should be established and design completed based on activating the space and establishing the appropriate transition between public and private spaces.
- Entrances should include weather protection.
- All developments should be located to minimize the impact of shade and shadowing on outdoor spaces and adjacent properties
- Street oriented RH and TH unit entries should be oriented to the street, not to internal side yards.
- Courtyard TH entries are encouraged to face the courtyard, not an internal side setback. End units should be oriented to the street.
- Entrances are expected to incorporate a garden or landscaped area, garden gate and a pathway connecting to the public sidewalk or common walkway.

Courtyard Guidelines

- Courtyard entry elements are recommended at the transition to the public realm to provide security, a location for mailboxes and lighting and to reinforce placemaking.
- Courtyard spaces should optimize privacy between facing units.
- Incorporate an entry sequence between the semi-public pathway and private unit entries, including changes in level, layered landscaping, gates, garden walls and changes in materials.



Example of front entry sequence.



Example of courtyard entrance elements.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

Cladding Materials

- Masonry, lapped siding and/or other textured cladding materials are strongly encouraged, especially at the ground floor level.
- Front or flanking street cladding materials should wrap around the building sides a minimum of 1.22 metre (4 feet) to avoid a "wallpaper" effect.
- Synthetic materials intended to mimic natural materials are not recommended. Cultured stone products are strongly discouraged.
- A minimal number of cladding materials are recommended.
- Changes in materials should incorporate appropriate trim and detailing and occur at significant changes in plane including floor level changes and step backs.

Privacy and Overlook

- Strategies to minimize overlook across a courtyard, including offsetting windows, are encouraged.
- The location of upper level windows, decks, balconies and stairs to upper levels should be located and/or screened to minimize overlook.
- Decks and balconies should not be oriented to interior side yards.
- Skylights, translucent eye level windows and clerestory windows (with sills above 1.75 metres / 5.75 feet) are recommended to reduce overlook at interior side yards.

Transition to Existing Single Detached Dwelling Neighbours

- TH and RH developments are expected to relate to the height and location of existing single detached neighbours.
- The end units of street fronting developments adjacent to existing single detached dwellings are encouraged to be maximum two storeys in height.



Example of simple, proportional details and material use at entry.



Example of courtyard development. (Photo: Ramsay Worden Architects)

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

1.3.7 OPEN SPACE AND LANDSCAPE DESIGN

Intent: Landscape design is focused on privacy, open space and rainwater management, optimizing livability and increasing neighbourliness.

Private and Shared Open Space

- A minimum of 14.86 square meters (160 square feet) of private open space at grade with a minimum dimension of 1.83 metres (6 feet) is required for each TH and RH unit and which is adjacent to and directly accessible from each unit.
- Where possible, provide areas of shared open space in addition to private open spaces in TH developments. These spaces should be located to optimize sun and be places to play, garden and recreate. Consider incorporating areas of permeable, hard surfaces for all weather use.
- Private and shared open spaces should be a combination of soft and hard landscaping.
- Upper level balconies and decks, including rooftop decks, are encouraged where overlook of neighbouring properties can be to be avoided.
- Upper level decks and balconies may not be enclosed or covered to avoid contributing to building bulk.

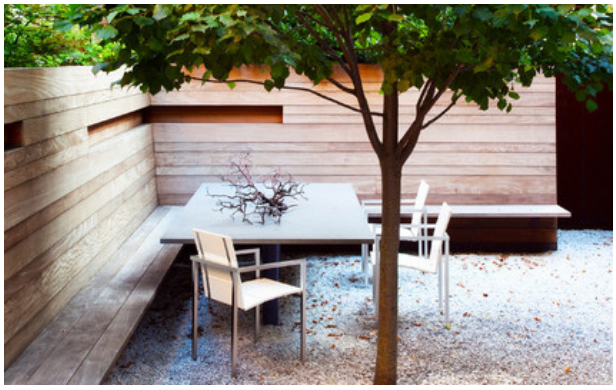
Soft Landscaping, Planting and Trees

- Trees are a key element in the landscape design. The site plan, including building location and outdoor spaces, should focus on the retention of existing trees and addition of new trees. See the Tree Protection and Regulation Bylaw.
- Drought tolerant plants and deciduous trees on the south and west elevations are encouraged.
- Trees and plants should be suitable for the local climate.
- Areas of soft landscaping along the lane are recommended to soften the landscape and to support the development of a pedestrian oriented public space.

Hard Landscaping

- High quality hardscape materials should be used including pavers, brick and concrete. Asphalt is not permitted.





Examples of compact outdoor spaces with trees, planting and permeable surfaces.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

Permeable Surfaces and Rainwater Management

- Areas of impermeable paving should be minimized. Areas of asphalt should be avoided.
- Permeable surfaces are encouraged on parking areas and patios.
- Permeable surfaces are highly recommended for pathways, where they do not impact accessibility.
- Landscape design that incorporates rainwater retention including rain gardens, permeable surfaces, rain barrels, swales and other opportunities for infiltration are strongly encouraged.

Screens and Fences

The Zoning Bylaw includes additional detail about fence height.

- Screens, fences or landscaping are encouraged along the interior property line to reduce the visual impact of parked cars on neighbours.
- Balance requirements for privacy with the value of sunlight and views "out" in the design of open space. Consider using plants and trees, and changes in grade to define open space and optimize soft landscaping.
- All screen and fence material should be attractive, durable, and contribute to the quality of the residential landscape design.
- Planting strips are recommended on the public side of screens or fences facing streets or lanes.

1.3.8 RECYCLING AND GARBAGE

- Adequate space for garbage and recycling containers should be provided for all units on the property and screened from view using materials consistent with the overall design.

1.3.9 BICYCLE PARKING

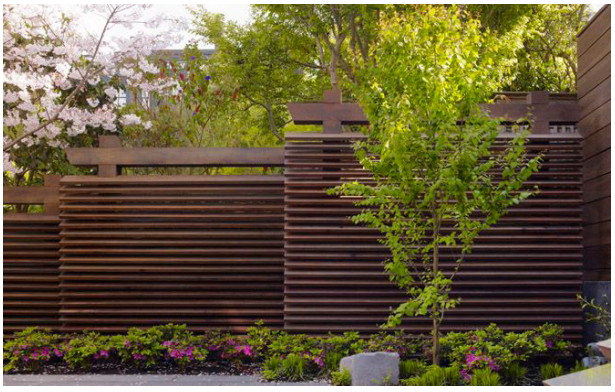
- All THs and CHs are encouraged to provide at least one bicycle parking space for each unit.
- Bicycle parking should be secure and weather protected.



Examples of permeable paving materials.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stromwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.



Example of fence/screen combined with planting.

1.3 TOWNHOUSES AND ROWHOUSES
DEVELOPMENT PERMIT GUIDELINES

1.3.10 VEHICULAR PARKING

General Guidelines

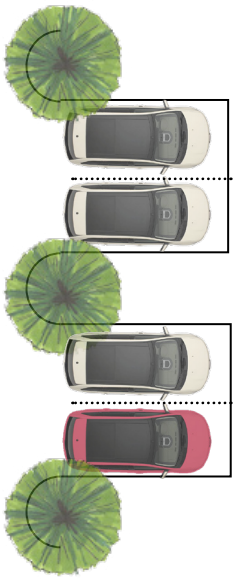
- Driveway crossings of sidewalks reduce walkability and pedestrian safety. Developments with lane access are required to access parking from the lane.
- Driveway lengths should be minimized.
- Permeable surfaces, including unit pavers installed over a bed of sand and gravel, dust-free stone/gravel and grass pavers are encouraged for driveways and vehicle maneuvring areas. Asphalt is not permitted.
- Opportunities for hard surface or covered surface parking areas which are appropriate for all weather play and recreation are encouraged.
- Shared off-street parking areas are highly encouraged to maximize opportunities for green open space and minimize the visual impact of parked cars.
- Tree planting is encouraged between clusters of parked cars to provide shade, optimize landscaping opportunities and reduce the visual impact of parked cars.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.

Parking Type

- Garages are not permitted.
- Parking pads are preferred, to minimize shade and shadowing on residents and adjacent developments.
- Carports are intended to provide weather protection for parked cars only and may not be enclosed. Flat roofs are required to minimize shade and shadowing.
- Carports larger than two car spaces are not encouraged. Adequate space between carports is required.
- The carport should be limited to the structure required to support the roof.
- Screening materials, such as wood trellises and metal louvers, may be used but good visibility into the parking area shall be maintained.
- Carport roofs may extend a maximum of 0.45 metres (1.5 feet) beyond the perimeter of the parking stall.
- "Garage" doors are not permitted on carports.
- Carports are not permitted to be attached to TH or RH buildings.
- Underground parking may be considered if it results in increased open space, is not visible from the edges of the site, does not involve regrading of the site and is fully underground (with the exception of the entrance).



Examples of shared parking areas and tree planting.



Examples of a carport design.

DPA MAP 1.3 TOWNHOUSES AND ROWHOUSES

DEVELOPMENT PERMIT AREAS

Burnaby

Richmond

Coquitlam

Surrey

Delta

See Development Permit Areas in Schedule D. Queensborough Community Plan

See Development Permit Areas in Schedule C. Downtown Community Plan

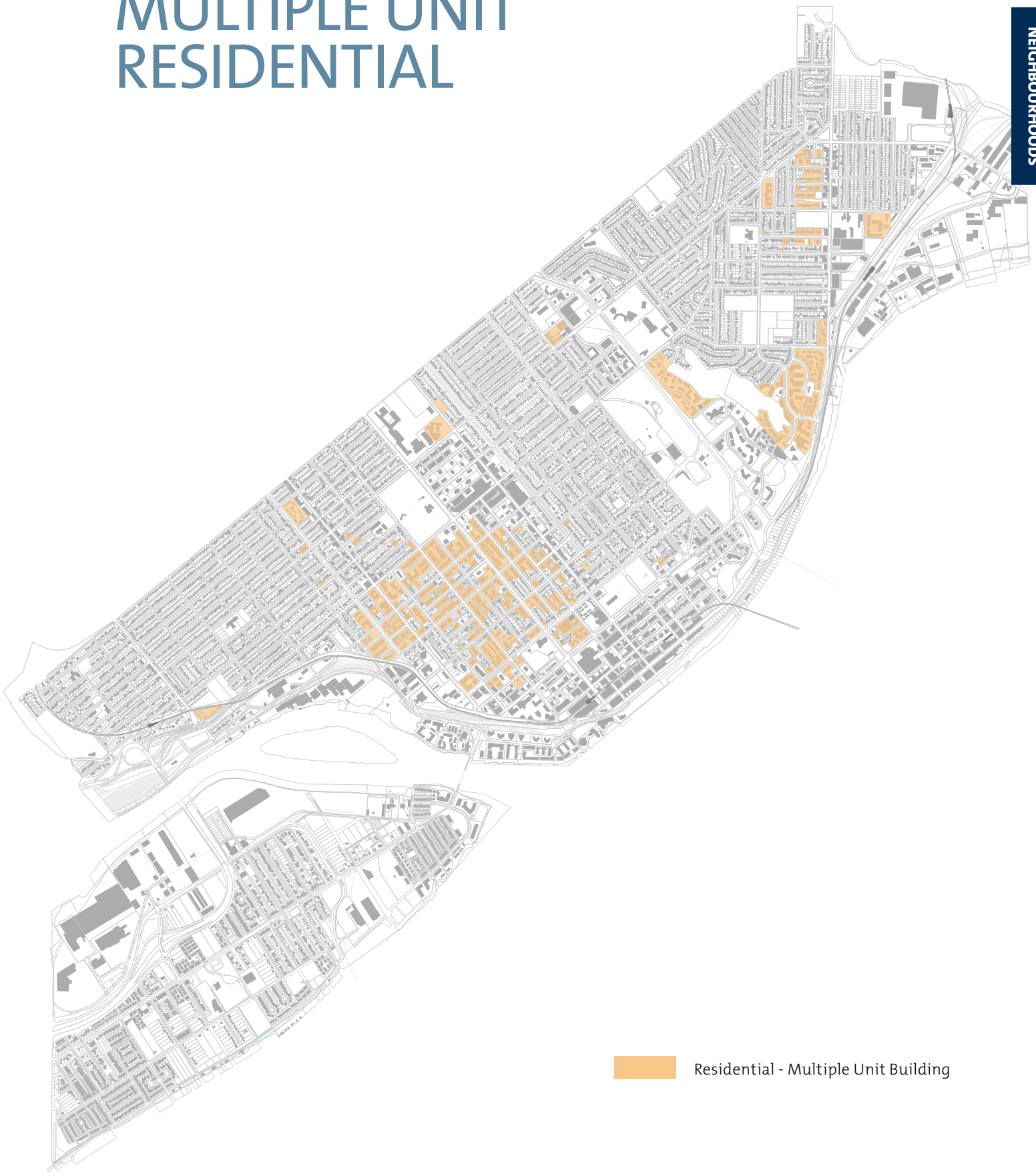
Residential Neighbourhoods Development Permit Areas

1.3 Townhouses and Rowhouses

[BYLAW NO. 8151, 2019; 8261, 2021]

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1.4 MULTIPLE UNIT RESIDENTIAL



1.4 MULTIPLE UNIT RESIDENTIAL
INTRODUCTION



Multi-unit building next to single detached dwellings.

INTRODUCTION

The Multiple Unit Residential area, identified as Development Permit Area 1.4 [See Map 1.4], is designated in order to integrate multi-unit housing forms into the city's single detached dwelling and ground oriented housing neighbourhoods. There are already many multi-unit residential buildings interspersed within these neighbourhoods. These existing apartment buildings make up a significant portion of the rental and affordable housing stock in the city and will continue to play an important role in providing housing diversity. New development in this area will include townhouses, rowhouses, stacked townhouses or low rise apartments. The Development Permit Area encourages the design of new buildings to be complementary with surrounding housing.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

When appropriate, this area will also include small scale commercial, such as a corner store. Applications to develop properties located within this Development Permit Area that will include small scale commercial, should consider the relevant guidelines included in the Commercial Corridor or Mixed Use Nodes Development Permit Areas.

1.4 MULTIPLE UNIT RESIDENTIAL
INTRODUCTION

OPPORTUNITIES

The city's multiple unit residential buildings are often located in are well-connected, desirable and walkable neighbourhoods. The existing mix of uses and housing forms creates a rich and diverse urban fabric.

New development opportunities in this area should capitalize on the existing housing diversity of the neighbourhood and aim to provide a range of housing options and unit types. New development also has the opportunity to integrate affordable housing that will maintain the city's rental and affordable housing stock.

New development in these neighbourhoods may take the form of three to four storey multi-unit residential buildings, as well as townhouses and stacked townhouses. These new opportunities for residential development should respect the surrounding context by designing appropriate transitions to surrounding buildings.

It will be important to create appropriately scaled multi-unit residential developments that transition to neighbouring single detached dwellings, ground oriented housing types (such as duplexes or townhomes) and/or adjacent multi-unit buildings.

New development also creates an opportunity to increase the amount of ground oriented, family friendly housing in the city by adding townhouses at the base of new apartment buildings.



Residential units lining a mid-neighbourhood connection, Source: Unknown

HOUSING POLICIES

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

1.4 MULTIPLE UNIT RESIDENTIAL
INTRODUCTION

GENERAL PRINCIPLES

Development in Multi-unit Residential areas provides an opportunity for urban living that is well connected, walkable and well served by many amenities. These areas provide a critically important density and range of housing types which create active and inclusive neighbourhoods.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwellings or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should have at grade residential units with entries along public right-of-ways and create private outdoor spaces for residents. These residential units should be ground oriented, two level and family friendly.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

6. ENHANCE PUBLIC REALM

A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

7. PROMOTE SAFETY + SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

1.4 MULTIPLE UNIT RESIDENTIAL

INTRODUCTION



7. Orient windows, balconies and entrances to create overlook and "eyes on the street" surveillance of public and semi-public spaces

1. Design attractive building and landscape interfaces at laneways and side streets to create a more welcoming and diverse bike and pedestrian network

4. Provide ground oriented entrances and private outdoor spaces for residential units along public R.O.W.s, include entrances to units off of laneways to activate laneways and alleys

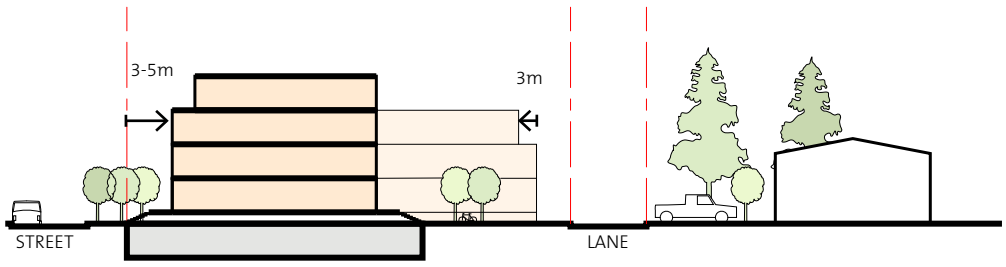
3. Transition building massing by stepping down towards single detached dwellings

5. Create opportunities for habitat and biodiversity enhancement by integrating landscaped areas that include natural plants (green roofs, courtyards, private outdoor spaces, pocket parks, etc)

6. Provide landscaped areas and spaces for interaction along public R.O.W.s, and enhance the interface of public/semi-private/ private spaces with activated spaces and landscaping.

2. Create an appropriately scaled street wall with setbacks at the upper floors to establish a consistent street wall

Multiple Unit Residential Axonometric



Typical Section - Multiple Unit Residential

1.4 MULTIPLE UNIT RESIDENTIAL
NEIGHBOURHOOD INTERFACE



Ground oriented residential typologies, Source: GDB Architecture

1.4.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Buildings should be designed to front all streets/ greenways immediately adjacent to or within the development.
- Buildings should provide a sensitive transition to neighbouring properties by stepping massing down to create a more comfortable scale transition while providing reasonable side and rear lot setbacks.
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- Buildings should be designed to fit within the natural topography of the site, by stepping down sloping terrain and accommodating significant grade changes by creating transitions from the building to the sidewalk and street level.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").

Development within 10m of the SkyTrain guideway and within 25m of a SkyTrain station should follow TransLink's Adjacent and Integrated Development (AID) project consent process.

1.4.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material

1.4 MULTIPLE UNIT RESIDENTIAL
NEIGHBOURHOOD INTERFACE



Changes in material and articulation can be used to break-down longer façades, Source: Quadrangle Architects.

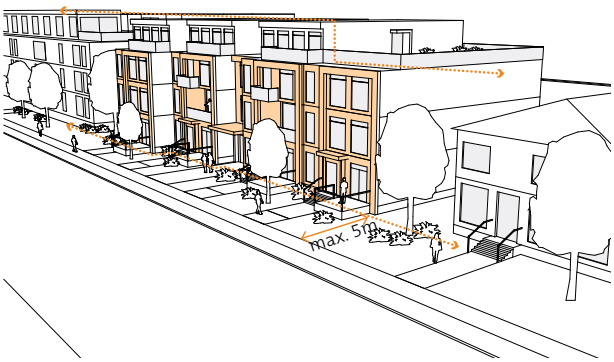
should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.

1.4.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Buildings should create a variety of spatial experiences at different scales to enhance the diverse quality of the neighbourhood. Gardens, exterior courtyards, and green spaces should be enhanced by building massing siting.
- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on housing form, building density, use on the adjacent lot and the presence of a lane. Smaller setbacks will correspond with ground oriented units with exterior access, while larger setbacks are required when no lane exists at the rear property line.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides.
- Residential buildings should be set back from the front property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units.

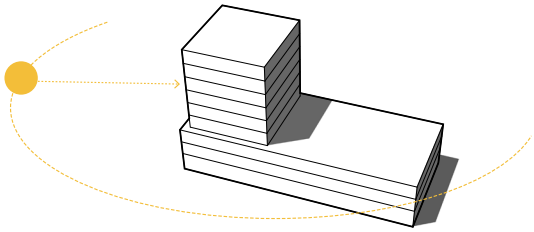
1.4 MULTIPLE UNIT RESIDENTIAL
NEIGHBOURHOOD INTERFACE



Setback façades and step down building height to transition to single detached dwellings or ground oriented housing

- Front yard setbacks should take into account neighbouring properties and may be staggered across the front façade to ease the transition to single detached dwellings.
- Side yard setbacks should provide a sensitive interface with adjacent properties to minimize overlook and where appropriate create a private connection from the front to rear of the property for residents.
- When setbacks vary on either side of a proposed development, design of the building should mitigate the differences and create a more cohesive street wall.
- Six storey developments will only be considered in limited circumstances based on specific conditions:
  - If the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing AND no purpose build rental housing units are being lost.
  - OR, if purpose built rental housing units would be lost, an affordable housing benefit equivalent to or greater than what would be lost must be provided.
- If development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units the base of the building.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.

1.4 MULTIPLE UNIT RESIDENTIAL
NEIGHBOURHOOD INTERFACE



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight



Provide adequate access to daylight and natural ventilation, Source: Alison Brooks Architects

1.4.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.

1.4.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

1.4 MULTIPLE UNIT RESIDENTIAL
BUILDING DESIGN



Ground floor units with primary entrances accessible from the sidewalk, Source: David Baker Architects

1.4.6 ENTRANCES

Intent: Building entrances must be located and designed to provide ground floor units that contribute to safe and lively urban environments.

- Residential buildings should activate public R.O.W.s by incorporating ground floor units with individual primary entrances.
- Residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Ground-floor units should be elevated slightly to create privacy and a transition zone from the street.
- Residential lobby entrances should be distinguished from those of ground-floor residential units. Incorporate architectural and landscape features to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- The transition zone between private entrances/ outdoor living spaces and the public realm should be activated with stoops, stairs, private yards and porches.
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Secondary entrances should also be provided where possible on the laneway or rear of building to activate laneways and intermediate spaces.

1.4.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

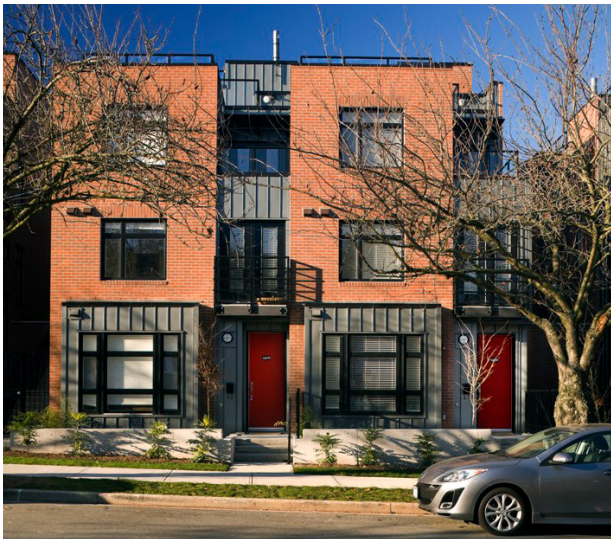
- Buildings should not be “one-sided” but should animate all façades – interfaces should be encouraged to promote a lively laneway condition more amicable to pedestrians.
- Individual units should be differentiated with minor façade articulation, changes in color, and/or materials.

1.4 MULTIPLE UNIT RESIDENTIAL
BUILDING DESIGN

1.4.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of the neighbourhood. Wood, stone, brick and standing seam metal cladding are preferred cladding materials, while composite, metal or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Simple material palette with accent colour, Source: Stuart Howard Architects

1.4.9 WINDOWS

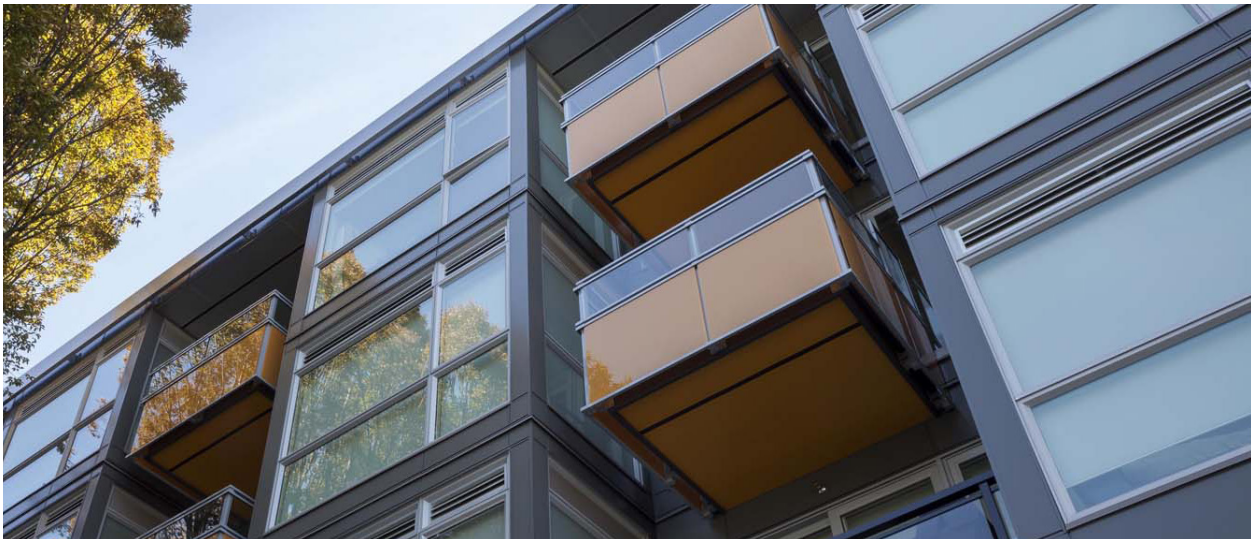
Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Windows overlooking public sidewalk, Source: Ashley Smith

1.4 MULTIPLE UNIT RESIDENTIAL
BUILDING DESIGN



Balconies inset into building mass, Source: GBL Architects

1.4.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces and residential spaces.

1.4.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.

1.4 MULTIPLE UNIT RESIDENTIAL
BUILDING DESIGN



Accessible apartment entry with integrated lighting and weather protection, Source: David Baker Architects

1.4.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

1.4.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.

1.4 MULTIPLE UNIT RESIDENTIAL
OPEN SPACE + LANDSCAPING

1.4.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

1.4 MULTIPLE UNIT RESIDENTIAL
OPEN SPACE + LANDSCAPING



Open space integrated into new residential development, Source: PWL Partnership

1.4.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

1.4 MULTIPLE UNIT RESIDENTIAL
OPEN SPACE + LANDSCAPING



Multifunctional seating-playscape, Source: David Baker Architects

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

1.4.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

1.4 MULTIPLE UNIT RESIDENTIAL
ACCESS + PARKING

1.4.17 ACCESSIBILITY

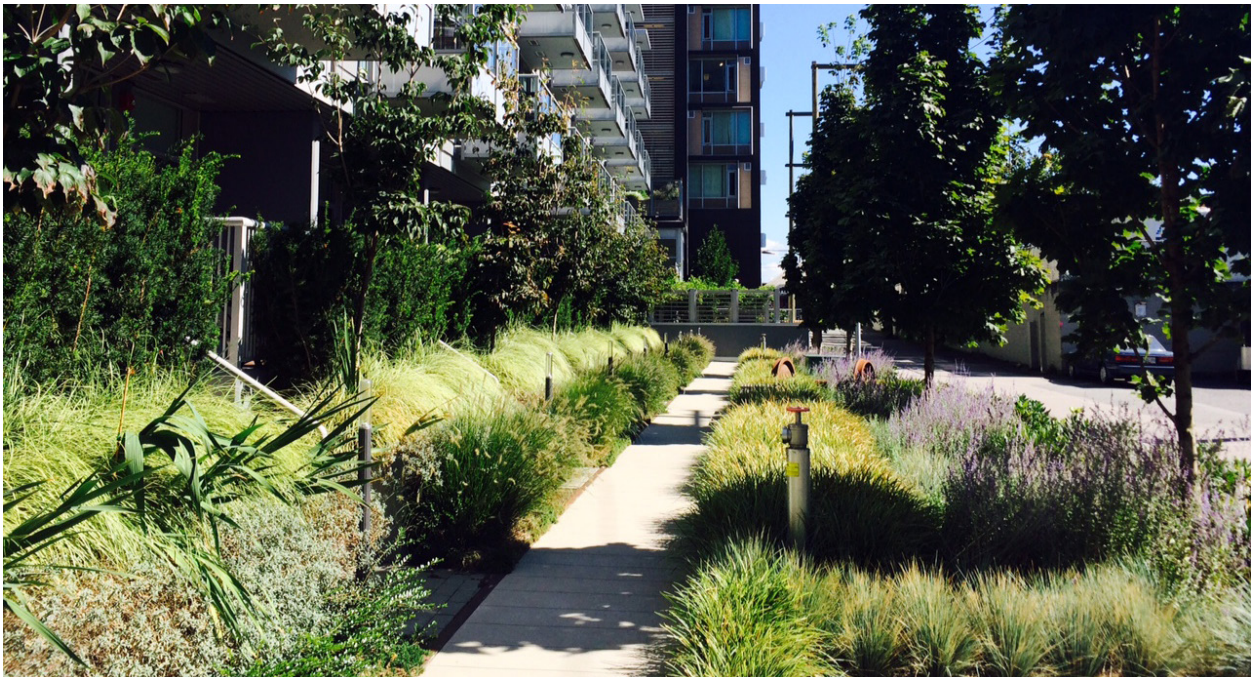
Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.



Integrated ramp/pathway with smooth materials, Source: David Baker Architects

1.4 MULTIPLE UNIT RESIDENTIAL
ACCESS + PARKING



Pedestrian pathway with landscape buffer, Source: Perkins+Will

1.4.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Safe circulation should be ensured by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL
ACCESS + PARKING

1.4.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.

[BYLAW NO. 8039, 2018]

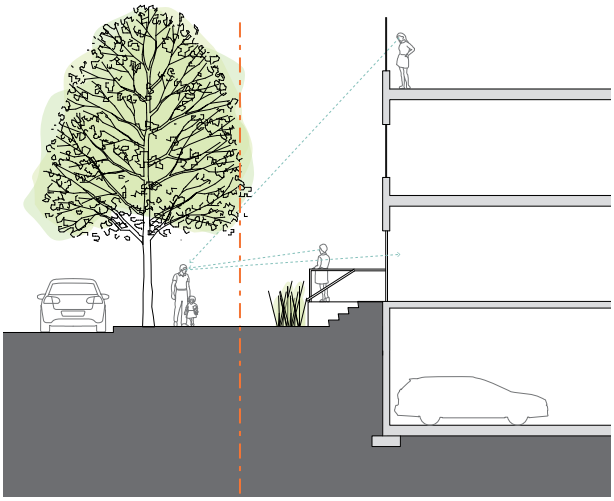
- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.



Permeable parking surfaces should be used wherever surface parking is unavoidable, Source: Lushome

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL

SAFETY + SECURITY



Provide sightlines to the sidewalk for casual overlook of public and semi-private spaces.

1.4.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

1.4.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL
ENVIRONMENT

1.4.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Solar shading on windows, Source: Matthew Millman

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL
ENVIRONMENT

1.4.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- The garbage/recycling/compost facility should be located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Encourage the installation or provision of space for a multi-stream collection facility, Source: City of Vancouver

1.4.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Landscape buffers using trees and shrubs should be provided within residential development sites.
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL
HERITAGE

HERITAGE REVITALIZATION AGREEMENT
A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

1.4.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

SECTION 1.4 MULTIPLE UNIT RESIDENTIAL
SIGNAGE

1.4.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

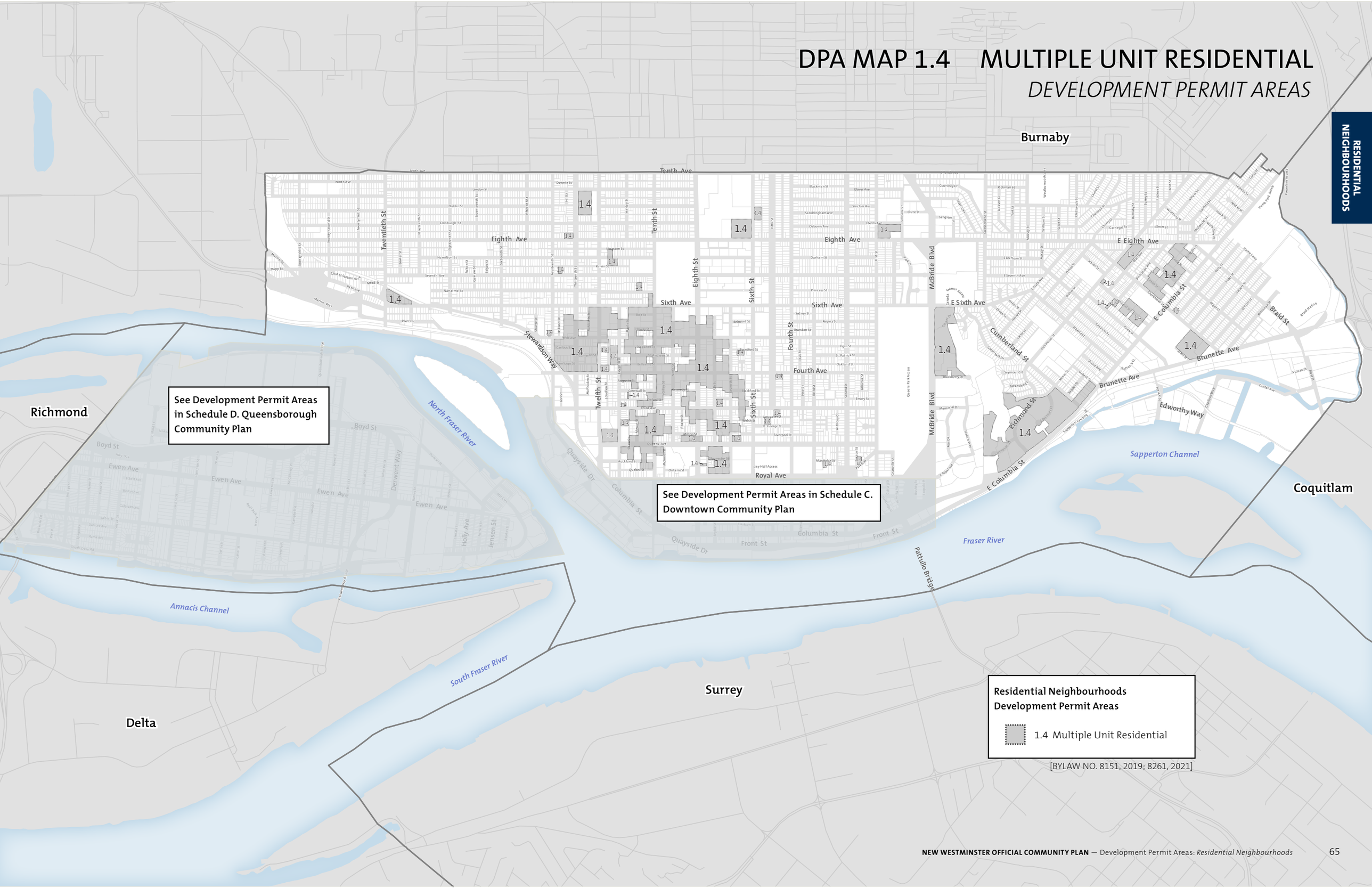
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.



Unobtrusive and clear signage, Source: Mariko Reed

DPA MAP 1.4 MULTIPLE UNIT RESIDENTIAL

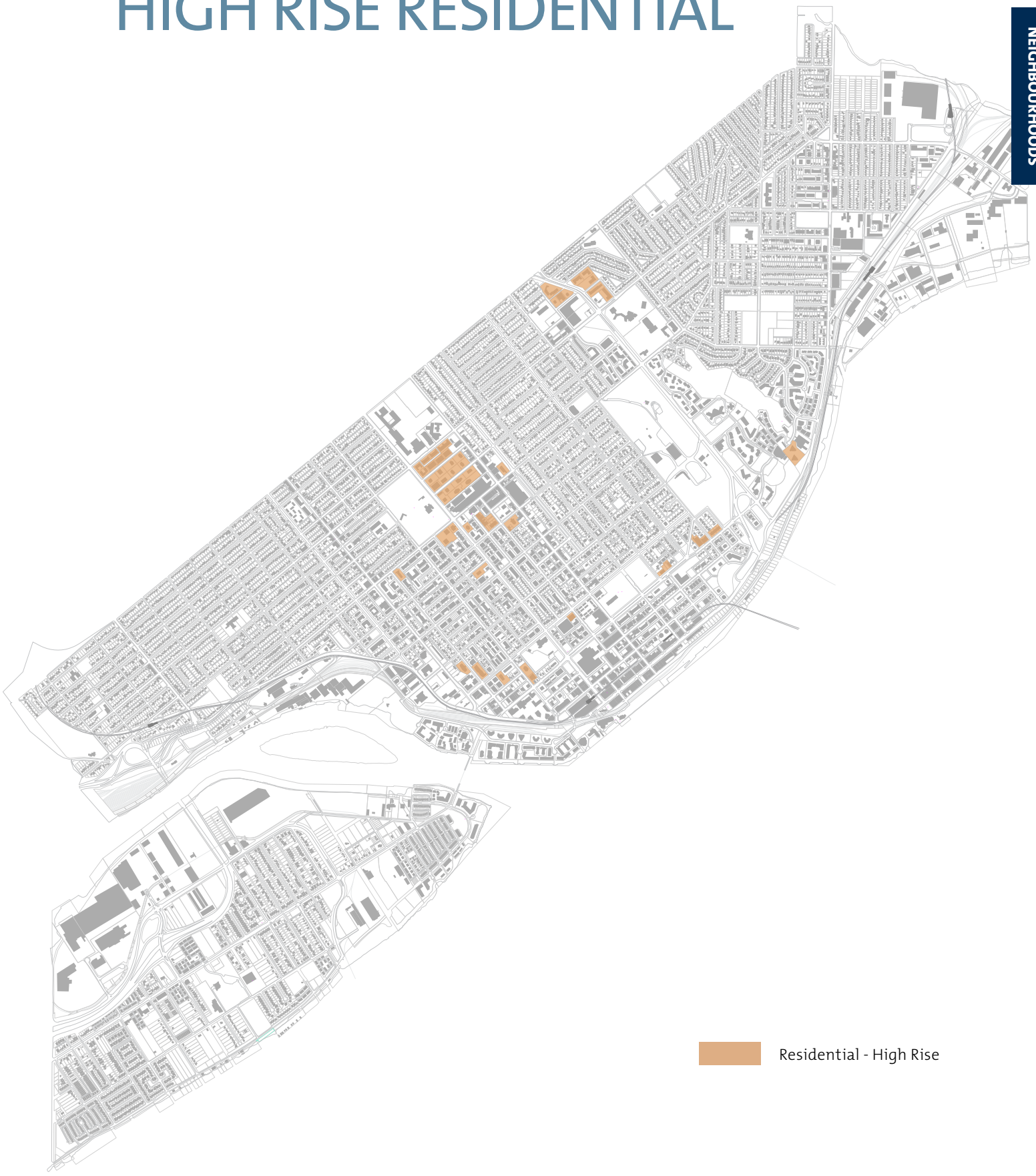
DEVELOPMENT PERMIT AREAS



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1.5 HIGH RISE RESIDENTIAL



1.5 HIGH RISE RESIDENTIAL
INTRODUCTION

INTRODUCTION

The High Rise Residential area, identified as Development Permit Area 1.5 [See Map 1.5], is designated in order to provide an opportunity for well-designed high rises within residential neighbourhoods.

High Rise Residential forms are an important component of New Westminster's housing stock. These buildings are typically clustered around mixed-use nodes that provide amenities and services for the residents that live in the area. The other high rises in this area are often located in walking distance to a variety of community, service and commercial amenities.

This area will continue to include high rise residential towers, but may also include townhouses, rowhouses, stacked townhouses and low rise apartments. The Development Permit Area encourages new buildings to be designed so they are well integrated with surrounding lower density development. New buildings would also be expected to enhance the public realm by including ground oriented housing units in the base of the building. Towers should be well-placed on the site relative to the surrounding context and relative to any neighbouring towers.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

Applications to develop properties located within this Development Permit Area for commercial uses, in accordance with existing commercial zoning, must instead comply with the guidelines included in the Eighth Avenue and McBride Boulevard Mixed Use Nodes Development Permit Area.

When appropriate, this area will also include small scale commercial, such as a corner store. Applications to develop properties located within this Development Permit Area that will include small scale commercial, should consider the relevant guidelines included in the Commercial Corridor or Mixed Use Nodes Development Permit Areas.



Ground floor units along the streets and walkways create a more animated pedestrian realm, Source: MCMP Architects

1.5 HIGH RISE RESIDENTIAL
INTRODUCTION

OPPORTUNITIES

With many of the high rise residential buildings offset from the street, as well as an overwhelming amount of valuable at-grade space designated for parking, these developments of scattered, free-standing towers lack the scale and mix of uses that typically serve to animate the public realm. The vision for this housing form is thus to create a more vibrant streetscape by establishing a more defined street edge and providing ground oriented residential units at grade.

Uptown is an attractive area because of the variety of services and amenities available within a relatively close proximity. New developments should aim to provide a range of unit types to serve the diverse inhabitants of the neighbourhood, including seniors and young families. High rise residential buildings in Uptown should acknowledge the context and be sited appropriately to ensure the scale and placement of new buildings do not overwhelm neighbouring properties. Where new developments are adjacent to low rise buildings, walk-up townhouses would form an appropriate transition between the low rise and high rise forms.

Eighth Avenue and McBride Boulevard has the opportunity to become an important mixed use node within the city. Increasing the number and range of residential units located in close proximity to this node will enhance the livability and vibrancy of the area. New development should be mindful of ensuring the affordable housing balance of the city is maintained, as well as creating a friendly and walkable environment for pedestrians that connects new buildings to nearby services and amenities.

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

1.5 HIGH RISE RESIDENTIAL
INTRODUCTION

GENERAL PRINCIPLES

Development in High Rise Residential areas provides an opportunity for urban living that is well connected, walkable and well served by many amenities. These areas provide a critically important density and range of housing types which create active and inclusive neighbourhoods.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwellings or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should have at grade, family friendly, residential units with entries along public right-of-ways and with private outdoor spaces for residents.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

6. ENHANCE PUBLIC REALM

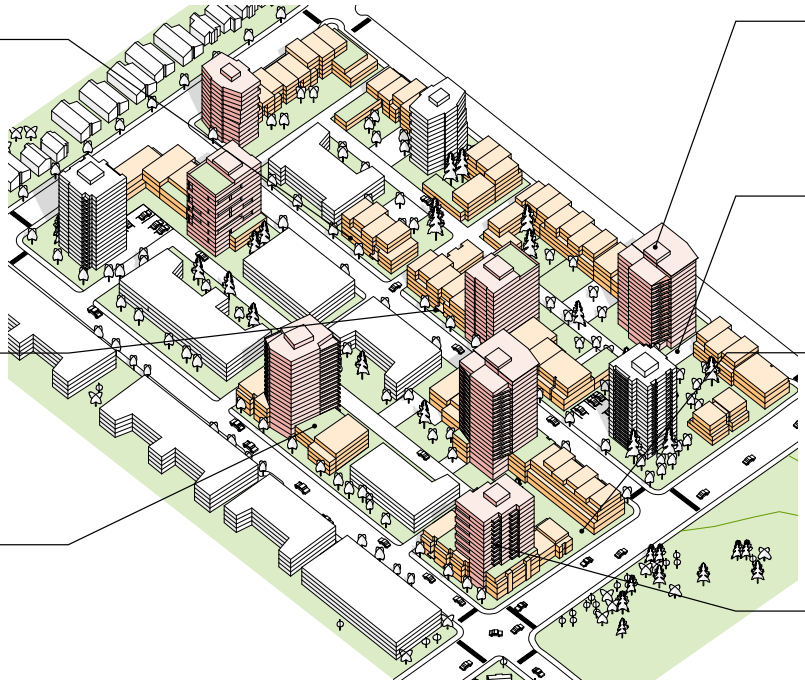
A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

7. PROMOTE SAFETY + SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

1.5 HIGH RISE RESIDENTIAL

INTRODUCTION



2. Create an appropriately scaled street wall with setbacks at the upper floors to establish a consistent street wall

3. Locate taller forms to provide adequate tower spacing and minimize shadowing of public spaces or adjacent buildings.

1. Create internal connections through larger blocks to increase connectivity.

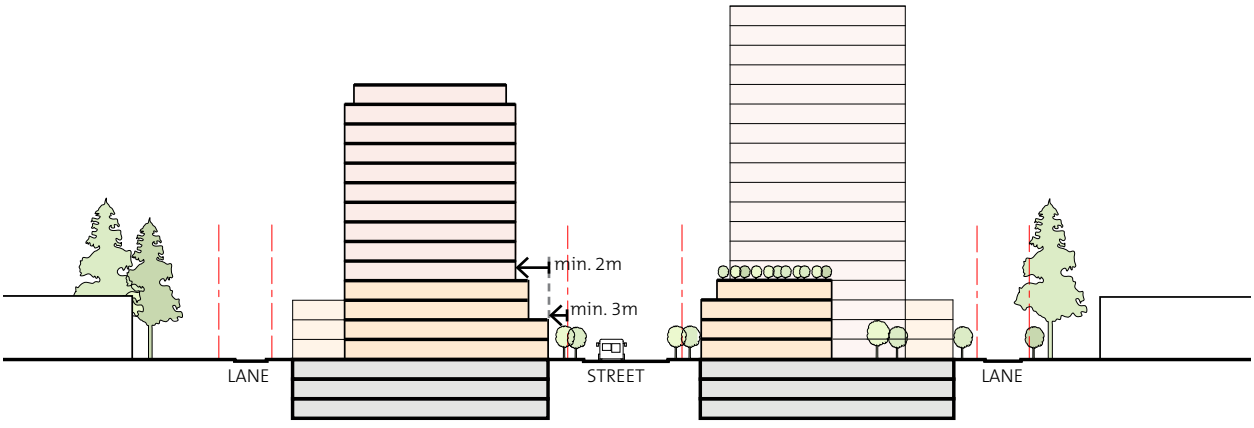
4. Provide ground oriented entrances and private outdoor spaces for residential units along public R.O.W.s

6. Provide opportunities for large and small scale public realm enhancements, ranging from seating, landscaping and public art to pocket parks, plazas and other places for interaction.

5. Create opportunities for habitat and biodiversity enhancement by integrating landscaped areas that include natural plants (green roofs, courtyards, private outdoor spaces, pocket parks, etc)

7. Orient windows, balconies and entrances to create casual "eyes on the street" surveillance of public and semi-public spaces.

High Rise Residential Axonometric



Typical Section-High Rise Residential

1.5 HIGH RISE RESIDENTIAL
NEIGHBOURHOOD INTERFACE



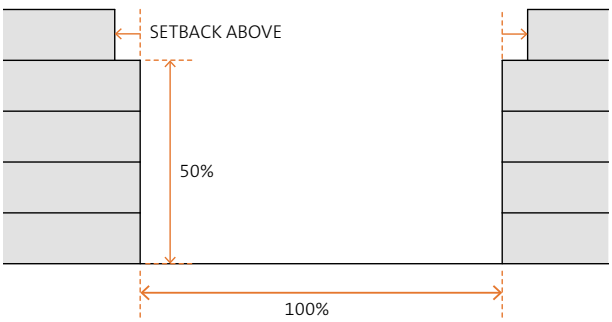
Towers should respond to the existing context building heights, Source: Ashley Smith

1.5.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

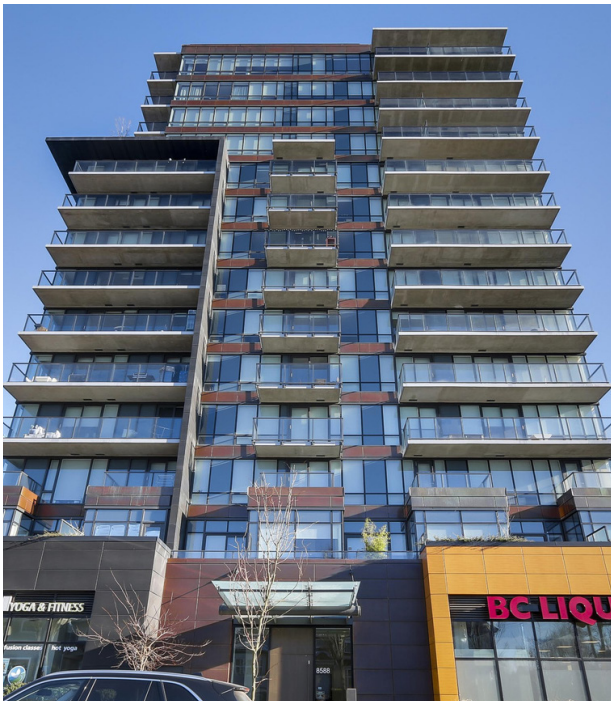
- New buildings and residential units within should be designed to front all streets/greenways immediately adjacent to or within the development.
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Towers should maintain a minimum distance of 27.4m (90') between and be shaped to minimize overlook and overshadowing. New projects must demonstrate how it accounts for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Towers should be located and oriented strategically to minimize impact on the privacy of neighbouring building units.
- Towers should be set back from the street wall, but be located so the lobby of the tower creates relief in the massing and engages the street.
- Building heights should be designed to respect adjacent developments and avoid overshadowing by transitioning in height. Buildings should be designed with the context in mind to create a cohesive and harmonious streetscape.

Development within 10m of the SkyTrain guideway and within 25m of a SkyTrain station should follow TransLink's Adjacent and Integrated Development (AID) project consent process.

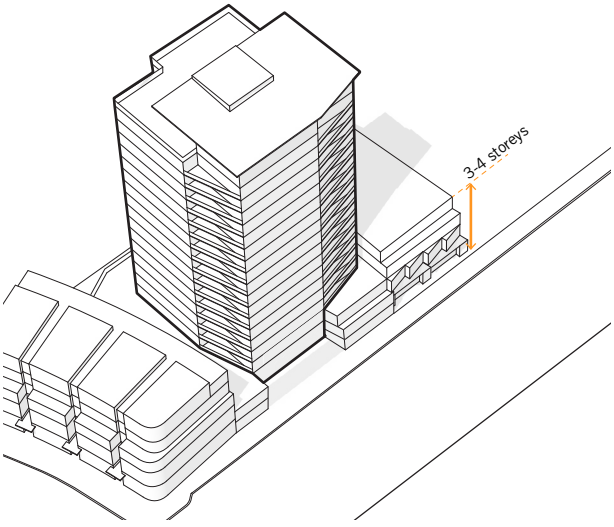


Building height to R.O.W. example of 50%

1.5 HIGH RISE RESIDENTIAL
NEIGHBOURHOOD INTERFACE



The bulk of a tower can be visually reduced by articulating along the façade, Source: Henriquez Partners



Podium height should be three-four storeys

1.5.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.
- Public art should be integrated to enhance the public realm and create pedestrian scale landmarks within the neighbourhood to mark important gateways, areas or buildings of heritage significance, pocket parks, etc.

1.5.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

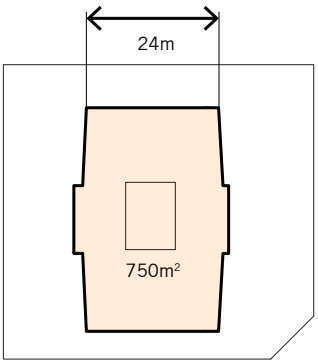
- Larger building masses should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Residential buildings should be set back from the front property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units.
- Ground-floor units should be elevated slightly to create privacy and a transition zone from the street. For these units, ensure an alternate access point that is accessible by wheelchair (as required by the B.C. Building Code)

1.5 HIGH RISE RESIDENTIAL
NEIGHBOURHOOD INTERFACE

- Point towers that have appropriate proportions, coupled with an articulated well-scaled podium are ideal. Free standing towers with no base should be avoided.
- Podiums should generally be between three and four storeys and should set back massing on the fourth storey and higher by 3m (9'10") on all sides.
- Side yard setbacks should provide a sensitive interface with adjacent properties to minimize overlook.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on housing form, building density, use on the adjacent lot and the presence of a lane.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways. If no laneway exists at the rear of the lot, provide a minimum 7.5m (24'7") setback from the property line.
- Towers should have a maximum floor plate area of 750m² (8,073 sq ft) per floor. If possible, limit tower width to 24m (78'9").
- Towers should vary in heights to create transition to lower scale buildings, maximize daylighting, reduce issues with wind and maintain views. A minimum variation of five storeys is generally required in order to be perceived at street level.
- Towers or taller masses should be set back from the street wall a minimum of 2.0m (6'7").



Tower podiums help to address the street interface and animate the public realm, Source: Ramsay Worden Architects



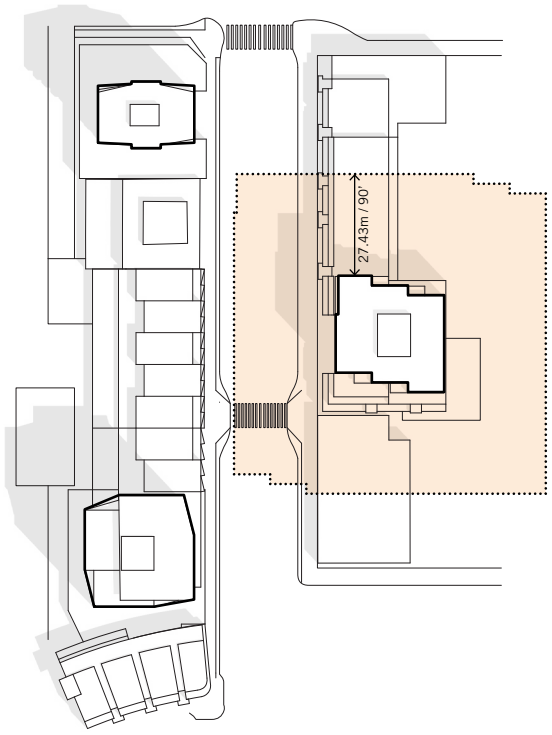
Limit the tower floor plate area to 750 m²

1.5 HIGH RISE RESIDENTIAL
NEIGHBOURHOOD INTERFACE

1.5.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent properties and public spaces and maintain important views in the community.

- Entrances, residential unit glazing and balconies should be positioned to ensure casual overlook of public spaces and streets to enhance "eyes on the street"
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.
- Towers should be diagonally aligned to each other in order to maximize sunlight exposure and avoid directly facing units. Towers should also vary in orientation in order to maintain sky views, ensure privacy, and maximize daylighting.



Aligning towers diagonally ensures maximum sunlight, views, and privacy for each unit

1.5.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

1.5 HIGH RISE RESIDENTIAL
BUILDING DESIGN



Residential tower entrance lobby, Source: corporatestays.com

1.5.6 ENTRANCES

Intent: Building entrances must be located and designed to provide ground floor units that contribute to safe and lively urban environments.

- Residential buildings should activate public R.O.Ws by incorporating ground floor units with individual primary entrances.
- Residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Ground floor units should be elevated slightly to create privacy and a transition zone from the street.
- Residential lobby entrances should be distinguished from those of ground floor residential units. Incorporate architectural and landscape features to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- The transition zone between private entrances/ outdoor living spaces and the public realm should be activated with stoops, stairs, private yards and porches.

1.5.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- Individual units should be differentiated with minor façade articulation, changes in color, and/or materials.
- The mass of the building should be visually reduced using vertical and horizontal articulation on the façade such as changing planes and stepping terraces. Avoid thick continuous floor plates and wrap-around balconies.

1.5 HIGH RISE RESIDENTIAL
BUILDING DESIGN



Colour accents can be used to unify the design and complement the overall palette, Source: Acton Ostry Architects



Ground floor residential entries and windows fronting a public sidewalk, Source: Ashley Smith

1.5.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding neighbourhood.

- High quality materials should be used to enhance the quality and character of the neighbourhood. Metal panel, wood and brick are preferred cladding materials, while composite or cementitious panels, stone and painted concrete are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

1.5.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain.

- Windows should be located to maximize connections with the public realm.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass should be avoided.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.

1.5 HIGH RISE RESIDENTIAL
BUILDING DESIGN



Residential balconies with a strong visual connection to the facing street, Source: yaletownhomes.ca

1.5.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

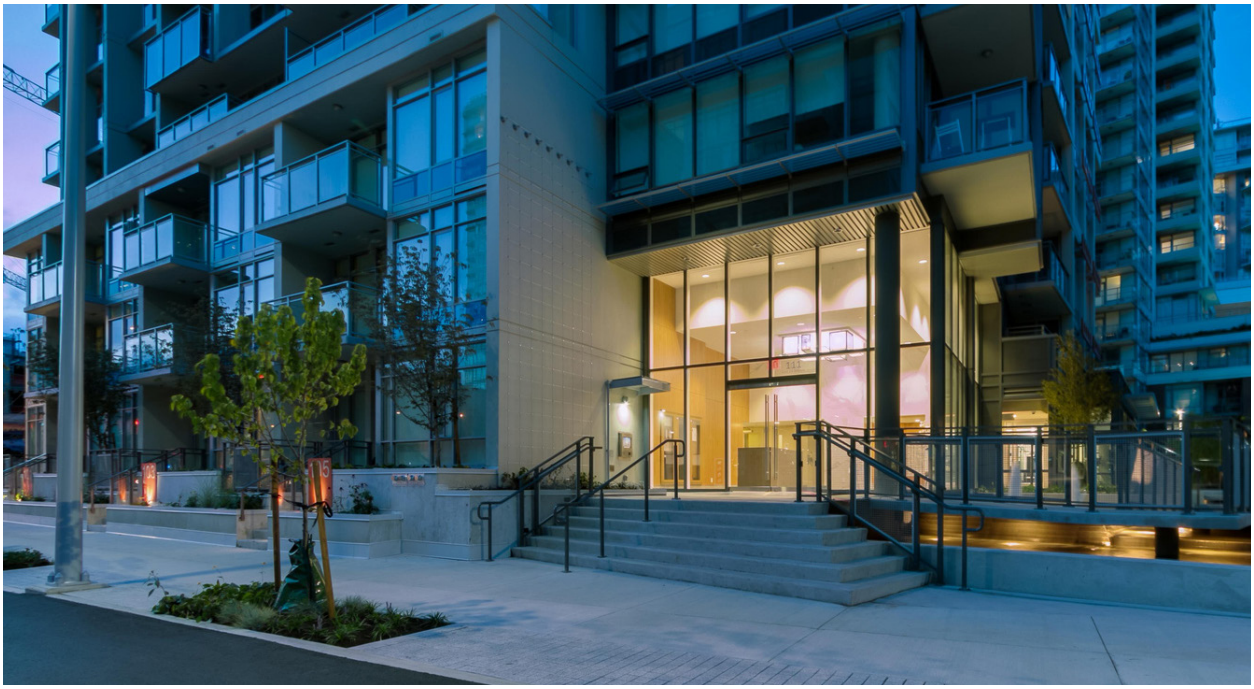
- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Wrap-around balconies should be avoided whenever possible as they add to the visual bulk of the tower.

1.5.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.

1.5 HIGH RISE RESIDENTIAL
BUILDING DESIGN



Residential buildings should be well lit at night, Source: Residencity

1.5.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

1.5.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.

1.5 HIGH RISE RESIDENTIAL
OPEN SPACE + LANDSCAPING

1.5.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials need to be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

1.5 HIGH RISE RESIDENTIAL
OPEN SPACE + LANDSCAPING



Semi-private outdoor common space in a complex of residential buildings, Source: residencity.com

1.5.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

1.5 HIGH RISE RESIDENTIAL
OPEN SPACE + LANDSCAPING

1.5.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).



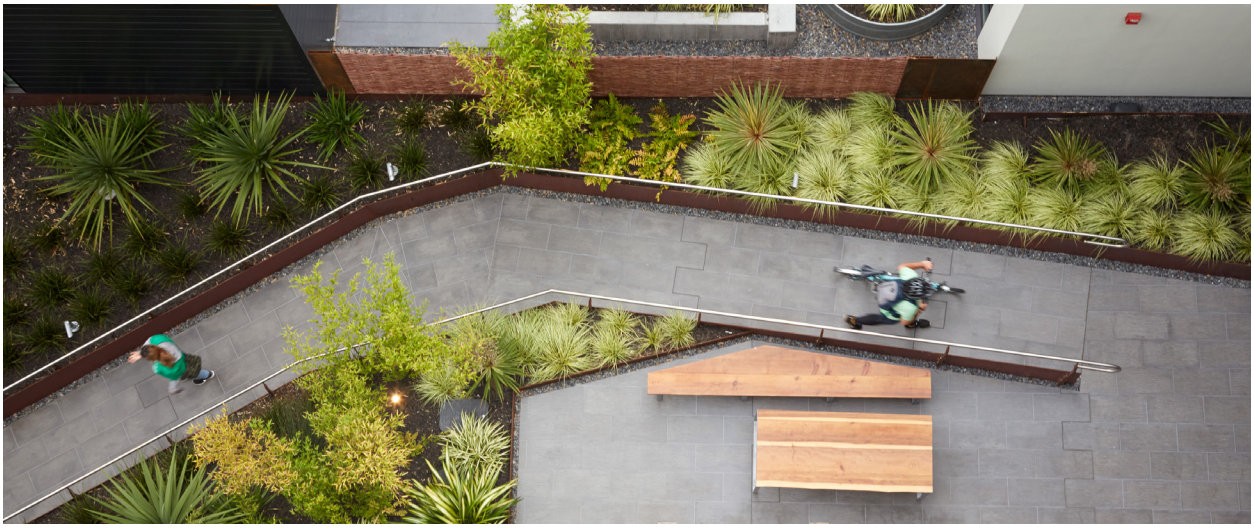
A range of features including seating, landscaping, and pedestrian routes help to enhance the quality of public spaces, Source: Hapa Collaborative

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

1.5 HIGH RISE RESIDENTIAL
ACCESS + PARKING



On site circulation with durable materials and simple circulation, Source: Bruce Damonte

1.5.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

1.5.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicular traffic.
- Minimize the number of driveways and times driveways and/or internal streets cross sidewalks. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider

1.5 HIGH RISE RESIDENTIAL
ACCESS + PARKING

materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.

- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances

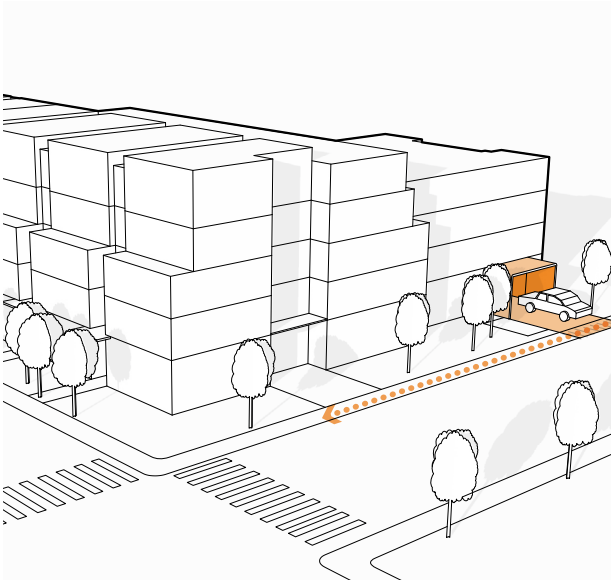


Underground bicycle storage, Source: Bicycle Dutch

1.5.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.



Access to parking provided off of secondary streets.

1.5 HIGH RISE RESIDENTIAL
ACCESS + PARKING

- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.

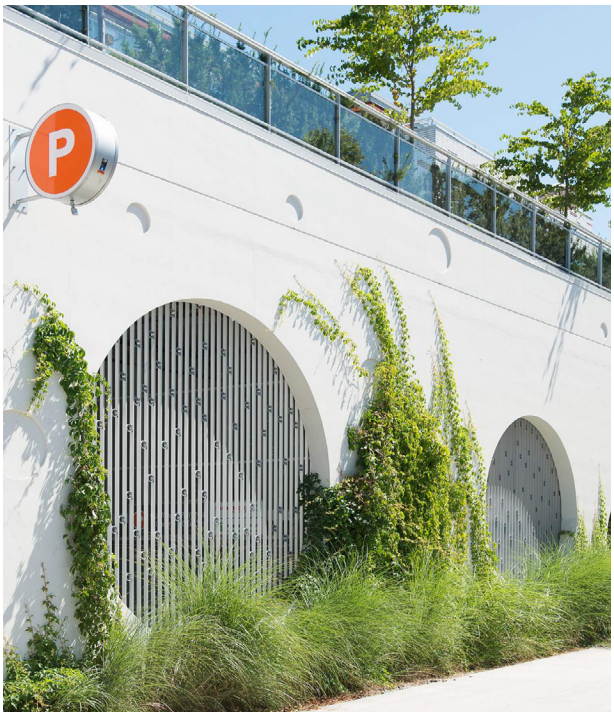
[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.

1.5.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.



Parking entrance screened with planting and architectural features, Source: DIALOG

1.5 HIGH RISE RESIDENTIAL

SAFETY + SECURITY



Residential units should provide casual overlook onto public spaces, Source: Bruce Damonte

1.5.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

1.5 HIGH RISE RESIDENTIAL
ENVIRONMENT

1.5.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Rooftop solar panels, Source: City of Vancouver

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

1.5 HIGH RISE RESIDENTIAL
ENVIRONMENT



Landscaping can act as a noise buffer on busy residential streets, Source: Houzz

1.5.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units, and/or in common areas in buildings.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.

1.5.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers)
- Landscape buffers using trees and shrubs should be provided within residential development sites.
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

1.5 HIGH RISE RESIDENTIAL
ENVIRONMENT

HERITAGE REVITALIZATION AGREEMENT
A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

1.5.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

1.5 HIGH RISE RESIDENTIAL
SIGNAGE

1.5.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

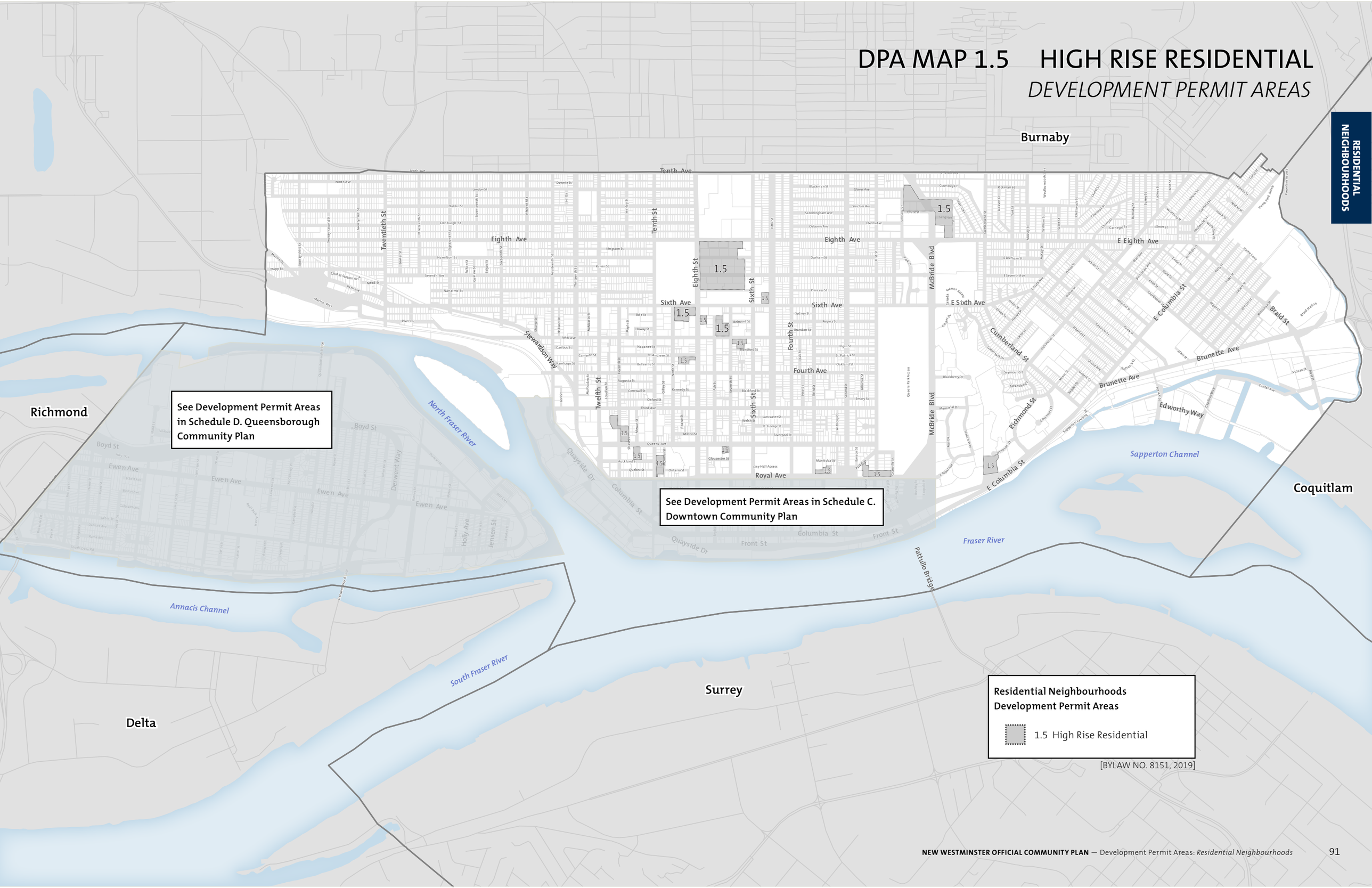
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.



Signage integrated into the building, Source: Mariko Reed

DPA MAP 1.5 HIGH RISE RESIDENTIAL

DEVELOPMENT PERMIT AREAS



Residential Neighbourhoods Development Permit Areas

1.5 High Rise Residential

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1.6 TERRY HUGHES RESIDENTIAL



1.6 TERRY HUGHES RESIDENTIAL
INTRODUCTION

INTRODUCTION

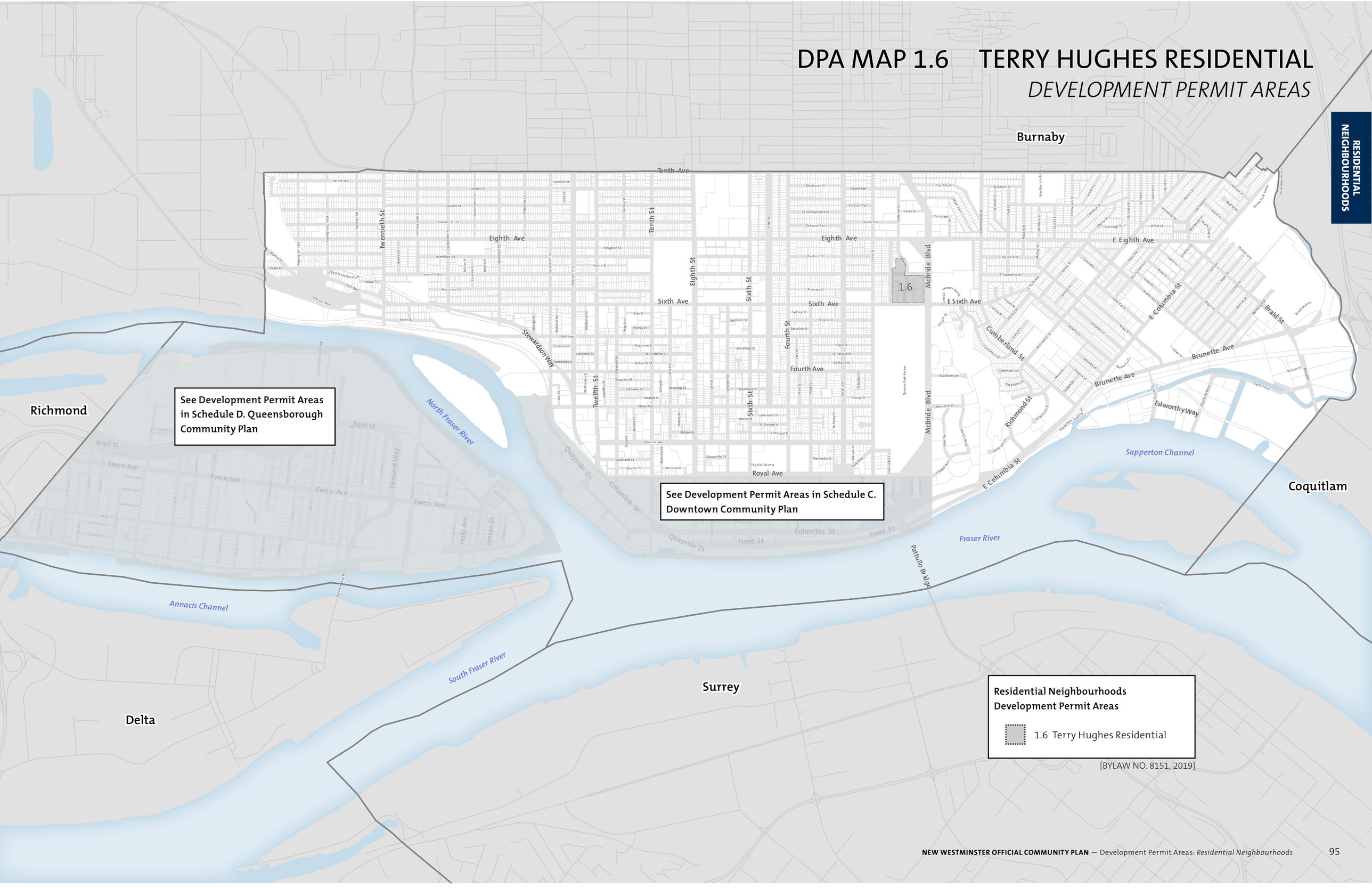
The Terry Hughes area, identified as Development Permit Area 1.6 [see Map 1.6] is designated in order to provide a framework for medium density housing in keeping with the traditional character of the adjacent Queen's Park neighbourhood. Objectives and specific guidelines for this area are outlined in the Glenview and Terry Hughes Lands Design Guidelines (September 1996).

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development.

DPA MAP 1.6 TERRY HUGHES RESIDENTIAL

DEVELOPMENT PERMIT AREAS



[BYLAW NO. 8151, 2019]

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2.0
RESIDENTIAL CORRIDORS



2.0 RESIDENTIAL CORRIDORS
INTRODUCTION

INTRODUCTION

There are two Development Permit Areas in this section, which are identified on Map 2.0. Each Development Permit Area in this section focuses on an important corridor in New Westminster where the Land Use Designation Map allows the existing commercial uses to transition to multi-unit residential.

These corridors are an important part of the urban fabric of New Westminster. The residential portions of these corridors will include residential multi-unit buildings that enhance the character of New Westminster's Great Streets and create walkable, pedestrian friendly and vibrant neighbourhoods. Activating the public realm by providing ground oriented residential units is a priority for these corridors. Development permit guidelines for these areas also encourage new development to create a comfortable transition to neighbouring single detached dwellings and ground oriented housing.

RESIDENTIAL CORRIDORS

2.1 Upper Twelfth Street

2.2 Sixth Street

2.0 RESIDENTIAL CORRIDORS
INTRODUCTION

GENERAL PRINCIPLES
Development along residential corridors provides an opportunity for urban living that is well connected, walkable and well served by many amenities. Residential corridors provide a critically important density and range of housing options which create active and inclusive neighbourhoods.

1. CREATE NEIGHBOURHOOD CONNECTIONS
Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS
Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS
Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwellings or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES
Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should have at grade, family friendly, residential units with entries along public right-of-ways and create private outdoor spaces for residents.

5. INTEGRATE SUSTAINABLE STRATEGIES
New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, Passive House, etc) should be used to guide sustainable building development.

6. ENHANCE PUBLIC REALM
A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

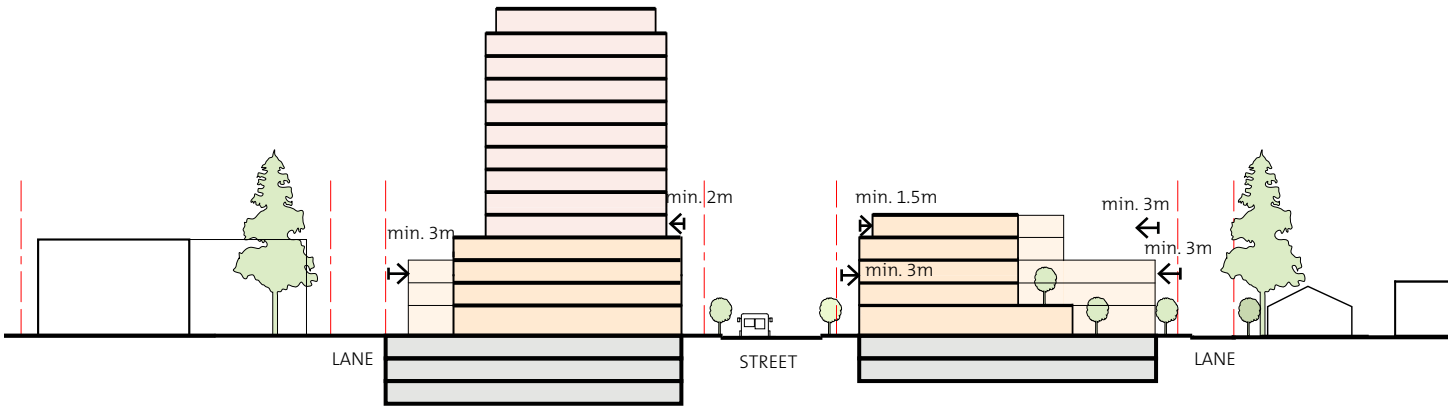
7. PROMOTE SAFETY + SECURITY
A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

2.0 RESIDENTIAL CORRIDORS

INTRODUCTION



Residential Corridor Axonometric



Typical Section - Residential Corridor

2.1
UPPER TWELFTH STREET

INTRODUCTION

The Upper Twelfth Street Residential Corridor, identified as Development Permit Area 2.1 [See Map 2.0], is designated in order guide the transition of a portion of a commercial corridor to a residential corridor by facilitating new multi-unit residential development, with ground oriented housing units that activate the public realm.

Upper Twelfth Street, one of New Westminster's Great Streets, is an important local corridor that connects the West End and Moody Park neighbourhoods to Brow of the Hill and Downtown. It is also a major connector, linking New Westminster to Burnaby. This corridor has also played an important role in New Westminster's history, and remains home to several buildings designed in the Art Deco style. There is a number of existing medium density residential developments that will continue to form an important part of the fabric of the corridor.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

Applications to develop properties located within this Development Permit Area for commercial uses, in accordance with existing commercial zoning, must instead comply with the guidelines included in the Upper Twelfth Street Commercial Corridor Development Permit Area.



Residential - Multi-Unit Buildings

Upper Twelfth Street Residential Corridor

Greenway/Trail

School/Park/Community Facility/Open Space

2.1 UPPER TWELFTH STREET
INTRODUCTION

OPPORTUNITIES

The vision for Upper Twelfth Street is to encourage retail to develop in focused nodes along the corridor, with pedestrian-scale residential filling in the gaps. This will create a vibrant mix of uses to enhance the walkable and pleasant scale of Upper Twelfth Street. New residential development should be appropriately scaled, encourage active, ground oriented street fronting units, and enhance the character of the neighbourhood. Given the history of Upper Twelfth Street, opportunities to integrate stylistic or formal Art Deco cues into new developments can be explored.

In order to create a family friendly, pedestrian oriented neighbourhood, new residential developments should include ground oriented residential units and a richly designed semi-private realm with appropriate transitions between the street and private residential units. Furthermore, new developments along Twelfth Street must transition appropriately to the surrounding lower density neighbourhood, especially given many of the parcels along Twelfth do not have lanes.

Creating this transition will be vital in creating a well-scaled and comfortable environment for residents and pedestrians. Balconies, decks and articulation of the building massing should be used to create a lively expression along the corridor.

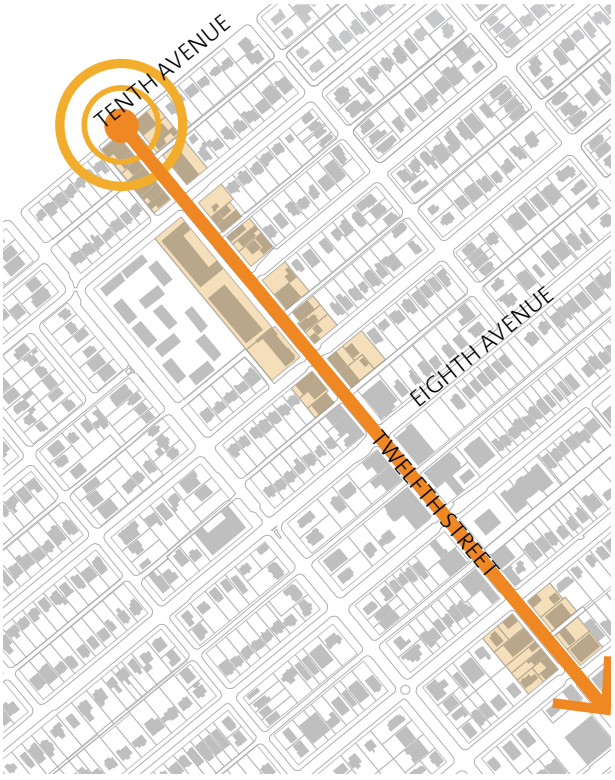
HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

As Upper Twelfth Street is identified as a Great Street within the city, new developments can help enhance the qualities of the neighbourhood and achieve a great public realm by ensuring sidewalk widths allow for comfortable and unimpeded pedestrian flow, using setbacks to create private space for residential units at grade and/or providing opportunities for the reallocation of space within the right of way to allow for bike lanes or other improvements.

GATEWAYS AND ARRIVAL POINTS

The intersection of Twelfth Street and Tenth Avenue marks the entrance to the historic Upper Twelfth Street corridor, as well as one of the main entry points to New Westminster from Burnaby. Development in this area has the potential to reinforce this important community gateway by emphasizing active at-grade residential typologies, open space and public realm improvements, and public art to act as an entry point to the city and this neighbourhood.



Tenth Avenue and Twelfth Street as an arrival point

2.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACE

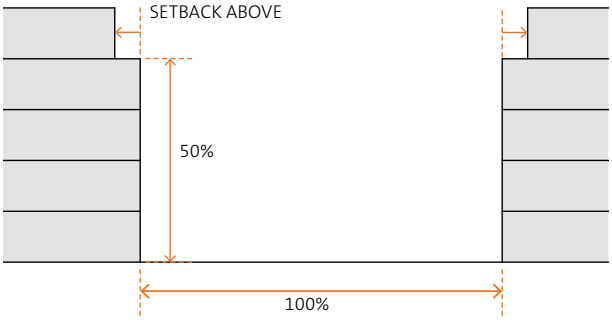
2.1.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- New buildings and residential units within should be designed to front all streets/greenways immediately adjacent to or within the development.
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- New developments should be designed to fit within the natural topography of the site, by stepping down sloping terrain and accommodating significant grade changes by creating transitions from the building to the sidewalk and street level.
- Units on the ground level should have primary entries that are oriented to the street.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").



Ground floor residential entries, Arbutus Walk



Building height to R.O.W. example of 50%

2.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACE

2.1.2 CHARACTER

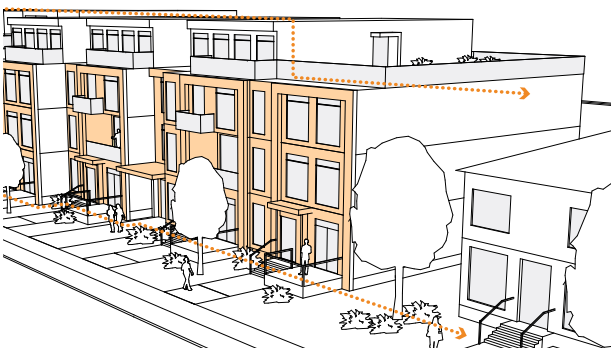
Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.
- Public art should be integrated and historical elements retained to enhance the Art Deco character of Upper Twelfth Street. Pedestrian scale landmarks within the neighbourhood should be created to mark important gateways, areas of heritage significance, pocket parks, etc.
- Interpretation of Art Deco character elements is encouraged. While direct imitation is highly discouraged, new buildings should provide a modern interpretation of these stylistic cues. Character design elements can still fit within the language of a contemporary development may include: angled ground floor recesses, mosaic tile detailing, hardware and architectural detailing, use of colour, period lighting, materials and motifs.

2.1.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Residential buildings should be set back from the front property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides except on interior lot line, in which case there should be a zero lot line condition.
- Setbacks on side streets should take into account neighbouring properties and may be staggered across the side façade to ease the transition to single detached dwellings.



Transition setbacks to interface with single detached dwellings and other ground oriented forms

2.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACE



Use of recesses and articulation to break down a long building façade, Source: Ramsay Worden Architects

- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on housing form, building density, use on the adjacent lot and the presence of a lane.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways. If no laneway exists at the rear of the lot, provide a minimum 7.5m (24'7") setback from the property line.
- Six storey developments will only be considered in limited circumstances based on specific conditions:
  - If the project meets one or more significant City priorities (e.g. proving non-market rental housing, providing secure purpose built market rental, retention of a heritage building through a Heritage Revitalization Agreement or similar tool, retention of trees, construction of an energy efficient building).
  - OR, if the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing and is in accordance with City regulations.
- If development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units at the base of the building.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.

2.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACE



Provide living areas with daylight and ventilation, Source: Shed Architecture

2.1.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent properties and public spaces and maintain important views in the community.

- Entrances, residential unit glazing and balconies should be positioned to ensure casual overlook of public spaces and streets to enhance "eyes on the street"
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.

2.1.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

2.1 UPPER TWELFTH STREET
BUILDING DESIGN



Apartment building entrance with ground oriented entrances flanking, Source: GBL Architects

2.1.6 ENTRANCES

Intent: Building entrances must be located and designed to provide ground floor units that contribute to safe and lively urban environments.

- Residential buildings should activate public R.O.W.s by incorporating ground floor units with individual primary entrances.
- Residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements (such as canopies, etc)
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Ground-floor units should be elevated slightly to create privacy and a transition zone from the street.
- Residential lobby entrances should be distinguished from those of ground-floor residential units. Incorporate architectural and landscape features to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- The transition zone between private entrances/ outdoor living spaces and the public realm should be activated with stoops, stairs, private yards and porches.

2.1.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- Residential buildings should activate the street by incorporating individual entrances to ground floor units in residential buildings that are accessible from the fronting street.
- Individual units should be differentiated with minor façade articulation, changes in color, and/or materials.
- Blank walls (over 5.0m or 16'5" in length) should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.

2.1 UPPER TWELFTH STREET
BUILDING DESIGN

2.1.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding neighbourhood.

- High quality materials should be used to enhance the quality and character of Upper Twelfth Street. Wood, stone and brick are preferred cladding materials, while composite, metal or cementitious panels are also permitted. Stucco and polished concrete may be permitted if used sparingly and in a way that is consistent with the Art Deco heritage of the neighbourhood.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.
- Design elements, hardware and accents that draw inspiration from the Art Deco heritage of the neighbourhood should be used.



Material use and façade differentiation, Source: Tact Architecture

2.1.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Ground floor residential entries and windows fronting a public sidewalk, Source: Ashley Smith

2.1 UPPER TWELFTH STREET
BUILDING DESIGN



Balconies overlooking onto semi-private and public spaces, Source: Ramsay Worden

2.1.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

2.1 UPPER TWELFTH STREET
BUILDING DESIGN

2.1.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Roof expression, Source: Mark Fairhurst Architects

2.1.12 WEATHER PROTECTION

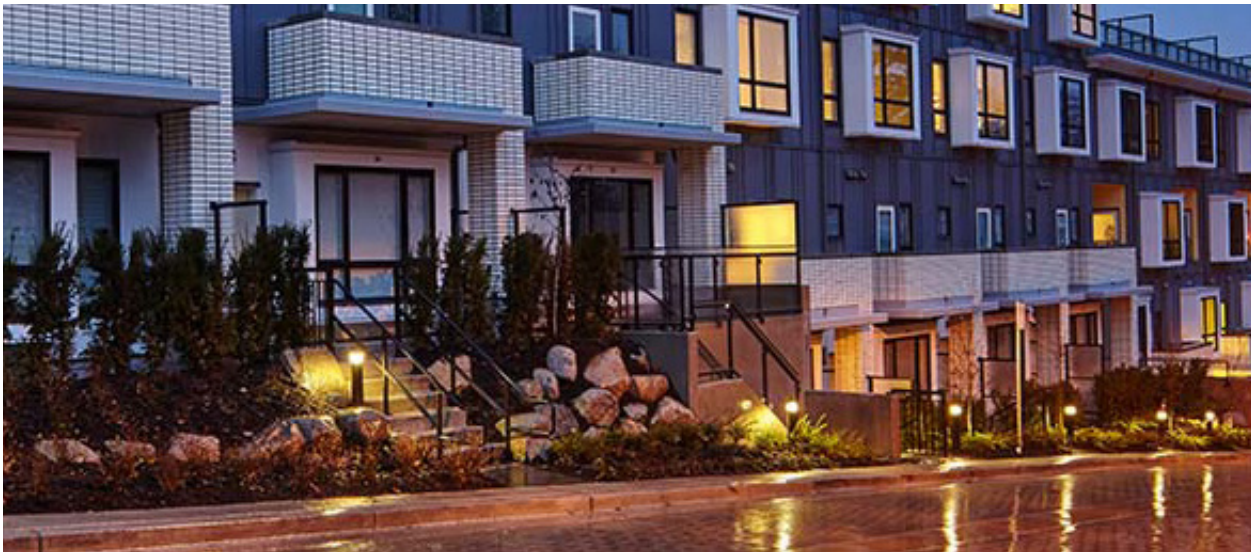
Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).
- Where historically appropriate, a heritage building or building designed to fit into a heritage context may not require weather protection.



Weather protection above building entrance Source: GBL Architects

2.1 UPPER TWELFTH STREET
BUILDING DESIGN



Ground floor residential units with sidewalk oriented lighting, Source: Porte

2.1.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.

2.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING

2.1.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.

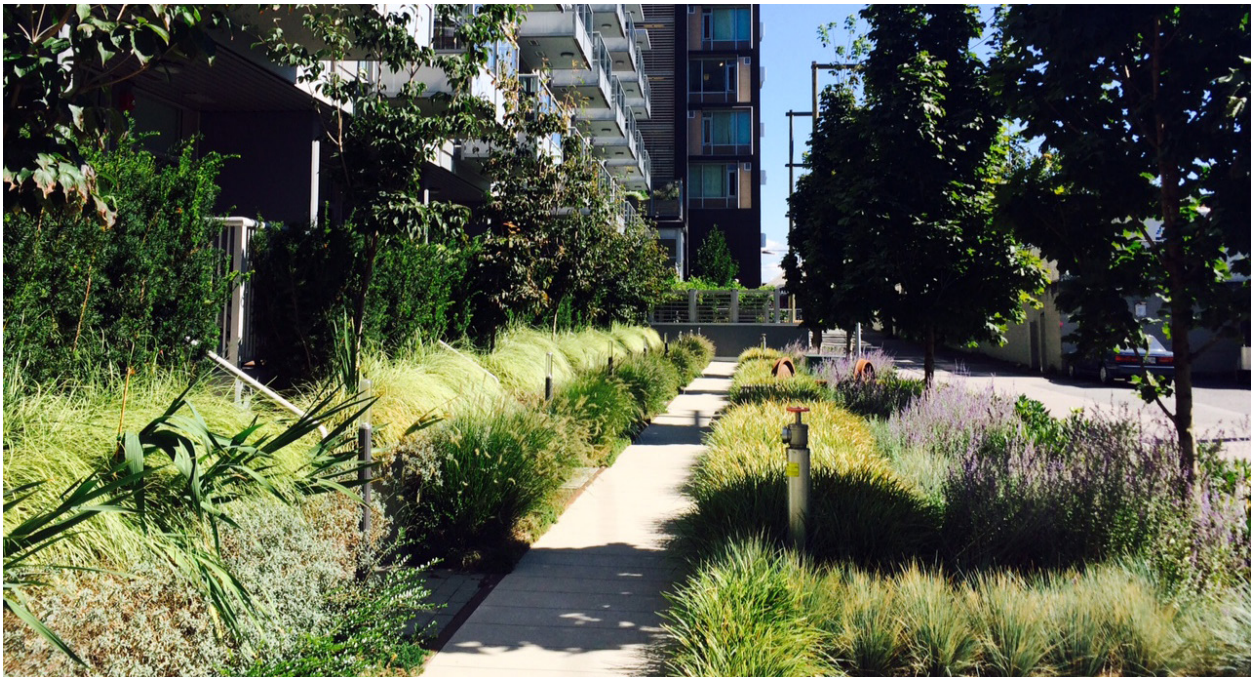


Provide trees for shading and screening, Source: PWL Partnership

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

2.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



Rain garden integrated with public realm in front of residential building, Source: Perkins+Will

- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

2.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



Rooftop courtyard spaces, Source: DIALOG

2.1.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

2.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



Create opportunities for children to experience imaginative play and active play, Source: Holst Architecture

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

2.1.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

2.1 UPPER TWELFTH STREET
ACCESS + PARKING



Pedestrian access with durable materials, unobstructed and even surfaces, Source: Weinstein A+U Architects

2.1.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

2.1 UPPER TWELFTH STREET
ACCESS + PARKING



Setback and landscaping along laneway, Source: Unknown



Bike parking should be provided outside of new developments, Source: David Baker Architects

2.1.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, for vehicle access to minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

2.1 UPPER TWELFTH STREET
ACCESS + PARKING



Screened parking entrance, Source: DIALOG

2.1.19 VEHICULAR ACCESS + PARKING

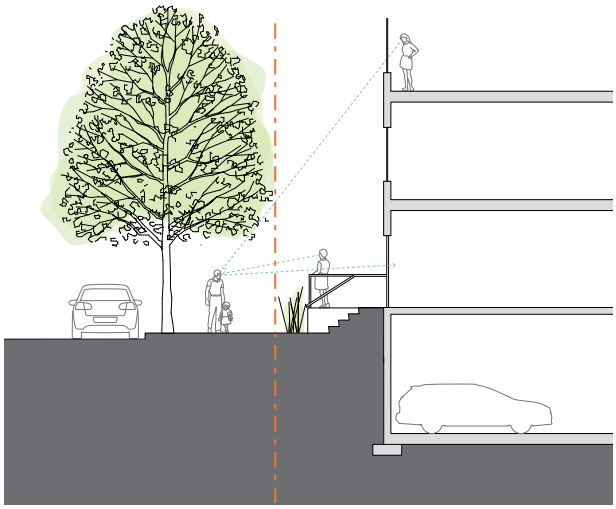
Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.

2.1 UPPER TWELFTH STREET
SAFETY + SECURITY



Design residential units to provide casual overlook onto public spaces

2.1.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

2.1 UPPER TWELFTH STREET
SAFETY + SECURITY

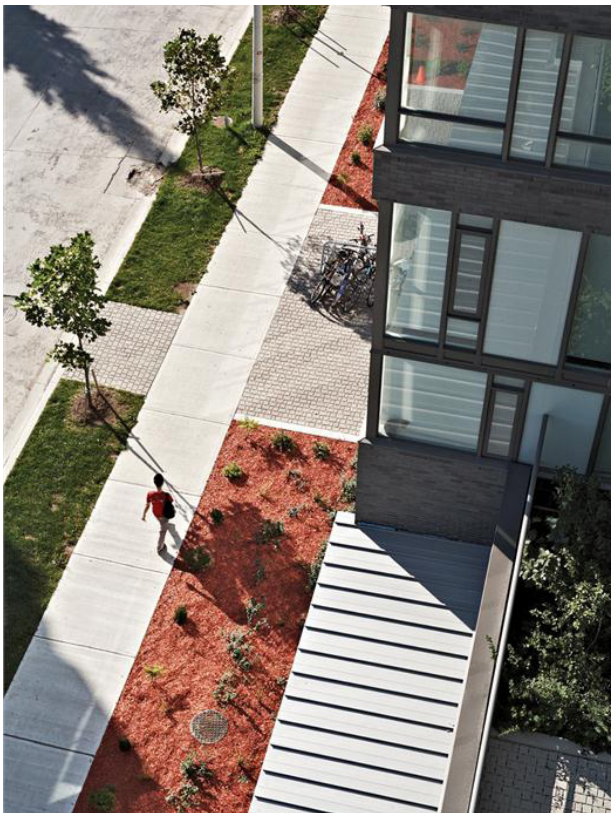
2.1.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.



Provide screening, changes in elevation and other measures to delineate privacy, Source: Mariko Reed



Create opportunities for overlook onto pedestrian spaces, Source: Canadian Architects

2.1 UPPER TWELFTH STREET
ENVIRONMENT

2.1.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Where possible, install solar panels, Source: Free Hot Water



Design with passive solar strategies, Source: Unknown

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

2.1 UPPER TWELFTH STREET
ENVIRONMENT

2.1.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area that is safely accessible by both residents and service trucks.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Encourage the installation or provision of space for a multi-stream collection facility, Source: City of Vancouver

2.1 UPPER TWELFTH STREET
ENVIRONMENT



Planting and landscaping can be used to screen noise, Source: GDB Architecture

2.1.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

2.1 UPPER TWELFTH STREET
HERITAGE

2.1.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development must follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment sites.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect or continue the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.



Interpretation of historical motifs, Source: Perkins+Will

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

2.1 UPPER TWELFTH STREET
SIGNAGE



Signs should add to the interest of the buildings and respect the historic character, Source: Sirin, Pinterest

2.1.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

2.2 SIXTH STREET

INTRODUCTION

The Sixth Street Residential Corridor, identified as Development Permit Area 2.2 [See Map 2.0], is designated in order guide the transition of a portion of a commercial corridor to a residential corridor by facilitating new multi-unit residential development, with ground oriented housing units that activate the public realm.

Sixth Street, one of New Westminster's Great Streets, is an important north-south link from Uptown to Downtown, providing a range of commercial, civic and residential uses along the corridor. The focus for development along Sixth Street between Fourth Avenue and Royal Avenue will be residential with low to high rise buildings being located on the west side of Sixth, and low rise residential being focused on the east side of the street.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

[BYLAW NO. 8151, 2019]

Applications to develop properties located within this Development Permit Area for commercial uses, in accordance with existing commercial zoning, must instead comply with the guidelines included in the Uptown Mixed Use Nodes Development Permit Area.

OPPORTUNITIES

The vision for the Sixth Street corridor is to encourage mixed-use development to centralize around the intersection of Sixth Street and Sixth Avenue, and extend along the corridor between Eighth and Fourth Avenue. The residential counterpoint south of this area will ensure a vibrant mix of uses along the corridor and provide a range of housing opportunities in a walkable and well-connected neighbourhood.



In order to create a family-friendly, pedestrian oriented neighbourhood, new residential developments should have multiple entries at grade, a high degree of transparency at the ground floor, and a richly designed transition area between the street and private residential units. New residential development along the east side of Sixth should be appropriately scaled (four storeys), encourage active/walk-up street fronting units, and enhance the character of the neighbourhood. Residential developments on the west side of the street have the opportunity to explore mid to high density residential forms. The allowable height for these

2.2 SIXTH STREET
INTRODUCTION



New development must carefully negotiate scale transitions, Source: GBL Architects

HOUSING
The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground-oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

developments will be determined on a case-by-case basis.

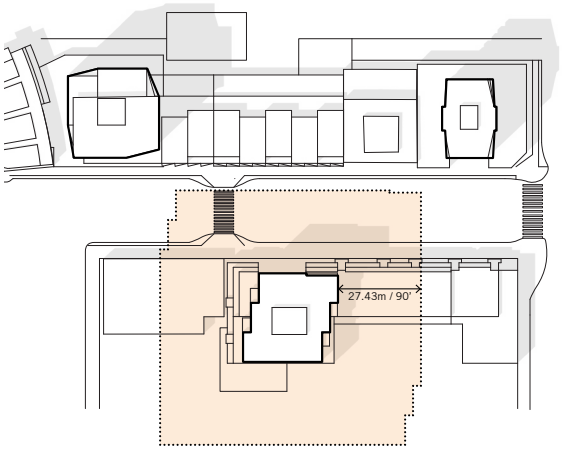
As Sixth Street is identified as a Great Street within the city, new developments can help enhance the qualities of the neighbourhood and achieve a great public realm by ensuring sidewalk widths allow for comfortable and unimpeded pedestrian flow, using setbacks to create private space for residential units at grade and/or providing opportunities for the reallocation of space within the right of way to allow for bike lanes or other improvements.

2.2.1 SITING

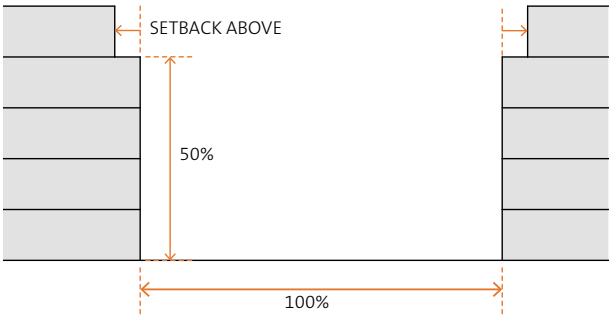
Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- New buildings and residential units within should be designed to front all streets/greenways immediately adjacent to or within the development.
- Site and design buildings to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, steep topography, natural features, prominent open spaces and views.
- New developments should be designed to fit within the natural topography of the site, by stepping down sloping terrain and accommodating significant grade changes by creating transitions from the building to the sidewalk and street level.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").

2.2 SIXTH STREET
NEIGHBOURHOOD INTERFACE



Ensure towers maintain a minimum 27m (90') separation.



Building height to R.O.W. example of 50%

- Towers should maintain a minimum distance of 27.4m (90') between and be shaped to minimize overlook and overshadowing. New projects must demonstrate how it accounts for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Towers should be located and oriented strategically to minimize impact on the privacy of neighbouring building units.
- Towers should be set back from the street wall, but be located so the lobby of the tower creates relief in the massing and engages the street.
- Building heights should be designed to respect adjacent developments and avoid overshadowing by transitioning in height. Buildings should be designed with the context in mind to create a cohesive and harmonious streetscape.

2.2 SIXTH STREET
NEIGHBOURHOOD INTERFACE

2.2.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.
- Public art should be integrated to enhance the public realm and create pedestrian scale landmarks within the neighbourhood to mark important gateways, areas or buildings of heritage significance, pocket parks, etc.

2.2.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Residential buildings should be set back from the front property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides except on interior lot line, in which case there should be a zero lot line condition.



Create cohesive massing and streetscapes, Source: Unknown

2.2 SIXTH STREET
NEIGHBOURHOOD INTERFACE



Massing and setbacks should negotiate scale transitions, Source: DIALOG

- Setbacks on side streets should take into account neighbouring properties and may be staggered across the front façade to east the transition to single detached dwellings.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on housing form, building density, use on the adjacent lot and the presence of a lane.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways. If no laneway exists at the rear of the lot, provide a minimum 7.5m (24'7") setback from the property line.
- Podiums should generally be between three to four storeys, with a maximum of six storeys being appropriate in limited circumstances where density fits with neighbourhood context and criteria outlined in the Siting section.
- Towers should have a maximum floorplate area of 750m^2 (8,073 sq ft) per floor. If possible, limit tower width to 24m (78'9")
- Towers or taller masses should be set back from the street wall a minimum of 2.0m (6'7")
- Six storey developments will only be considered in limited circumstances based on specific conditions:
  - If the project meets one or more significant City priorities (e.g. proving non-market rental housing, providing secure purpose built market rental, retention of a heritage building through a Heritage Revitalization Agreement or similar tool, retention of trees, construction of an energy efficient building).
  - OR, if the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing and is in accordance with City regulations.
- If development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units at the base of the building.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.

2.2 SIXTH STREET
NEIGHBOURHOOD INTERFACE



Entrances at grade and apartment unit glazing oriented to provide casual overlook of sidewalks, Source: Bruce Damonte

2.2.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

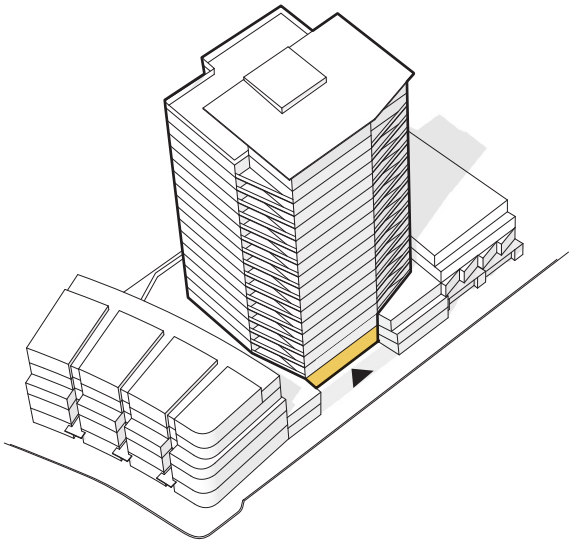
- Entrances, residential unit glazing and balconies should be positioned to ensure casual overlook of public spaces and streets to enhance "eyes on the street"
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.

2.2.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

2.2 SIXTH STREET
BUILDING DESIGN



Entrances on higher forms should clearly be defined at the street.



Residential entries should be clearly visible and identifiable from the fronting public streets, Source: Arbutuswalkliving.com

2.2.6 ENTRANCES

Intent: Building entrances must be located and designed to provide ground floor units that contribute to safe and lively urban environments.

- Residential buildings should activate public R.O.W.s by incorporating ground floor units with individual primary entrances.
- Residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Ground floor units should be elevated slightly to create privacy and a transition zone from the street.
- Residential lobby entrances should be distinguished from those of ground floor residential units. Incorporate architectural and landscape features to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- The transition zone between private entrances/ outdoor living spaces and the public realm with stoops, stairs, private yards and porches.

2.2 SIXTH STREET
BUILDING DESIGN

2.2.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- Residential buildings should activate the street by incorporating individual entrances to ground floor units in residential buildings that are accessible from the fronting street.
- Individual units should be differentiated with minor façade articulation, changes in color, and/or materials.
- Blank walls (over 5.0m or 16'5" in length) should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.

2.2.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of the neighbourhood. Wood, stone, brick and metal panel are preferred cladding materials, while composite or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Materials should add to the quality of the neighbourhood and complement the public realm. Source: Arbutuswalkliving.com

2.2 SIXTH STREET
BUILDING DESIGN



Ground floor units with primary entrances accessible from the sidewalk, Source: David Baker Architects

2.2.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Windows should be placed to encourage engagement with the public realm and to utilize passive solar strategies. Source: Mosaic Homes.

2.2 SIXTH STREET
BUILDING DESIGN

2.2.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

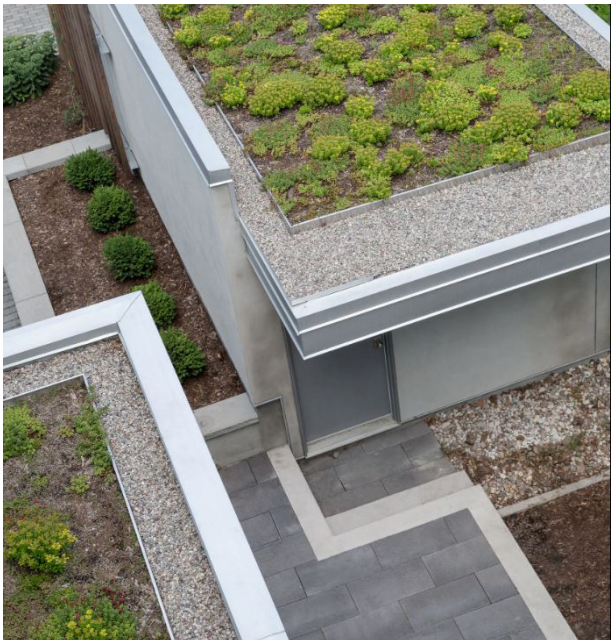


Balconies can add expression to a design, Source: C.F. Møller Architects

2.2.11 ROOFS

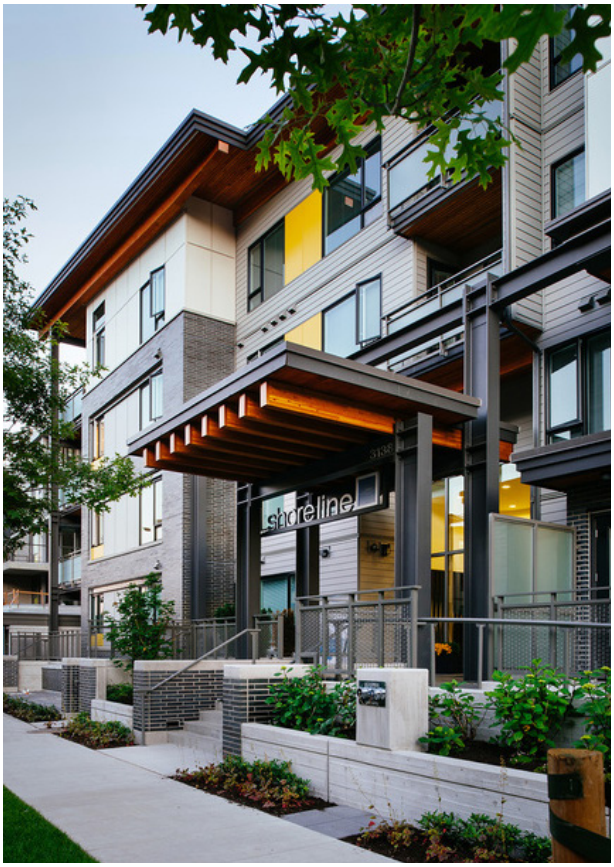
Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Roofs, Source: John Donkin Architect Inc.

2.2 SIXTH STREET
BUILDING DESIGN



Weather protection above residential lobby entrance, Source: Shift Architecture

2.2.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

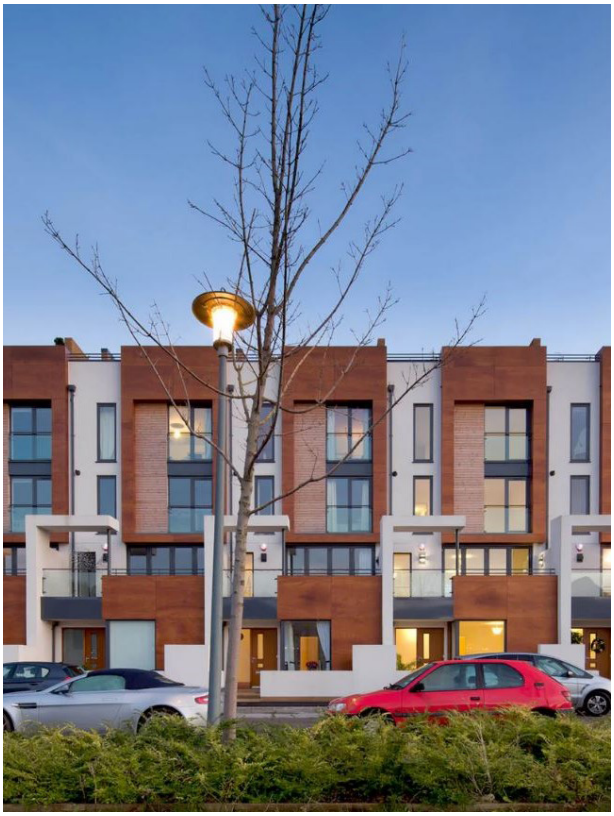
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

2.2 SIXTH STREET
BUILDING DESIGN

2.2.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.

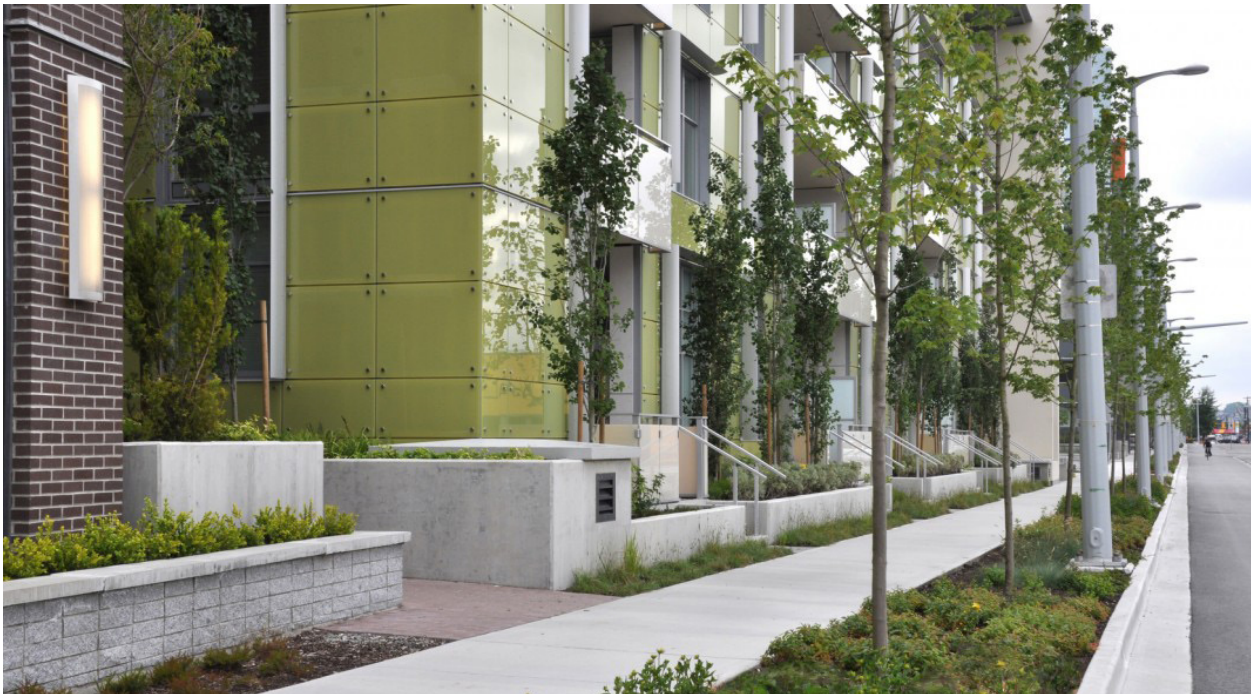


Well-lit townhouses create an interface with the street, Source: Stride Treglown Architects



Use lighting to emphasize entrances and create street security, Source: Broadstoneinfinity.com

2.2 SIXTH STREET
OPEN SPACE + LANDSCAPING



Trees and landscaping integrated with at grade residential, Source: PWL Partnership

2.2.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.



Locate deciduous trees on the south and west sides of buildings, Source: Wayfairingminimalist.com

2.2 SIXTH STREET
OPEN SPACE + LANDSCAPING



Provide spaces for rain gardens, Source: PFS Studio



Use extensive green-roof strategies such as sedum, Source: Inhabitat

- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/ private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

2.2 SIXTH STREET
OPEN SPACE + LANDSCAPING

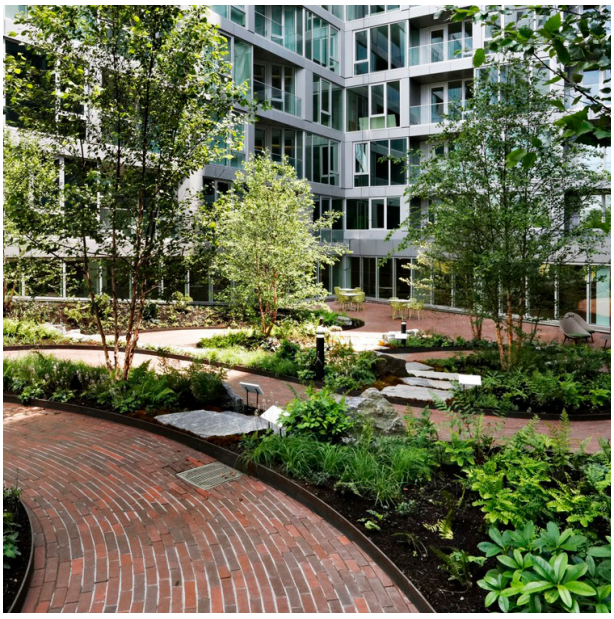
2.2.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.



Create opportunities for units to front onto pedestrian oriented semi-private spaces, Source: Bruce Damonte



Provide high quality and interesting outdoor spaces, Source: Kristen Bucher

2.2 SIXTH STREET
OPEN SPACE AND LANDSCAPING

2.2.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).



Create active outdoor environments, Source: David Baker Architects

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

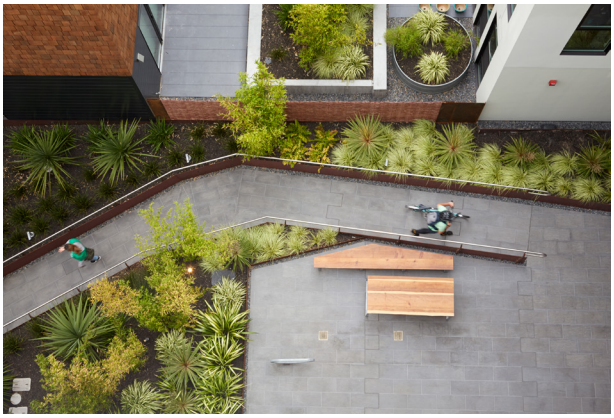
New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

2.2 SIXTH STREET
ACCESS + PARKING

2.2.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.



Entrance courtyard with durable materials and accessible circulation, Source: Bruce Damonte

2.2 SIXTH STREET
ACCESS + PARKING



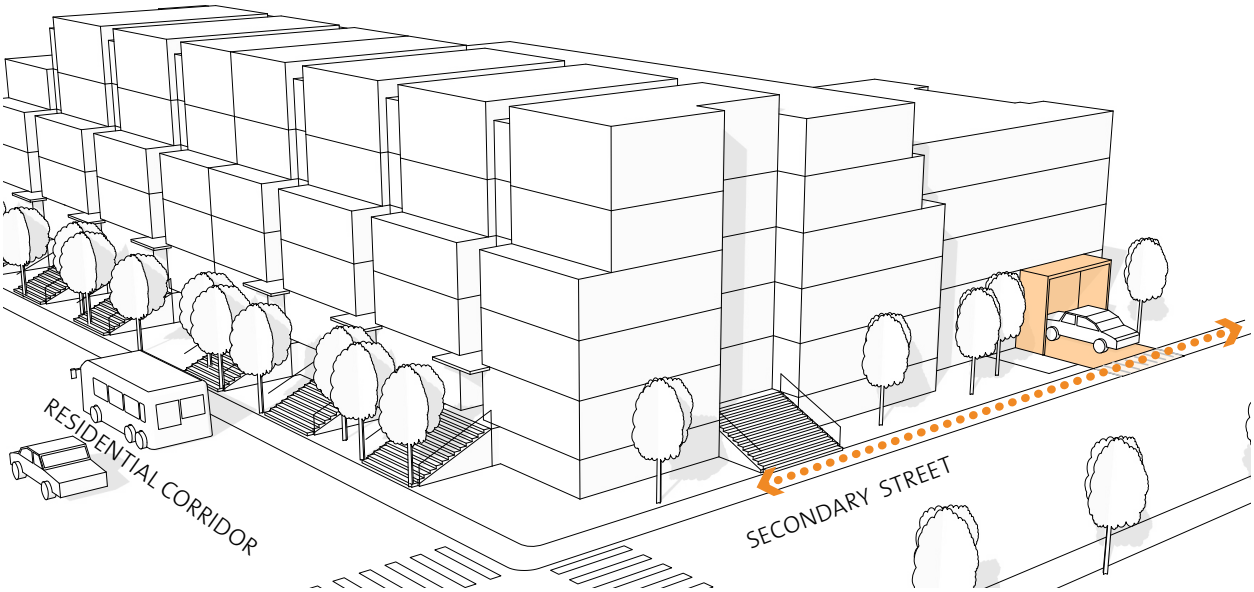
Create space for bicycle storage to encourage active transportation, Source: The Georgia Straight

2.2.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

2.2 SIXTH STREET
ACCESS + PARKING



Underground parking access off of side streets should be integrated into the building and not disadvantage the public realm.

2.2.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.

2.2 SIXTH STREET
SAFETY + SECURITY



Stoops and patios fronting the sidewalk provide space for residents and encourage "eyes on the street", Source: David Baker Architects

2.2.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

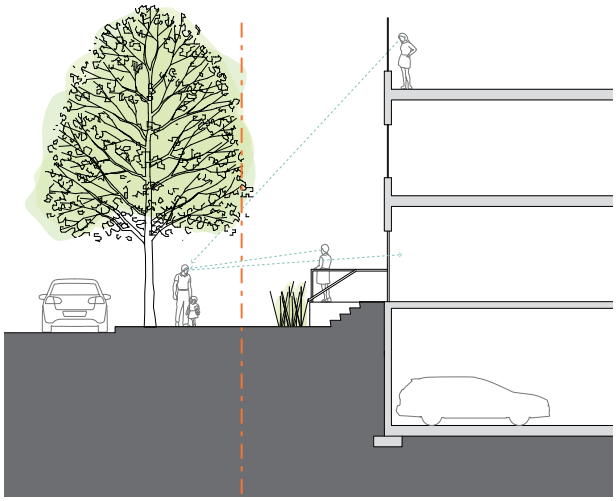
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

2.2 SIXTH STREET
SAFETY + SECURITY

2.2.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.



Design residential units to provide casual overlook onto public spaces

2.2 SIXTH STREET
ENVIRONMENT

2.2.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Use exterior shading devices, Source: Matthew Millman

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

2.2 SIXTH STREET
ENVIRONMENT

2.2.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- The garbage/recycling/compost facility should be located in a secure, well designed, screened area that is safely accessible by both residents and service trucks.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Encourage the installation or provision of space for a multi-stream collection facility, Source: City of Vancouver

2.2.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

2.2 SIXTH STREET
HERITAGE

2.2.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

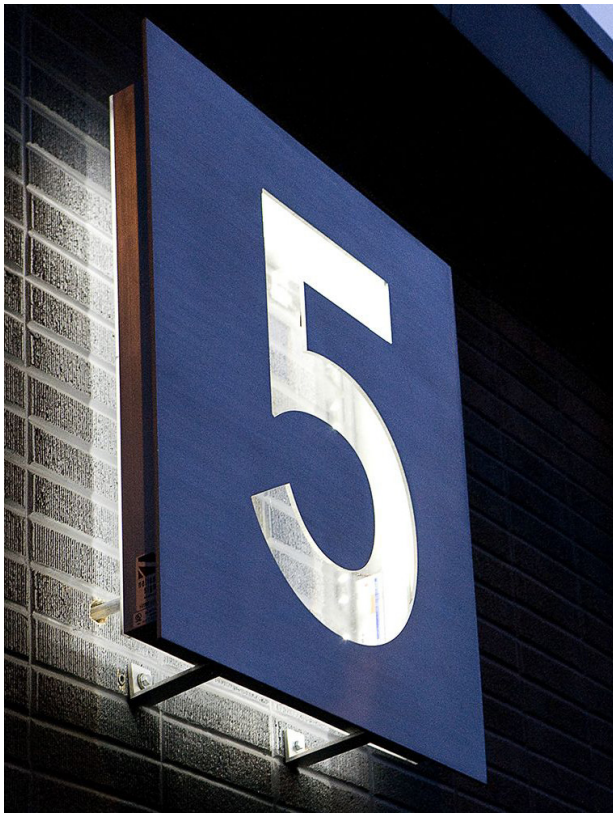
HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

2.2 SIXTH STREET
SIGNAGE



Integrate signs into the detailing and character of the building, Source: Inspiration Feed



Signs should add to the interest of the buildings without creating visual clutter, Source: Pinterest

2.2.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

DPA MAP 2.0 RESIDENTIAL CORRIDORS

DEVELOPMENT PERMIT AREAS

See Development Permit Areas in Schedule D. Queensborough Community Plan

See Development Permit Areas in Schedule C. Downtown Community Plan

Residential Corridors Development Permit Areas

- 2.1 Upper Twelfth Street
- 2.2 Sixth Street

[BYLAW NO. 8151, 2019]

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3.0
COMMERCIAL CORRIDORS



3.0 COMMERCIAL CORRIDORS
INTRODUCTION

INTRODUCTION

There are two Development Permit Areas in this section, which are identified on Map 3.0. Each Development Permit Area in this section focuses on an important corridor in New Westminster that is identified as a Great Street.

Commercial corridors are a vital component of New Westminster's diverse neighbourhood structure. Commercial corridors provide a concentration of services, retail, public amenities as well as a mix of housing units to enhance the livability and walkability of the neighbourhoods they serve. Building on existing uses and integrating a mixture of residential and commercial spaces along corridors well-served by public transit will strengthen the desirability and livability of these neighbourhoods. Development permit guidelines for these areas also encourage new development to create a comfortable transition to neighbouring single detached dwellings and ground oriented housing.

COMMERCIAL CORRIDORS

3.1 Upper Twelfth Street

3.2 East Columbia Street

3.0 COMMERCIAL CORRIDORS
INTRODUCTION

GENERAL PRINCIPLES

Commercial Corridors provide important services for the City of New Westminster, along with places for people to live and work. The following principles outline some general building parameters for livable, high quality and sustainable developments along Commercial Corridors.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwellings or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should encourage a variety of scales of commercial spaces along the street edge to increase activity along the street edge. Buildings should have two level, ground oriented, family friendly residential units with primary entries along secondary streets and lanes.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, green roofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, Passive House, etc) should be used to guide sustainable building development.

6. ENHANCE PUBLIC REALM

A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

7. PROMOTE SAFETY+SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

3.0 COMMERCIAL CORRIDORS
INTRODUCTION

1. Wrap commercial uses around corners and transition to ground oriented residential units to maintain activation at grade along side streets.

2. Design buildings to a scale that fits in with the surrounding urban context. Use setbacks and height differentiation to create variation along the street.

3. Use height in strategic places to emphasize gateways or arrival points, to special nodes within the neighbourhood.

4. Orient commercial uses to primary and secondary frontages. Provide opportunities for indoor uses to spill onto the street and active the public realm when appropriate.

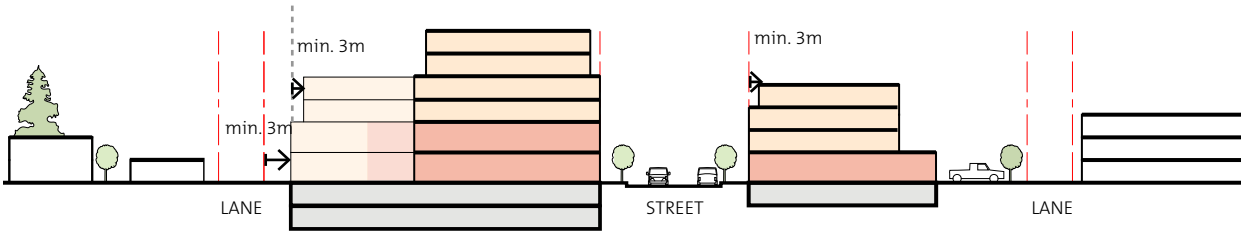
5. Create opportunities for habitat and biodiversity enhancement by integrating landscaped areas that include natural plants (green roofs, courtyards, private outdoor spaces, pocket parks, etc)

6. Provide opportunities for large and small scale public realm enhancements, ranging from seating, landscaping and public art to pocket parks, plazas and other places for interaction.

7. Ensure "eyes on the street" surveillance by providing residential and commercial units with casual overlook onto public spaces.



Commercial Corridor Axonometric



Typical Section - Commercial Corridor

3.1
UPPER TWELFTH STREET

INTRODUCTION

[BYLAW NO. 8151, 2019]

The Upper Twelfth Street Commercial Corridor, identified as Development Permit Area 3.1 [See Map 3.0, is designated in order to facilitate new commercial and mixed use development, with active commercial spaces oriented towards Twelfth Street.

As one of New Westminster's Great Streets, Upper Twelfth Street is an important local corridor that connects the West End and Moody Park neighbourhoods to Brow of the Hill and Downtown, as well as connecting the city to Burnaby. This corridor has also played an important role in New Westminster's history, and remains home to several buildings designed in the Art Deco style. Twelfth Street supports small-scale neighbourhood retail and commercial businesses along the corridor, providing services to the surrounding neighbourhoods.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and mixed use development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



Mixed Use - Low-Rise Buildings

Upper Twelfth Street Commercial Corridor

Greenway/Trail

School/Park/Open Space

SECTION 3.1 UPPER TWELFTH STREET
INTRODUCTION



Active uses at grade with public realm elements, Source: Hapa Collaborative

OPPORTUNITIES

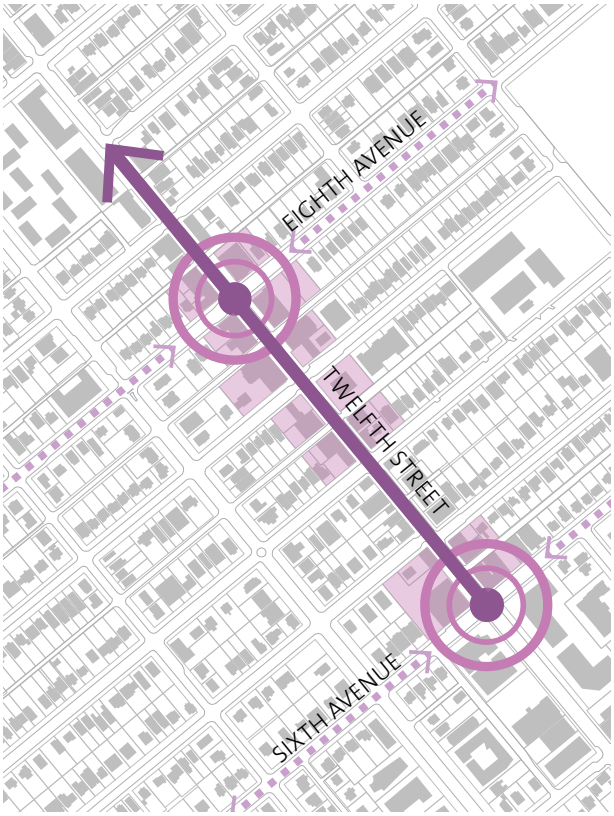
The vision for Upper Twelfth Street is to encourage commercial spaces to develop in focused nodes along the corridor, with pedestrian-scale residential filling in the gaps. New development should integrate commercial uses at grade with residential above in order to create a vibrant mix of uses to enhance the walkable and pleasant scale of Upper Twelfth Street. New development should be scaled to fit into their context, encourage active street fronting uses and enhance the unique character of the neighbourhood. Given the history of Upper Twelfth Street, opportunities to integrate stylistic or formal Art Deco cues into new developments could be explored. In order to create a family-friendly, pedestrian oriented neighbourhood, new developments should focus commercial uses on the primary street, ensure ground oriented residential units provide a transition to neighbouring residential uses, provide ample entries and glazing along street frontages and seek opportunities to improve the public realm. Furthermore, new developments along Twelfth Street must transition appropriately to the surrounding lower density neighbourhoods; especially, due to the fact that many of the parcels along Twelfth do not have lanes. Creating the transition between the scales of Twelfth and the surrounding residential neighbourhoods will be vital in creating a well-scaled and comfortable environment for residents and pedestrians. The Twelfth Street corridor has a tremendous opportunity to enrich its existing neighbourhood character and identity to increase its vitality and liveliness.

As Upper Twelfth Street is identified as a Great Street within the city, new developments can help enhance the qualities of the neighbourhood and achieve a great public realm by providing space for activity along the building frontage (such as patios and seating areas), ensuring sidewalk widths allow for comfortable and unimpeded pedestrian flow, and/or providing opportunities for the reallocation of space within the right of way to allow for bike lanes or other improvements.

SECTION 3.1 UPPER TWELFTH STREET
INTRODUCTION

GATEWAYS AND ARRIVAL POINTS

The intersections of Twelfth Street and Eighth Avenue, and Twelfth Street and Sixth Avenue provide important arrival points to the Commercial Corridor components of Twelfth Street. Eighth and Sixth Avenues also provide east-west transit service, and connect Upper Twelfth to Moody Park, Uptown and the West End. Development in these areas has the potential to reinforce the importance of Upper Twelfth Street. It is crucial to adequately emphasize active commercial at-grade uses, mixed-use buildings, open space and public realm improvements, and public art to signify entry points to this neighbourhood. The use of additional height (up to six storeys) at Sixth Avenue and Eighth Avenue to signify the entrance to Upper Twelfth Street may be a possibility if the development meets conditions listed in the guidelines.



Arrival points along Upper Twelfth Street

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES

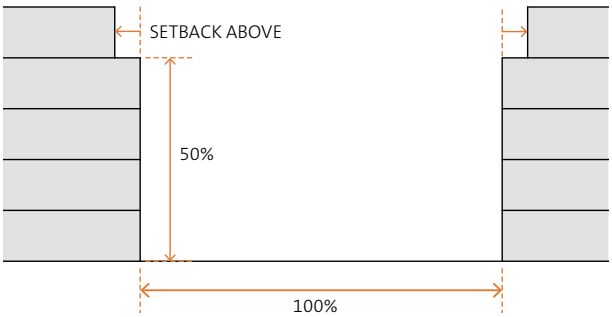


Commercial uses fronting primary and secondary streets, Source: GBL Architects

3.1.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to front the primary frontage (Twelfth Street) in order to enhance a vibrant and safe public realm.
- Commercial uses should wrap the corner onto secondary frontages to create a strong corner.
- Either commercial, or ground oriented residential may front onto the secondary streets.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.



Building height to R.O.W. example of 50%

3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES

3.1.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.
- Public art should be integrated and historical elements retained to enhance the Art Deco character of Upper Twelfth Street. Pedestrian scale landmarks within the neighbourhood should be created to mark important gateways, areas of heritage significance, pocket parks, etc.
- Interpretation of Art Deco character elements is encouraged. While direct imitation of existing Art Deco Styles is highly discouraged, new buildings should provide a modern interpretation of these stylistic cues. Character design elements that can still fit within the language of a contemporary development may include: angled ground floor recesses, mosaic tile detailing, hardware and architectural detailing, use of colour, period lighting, materials, motifs, etc.



Interpretation of historical motifs, Source: Perkins+Will



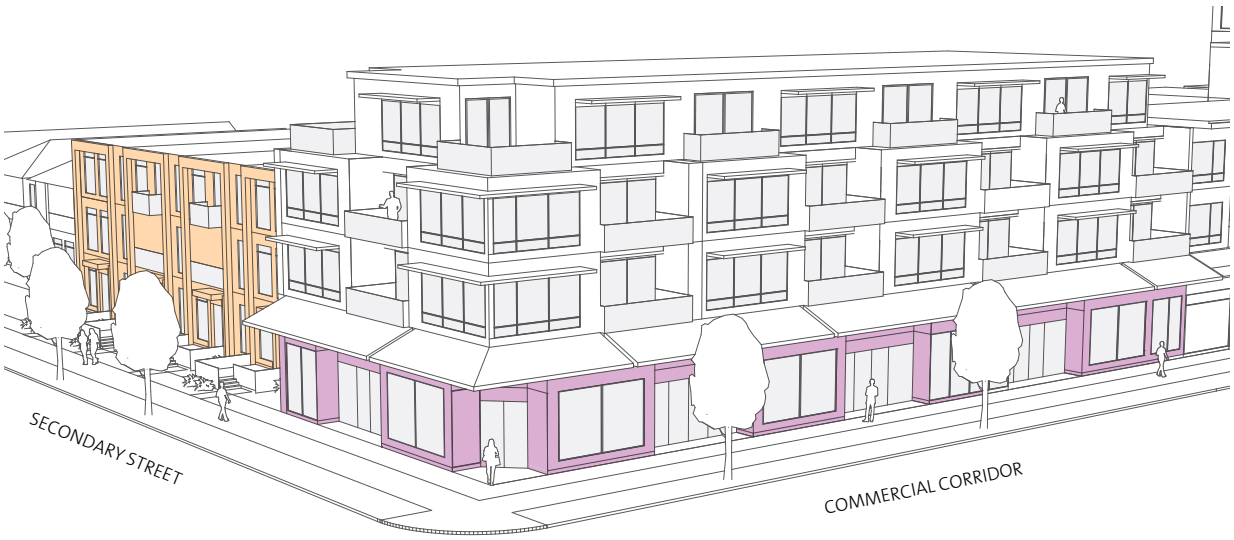
Historical refurbishment, Source: Cote de Texas

SECTION 3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES

3.1.3 MASSING+ SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, and/or shifts in the massing to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate Great Street enhancements such as the provision of bike lanes.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides except on interior lot line, in which case there should be a zero lot line condition.
- When possible, at grade residential should be provided along secondary frontages to create a similar setback and more comfortable transition to single detached dwellings and/or other ground oriented dwellings.
- Setbacks on side streets should take into account neighbouring properties and may be staggered across the front façade to east the transition to single detached dwellings and/or other ground oriented dwellings.
- Residential units along side streets should be set back from the property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for ground oriented units.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The



Commercial uses transitioning to ground oriented residential units

SECTION 3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES



Use of recesses and articulation to break down a long building façade, Source: GBL Architects

setbacks are dependent on building form, building density, use on the adjacent lot and the presence of a lane.

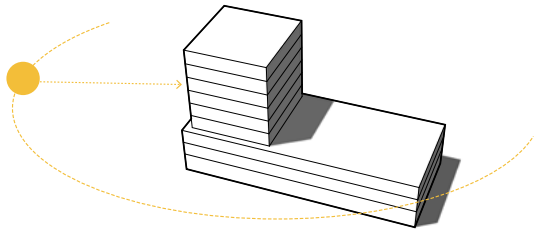
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways. If no laneway exists at the rear of the lot, provide a minimum 7.5m (24'7") setback from the property line.
- Six storey developments will only be considered in limited circumstances based on specific conditions:
  - If the project is located within the Special Employment Area and provides one floor of office space.
  - OR, if the project is located outside the Special Employment Area and meets one or more significant City priorities (e.g. proving non-market rental housing, providing secure purpose built market rental, retention of a heritage building through a Heritage Revitalization Agreement or similar tool, retention of trees, construction of an energy efficient building).
  - OR, if the project is outside of the Special Employment Area and the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing and is in accordance with City regulations.
- If development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units at the base of the building fronting secondary streets or lanes.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.

3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES

3.1.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent properties and public spaces and maintain important views in the community.

- Entrances, residential unit glazing and balconies should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight

3.1 UPPER TWELFTH STREET
NEIGHBOURHOOD INTERFACES



Interior unit configuration with windows on two sides, Source: Bruce Damonte

3.1.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN

3.1.6 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent entrances into commercial frontages facing the street should be provided to create a pedestrian scale frontage. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- Commercial entries and apartment should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Buildings should activate secondary streets and lanes by incorporating ground floor residential units with individual primary entrances.
- Ground floor residential units should be elevated slightly to create privacy and a transition zone from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.



Easily identifiable residential entry, Source: Shift Architecture

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Lively commercial façade, Source: Karkula SwordsSmith Storefronts



Active ground level façade, Source: David Baker Architects

3.1.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public or internal streets, pedestrian pathways, parks or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Public realm opportunities should be enhanced adjacent to the building by creating modest setbacks to allow space for sidewalk patios, seating areas and other spaces which activate the street.
- Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.
- Continuous weather protection should be provided along commercial building frontages which border sidewalks and prominent occupied open space.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Simple material palette with accent colour, Source: Shift Architecture

3.1.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding neighbourhood.

- High quality materials should be used to enhance the quality and character of Upper Twelfth Street. Wood, stone and brick are preferred cladding materials, while composite, metal or cementitious panels are also permitted. Stucco and polished concrete may be permitted if used sparingly and in a way that is consistent with the Art Deco heritage of the neighbourhood.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Commercial and residential windows oriented to provide overlook onto public streets, Source: David Baker Architects

3.1.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

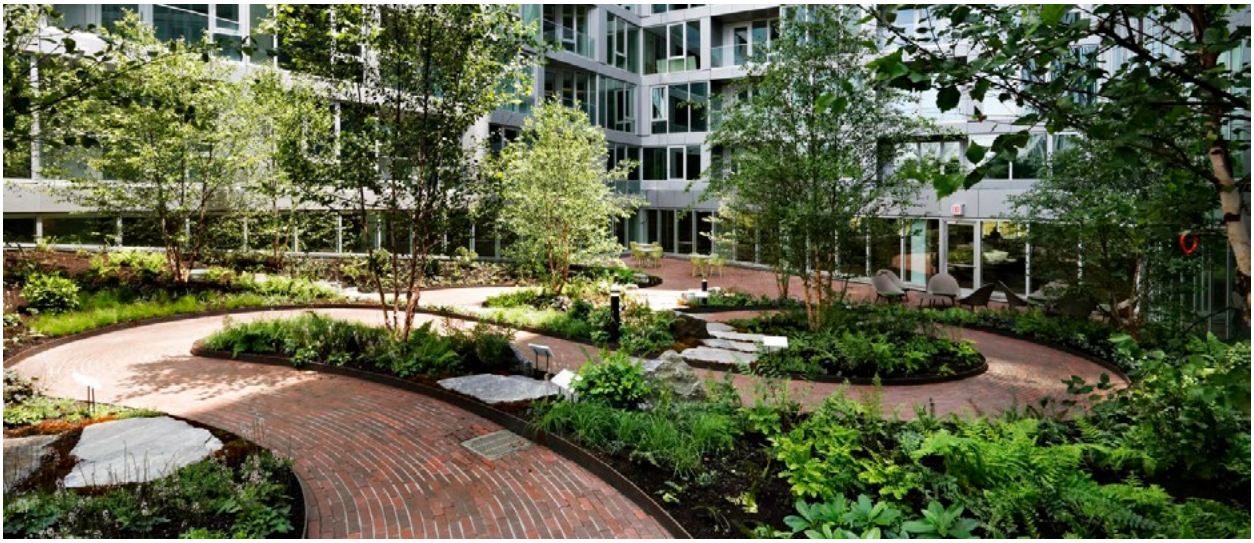
- Windows should be located to maximize connections with the public realm.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.

3.1.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Shared rooftop courtyard, Source: Kirsten Bucher

3.1.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Weather protection along commercial frontages



At grade transparency and integrated weather protection, Source: Sisters Coffee

3.1.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'1").
- Weather protection should be provided along commercial building frontages facing primary and secondary streets. Weather protection may include natural features such as trees on landscaping, or high-quality architectural elements such as canopies, colonnades, overhangs or pergolas.
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).
- Where historically appropriate, a heritage building or building designed to fit into a heritage context may not require weather protection.

3.1 UPPER TWELFTH STREET
BUILDING DESIGN



Architectural and street lighting, Source: Waterleaf Architecture

3.1.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Commercial and private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Use shielded down lighting that provides security, ambient lighting and enhances architectural and landscape details but minimizes light pollution.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential units.

3.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



Deciduous trees placed to provide shade, Source: Holst Architecture

3.1.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.

3.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING

- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.



Rain garden along pedestrian pathway, Source: UBC

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

3.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



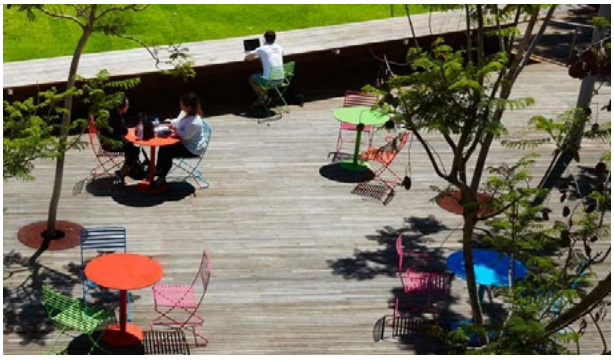
Communal outdoor space, Source: Holst Architects

3.1.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- New multi-unit residential developments should provide semi-private outdoor common space for use by all residents, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

3.1 UPPER TWELFTH STREET
OPEN SPACE + LANDSCAPING



Moveable furniture elements, Source: Andrew Lloyd



Active play element, Source: David Baker Architects

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

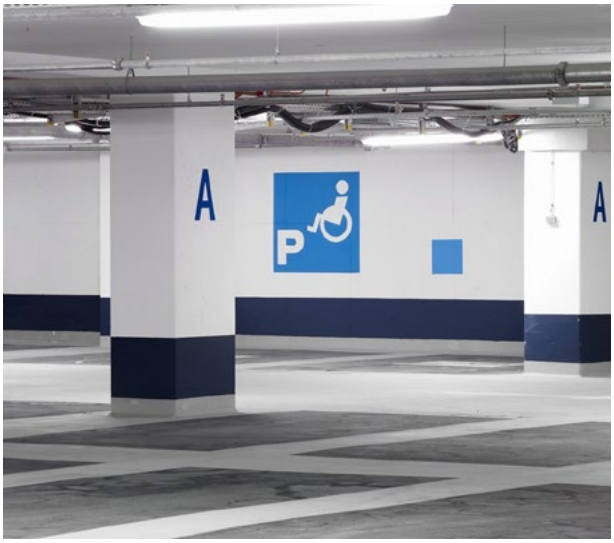
New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

3.1.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

3.1 UPPER TWELFTH STREET
ACCESS + PARKING



[BYLAW NO. 8151, 2019]

Clearly marked accessible parking spaces, Source: Stuttgart Airport

3.1.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

3.1 UPPER TWELFTH STREET
ACCESS + PARKING



Clearly defined pedestrian circulation, Source: Perkins+Will

3.1.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials must be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

3.1 UPPER TWELFTH STREET
ACCESS + PARKING



Screened parking entrance, Source: DIALOG

3.1.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- Secure and separate parking for residential and commercial activities should be provided where both share a parking structure.
- Ensure underground parking for commercial uses is easily accessible, well signed and convenient for customers. Designated preferred parking spaces for green vehicles, such as electric vehicles, hybrids or carpools should be provided in commercial areas.

[BYLAW NO. 8039, 2018]

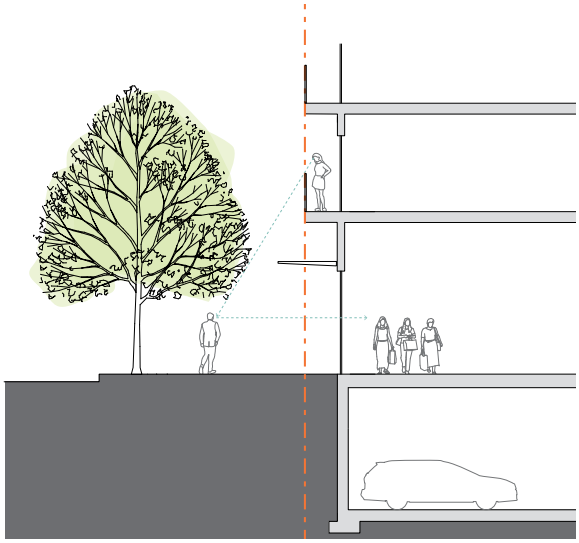
- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Provide appropriately sized and conveniently located parking spaces in order to support transportation options such as carpools and cooperative car use.

3.1 UPPER TWELFTH STREET
SAFETY + SECURITY

3.1.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- Commercial units at grade should present active uses to the street along primary and secondary streets with ample glazing.
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- All mixed-use developments with residential units should provide directly accessible private outdoor spaces for all units. These spaces may include balconies, terraces or patios.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.



Design residential and commercial units to provide casual overlook onto public spaces

3.1 UPPER TWELFTH STREET

SAFETY + SECURITY



Decorative fencing, low walls and screening can be used to delineate boundaries, Source: Mariko Reed

3.1.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

3.1 UPPER TWELFTH STREET
ENVIRONMENT

3.1.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

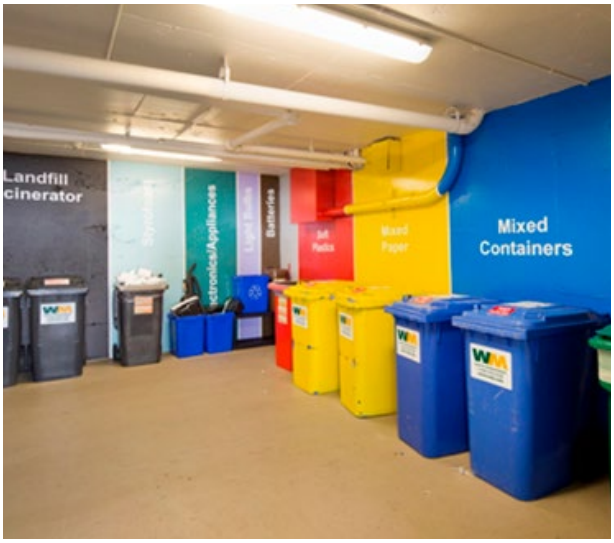


Solar shading for southern exposures, Source: Inhabitat

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

3.1 UPPER TWELFTH STREET
ENVIRONMENT



Multi-stream recycling and waste collection area, Source: City of Vancouver

3.1.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.

3.1.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

3.1 UPPER TWELFTH STREET
HERITAGE

3.1.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

3.1 UPPER TWELFTH STREET
SIGNAGE



Character signage, Source: Wikipedia



Character signage, Source: Inspiration Feed

3.1.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

3.2
EAST COLUMBIA STREET

INTRODUCTION

[BYLAW NO. 8151, 2019]

The East Columbia Street Commercial Corridor, identified as Development Permit Area 3.2 [See Map 3.0], is designated in order to facilitate new commercial and mixed use development, with active commercial spaces oriented towards East Columbia Street.

As one of New Westminster's Great Streets, East Columbia Street is a diverse corridor that is well connected to local and regional transit, contains a diverse range of uses and is poised to be an important employment and residential hub for the city. Sapperton Park, located midway long the corridor, connects two distinct but related sections of East Columbia Street. The south end of East Columbia Street is focused around the Brewery District, Royal Columbian Hospital and Sapperton SkyTrain Station and provides a range of employment opportunities as well as a mix of housing units. The north end of East Columbia Street has a range of local serving retail and a mix of housing units.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and mixed use development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



Mixed Use - Low-Rise Buildings

Mixed Use - High-Rise Buildings

Commercial and Health Care Buildings

Sapperton SkyTrain Station

East Columbia Street Commercial Corridor

Park/Open Space

Greenway/Trail

Special Employment Area

3.2 EAST COLUMBIA STREET
INTRODUCTION

OPPORTUNITIES

Commercial corridor opportunities along East Columbia Street will take on several forms. Mixed-use development including: retail, office and residential uses will be located opposite the Brewery District, capitalizing on the need for office space in this employment hub, as well as the desirable location close to Sapperton SkyTrain station and Brewery District amenities. This new development should aim to increase the active street frontage along the west side of Columbia Street to create a more balanced pedestrian experience along the corridor. The redevelopment of Royal Columbian Hospital will spur the need for more medical and office related uses closer to the hospital. The area identified as a special employment area will focus on developing these commercial/office opportunities while still encouraging an active building face and pedestrian streetscape. North of Sapperton Park, new development should build on the small-scale retail focused success of the neighbourhood and integrate more mixed-use developments with reasonably scaled residential that fits with the character of East Columbia Street and transitions appropriately to the single detached neighbourhoods adjacent.

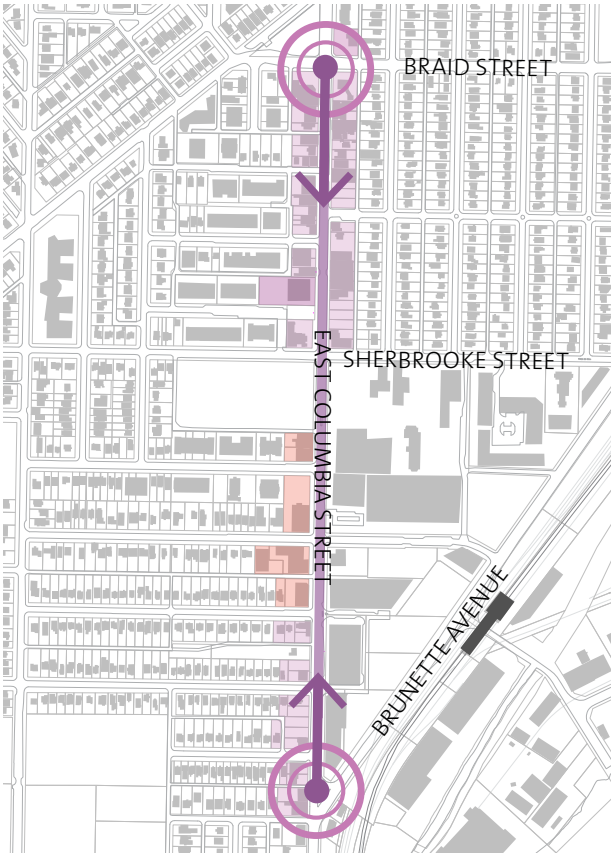
As East Columbia Street is identified as a Great Street within the city, new developments can help enhance the qualities of the neighbourhood and achieve a great public realm by providing space for activity along the building frontage (such as patios and seating areas), ensuring sidewalk widths allow for comfortable and unimpeded pedestrian flow, and/or providing opportunities for the reallocation of space within the right of way to allow for bike lanes or other improvements.

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.



The Brewery District, Source: Perkins+Will



East Columbia and Braid Street as an arrival point

3.2 EAST COLUMBIA STREET
NEIGHBOURHOOD INTERFACE

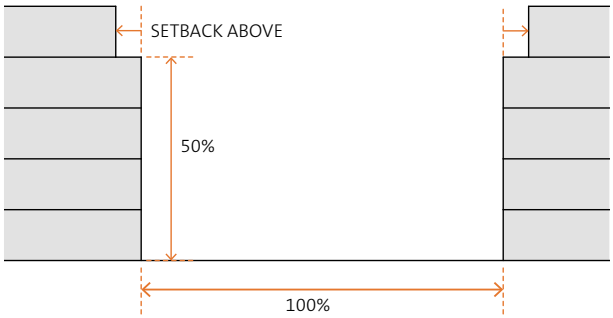


Ground floor uses wrap the corner, Source: Lever Architecture

GATEWAYS AND ARRIVAL POINTS

The intersection of East Columbia Street and Braid Street is an important arrival point to East Columbia Street. Efforts to enhance this point as a gateway for the neighbourhood and give a better indication of the vibrant and pedestrian friendly environment of East Columbia Street is encouraged.

The intersection of East Columbia Street and Brunette Avenue is also a significant arrival point. Development around this intersection and opposite of the Brewery District should strengthen the character of the area and reinforce pedestrian scale uses and activity.



Building height to R.O.W. example of 50%

3.2.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to front the primary frontage (East Columbia Street) in order to enhance a vibrant and safe public realm.
- Commercial uses should wrap the corner onto secondary frontages to create a strong corner.
- Either commercial, or ground oriented residential may front onto the secondary streets.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.

3.2 EAST COLUMBIA STREET
NEIGHBOURHOOD INTERFACE

3.2.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- All buildings should be designed to embody and enhance the diverse qualities of East Columbia Street:
  - Brewery District: modern, urban transit oriented development with a mix of uses and an active public realm,
  - Royal Columbian area: modern, health-office focused development with active street uses,
  - Area north of Sapperton park: pedestrian-scale, walkable with small-scale independent retailers.
- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (seating, lighting, landscaping) should add to the character of East Columbia Street's public realm and provide comfortable spaces for pedestrians.
- Public art should be integrated to enhance the character of East Columbia Street and create pedestrian scale landmarks within the node to mark important gateways, pocket parks, etc.



Pedestrian scale development, Source: Suter Brook Village

3.2 EAST COLUMBIA STREET
NEIGHBOURHOOD INTERFACE



Mixed-use and office-oriented uses, Source: Perkins+Will

3.2.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate Great Street enhancements such as the provision of bike lanes.
- When possible, at grade residential should be provided along secondary frontages to create a similar setback and more comfortable transition to single detached dwellings and/or other ground oriented dwellings.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides except on interior lot line, in which case there should be a zero lot line condition.
- Residential units along side streets should be set back from the property line on the ground floor by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for ground oriented units.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on building form, building density, use on the adjacent lot and the presence of a lane.

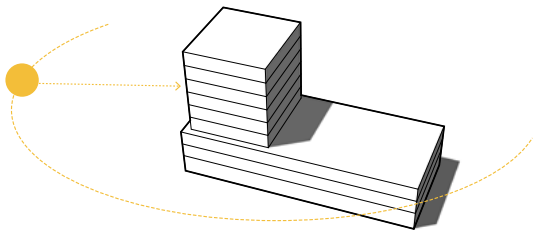
3.2 EAST COLUMBIA STREET
NEIGHBOURHOOD INTERFACE



Commercial and office uses with residential set back above, Source: GBL Architects

- Given the limiting lot depths along East Columbia street, extra care should be taken to create an appropriate interface with single detached dwellings by stepping massing back from the building edge at upper levels and putting effort into creating a more lively interface with the lane.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways.
- Massing should screen servicing areas, and when possible a landscape buffer should be provided at the rear property line to create a more sensitive transition to single detached dwellings.
- Six storey developments will only be considered in limited circumstances based on specific conditions:
  - If the project is located within the Special Employment Area and provides one floor of office space.
  - OR, if the project is located outside the Special Employment Area and meets one or more significant City priorities (e.g. proving non-market rental housing, providing secure purpose built market rental, retention of a heritage building through a Heritage Revitalization Agreement or similar tool, retention of trees, construction of an energy efficient building).
  - OR, if the project is outside of the Special Employment Area and the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing and is in accordance with City regulations.
- If development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units at the base of the building fronting secondary streets or lanes.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.

3.2 EAST COLUMBIA STREET
NEIGHBOURHOOD INTERFACE



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight



Provide living areas with daylight and ventilation, Source: Shed Architecture

3.2.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent properties and public spaces and maintain important views in the community.

- Entrances, residential unit glazing and balconies should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.

3.2.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

3.2 EAST COLUMBIA STREET
BUILDING DESIGN



Active commercial frontage with residential entries at grade beyond, Source: Weinstein A+U Architects

3.2.6 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent entrances into commercial frontages facing the street should be provided to create a pedestrian scale frontage. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- Commercial, office and residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements (such as canopies, etc).
- Where buildings contain commercial, office and residential uses, separate lobbies for residential components should be provided.
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Buildings should activate secondary streets and lanes by incorporating ground floor residential units with individual primary entrances.
- Ground floor residential units should be elevated slightly to create privacy and a transition zone from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.



Commercial entrance spacing with clear residential entry

3.2 EAST COLUMBIA STREET
BUILDING DESIGN



Active façade along pedestrian circulation route, Source: Perkins+Will

3.2.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public or internal streets, pedestrian pathways, parks or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Larger commercial buildings with medical/office uses should incorporate smaller shops wrapped around outside edges to better integrate the buildings with the public realm and make them more compatible with the desired character of East Columbia Street.
- Avoid large blank walls facing single detached dwellings to create a more welcoming interface. Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.
- Continuous weather protection should be provided along commercial frontages which border sidewalks, pathways, and prominent occupied open space.
- Maintain site lines from interior spaces to the sidewalk/public space to ensure safety.



Medical building with active at-grade uses, Source: GBL Architects

3.2 EAST COLUMBIA STREET
BUILDING DESIGN

3.2.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding neighbourhood.

- High quality materials should be used to enhance the quality and character of East Columbia Street. Wood, stone, brick and standing seam metal cladding are preferred cladding materials, while composite, metal or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. Reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Accent colour used to highlight balconies, Source: GBL Architects

3.2.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain.

- Windows should be located to maximize connections with the public realm.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Commercial and residential units providing "eyes on the street", Source: Weinstein A+U Architects

3.2 EAST COLUMBIA STREET
BUILDING DESIGN



Use of massing setback to provide more generous outdoor terrace space, Source: Canadian Architect

3.2.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

3.2 EAST COLUMBIA STREET
BUILDING DESIGN

3.2.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Communal rooftop space, Source: AECOM

3.2.12 WEATHER PROTECTION

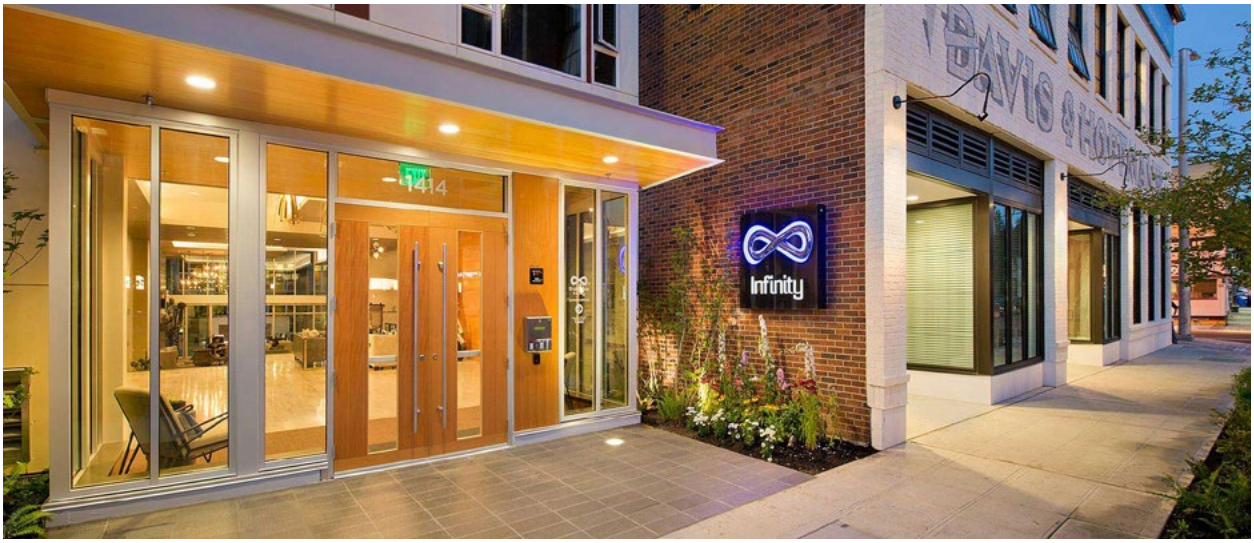
Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'1").
- Weather protection should be provided along commercial building frontages facing primary and secondary streets. Weather protection may include natural features such as trees on landscaping, or high-quality architectural elements such as canopies, colonnades, overhangs or pergolas.
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.



Weather protection along commercial frontages

3.2 EAST COLUMBIA STREET
BUILDING DESIGN



Well-lit residential entry adjacent to commercial spaces, Source: Bruce Glass

- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).
- Where historically appropriate, a heritage building or building designed to fit into a heritage context may not require weather protection.

3.2.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces must be equipped with pedestrian scale lighting. Commercial and private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Use shielded down lighting that provides security, ambient lighting and enhances architectural and landscape details but minimizes light pollution.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential units.

3.2 EAST COLUMBIA STREET
OPEN SPACE + LANDSCAPING



Landscaping integrated with new development, Source: Brighton Greenway

3.2.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

3.2 EAST COLUMBIA STREET
OPEN SPACE + LANDSCAPING



Rooftop communal garden, Source: Urban Land Institute

INTEGRATED STORMWATER MANAGEMENT PLAN
The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

3.2 EAST COLUMBIA STREET
OPEN SPACE + LANDSCAPING



Shared outdoor space, Source: Weinstein A+U Architects

3.2.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- New multi-unit residential developments should provide semi-private outdoor common space for use by all residents, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

3.2 EAST COLUMBIA STREET
OPEN SPACE + LANDSCAPING



Outdoor seating integrated with landscape elements, Source: Hapa Collaborative

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

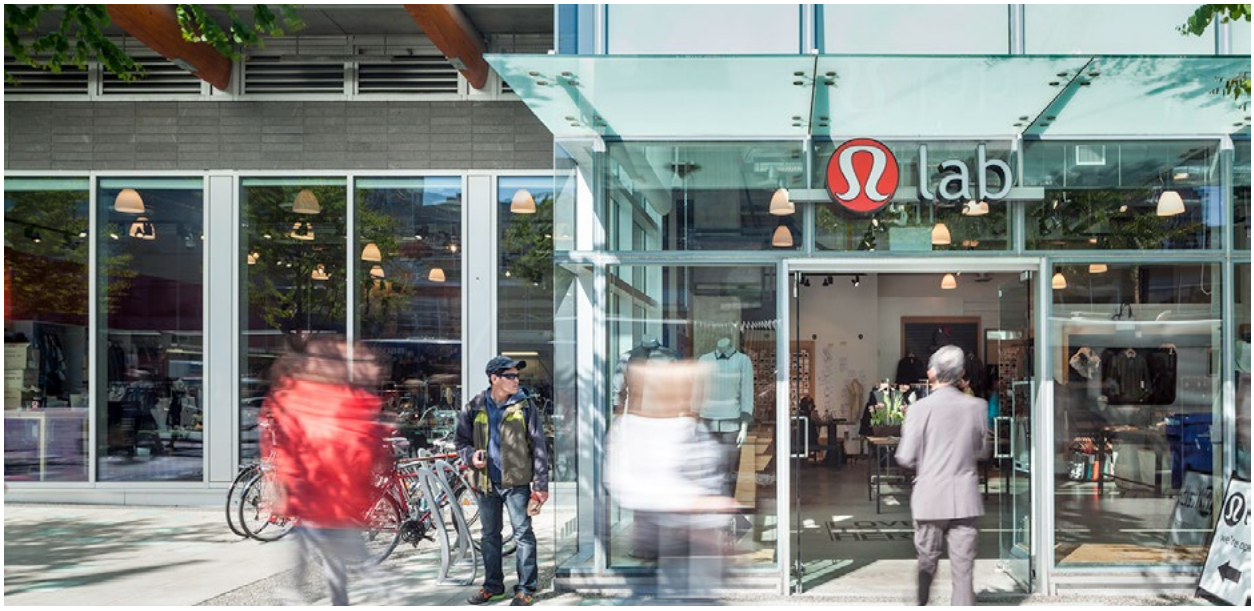
New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

3.2.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

3.2 EAST COLUMBIA STREET
OPEN SPACE + LANDSCAPING



Development enhanced public realm with weather protection and integrated bike parking facilities, Source: Perkins+Will

3.2.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

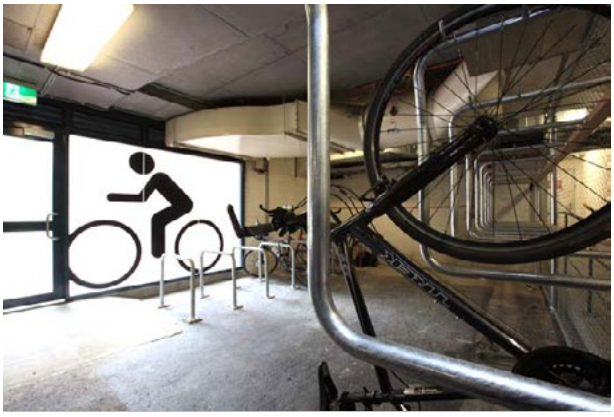
3.2.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.

3.2 EAST COLUMBIA STREET
ACCESS + PARKING

- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.



Secure bike parking facility, Source: Pinterest

3.2.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

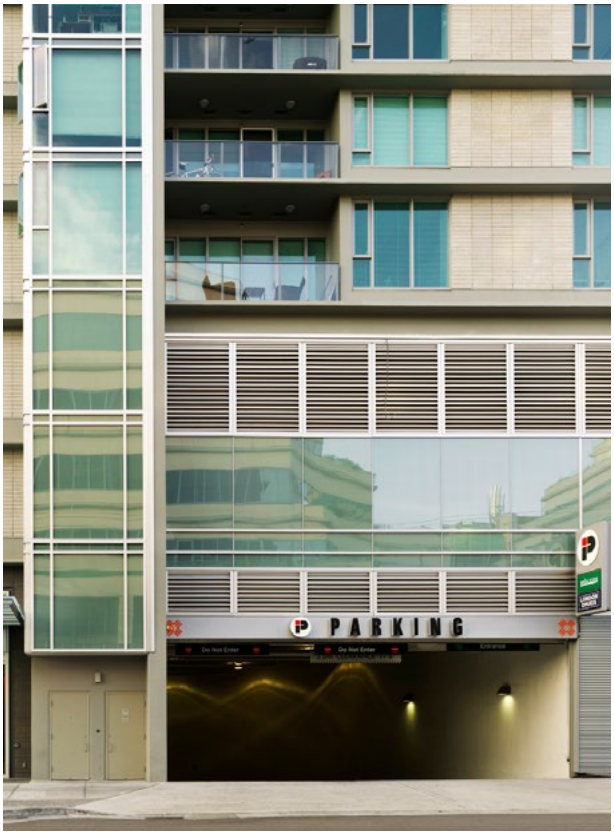
- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.

3.2 EAST COLUMBIA STREET
ACCESS + PARKING

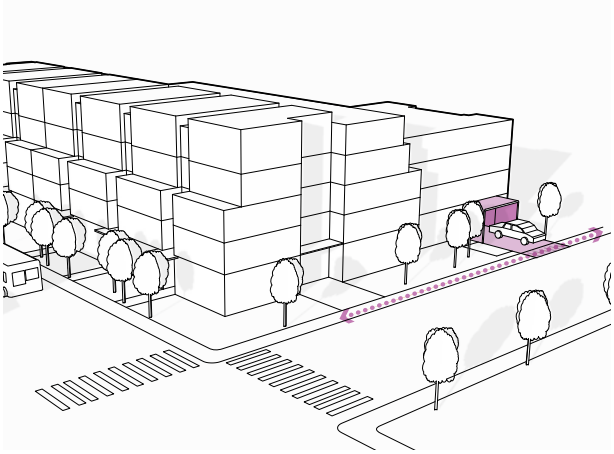
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted. Provide secure and separate parking for residential and commercial activities where both share a parking structure.
- Underground parking for commercial uses should be easily accessible, well signed and convenient for customers. Designated preferred parking spaces for green vehicles, such as electric vehicles, hybrids or carpools should be provided in commercial areas.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.

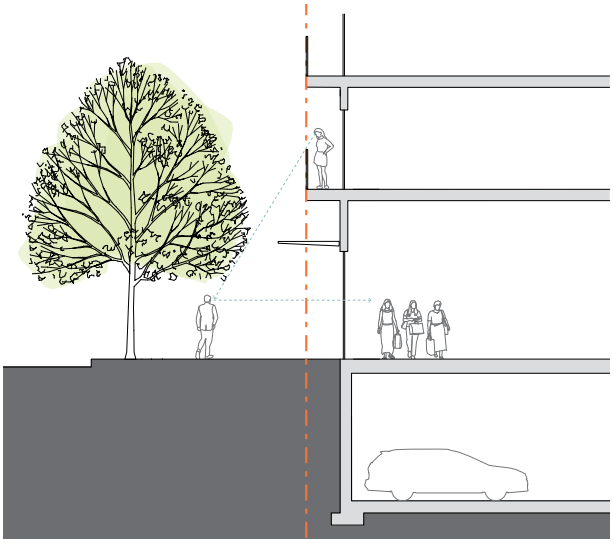


Parking entrance integrated into building massing, Source: Perkins+Will



Parking located off of secondary street

3.2 EAST COLUMBIA STREET
ACCESS + PARKING



Design residential and commercial units to provide casual overlook onto public spaces

3.2.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

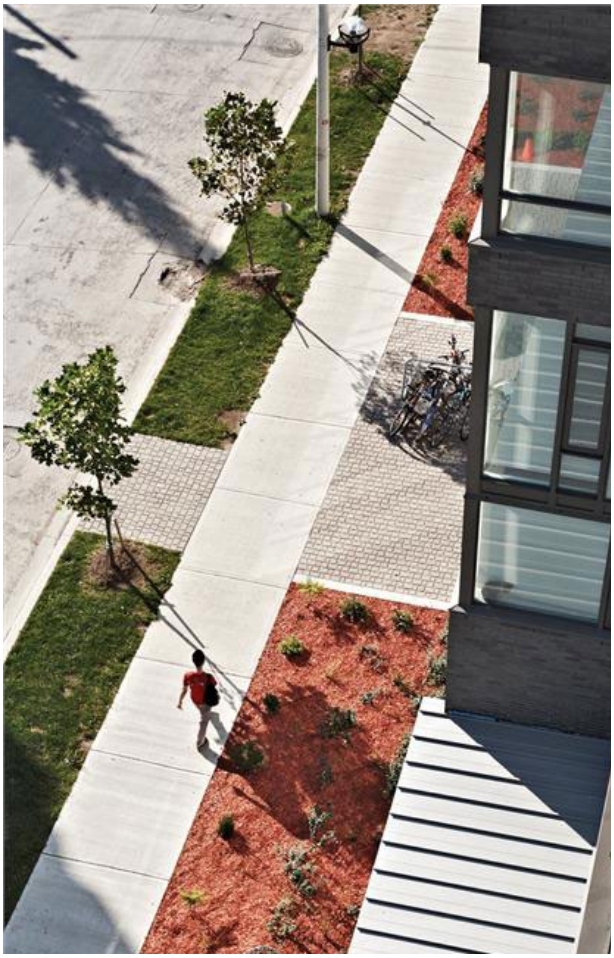
- Commercial units at grade should present active uses to the street along primary and secondary streets with ample glazing.
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- All mixed-use developments with residential units should provide directly accessible private outdoor spaces for all units. These spaces may include balconies, terraces or patios.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

3.2 EAST COLUMBIA STREET
SAFETY + SECURITY

3.2.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.



Units provide overlook to public spaces and circulation, Source: Canadian Architect

3.2 EAST COLUMBIA STREET
SAFETY + SECURITY



Integrating solar panels, Source: The New Ecologist



Use of louvres or fins for shading, Source: Open Buildings

ENERGY CONSERVATION
The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

3.2.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

3.2 EAST COLUMBIA STREET
ENVIRONMENT



Multi-stream recycling and waste collection area, Source: City of Vancouver

3.2.23 WASTE MANAGEMENT
Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and food service establishments, and/or in common areas in buildings.
- Separate storage for all commercial units that is well located, adequately sized and properly ventilated should be provided.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.

3.2.24 NOISE
Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms)

3.2 EAST COLUMBIA STREET
HERITAGE +SIGNAGE

3.2.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.
-

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

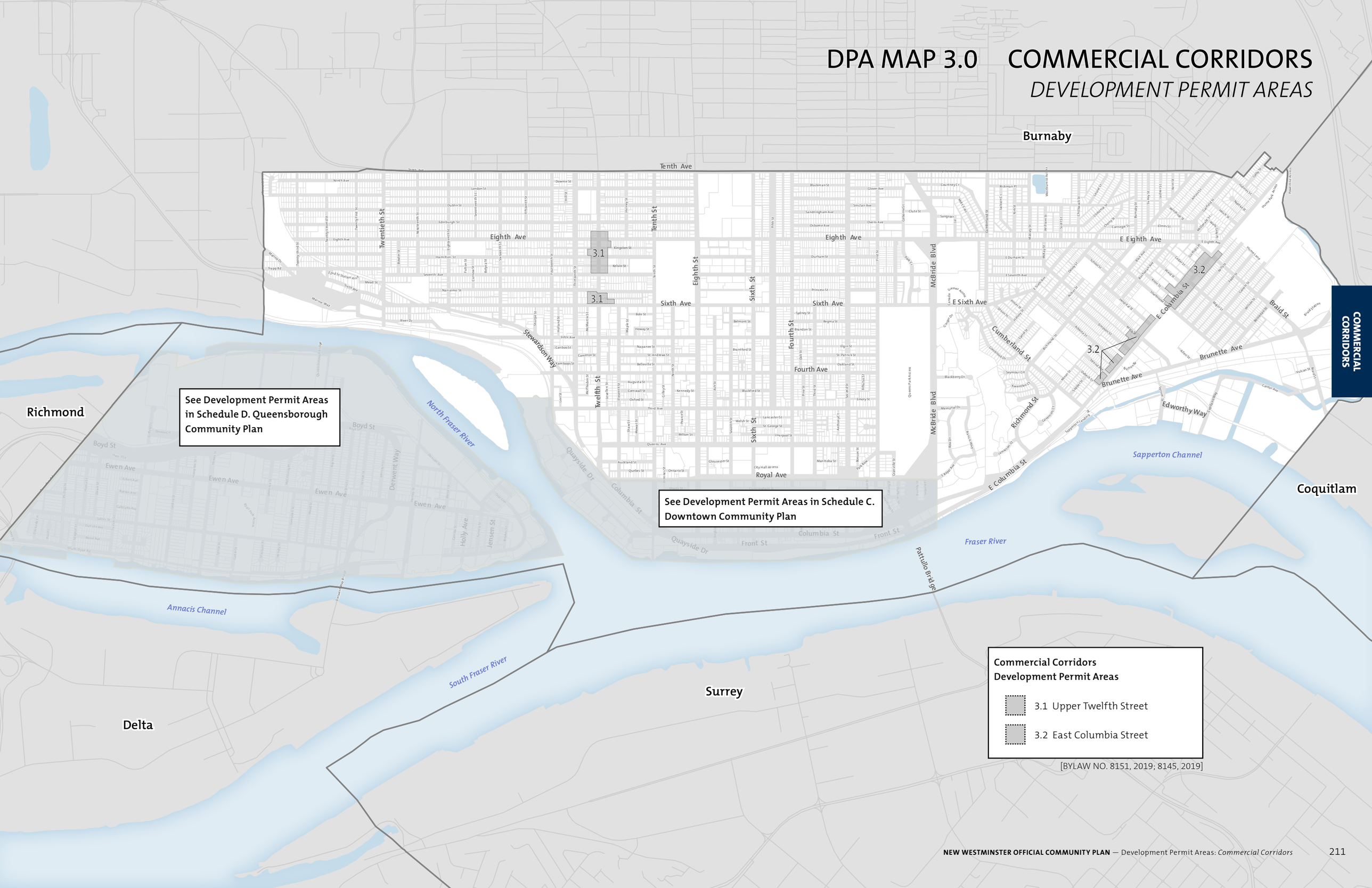
3.2.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan is required for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

DPA MAP 3.0 COMMERCIAL CORRIDORS

DEVELOPMENT PERMIT AREAS



[BYLAW NO. 8151, 2019; 8145, 2019]

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4.0
MIXED USED NODES



4.0 MIXED USED NODES
INTRODUCTION



Uptown Mixed Use Node

INTRODUCTION

There are four Development Permit Areas in this section, which are identified on Map 4.0. Each Development Permit Area in this section focuses on areas of New Westminster that provide a high concentration of services, amenities, employment opportunities and places to live. These areas are well connected to other areas of the city by walking, transit, cycling and vehicular routes, and tend to serve as destinations for the immediate neighbourhood as well as the larger city and region. Growth around Mixed Use Nodes will create more opportunities for a variety of housing options oriented around improved transit, amenities and services.

MIXED USE NODES

4.1 Uptown

4.2 Eighth Avenue and McBride Boulevard

4.3 Braid Street and Brunette Avenue

4.4 100 Braid Street

4.0 MIXED USED NODES
INTRODUCTION

GENERAL PRINCIPLES

Mixed Use Nodes encompass a variety of characteristics that add to the vibrancy of a neighbourhood. The following list includes some general building parameters for livable, high-quality and sustainable developments in Mixed Use Nodes.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing/loading movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwelling or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should encourage a variety of scales of commercial spaces along the street edge to increase activity along the street edge. Buildings should have two level, ground oriented, family friendly residential units with primary entries along secondary streets and lanes.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

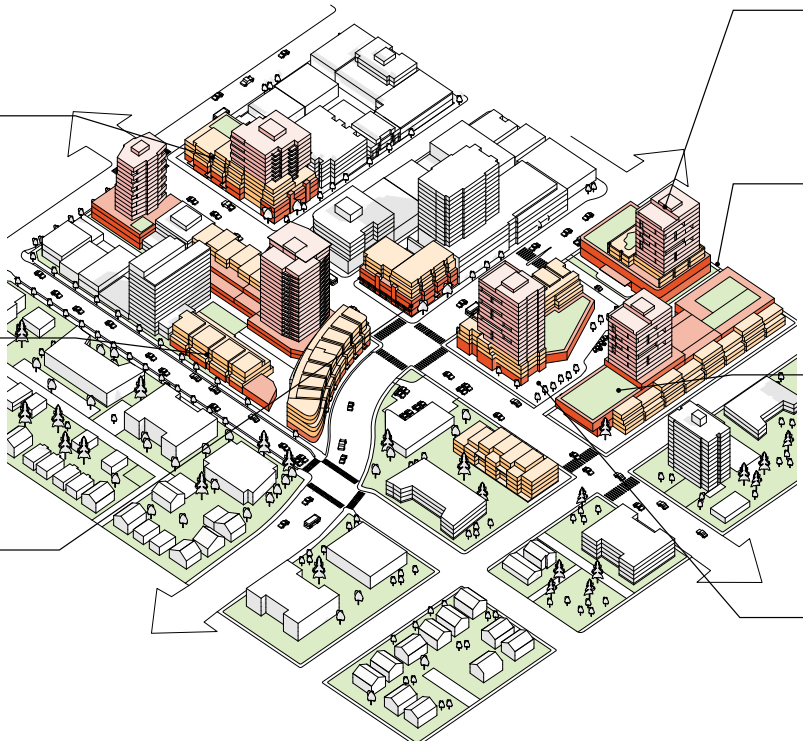
6. ENHANCE PUBLIC REALM

A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

7. PROMOTE SAFETY + SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

4.0 MIXED USED NODES
INTRODUCTION



2. Design buildings to a scale that fits in with the surrounding urban context. Use setbacks and height differentiation to create variation along the street.

7. Ensure "eyes on the street" surveillance by providing residential and commercial units with casual overlook onto public spaces.

4. Ensure all building frontages on primary and secondary streets bring active uses to the street.

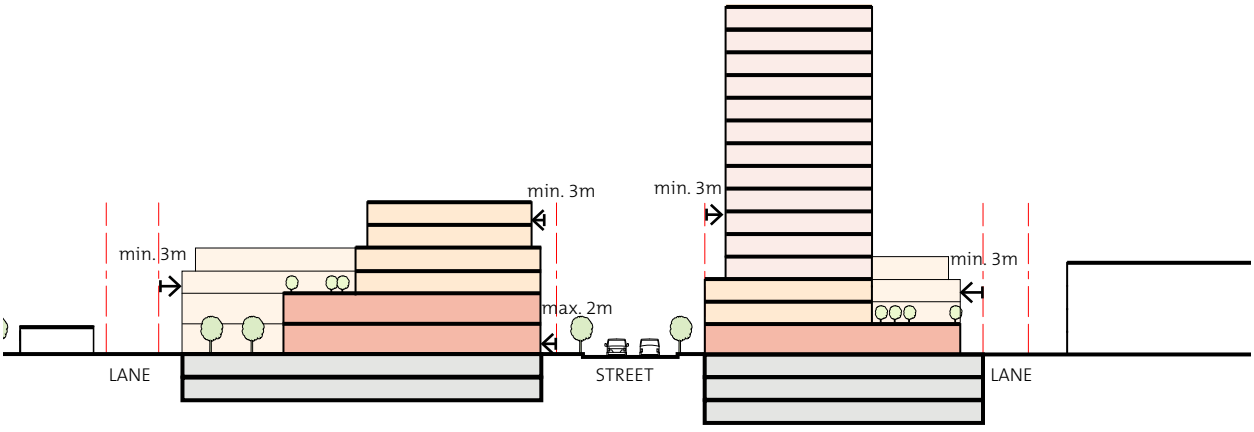
3. Locate taller masses so they do not overshadow public spaces or adjacent buildings and maintain a reasonable separation.

1. Create internal connections through larger blocks to increase connectivity and access to services and amenities.

5. Create opportunities for habitat and biodiversity enhancement by integrating landscaped areas that include natural plants (green roofs, courtyards, private outdoor spaces, pocket parks, etc).

6. Provide opportunities for large and small scale public realm enhancements, ranging from seating, landscaping and public art to pocket parks, plazas and other places for interaction.

Mixed Use Node Axonometric



Typical Section - Mixed Use Node

4.1 UPTOWN

INTRODUCTION

The Uptown Mixed Use Node, identified as Development Permit Area 4.1 [See Map 4.0], is designated in order to facilitate new commercial and mixed use development, with active commercial spaces oriented towards the principal commercial streets: Sixth Street, Sixth Avenue and Belmont Avenue.

Centered around the intersection of two of New Westminster's Great Streets, Sixth Street and Sixth Avenue, Uptown is a vibrant, mixed use centre that is an important counterpoint to Downtown. Uptown is a walkable and eclectic area that is home to a range of restaurants, shops, cafes, services and community amenities. The neighbourhood houses a range of demographics, including a large seniors population. Increasing access to amenities and improving public realm while integrating a mix of uses will ensure the neighbourhood remains livable and enjoyable to all residents and visitors.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, mixed use, and multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

OPPORTUNITIES

The vision for Uptown is to create a vibrant, mixed-use node that builds on the existing strengths of the neighbourhood, encourages pedestrian activity, and locates density and uses sensitively to maximize community benefit. New mixed-use development will be located along Sixth Street between Eighth Avenue and Fourth Avenue, strengthening the already active and walkable nature of Uptown. Building forms on the west side of Sixth Street will range from low-rise to high-rise forms depending on adjacencies



Mixed Use - Low-Rise Buildings

Mixed Use - High-Rise Buildings

Greenway/Trail

School/Park/Community Facility/Open Space

to neighbouring properties. Four-storey mixed-use building forms are envisioned for the east side of Sixth Street, creating a more comfortable transition to the single detached dwellings beyond. All new developments within this mixed-use node will feature commercial space at grade and a range of residential unit types.

As both Sixth Street and Sixth Avenue are identified as a Great Street within the city, new developments can help enhance the qualities of the neighbourhood and achieve a great public realm by providing space for activity along the building frontage (such as patios and seating areas), ensuring sidewalk widths allow for comfortable and unimpeded pedestrian flow, and/or

4.1 UPTOWN
INTRODUCTION

providing opportunities for the reallocation of space within the right of way to allow for bike lanes or other improvements.

GATEWAYS AND ARRIVAL POINTS

The intersection of Sixth Street and Sixth Avenue is the nexus of Uptown, and a significant intersection for the City of New Westminster. It is home to a concentration of important commercial uses and amenities, and has the potential to become a major public transit connection point. New development around Sixth Street and Sixth Avenue should aim to enhance this sense of arrival by creating appropriately scaled, pedestrian friendly spaces that incorporate generous public realm elements such as plazas, pocket parks and/or streetscape improvements.

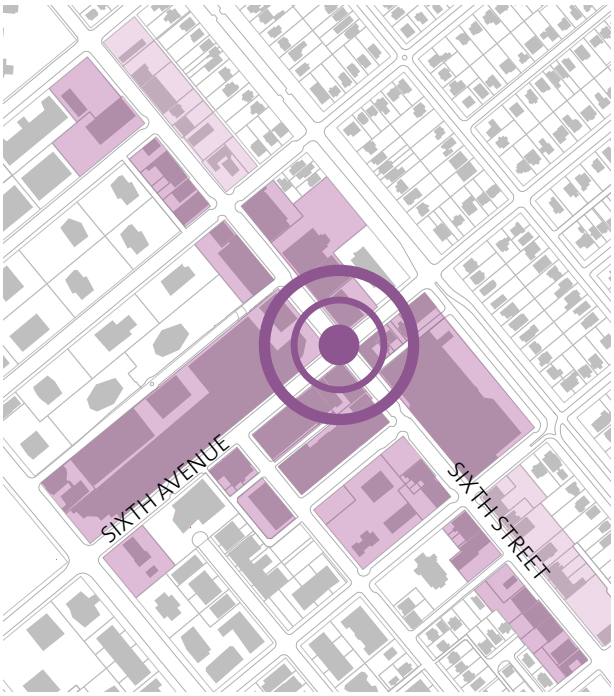
- Taller building masses on either side of the intersection should be set back from the intersection and oriented so as not to overshadow public spaces.
- Public spaces should be lined with active frontages, encouraging visual and physical permeability between indoor and outdoor uses (i.e. cafes, restaurants, small-scale retail). Avoid banks, medical offices and non-retail uses on the primary public space fronting spaces.
- Use appropriately scaled street wall heights to frame and enclose public spaces but not overwhelm them.

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

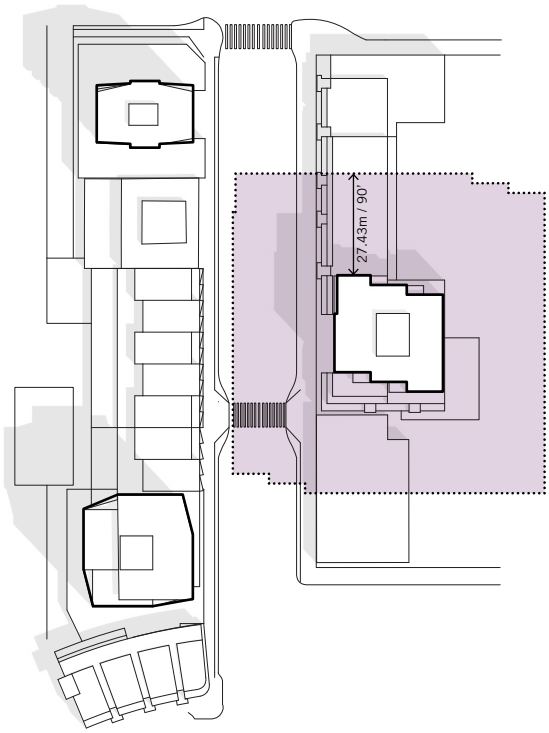


Active commercial uses at grade, Source: Vancouver.ca

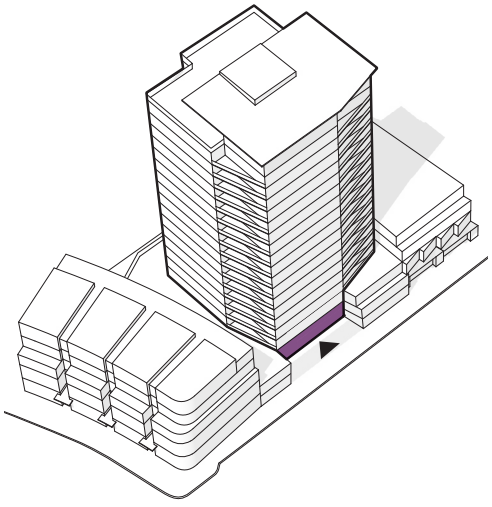


Sixth and Sixth as a major arrival point

4.1 UPTOWN
NEIGHBOURHOOD INTERFACE



Ensure towers maintain a minimum 27m (90') separation.



Tower massing and lobby placement designed to engage the street

4.1.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to front the primary frontages (Sixth Avenue, Sixth Street, Belmont Avenue) in order to enhance a vibrant and safe public realm.
- Commercial uses should wrap the corner onto secondary frontages to create a strong corner.
- Either commercial, or ground oriented residential may front onto the secondary streets.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width for commercial streets, and 35% - 20% for wider boulevards, squares or plazas). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- A minimum distance of 27.4m (90') should be maintained between towers and shape massing to minimize overlook and overshadowing. New projects must demonstrate how it accounts for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Towers should be located and oriented strategically to minimize impact on the privacy of neighbouring building units.
- Towers should be set back from the street wall, but be located so the lobby of the tower creates relief in the massing and engages the street.

4.1 UPTOWN
NEIGHBOURHOOD INTERFACE



Details like a green wall can enhance public realm along a street frontage, Source: Perkins+Will

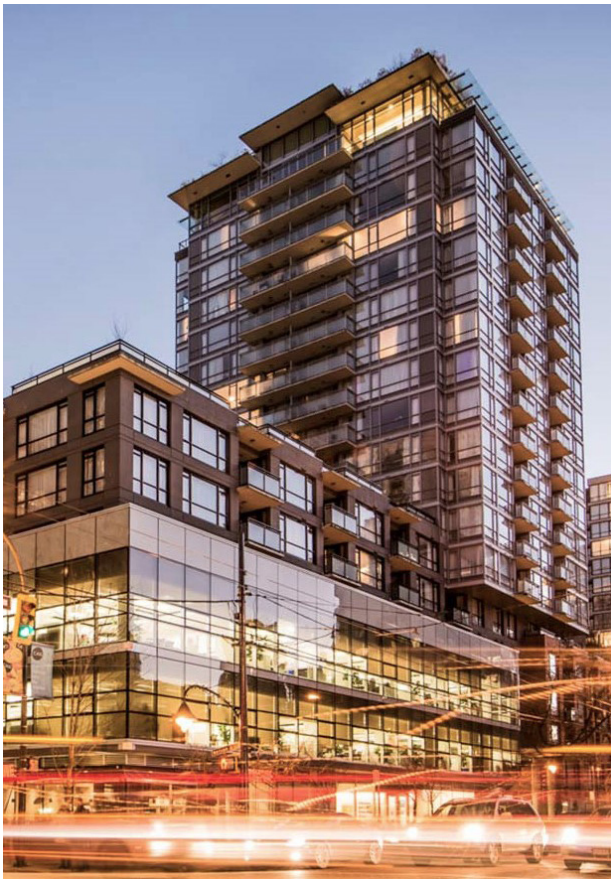


Integrate semi-public spaces to enliven Uptown, Source: Jeremiah Deutscher

4.1.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.



Mixed-use building with residential and tower set back above, Source: GBL Architects

4.1 UPTOWN
NEIGHBOURHOOD INTERFACE

4.1.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

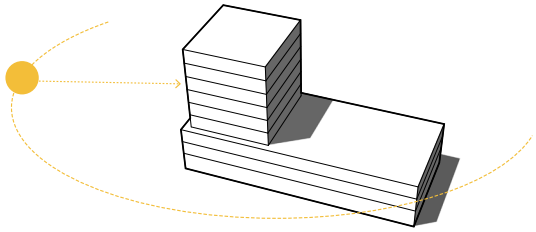
- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate Great Street enhancements such as the provision of bike lanes.
- When possible, at grade residential should be provided along secondary frontages to create a similar setback and more comfortable transition to single detached dwellings and/or other ground oriented dwellings.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Building edges with residential at grade should be set back by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units. Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on building form, building density, use on the adjacent lot and the presence of a lane.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways. If no laneway exists at the rear of the lot, provide a minimum 7.5m (24'7") setback from the property line.
- Six storey developments on sites designated Mixed Use – Low Rise will only be considered in limited circumstances based on specific conditions:
  - If the project is located within the Special Employment Area and provides one floor of office space.
  - OR, if the project is located outside the Special Employment Area and meets one or more significant City priorities (e.g. proving non-market rental housing, providing secure purpose built market rental, retention of a heritage building through a Heritage Revitalization Agreement or similar tool, retention of trees, construction of an energy efficient building).
  - OR, if the project is outside of the Special Employment Area and the lot size, lot depth, configuration and grading allows for appropriate transition to future adjacent massing and is in accordance with City regulations.
- If Mixed Use – Low Rise development sites meet one of the above conditions, six storey forms should:
  - Provide two storey, three bedroom, family friendly, ground oriented units at the base of the building fronting secondary streets or lanes.
  - Exceed the requirements of the family friendly housing policy.
  - Change materials and colour above the third storey to lessen the visual impact of the height of the building.
  - Demonstration that it will not significantly overshadow adjacent residential and public open spaces.
  - Provide publicly accessible open space (pocket park, plaza, courtyard, etc.), when appropriate.
- Buildings of four to six storeys should be set back at the fourth storey and higher by 3m (9'10") on all sides except on interior lot line, in which case there should be a zero lot line condition.
- Podiums should generally be between three and four storeys, with a maximum of six storeys being appropriate in limited circumstances where density fits with the context.
- Towers should have a maximum floorplate area of 750m^2 (8,073 sq.ft.) per floor. If possible, limit tower width to 24m (78'9")
- Towers or taller masses should be set back from the street wall a minimum of 3m (9'10")

4.1 UPTOWN
NEIGHBOURHOOD INTERFACE

4.1.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances, and commercial unit glazing for showrooms or office spaces should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight

4.1.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.



Use building massing and unit orientation to encourage natural ventilation, Source: Panorama Arquitectos



Frequent commercial entrances activate the street, Source: Weinstein A+U Architects



Residential entries should be differentiated from adjacent commercial entrances

- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

4.1.5 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent entrances into commercial frontages facing the street should be provided to create a pedestrian scale frontage. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- Commercial and residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Buildings should activate secondary streets and lanes by incorporating ground floor residential units with individual primary entrances.
- Ground floor residential units should be elevated slightly to create privacy and a transition zone from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.

4.1 UPTOWN
BUILDING DESIGN



Welcoming and transparent commercial façade, Source: David Baker Architects

4.1.6 FAÇADES

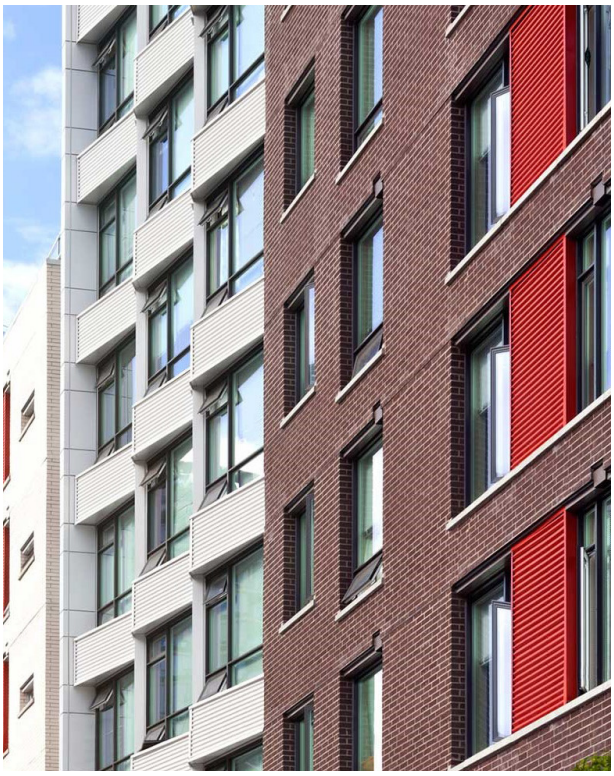
Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public or internal streets, pedestrian pathways, parks or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Large format commercial buildings with compatible uses should incorporate smaller shops wrapped around outside edges to better integrate these buildings and uses and make them more compatible with the desired character of Uptown.
- Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.
- Continuous weather protection should be provided along commercial building frontages which border sidewalks and prominent occupied open space.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.



Provide a range of commercial spaces to create variation along the street, Source: Perkins+Will

4.1 UPTOWN
BUILDING DESIGN



Use of a simple material palette with accent colours, source: GLB Architects



Retail transparency at grade to create visual connections, Source: Skylab Architecture

4.1.7 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of Uptown. Wood, stone, brick and metal panel are preferred cladding materials, while composite or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

4.1.8 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.

4.1 UPTOWN
BUILDING DESIGN

4.1.9 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.



Balconies with weather protection, Source: Unknown

4.1 UPTOWN
BUILDING DESIGN



Rooftop communal garden, Source: Lifeintheburbs.ca

4.1.10 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Weather protection along commercial frontages

4.1.11 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4'11") with a recommended minimum storefront height of 4.0m (13'1").
- Weather protection should be provided along commercial building frontages facing primary and secondary streets. Weather protection may include natural features such as trees on landscaping, or high-quality architectural elements such as canopies, colonnades, overhangs or pergolas.
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.

- The maintenance associated with weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

4.1.12 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Shielded down lighting that provides security, ambient lighting and enhances architectural and landscape details but minimizes light pollution should be provided.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential units.



Lighting as a feature element integrated into the façade, Source: NRJA Architecture

4.1 UPTOWN
OPEN SPACE + LANDSCAPING

4.1.13 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

4.1.14 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided, when appropriate. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents, when appropriate.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.



Plaza integrated with new development, Source: Hapa Collaborative



Outdoor common space with multifunctional seating elements, Source: David Baker Architects



Active playscape in shared communal space, Source: Holst Architects

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

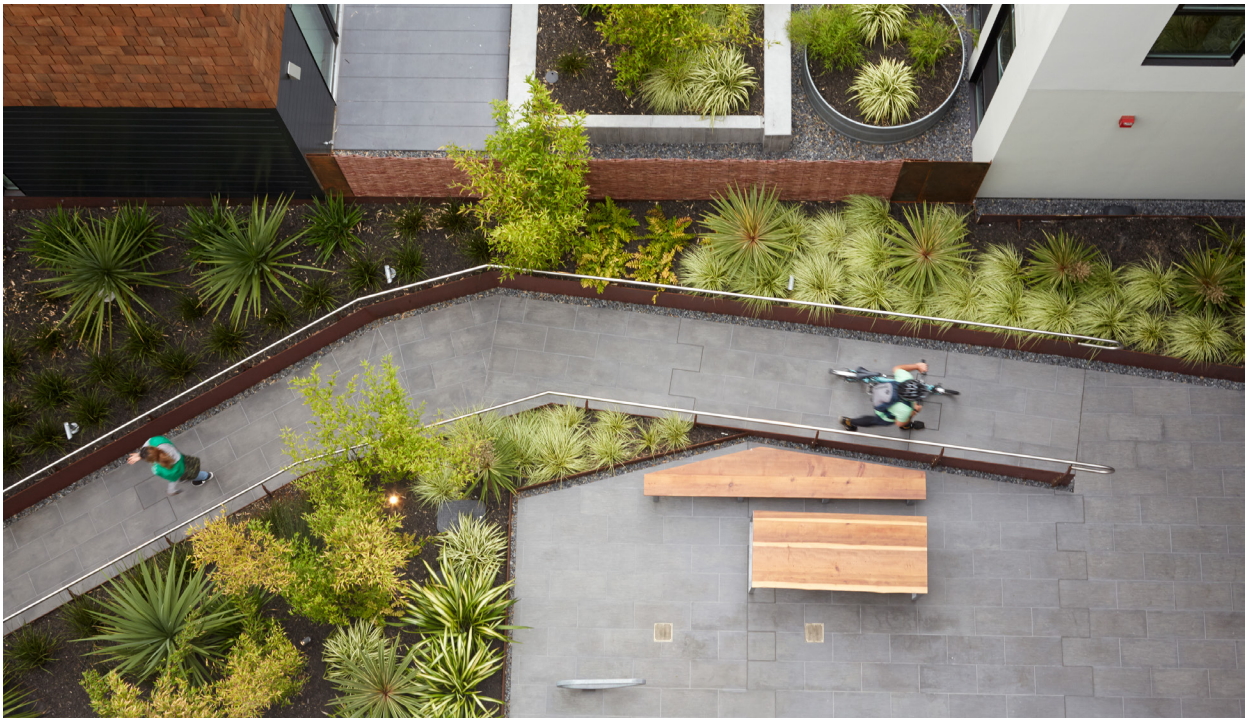
New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

4.1.15 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided, when appropriate. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

4.1 UPTOWN
ACCESS + PARKING



Create building access routes that are easy to navigate and accessible to all, Source: David Baker Architects

4.1.16 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

4.1 UPTOWN
ACCESS + PARKING



Provide dedicated areas for pedestrian circulation and spaces for relaxation, Source: AECOM.



Ensure residents, employees and visitors are provided with bicycle parking, Source: Georgia Straight

4.1.17 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space.
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

4.1 UPTOWN
ACCESS + PARKING

4.1.18 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

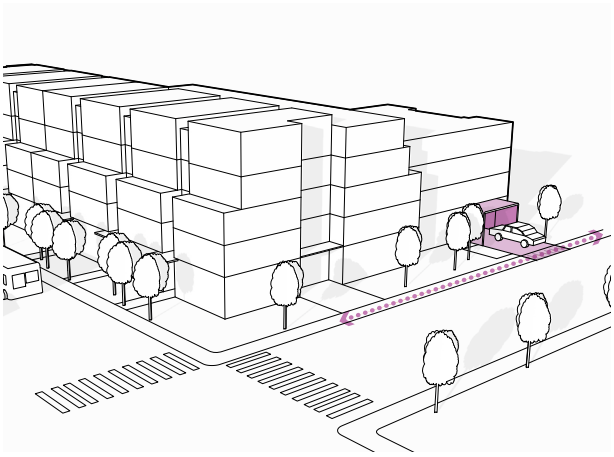
- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- A secure and separate parking for residential and commercial activities should be provided where both share a parking structure.
- Underground parking for commercial uses should be easily accessible, well signed and convenient for customers. Designated preferred parking spaces for green vehicles, such as electric vehicles, hybrids or carpools should be provided in commercial areas.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.



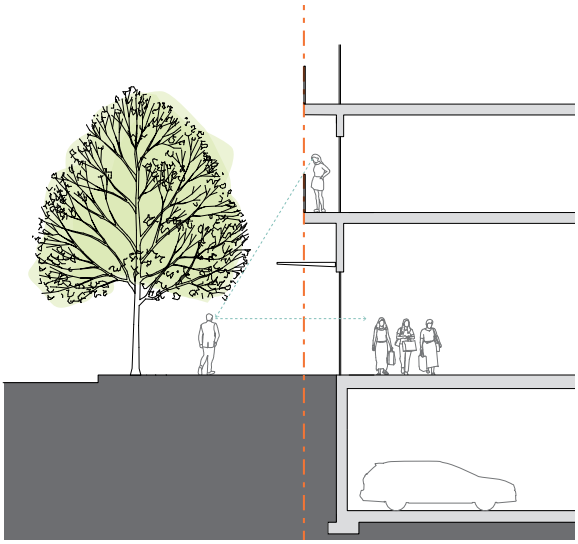
Provide infrastructure for electric vehicle charging, Source: Humber College



Parking located off of secondary street

- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.

4.1 UPTOWN
SAFETY + SECURITY



Design residential and commercial units to provide casual overlook onto public spaces

4.1.19 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

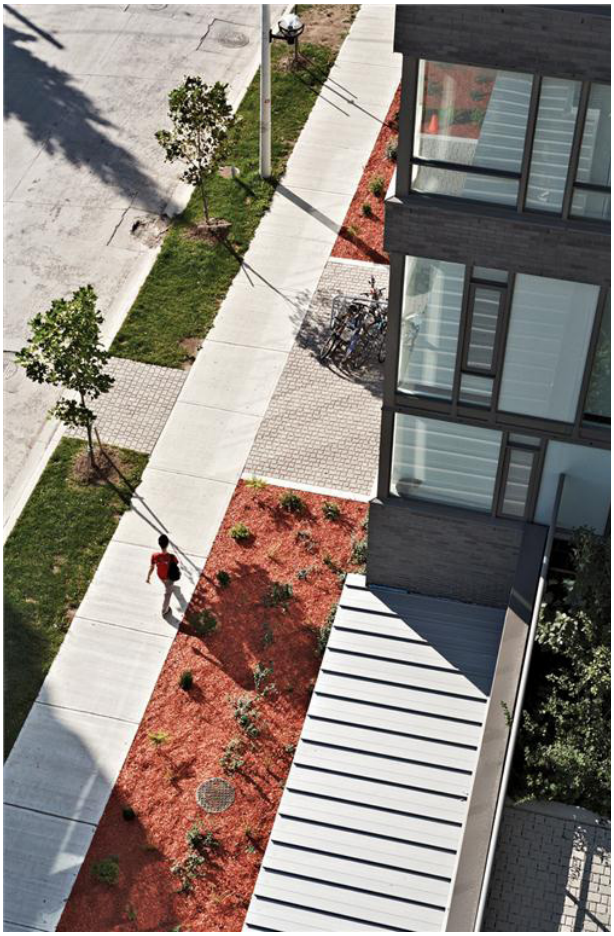
- Commercial units at grade should present active uses to the street along primary and secondary streets with ample glazing.
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- All mixed-use developments with residential units should provide directly accessible private outdoor spaces for all units. These spaces may include balconies, terraces or patios.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

4.1 UPTOWN
SAFETY + SECURITY

4.1.20 SAFETY

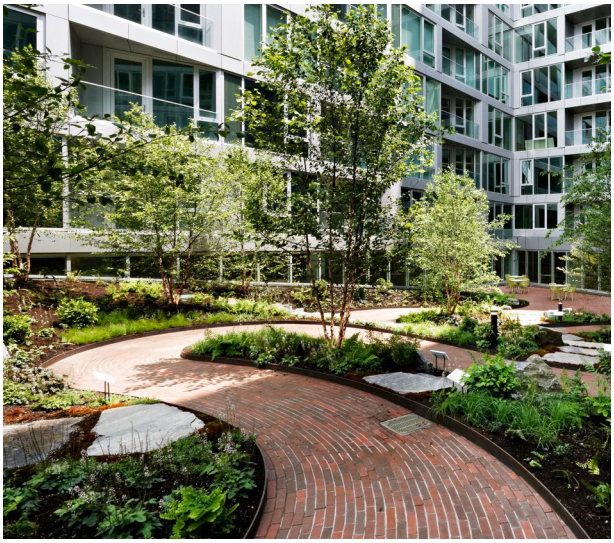
Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.



Shared open space with visual connections to and from units, Source: Canadian Architect

4.1 UPTOWN
ENVIRONMENT



Landscaping rooftops reduces urban heat island effect, can reduce heating and cooling loads and provides amenity space, Source: Kirsten Bucher

ENERGY CONSERVATION
The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

4.1.21 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

4.1 UPTOWN
ENVIRONMENT

4.1.22 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- Separate storage space for all commercial units that is well located, adequately sized and properly ventilated should be provided.
- The garbage/recycling/compost facility should be located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Trees and other landscape elements can be used to screen noise, Source: PWL Partnership

4.1.23 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

4.1 UPTOWN
HERITAGE + SIGNAGE

4.1.24 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.



Residential and commercial signage, Source: Westbrook Properties

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

4.1.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

4.2
EIGHTH AVENUE & McBRIDE BLVD

INTRODUCTION

The Eighth Avenue and McBride Boulevard Mixed Use Node, identified as Development Permit Area 4.2 [See Map 4.0], is designated in order to facilitate new commercial and mixed use development.

The area around Eighth Avenue and McBride Boulevard is an important commercial node for the city that is well serviced by regional transportation routes. McBride Boulevard provides an important connection from Surrey to Burnaby, while Eighth Avenue is a major east-west connection that links New Westminster to Highway 1. The commercial developments in this area provide important amenities to local residents as well as regional drive-by traffic. Community spaces, such as the Canada Games Pool, Centennial Community Centre, Glenbrook Middle School and Queen's Park are within walking distance of the Eighth and McBride node. While there are many trails and access routes for pedestrians and cyclists in the area, it is a predominantly auto-oriented node. New development should aim to prioritize walking and cycling by creating more human scale streets and neighbourhood connections.

This area is designated as a Development Permit Area with the following purposes:

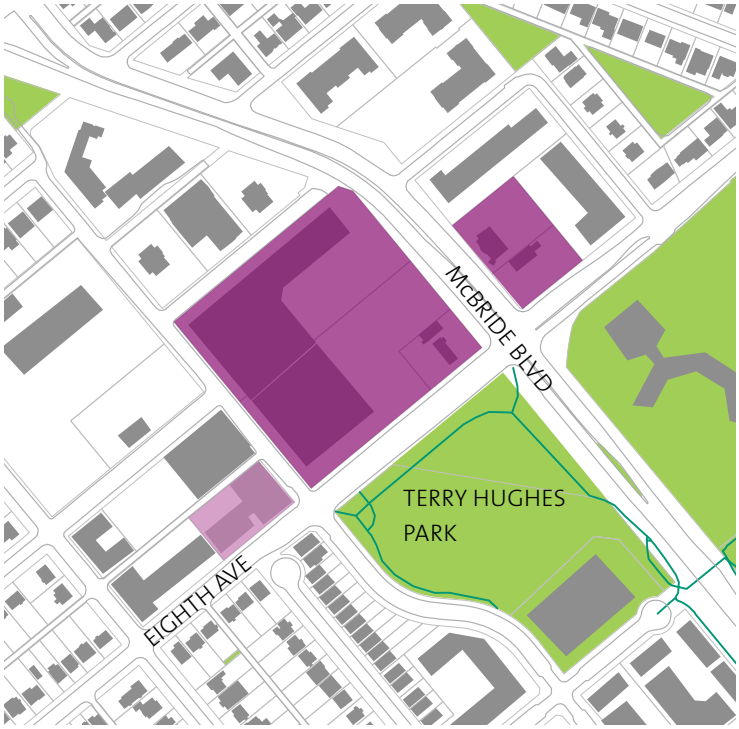
- establishment of objectives for the form and character of commercial, mixed use, and multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

OPPORTUNITIES

Eighth and McBride has the opportunity to become an important mixed-use node that is well connected via vehicular and public transit routes to downtown New Westminster and adjacent municipalities.

Large auto-oriented commercial developments with extensive surface parking lots, such as the Royal Mall site, serve as excellent opportunities for mid to high rise mixed use development. New development of these sites should seek to integrate residential and commercial uses to break down the scale of the block, create a more pedestrian friendly environment and enhance livability.

Similarly, sites adjacent to larger scale redevelopments serve to benefit from increased amenities and vibrancy associated with residential density. These adjacent sites should aim to create an appropriate transition in scale and use to the surrounding neighbourhood, while still encouraging pedestrian connections and ground oriented housing typologies where appropriate.



Mixed Use - Low-Rise Buildings

Mixed Use - High-Rise Buildings

Greenway/Trail

Park/Open Space/Community Facility

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
OPPORTUNITIES

Through integrating a greater mix of uses into this node and enhancing transit connectivity, it has the potential to be both a regional and neighbourhood destination that will provide jobs, housing and retail opportunities. Existing retail uses could be expanded to create a more community-oriented, walkable commercial node.

GATEWAYS AND ARRIVAL POINTS

The intersection of Eighth Avenue and McBride Boulevard is an important node and arrival point for the City of New Westminster. New development around this intersection should aim to enhance this sense of arrival by creating appropriately scaled buildings that create a gateway to the city and utilize public realm connections to link the surrounding community to this node.

- Integrate high-density residential with local and regional serving retail at grade.
- Create internal connections through the Royal Square Mall site to connect the surrounding community to retail and services.
- Street activation should focus on any internal connections through the site, Eighth Avenue and creating a more welcoming interface on side streets.
- Taller building masses should be set back from the intersection and surrounding residential developments, and oriented so as not to overshadow public spaces.
- Public spaces should be lined with active frontages, encouraging visual and physical permeability between indoor and outdoor uses (i.e. cafes, restaurants, small-scale retail). Avoid banks, medical offices and non-retail uses on the primary public space fronting spaces.
- Use appropriately scaled street wall heights to frame and enclose public spaces but not overwhelm them.



Pedestrian connections through a development, Source: Unknown



Eighth and McBride as an important arrival point

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
NEIGHBOURHOOD INTERFACE



Commercial frontage along street and internal retail high street, Source: Perkins+Will

4.2.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to the street front and any internal pedestrian connections to enhance a vibrant and safe public realm. Buildings must present an active face to the street in addition to any internal high street conditions.
- Active commercial frontages should be prioritized for Eighth Avenue, commercial streets and any internal public connections. Frontages close to the intersection of Eighth and McBride should seek to create visual interest at the corner, but commercial frontages north along McBride are not the priority.
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- Where new development faces existing residential areas, ensure residential uses or pedestrian oriented commercial at ground level.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width for commercial streets, and 35% - 20% for wider boulevards, squares or plazas). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Towers should maintain a minimum distant of 27.4m (90') between and be shaped to minimize overlook and overshadowing. New projects must demonstrate how it accounts for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Towers must be located and oriented strategically to minimize impact on the privacy of neighbouring building units.
- Towers should be set back from the street wall, but be located so the lobby of the tower creates relief in the massing and engages the street.

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
NEIGHBOURHOOD INTERFACE

4.2.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.

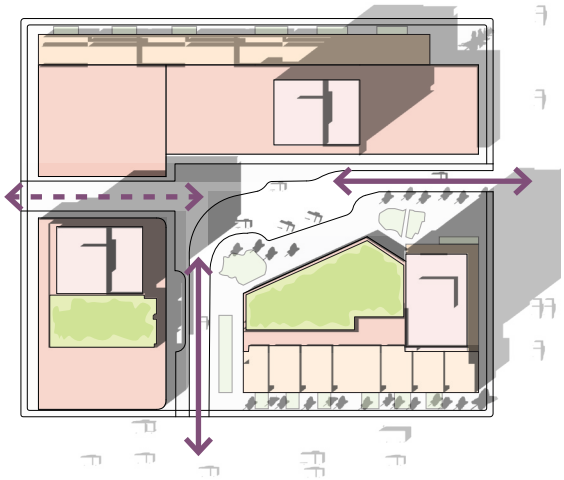
4.2.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate enhancements such as the provision of bike lanes.
- Building edges with residential at grade should be set back by a minimum of 3.0m (9'10") and a maximum of 4.0m (13'2") to provide private space for at-grade residential units.



Locate towers strategically to optimize views and daylight, Source: Westbank



Create connections through larger blocks to connect to the surrounding community

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
NEIGHBOURHOOD INTERFACE

- Podiums should generally be between three to four storeys, with a maximum of six storeys being appropriate in limited circumstances where density fits with the context.
- Rear lot setbacks are intended to provide privacy and open space for residents and reduce overlook. The setbacks are dependent on building form, building density, use on the adjacent lot and presence of a lane.
- Towers should have a maximum floorplate area of 750m² (8,073 sq.ft.) per floor. If possible, limit tower width to 24m (78'9").
- Towers should vary in heights to create transition to lower scale buildings, maximize daylighting, reduce issues with wind and maintain views. A minimum variation of five storeys is generally required in order to be perceived at street level.
- Towers or taller masses should be set back from the street wall a minimum of 3m (9'10")



Tower set back from the street to avoid overshadowing, Source: Wesgroup

4.2.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.
- When multiple tall buildings (over six storeys) are considered for a site, they should be spaced diagonally to avoid direct lines of sight into each other and maintain equitable access to views and daylighting.

4.2.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

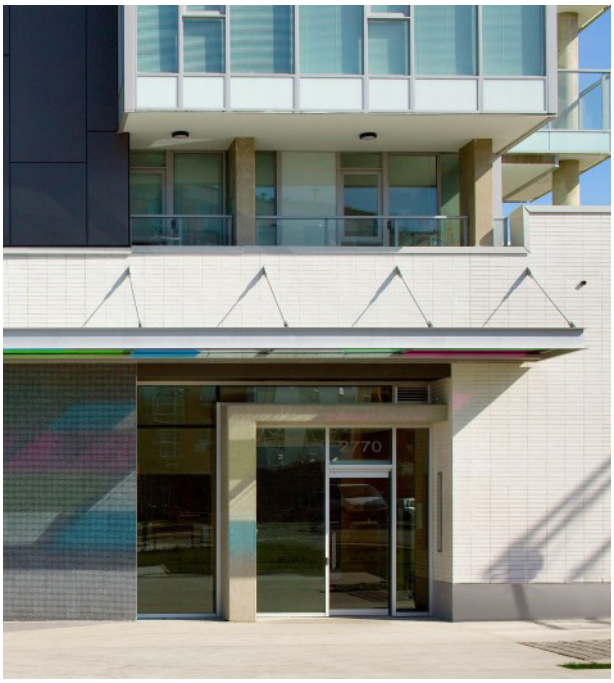
- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.

- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

4.2.6 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent entrances into commercial frontages facing the street should be provided to create a pedestrian scale frontage. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- Commercial and residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Apartment lobbies and main entrances should be well defined and clearly visible from the street with direct sightlines. When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Buildings should activate secondary streets and lanes by incorporating ground floor residential units with individual primary entrances.
- Ground floor residential units should be elevated slightly to create privacy and a transition zone from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.



Residential lobby entrance, Source: Acton Ostry Architects

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
BUILDING DESIGN



Large commercial use lined with smaller CRUs, Source: Oberfeld Snowcap

4.2.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public or internal streets, pedestrian pathways, parks or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Large format commercial buildings with compatible uses should incorporate smaller shops wrapped around outside edges to better integrate their uses and make them more compatible with the desired pedestrian scale and vibrant character of Eighth and McBride.
- Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.
- Continuous weather protection should be provided along commercial building frontages which border sidewalks and prominent occupied open space.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
BUILDING DESIGN

4.2.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of Eighth and McBride. Wood, stone, metal panel and standing seam metal cladding are preferred cladding materials, while composite or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Use a cohesive palette of materials and colours, Source: Perkins+Will

4.2.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm and to avoid views from adjacent residential units.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Use ample glazing at grade to create connections with the streetscape, Source: David Baker Architects

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
BUILDING DESIGN



Balconies provide overlook onto public spaces, Source: Unknown

4.2.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
BUILDING DESIGN

4.2.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Create accessible landscaped rooftops for residents, Source: Homes&Property

4.2.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'1").
- Weather protection should be provided along commercial building frontages facing primary and secondary streets. Weather protection may include natural features such as trees on landscaping, or high-quality architectural elements such as canopies, colonnades, overhangs or pergolas.
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.



Continuous weather protection provided along commercial façades, Source: Perkins+Will

BUILDING DESIGN



Ensure all new public and semi-public walkways and open spaces are well-lit, Source: Pinterest

- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

4.2.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Shielded down lighting that provides security, ambient lighting and enhances architectural and landscape details but minimizes light pollution should be provided.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential units.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
OPEN SPACE + LANDSCAPE



Integrate trees with other open space elements, Source: PFS Studio

4.2.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.



Trees add to the pedestrian scale of internal streets, Source: Edmund Sumner

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD

OPEN SPACE + LANDSCAPE



Capitalize on opportunities to collect rainwater and create landscape features, Source: Dan Toulgoet

- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
OPEN SPACE + LANDSCAPE

4.2.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.



All new developments must integrate trees and landscaping, Source: Perkins+Will



Shared outdoor space with seating, Source: Weinstein A+U

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
OPEN SPACE + LANDSCAPE



Outdoor seating can be used to animate spaces around new developments, Source: Pinterest

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

4.2.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- New developments adjacent to bus stops should provide benches or areas for seating and ensure that sufficient space is provided between the bus stop and built elements within the property line.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
ACCESS + PARKING



Shared use internal street, Source: Holst Architecture

4.2.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

4.2.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD

ACCESS + PARKING



Parking entrance integrated into building mass, Source: Perkins+Will

- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

[BYLAW NO. 8151, 2019]

4.2.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

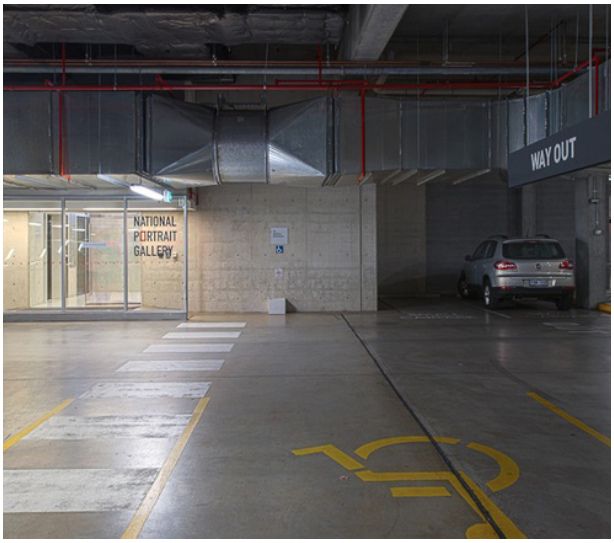
- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
ACCESS + PARKING

- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- Secure and separate parking for residential and commercial activities should be provided where both share a parking structure.
- Underground parking for commercial uses should be easily accessible, well signed and convenient for customers. Designated preferred parking spaces for green vehicles, such as electric vehicles, hybrids or carpools should be provided in commercial areas.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.



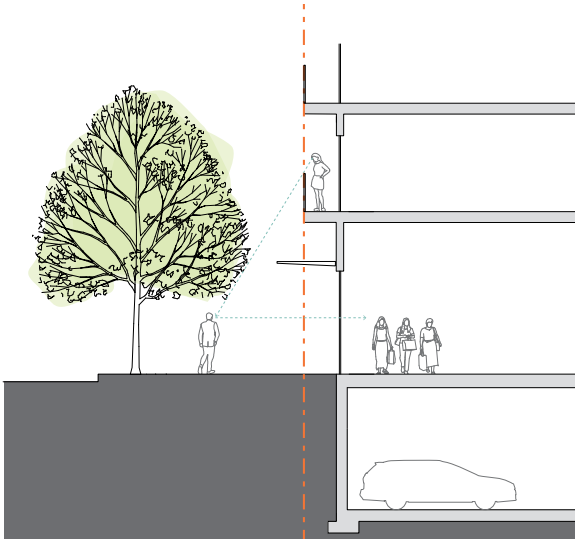
Locate accessible parking close to entrances, Source: Enable Canberra



Provide infrastructure for electric vehicles, Source: Humber College

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD

ACCESS + PARKING



Design residential and commercial units to provide casual overlook onto public spaces

4.2.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- Commercial units at grade should present active uses to the street along primary and secondary streets with ample glazing.
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- Residential façades should incorporate a high amount of transparency at street level. Where patios are located along the street front, they should be elevated slightly or may be screened with landscaping elements to provide a degree of privacy while still allowing street surveillance.
- All mixed-use developments with residential units should provide directly accessible private outdoor spaces for all units. These spaces may include balconies, terraces or patios.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD

SAFETY + SECURITY



Ensure internal pedestrian streets are well-lit and have ample transparency, Source: Perkins+Will

4.2.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD

SAFETY + SECURITY



Provide exterior shading elements such as fins or louvres, Source: VincentTimber.co.uk

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

4.2.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
ENVIRONMENT

4.2.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- A separate storage space for all commercial units that is well located, adequately sized and properly ventilated should be provided.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Ensure recycling, compost and waste facilities are accessible and identifiable, Source: Melanie Bland

4.2.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings adjacent to truck routes or train tracks must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

4.2 EIGHTH AVENUE & McBRIDE BOULEVARD
HERITAGE + SIGNAGE

4.2.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.



Ensure signage is clear and visible from roadways and sidewalks, Source: Westbank

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

4.2.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

4.3
BRAID ST & BRUNETTE AVE

INTRODUCTION

The Braid Street and Brunette Avenue Mixed Use Node, identified as Development Permit Area 4.3 [See Map 4.0], is designated to provide opportunities for mixed use high density development in close proximity to Sapperton Green and Braid SkyTrain Station. The development of this area offers opportunities for providing employment-generating uses, community amenities, and multi-unit residential within close proximity to transit while promoting high-quality urban design.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, mixed use, and multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

Applications to develop properties located within this Development Permit Area for commercial or industrial uses, in accordance with existing zoning, must instead comply with the guidelines included in the Brunette Avenue Employment Lands Development Permit Area.



Mixed Use - High-Rise Buildings

Greenway/Trail

4.3 BRAID STREET & BRUNETTE AVENUE
OPPORTUNITIES

OPPORTUNITIES

Eighth and McBride has the opportunity to become an important mixed-use node that is well connected via vehicular and public transit routes to downtown New Westminster and adjacent municipalities.

Large auto-oriented commercial developments with extensive surface parking lots, such as the Royal Mall site, serve as excellent opportunities for mid to high rise mixed use development. New development of these sites should seek to integrate residential and commercial uses to break down the scale of the block, create a more pedestrian friendly environment and enhance livability.

Similarly, sites adjacent to larger scale redevelopments serve to benefit from increased amenities and vibrancy associated with residential density. These adjacent sites should aim to create an appropriate transition in scale and use to the surrounding neighbourhood, while still encouraging pedestrian connections and ground oriented housing typologies where appropriate.

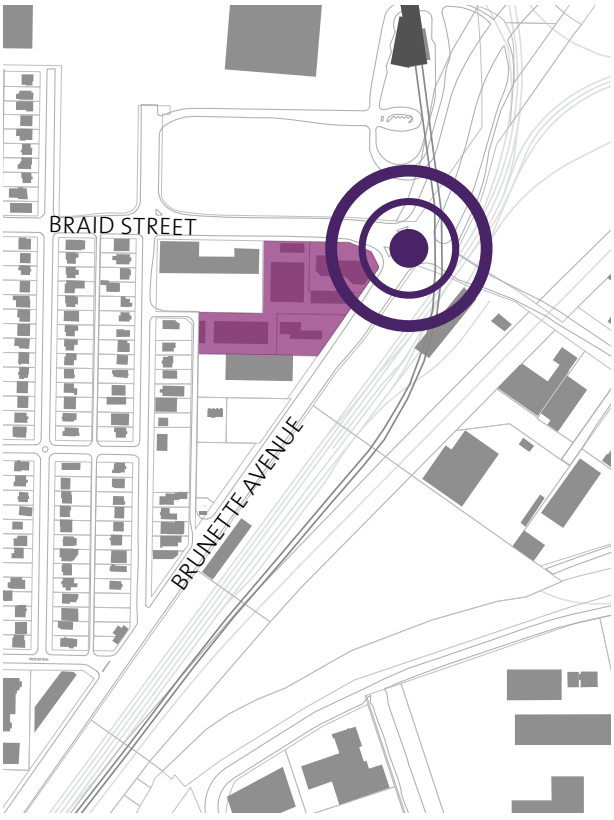
Through integrating a greater mix of uses into this node and enhancing transit connectivity, it has the potential to be both a regional and neighbourhood destination that will provide jobs, housing and retail opportunities. Existing retail uses could be expanded to create a more community-oriented, walkable commercial node.

GATEWAYS AND ARRIVAL POINTS

Located adjacent to Sapperton Green and in close proximity to the Braid SkyTrain Station, the Braid and Brunette lands have a prominent position at major nexus within New Westminster. New development at this intersection should focus commercial uses to the street to create a more expressive and friendly street frontage, while locating parking strategically to minimize its visual impact. Creating safe and comfortable pedestrian walkways across the site, as well as creating enhanced pedestrian connectivity from this area to the SkyTrain should explored.



Pedestrian connections through a development, Source: Unknown



Eighth and McBride as an important arrival point

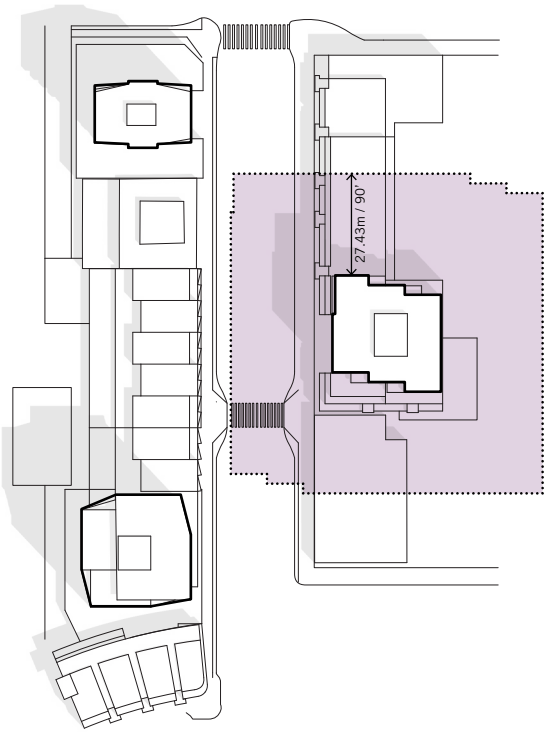
4.3 BRAID STREET & BRUNETTE AVENUE
NEIGHBOURHOOD INTERFACE

4.3.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to the street front and any internal pedestrian connections to enhance a vibrant and safe public realm. Buildings must present an active face to the street in addition to any internal high street conditions.
- Active commercial frontages should be prioritized for Braid Street and any internal public connections. Frontages close to the intersection of Braid and Brunette should seek to create visual interest at the corner, but commercial frontages along Brunette are not the priority.
- Buildings should be designed to respond to specific site conditions and opportunities, including: the prominent intersection, unique block structure, natural features, prominent open spaces and views.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width for commercial streets, and 35% - 20% for wider boulevards, squares or plazas). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Towers should maintain a minimum distant of 27.4m (90') between and be shaped to minimize overlook and overshadowing. New projects must demonstrate how it accounts for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Towers must be located and oriented strategically to minimize impact on the privacy of neighbouring building units.
- Towers should be set back from the street wall, but be located so the lobby of the tower creates relief in the massing and engages the street.

Development within 10m of the SkyTrain guideway and within 25m of a SkyTrain station should follow TransLink's Adjacent and Integrated Development (AID) project consent process.



Ensure towers maintain a minimum 27m (90') separation.

HOUSING

The City of New Westminster is committed to the development and maintenance of safe, affordable housing through policies, plans and programs. A variety of ground oriented housing forms, tenures and unit sizes, and affordable housing for different ages, incomes, family types and abilities is encouraged to support diverse, intergenerational neighbourhoods.

4.3 BRAID STREET & BRUNETTE AVENUE
NEIGHBOURHOOD INTERFACE

4.3.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing and future context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.

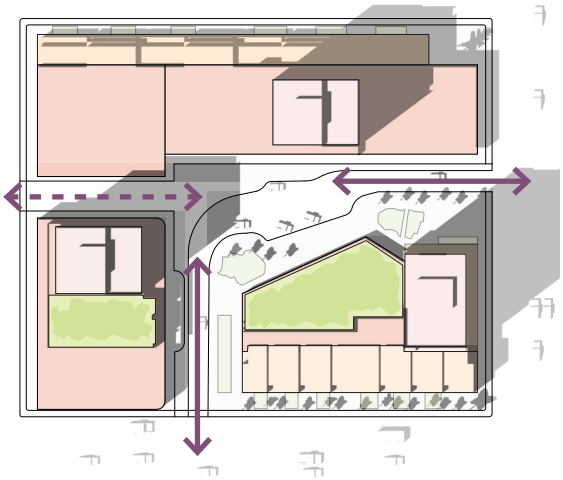


Locate towers strategically to optimize views and daylight. Source: Westbank

4.3.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing and future context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from property lines to enhance public realm while maintaining a consistent street definition. The setbacks should provide adequate sidewalk width, space for public realm enhancements such or space to accommodate enhancements such as the provision of bike lanes.
- Podiums should generally be between three to four storeys, with a maximum of six storeys being appropriate in limited circumstances where density fits with the context.



Create connections through larger blocks to connect to the surrounding area.

4.3 BRAID STREET & BRUNETTE AVENUE
NEIGHBOURHOOD INTERFACE

- Towers should have a maximum floorplate area of 750m^2 (8,073 sq.ft.) per floor. If possible, limit tower width to 24m (78'9").
- Towers should vary in heights to create transition to lower scale buildings, maximize daylighting, reduce issues with wind and maintain views. A minimum variation of five storeys is generally required in order to be perceived at street level.
- Towers or taller masses should be set back from the street wall a minimum of 3m (9'10")

4.3.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing neighbouring buildings, private open spaces and public spaces,
  - Orienting windows and entrances to Braid Street and internal street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.
- When multiple tall buildings (over six storeys) are considered for a site, they should be spaced diagonally to avoid direct lines of sight into each other and maintain equitable access to views and daylighting.



Tower set back from the street to avoid overshadowing, Source: Wesgroup

4.3.5 VENTILATION

Intent: Buildings must be designed to maximize natural light and ventilation for all residential units while considering any microclimates which may impact the building.

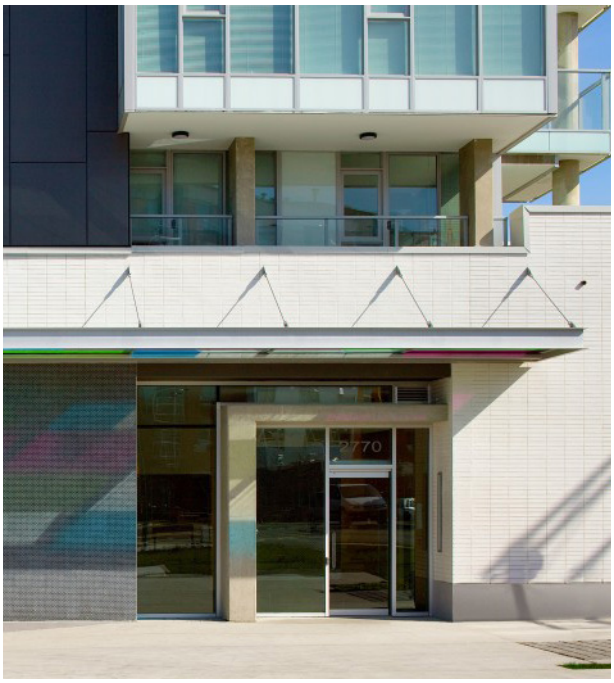
- Massing of buildings should promote as many units as possible having exterior walls with windows on two sides.
- Internal units should be configured using a wide window-wall to shallow room depth ratio that ensures ample daylight penetrates to the rear of the unit.
- Buildings should be organized internally so that wherever possible, primary living spaces (living room, kitchen, family room) have exterior walls with windows on two sides to encourage natural ventilation and daylighting.
- Use stack vents and light wells to provide additional light and ventilation to primary and secondary living spaces, when appropriate.
- Ventilation for underground parking and garbage/ recycling rooms should not vent onto public sidewalks or adjacent to residential units.

4.3 BRAID STREET & BRUNETTE AVENUE
BUILDING DESIGN

4.3.6 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent entrances into commercial frontages facing the street should be provided to create a pedestrian scale frontage. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- Commercial and residential entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Apartment lobbies and main entrances should be well defined and clearly visible from the street with direct sightlines. When possible, apartment lobbies should have multiple access points to increase connectivity and building access. When multiple entries are created, ensure the primary entry is clearly identifiable from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.



Residential lobby entrance, Source: Acton Ostry Architects

4.3 BRAID STREET & BRUNETTE AVENUE
BUILDING DESIGN



Large commercial use lined with smaller CRUs, Source: Oberfeld Snowcap

4.3.7 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public or internal streets, pedestrian pathways or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Large format commercial buildings with compatible uses should incorporate smaller shops wrapped around outside edges to better integrate their uses and make them more compatible with the desired pedestrian scale and vibrant character of Braid and Brunette.
- Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art.
- Continuous weather protection should be provided along commercial building frontages which border sidewalks and prominent occupied open space.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.

4.3 BRAID STREET & BRUNETTE AVENUE
BUILDING DESIGN

4.3.8 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of Braid and Brunette. Wood, stone, metal panel and standing seam metal cladding are preferred cladding materials, while composite or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Use a cohesive palette of materials and colours, Source: Perkins+Will

4.3.9 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain and ensuring occupant privacy.

- Windows should be located to maximize connections with the public realm and to avoid views from adjacent residential units.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Use ample glazing at grade to create connections with the streetscape, Source: David Baker Architects

4.3 BRAID STREET & BRUNETTE AVENUE
BUILDING DESIGN



Balconies provide overlook onto semi-private spaces, Source: Unknown

4.3.10 BALCONIES

Intent: Balconies must be designed to enhance the layout of internal units, avoid overlook into adjacent units or buildings and provide visual connections to the surrounding public realm.

- A strong relationship should be created between the private and public realm by locating balconies and patios facing onto semi-private or public outdoor spaces.
- Patios and balconies should have direct connections to primary indoor living spaces wherever possible.
- Balconies should be integrated into the building mass or located below other balconies in order to have adequate weather protection.
- Railings and structure for balconies should enhance transparency and use minimal structure as not to obstruct views. The use of more opaque railing components (fritted or coloured glass, screening elements etc.) may be considered if privacy from neighbouring properties is an issue.
- Courtyard spaces should be provided when possible to create private or semi-private access to the outdoors. These semi-private outdoor spaces should be sited to act as a buffer between public spaces, and residential spaces.

4.3 BRAID STREET & BRUNETTE AVENUE
BUILDING DESIGN

4.3.11 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.



Create accessible landscaped rooftops for residents, Source: Homes&Property

4.3.12 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'1").
- Weather protection should be provided along commercial building frontages facing primary and secondary streets. Weather protection may include natural features such as trees on landscaping, or high-quality architectural elements such as canopies, colonnades, overhangs or pergolas.
- Weather protection should be provided over all residential entries, including those for main lobbies and individual units accessible at grade. This may take the form of overhangs, recesses, awnings, or canopies.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.



Continuous weather protection provided along commercial façades, Source: Perkins+Will



Ensure all new public and semi-public walkways and open spaces are well-lit, Source: Pinterest

- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).

4.3.13 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Shielded down lighting that provides security, ambient lighting and enhances architectural and landscape details but minimizes light pollution should be provided.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential units.

4.3 BRAID STREET & BRUNETTE AVENUE
OPEN SPACE + LANDSCAPE

4.3.14 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.



Trees add to the pedestrian scale of internal streets, Source: Edmund Sumner

4.3 BRAID STREET & BRUNETTE AVENUE

OPEN SPACE + LANDSCAPE



Capitalize on opportunities to collect rainwater and create landscape features, Source: Dan Toulgoet

- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Communal gardens and private balcony or roof gardens are encouraged to provide residents with space to grow food and interact with each other. Edible decorative landscaping is also encouraged.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

4.3 BRAID STREET & BRUNETTE AVENUE
OPEN SPACE + LANDSCAPE

4.3.15 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building residents, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Balconies for above grade units and patios for ground oriented units should be provided.
- Semi-private outdoor common space for use by all residents should be provided. Orient private patios and entries around the semi-private common space to facilitate neighbourly interactions and provide overlook for children as they play.
- Roofs should be designed to provide usable outdoor space for building residents.
- Where units front onto public streets and/or city trails or greenways, the private outdoor space should be used to create a clear transition between public and private space. Design this area to be spatially well-defined and visible from the street or walkway (e.g. elevate slightly, enclose with low hedges or an open-railing fence).
- Outdoor common spaces should be designed to be programmable for inter-generational activities and uses. This might include benches or tables, a playground suitable for a variety of ages that is visible from residential units, landscaping and/or shared patio spaces.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.



All new developments must integrate trees and landscaping, Source: Perkins+Will



Shared outdoor space with seating, Source: Weinstein A+U

4.3 BRAID STREET & BRUNETTE AVENUE

OPEN SPACE + LANDSCAPE



Plaza integrated with new development, Source: Hapa Collaborative

PUBLIC ART POLICY

The City of New Westminster has a Public Art Policy which lays out the foundation for creating a dynamic and engaging Public Art Program. The Policy aims to create a distinctive visual expression in the urban landscape and the public realm. The specific goals are to increase foot traffic on the street, animate New Westminster's historic downtown and draw attention to New Westminster as a vital municipality which promotes arts, culture and tourism.

New development may have the opportunity to provide art in the public realm as means to animate and focus attention into a space, allow the public to interpret the meaning of space, or as a way to transform functional elements, such as benches and utility boxes, into decorative elements.

4.3.16 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Seating is an essential component of a functional and inviting open space that allows places for pause, rest and relaxation. Seating options should allow for a variety of configurations (i.e. group seating vs. individual seating), options which take advantage of both sun and shade, as well opportunities for both fixed and movable furniture.
- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- Opportunities for children to experience cognitive and imaginative play as well as active play should be provided. Playscapes should encourage a range of activities and uses for children of all ages, as well as provide a balance between natural and built elements. These spaces should be strategically located to encourage casual supervision from adjacent residential units.
- Amenities should be designed and located to ensure that open spaces are not cluttered and pedestrian circulation is unobstructed.
- Amenities should be of a high quality and made of durable materials to minimize maintenance.
- Amenities should be provided for pets, in particular places for dog exercise and relief. Consider dogs when designing turf areas (grass sod can be trampled by frequent dog use) and drainage (granular material in planters can help).

4.3 BRAID STREET & BRUNETTE AVENUE
ACCESS + PARKING



Shared use internal street, Source: Holst Architecture

4.3.17 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.
- Where steps or a grade separation that creates a private outdoor space are provided, a secondary entrance that meets accessibility requirements should also be provided from a rear corridor or a rear yard.

4.3.18 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.

4.3 BRAID STREET & BRUNETTE AVENUE

ACCESS + PARKING



Parking entrance integrated into building mass, Source: Perkins+Will

- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

[BYLAW NO. 8151, 2019]

4.3.19 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing

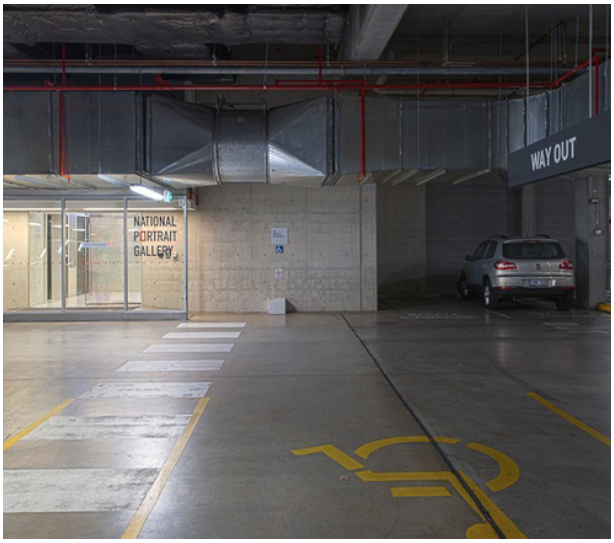
4.3 BRAID STREET & BRUNETTE AVENUE
ACCESS + PARKING

pedestrian or vehicular movement and creating CPTED issues.

- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street.
- Secure and separate parking for residential and commercial activities should be provided where both share a parking structure.
- Underground parking for commercial uses should be easily accessible, well signed and convenient for customers. Designated preferred parking spaces for green vehicles, such as electric vehicles, hybrids or carpools should be provided in commercial areas.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for residential parking spaces are required to meet electric vehicle charging provisions in the zoning bylaw. Infrastructure for electric vehicles for visitor parking should also be provided.
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.



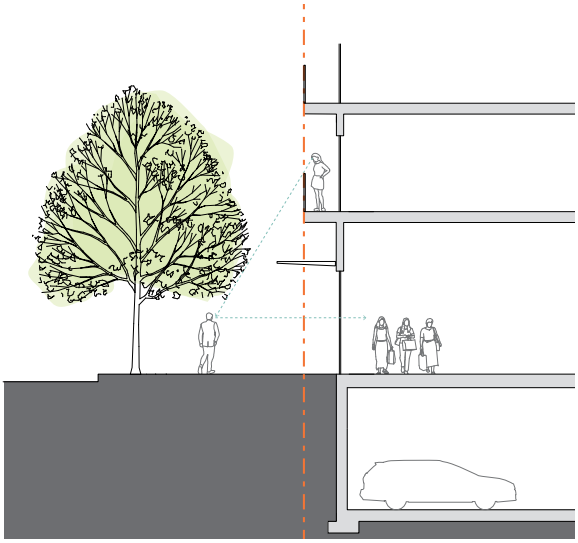
Locate accessible parking close to entrances, Source: Enable Canberra



Provide infrastructure for electric vehicles, Source: Humber College

4.3 BRAID STREET & BRUNETTE AVENUE

ACCESS + PARKING



Design residential and commercial units to provide casual overlook onto public spaces

4.3.20 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

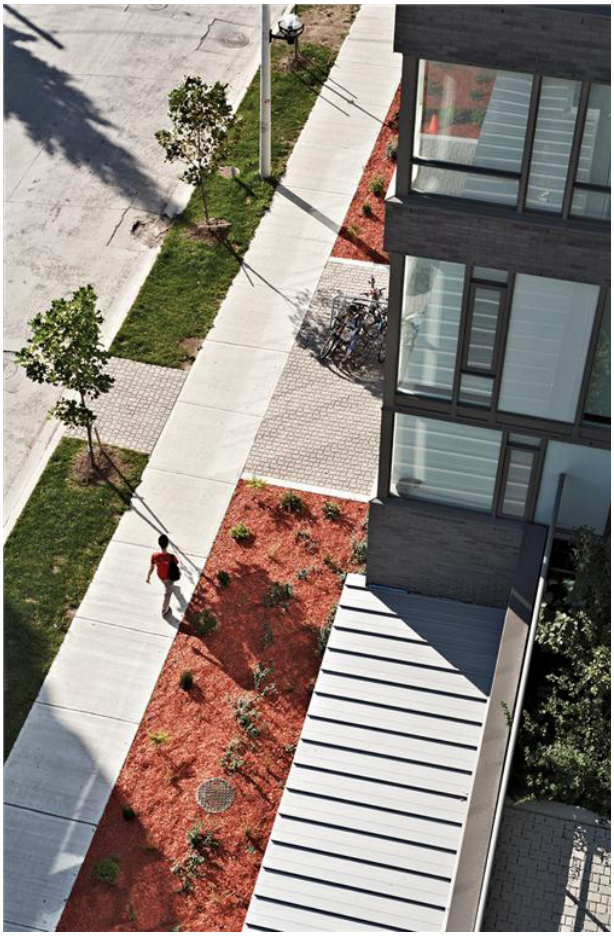
- Commercial units at grade should present active uses to the street along primary and secondary streets with ample glazing.
- The recommended building setback of 3.0m (9'10") minimum from the property line is to provide space for entrances into ground level residential units and private outdoor space for the occupants. This space can function as a porch, a patio, a deck, or a planting buffer from the street. The space should be elevated above street level slightly to provide some overlook and greater privacy for the residents.
- All mixed-use developments with residential units should provide directly accessible private outdoor spaces for all units. These spaces may include balconies, terraces or patios.
- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

4.3 BRAID STREET & BRUNETTE AVENUE
SAFETY + SECURITY

4.3.21 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets, internal streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.



Shared open space with visual connections to and from units, Source: Canadian Architect

4.3 BRAID STREET & BRUNETTE AVENUE
SAFETY + SECURITY



Provide exterior shading elements such as fins or louvres, Source: VincentTimber.co.uk

ENERGY CONSERVATION
The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

4.3.22 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

4.3 BRAID STREET & BRUNETTE AVENUE
ENVIRONMENT

4.3.23 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all residential units and/or in common areas in buildings.
- A separate storage space for all commercial units that is well located, adequately sized and properly ventilated should be provided.
- The garbage/recycling/compost facility should be well located in a secure, well designed, screened area.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Ensure recycling, compost and waste facilities are accessible and identifiable, Source: Melanie Bland

4.3.24 NOISE

Intent: Buildings are encouraged to utilize noise abatement techniques to minimize impacts from adjacent transportation activities.

- Leading edge technical approaches to noise abatement should be used in residential building construction (e.g. fresh air ventilation alternatives to open windows, acoustically rated glazing) including on balconies (e.g. sound absorption materials and/or barriers).
- Each application to develop residential dwellings must provide a report prepared by persons qualified in acoustics and noise measurement, demonstrating compliance with CMHC noise standards for habitable areas (i.e. max. 35 decibels for bedrooms, max. 40 decibels for living dining and recreation rooms, and max. 45 decibels for kitchen, bathrooms, hallways and utility rooms).

4.3 BRAID STREET & BRUNETTE AVENUE
HERITAGE + SIGNAGE

4.3.25 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.



Ensure signage is clear and visible from roadways and sidewalks, Source: Westbank

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

4.3.26 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

4.4
100 BRAID STREET

INTRODUCTION

The 100 Braid Street area, identified as Development Permit Area 4.4 [see Map 4.0], is designated to provide opportunities for mixed use high density development in close proximity to Sapperton Green and Braid SkyTrain Station. The development of this area offers opportunities for providing employment-generating uses, a school, community amenities, and multi-unit residential within close proximity to transit while promoting high-quality urban design. The specific guidelines for this area are outlined in the 100 Braid Street Design Guidelines (April 12, 2016).

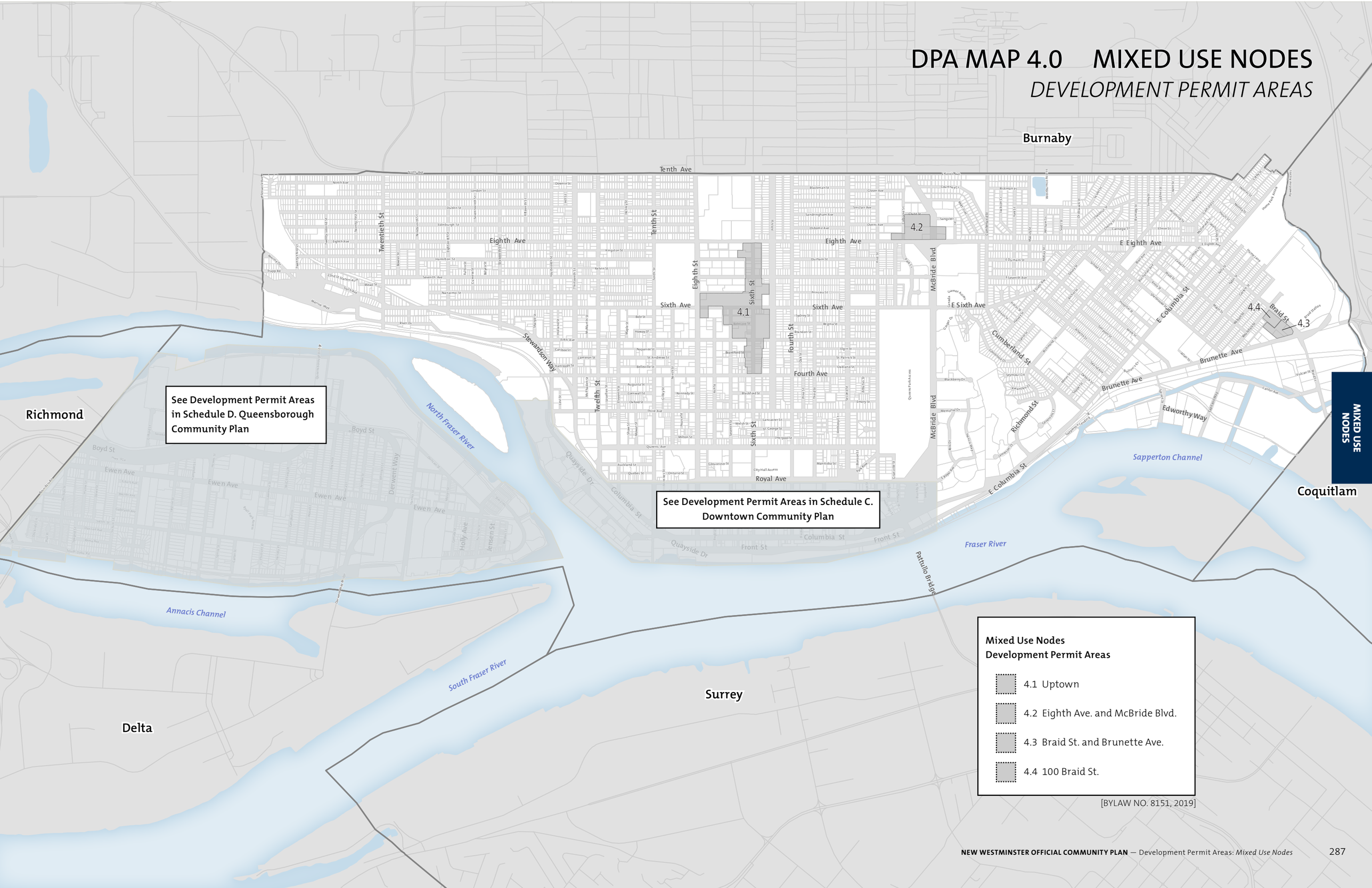
This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and mixed use development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



DPA MAP 4.0 MIXED USE NODES

DEVELOPMENT PERMIT AREAS



[BYLAW NO. 8151, 2019]

MIXED USE NODES

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5.0 MIXED USE NEIGHBOURHOODS



5.0 MIXED USE NEIGHBOURHOODS
INTRODUCTION

INTRODUCTION

There are three Development Permit Areas in this section, which are identified on Map X. Each Development Permit Area in this section focuses on large master planned areas in the city that include a variety of services, amenities, and places to live. As these master planned neighbourhoods continue to develop, they will provide important areas of growth for the city's projected residents. Some also provide important employment opportunities and will form significant clusters of activity that support the city's economic development.

Mixed Use Neighbourhoods

5.1 Victoria Hill

5.2 Sapperton Green

5.3 Brewery District

5.0 MIXED USE NEIGHBOURHOODS
INTRODUCTION

GENERAL PRINCIPLES

Mixed Use Nodes encompass a variety of characteristics that add to the vibrancy of a neighbourhood. The following list includes some general building parameters for livable, high-quality and sustainable developments in Mixed Use Nodes.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing/loading movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Creating an appropriate setback for residential units at grade that provides some privacy, but maintains the street edge is important, along with stepping taller masses back to create a consistent street wall.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single detached dwelling or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Buildings should encourage a variety of scales of commercial spaces along the street edge to increase activity along the street edge. Buildings should have two level, ground oriented, family friendly residential units with primary entries along secondary streets and lanes.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

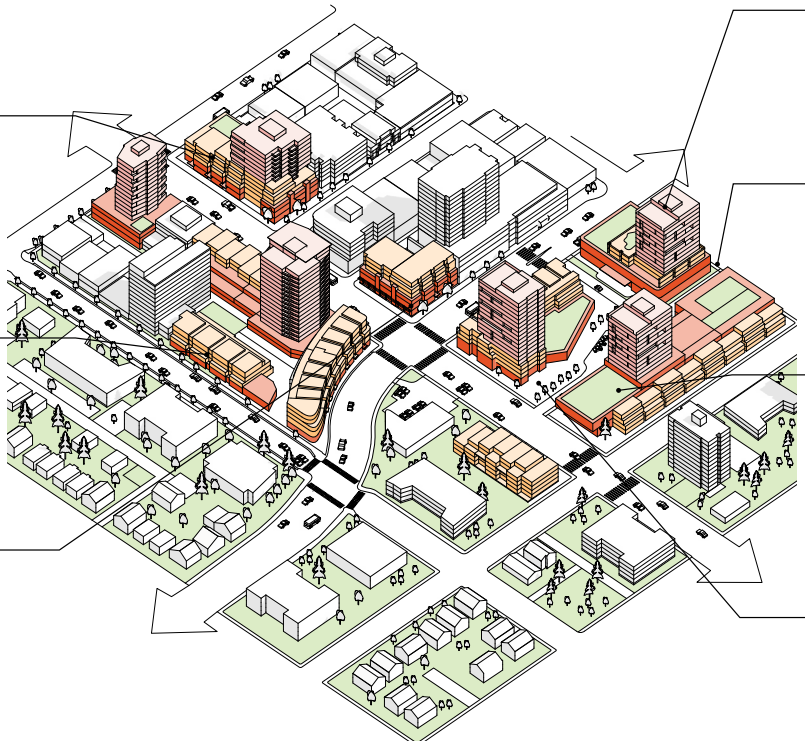
6. ENHANCE PUBLIC REALM

A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for residents and visitors. Street trees, landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new development.

7. PROMOTE SAFETY + SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

5.0 MIXED USE NEIGHBOURHOODS
INTRODUCTION



2. Design buildings to a scale that fits in with the surrounding urban context. Use setbacks and height differentiation to create variation along the street.

7. Ensure "eyes on the street" surveillance by providing residential and commercial units with casual overlook onto public spaces.

4. Ensure all building frontages on primary and secondary streets bring active uses to the street.

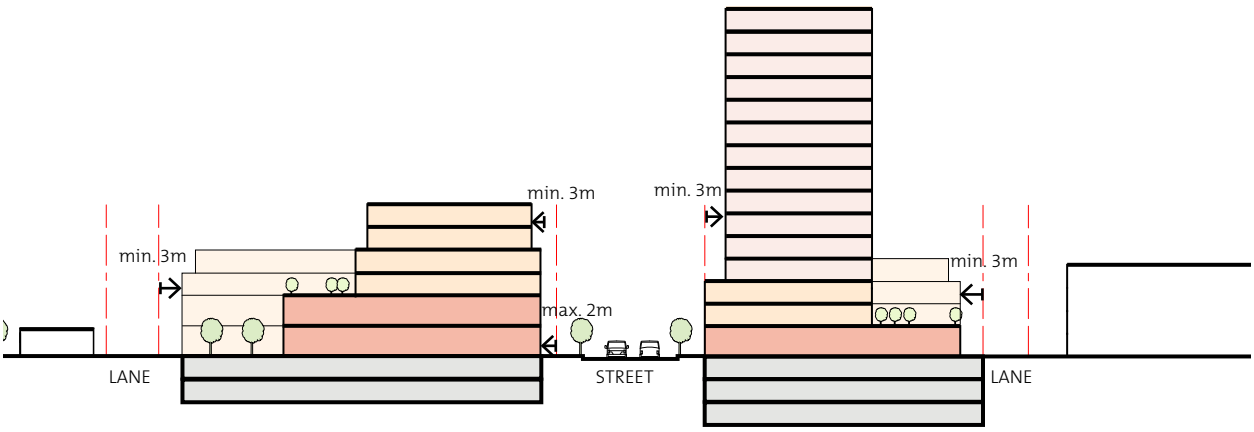
3. Locate taller masses so they do not overshadow public spaces or adjacent buildings and maintain a reasonable separation.

1. Create internal connections through larger blocks to increase connectivity and access to services and amenities.

5. Create opportunities for habitat and biodiversity enhancement by integrating landscaped areas that include natural plants (green roofs, courtyards, private outdoor spaces, pocket parks, etc).

6. Provide opportunities for large and small scale public realm enhancements, ranging from seating, landscaping and public art to pocket parks, plazas and other places for interaction.

Mixed Use Node Axonometric



Typical Section -Mixed Use Node

5.1
VICTORIA HILL

INTRODUCTION

The Victoria Hill Mixed Use Neighbourhood, identified as Development Permit Area 5.1 [See Map 5.0], is designated in order to in order to establish this area as a mixed use neighbourhood that provides a mix of housing forms, as well as commercial, employment, institutional and park spaces. This area also prioritizes the conservation of items historically significant to the community, and the preservation of the Glenbrook Ravine and significant and historic trees. New develop is expected to mitigate the impacts of the East Columbia Street and Royal Avenue development corridors. The development of this area should be well integrated with the supporting community, including surrounding parks, and preserve views to the Fraser River. Objectives and specific guidelines for this area are outlined in Woodlands Rezoning and OCP Amendment – Appendix 3 Design Guidelines (October 18, 2002).

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, mixed use, and multi-family residential development,
- protection of the natural environment, its ecosystems and biological diversity, and
- protection of development from hazardous conditions.



Residential - Multiple Unit Building
Residential - High Rise
Mixed Use - Low Rise
Mixed Use - High Rise
Greenway/Trail
School/Park/Open Space

5.2
SAPPERTON GREEN

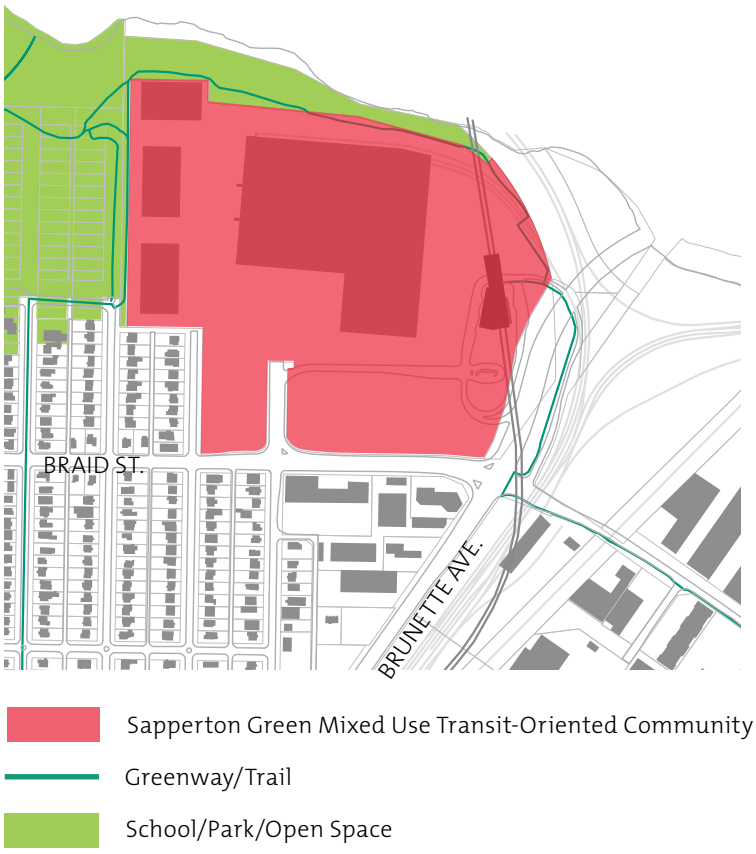
INTRODUCTION

The Sapperton Green Mixed Use Neighbourhood, identified as Development Permit Area 5.2 [See Map 5.0], is designated in order to in order to facilitate the redevelopment of a large site which offers significant opportunities to emphasize transit-orientation and the mixing of residential and employment activities on a single site, with related energy efficiencies and GHG emissions reductions, and to address water and energy conservation objectives in building and landscape design. The redevelopment also provides an opportunity to protect and enhance riparian habitat along the Brunette River and to ensure that flood protection measures for new buildings and structures meet current standards.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, mixed use, and multi-family residential development,
- 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.

Development permit guidelines in relation to these objectives will be established in City of New Westminster Zoning Bylaw when zoning regulations supporting the land use designations shown on Map 5.0 are adopted for the land in this Development Permit Area.



5.3
BREWERY DISTRICT

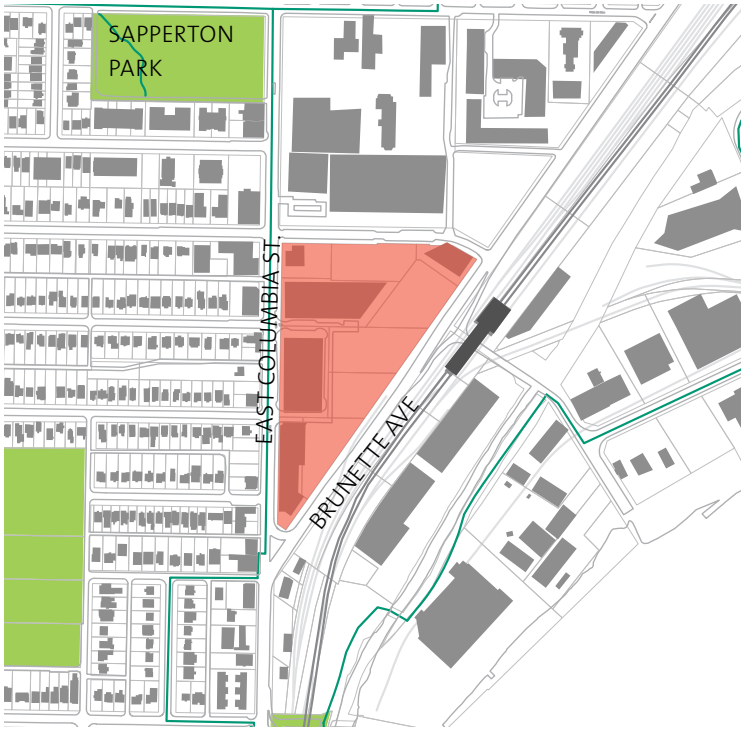
INTRODUCTION

The Brewery District Mixed Use Neighbourhood, identified as Development Permit Area 5.3 [See Map 5.0, is designated in order to facilitate orderly and sequential development of commercial, health care services, and multi-family residential development adjacent to the Sapperton SkyTrain Station.

This Development Permit Area also ensures internal cohesion in the provision of integrated design, usable and attractive internal public access, open areas, and public amenity; a balanced sequence of site development comprising commercial, health care offices and services, and residential development; and that siting external bulk and dimensions of buildings and structures and their impact on light and view-blockage and on abutting streetscapes and adjacent developments are reasonably mitigated. Objectives and specific guidelines for this area are outlined in The Village at Historic Sapperton Design Guidelines (January 2007).

This area is designated as a Development Permit Area with the following purposes:

- of objectives for the form and character of commercial, mixed use, and multi-family residential development.



Brewery District Mixed Use and Health Care

Sapperton SkyTrain Station

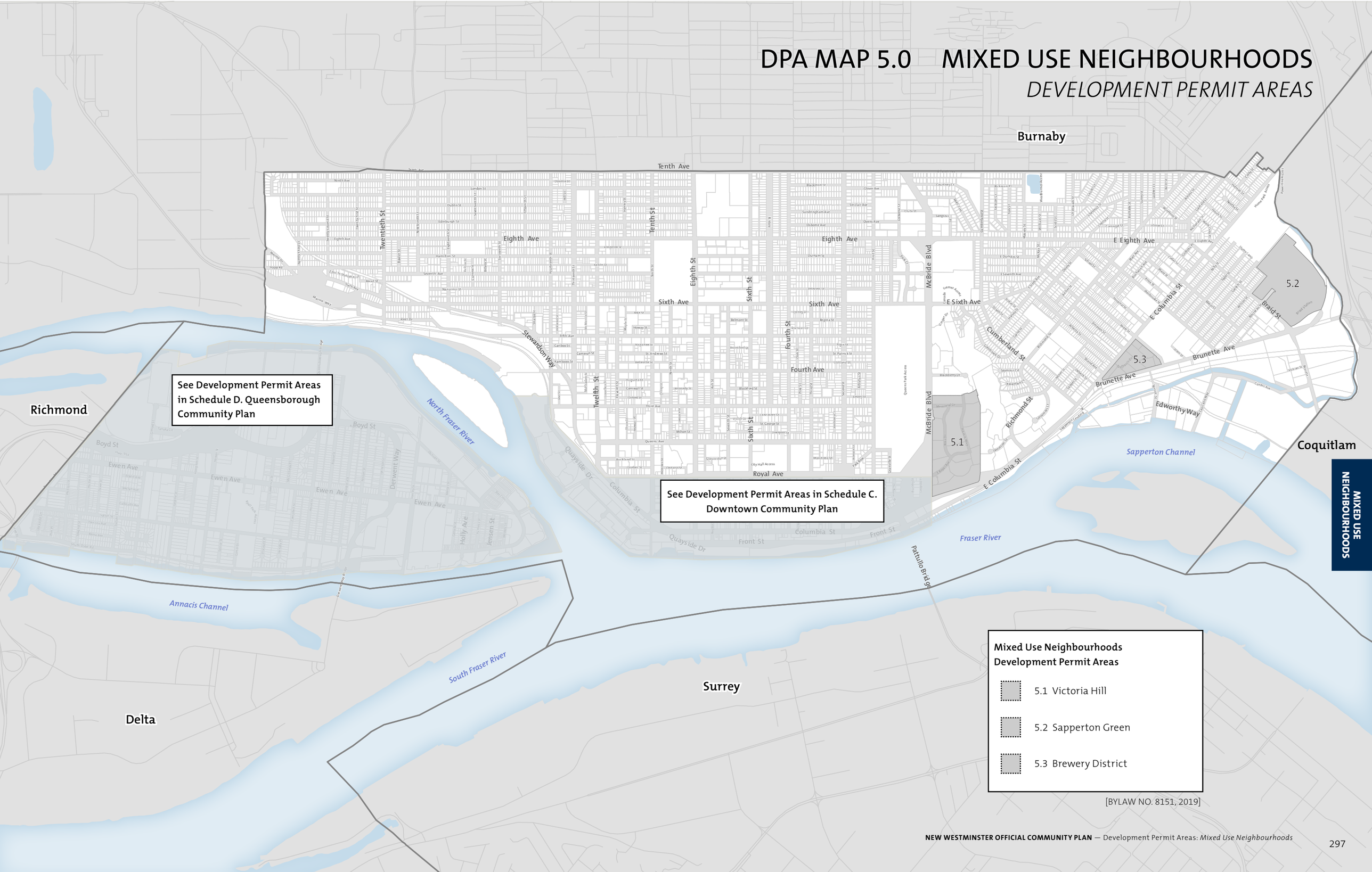
Greenway/Trail

School/Park/Open Space

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DPA MAP 5.0 MIXED USE NEIGHBOURHOODS

DEVELOPMENT PERMIT AREAS



[BYLAW NO. 8151, 2019]

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6.0
EMPLOYMENT LANDS



6.0 EMPLOYMENT LANDS
INTRODUCTION



Employment Lands in Queensborough

INTRODUCTION

There are four Development Permit Areas in this section, which are identified on Map 6.0. The commercial and industrial focused Employment Lands are a crucial component of the city's economic and urban fabric. These spaces are located close to major transportation routes, often serve auto-oriented uses and lack many of the pedestrian oriented characteristics of the other Development Permit Areas. While these areas will remain heavily trafficked and home to service and industrial and service based uses, it is important to recognize that new development can still enhance the street quality of these areas while acknowledging the auto-dominated nature of these spaces. Maintaining commercial and industrial land into the future will be a focus for these areas, while still recognizing the potential for redevelopment to create more attractive job-oriented centres.

EMPLOYMENT LANDS DEVELOPMENT PERMIT AREAS

6.1 Twentieth Street

[BYLAW NO. 8151, 2019]

6.2 Brunette

6.3 Mixed Employment

6.4 Industrial

6.5 Intertidal

EMPLOYMENT LANDS

6.0 EMPLOYMENT LANDS
INTRODUCTION

GENERAL PRINCIPLES

Employment Lands are important economic generators for the city and encompass a variety of characteristics that add to the vitality of a neighbourhood.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities, and prioritizing pedestrian and bike connections. While many of the uses in the Employment Lands rely heavily on automobile access, it is important to consider that they may provide services for the larger community that should be accessible via walking, biking or public transit. Private developments in Employment Lands areas can enhance community connectivity by ensuring pedestrian connections to the site are maintained and through designing attractive building and landscape interfaces along busy streets, side streets and laneways.

2. ESTABLISH WELL-DEFINED STREETS

Street definition is an important factor in creating a cohesive urban environment that provides interest for motorists, cyclists and pedestrians. Buildings should be designed to frame streets and large parking areas should be screened or placed behind developments to create a friendlier street edge. Commercial uses at grade should maintain the street edge and engage with the public realm when possible.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a livable environment for neighbourhood residents. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context and use in mind and create sensitive transitions to neighbouring developments, provide a buffer for noise or visual

4. ACTIVATE BUILDING FRONTAGES

Employment Lands are located in high-visibility areas, and as such buildings should provide an active street frontage to create visual interest and enhance safety. Commercial and industrial units at grade should have entries along the primary rights-of-ways fronting the building, appropriate transparency, weather protection and when possible provide public realm enhancements.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, and pocket parks can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

6. ENHANCE PUBLIC REALM

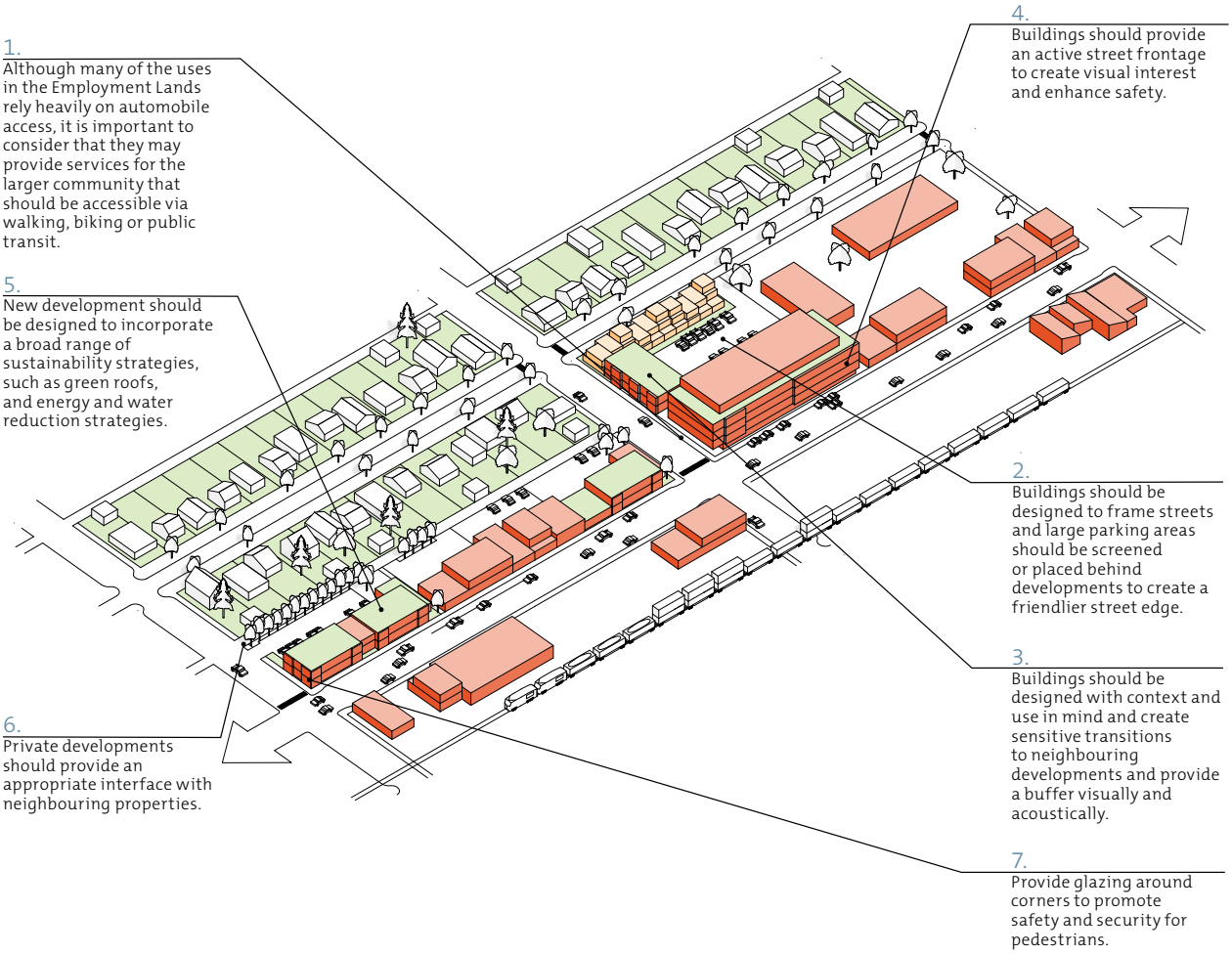
Private development should enhance the public realm of the neighbourhood to create a vibrant and comfortable space for employees and visitors. Street trees and landscaping, street furniture, weather protection, lighting features and public art are all important public realm components that can be integrated into new developments.

7. PROMOTE SAFETY + SECURITY

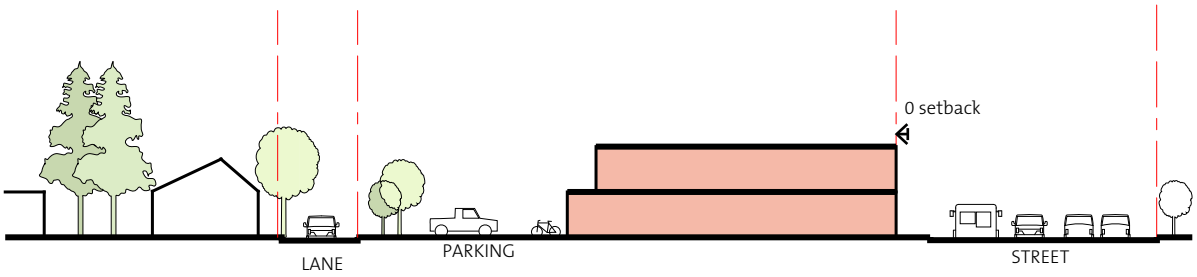
A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

6.0 EMPLOYMENT LANDS

INTRODUCTION



Employment Lands Axonometric



Typical Section -Employment Lands

6.1
TWENTIETH STREET

INTRODUCTION

The Twentieth Street Employment Lands, identified as Development Permit Area 6.1 [See Map 6.0], is designated in order to facilitate commercial development that serves the local residents and benefits from the drive-by traffic on Twentieth Street.

Twentieth Street is an important connector street running north-south connecting Connaught Heights and the West End that also links New Westminster to Burnaby, Richmond and Delta. It is a high-traffic street characterized by a strip of commercial uses on the west side of Twentieth Street. The commercial spaces along this corridor are primarily automobile oriented with some smaller neighbourhood serving uses. Given the high volume of traffic along Twentieth Street, combined with the fact that blocks on the east and west side of Twentieth are staggered, ensuring neighbourhood connectivity across the street is an important consideration.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



Commercial

Park/Open Space

Greenway/Trail

6.1 TWENTIETH STREET
INTRODUCTION

OPPORTUNITIES

While automobile-dominated uses are expected to remain along Twentieth Street, opportunities to create a more friendly and vibrant commercial street environment can be explored. This is a high-traffic, high-visbility area that has the potential to become an important node for commuters and residents of New Westminster alike, providing a range of services and amenities.

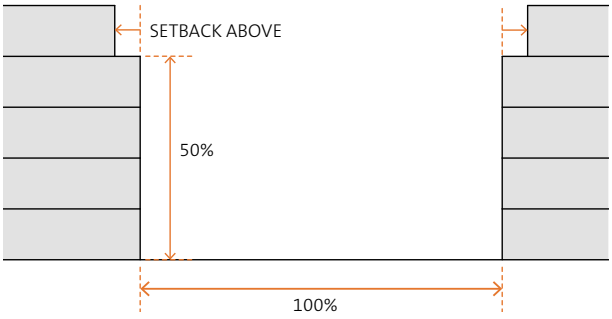
6.1.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Commercial uses should be oriented to address primary and secondary frontages in order to enhance safety, visibility and comfort for pedestrians.
- Off-street surface parking should be provided behind or below buildings to screen parking from the street. Parking should also be visually screened from adjacent residential uses while still maintaining sight lines to adjacent streets for safety and security.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.

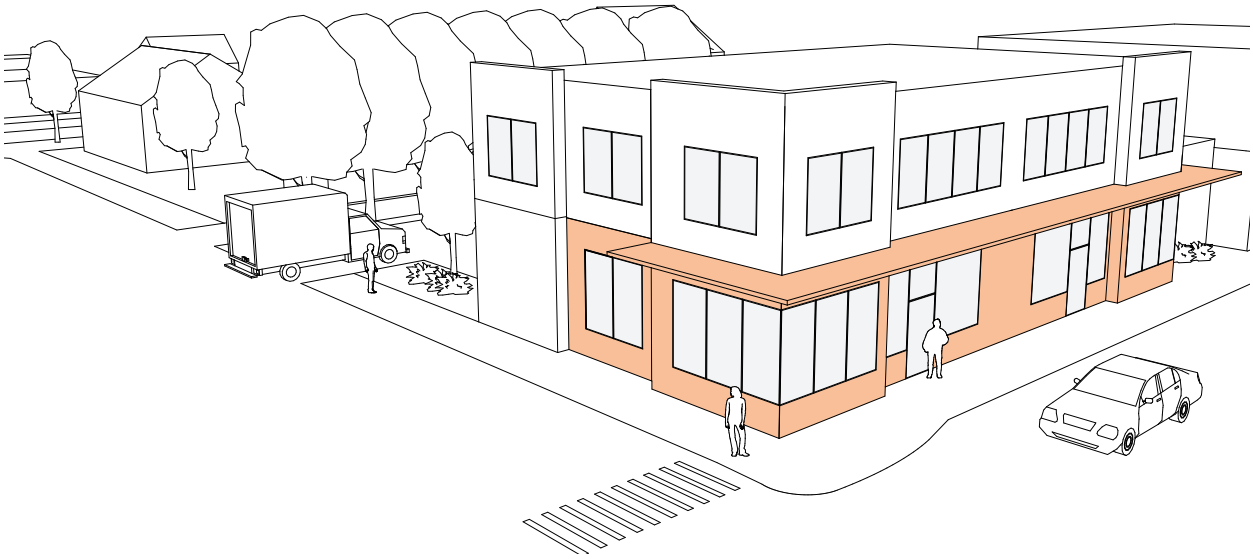


Create transparency at grade to engage the street, Source: Audi Downtown Vancouver



Building height to R.O.W. example of 50%

6.1 TWENTIETH STREET
NEIGHBOURHOOD INTERFACE



Articulate massing and wrap commercial uses around the corner to engage the streetscape.

6.1.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (seating, lighting, landscaping, etc) should enhance Twentieth Street's public realm and provide a comfortable interface for pedestrians, cyclists and motorists.

6.1.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

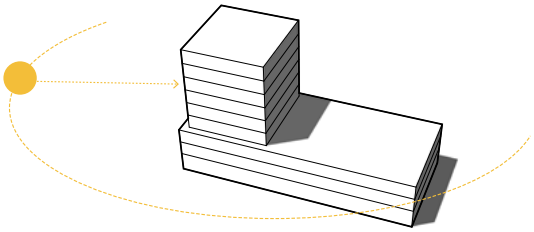
- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 3m (9'10") from the building edge.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate street enhancements such as the provision of bike lanes.

6.1 TWENTIETH STREET
NEIGHBOURHOOD INTERFACE

6.1.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances and commercial unit glazing should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- Buildings should be designed to screen undesirable views from neighbouring residential uses.



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight

6.1 TWENTIETH STREET
NEIGHBOURHOOD INTERFACE



Street fronting uses should promote an active and lively streetscape, Source: Skylab Architecture

6.1.5 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Frequent and identifiable entrances for commercial frontages facing the street should be provided when possible. This can be achieved through articulating the building massing and framing entrances with secondary roof elements. The ideal spacing is 10m (32'10") for entrances along retail high streets.
- A diverse range of CRU sizes should be provided, or if CRUs are large, multiple entries can be used to enhance connectivity to the street.
- The primary entrance to a commercial spaces should be clearly defined and easily identifiable from the street.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- Vehicular entrance to surface parking areas should be located off lanes or secondary streets, away from main vehicle and pedestrian thoroughfares.

6.1.6 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public streets should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Blank walls should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, or murals and public art.
- Weather protection along commercial frontages which border sidewalks, pathways, and prominent occupied open space should be provided.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.

6.1 TWENTIETH STREET
BUILDING DESIGN

6.1.7 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of Twentieth Street. Brick, metal panel, standing seam metal cladding, wood and stone are preferred cladding materials, while composite or cementitious panels and painted concrete are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Wood, metal panels and corrugated metal cladding, Source: Spore Architects

6.1.8 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain.

- Windows should be located to maximize connections with the public realm.
- Ground floor commercial uses should have a minimum glazing area of at least 60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Use appropriately placed and scaled windows, Source: Architizer

6.1 TWENTIETH STREET
BUILDING DESIGN

6.1.9 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.



Roofing material should be attractive and easy to maintain, Source: Jonathan Lake Architects

6.1.10 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with retail should have continuous weather protection along the face of the commercial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'-1").
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).



Create continuous weather protection along public streets, Source: Caliper Studio

6.1 TWENTIETH STREET
BUILDING DESIGN



Provide pedestrian scale lighting along sidewalks, Source: Waterleaf Architecture

6.1.11 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded, down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential areas.

6.1 TWENTIETH STREET
OPEN SPACE + LANDSCAPING



Trees and landscaping integrated into parking areas, Source: Nationwide Consulting

6.1.12 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

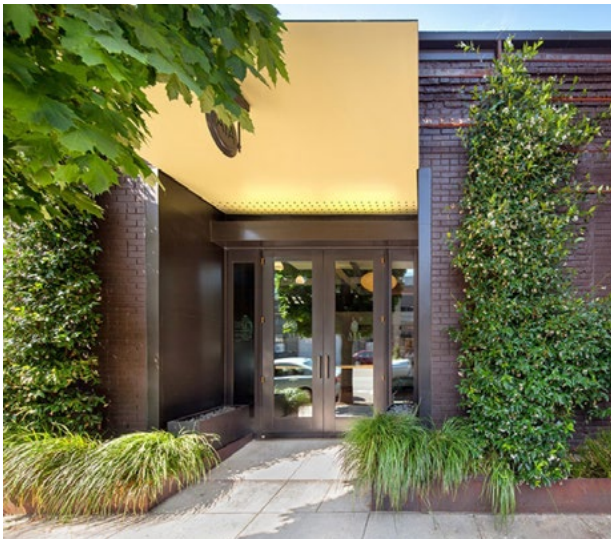
- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

6.1 TWENTIETH STREET
OPEN SPACE + LANDSCAPING



Landscape features can be used to frame entrances, Source: Holst Architecture

INTEGRATED STORMWATER MANAGEMENT PLAN
The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/ private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.
- Rainwater collection and storage in cisterns should be considered to use for landscape irrigation.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

6.1 TWENTIETH STREET
OPEN SPACE + LANDSCAPING



Create outdoor spaces for employees, Source: alanbeandphoto.com

6.1.13 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building occupants, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

6.1.14 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Waste and recycling receptacles should be provided near building entrance areas and near seating areas.
- Other public realm amenities which should be considered include bicycle racks, drinking fountains and waste receptacles (including recycling and compost bins).
- Amenities should be of a high quality and made of durable materials to minimize maintenance.

6.1 TWENTIETH STREET
ACCESS + PARKING



Create equitable access to all buildings, Source: Baxter Interior Architecture

6.1.15 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.

6.1 TWENTIETH STREET
ACCESS + PARKING

6.1.16 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Entrances and edges should be emphasized, and pedestrian pathways should be delineated with high quality and decorative materials (e.g. stone pavers, brick pavers, coloured concrete). Where the open space is an extension of the public sidewalk, consider materials that are compatible with those that are typically found in existing patterns (e.g. a concrete sidewalk with a decorative paving band along the curb). Consider extending any special paving patterns of adjacent City parks or open spaces to promote the public nature of the space
- Lanes and narrow streets should be pleasantly designed and safe by indicating an edge between the public street and private land.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.



Bike parking provided in a convenient location, Source: David Baker Architects

6.1 TWENTIETH STREET
ACCESS + PARKING



Incorporate rainwater retention strategies, Source: Richez Associates

6.1.17 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Development should support vibrant, safe streets by ensuring people oriented uses in buildings that front prominent sidewalks where substantial pedestrian use is expected. Parking structures and parking lots should be designed to be unobtrusive to the pedestrian environment.
- For surface parking lots, the visual scale of large expanses of pavement should be reduced by creating smaller parking areas divided by landscaped sections which provide semi-transparent screening.
- Landscaping should be used to soften views and reduce the visual scale of parking from the sidewalk and street. Ensure that landscaping supports public safety through allowing visual surveillance of parking areas.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- Parking for commercial uses should be easily accessible, well signed and convenient for customers.
- Structured parking should be integrated into the building design and have usable building space (e.g. shallow commercial or industrial units) facing pubic streets, parks and open spaces. Additional off-street parking may be provided behind the buildings, at the rear of the lot, as required
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.
- Trees and shrubs should be planted throughout any surface parking areas to intercept precipitation, reduce surface heating, enhance appearance and protect pedestrians from the elements. The use of native plants is preferred.
- Parking and other paved areas should be designed to minimize negative impacts on surface runoff volume and quality. This can be done by installing oil/water separators in high traffic areas, and/or ensuring runoff is directed to landscaped filtration areas such as bio-swales, landscaped filter strips or bio-filtration strips.

[BYLAW NO. 8039, 2018]

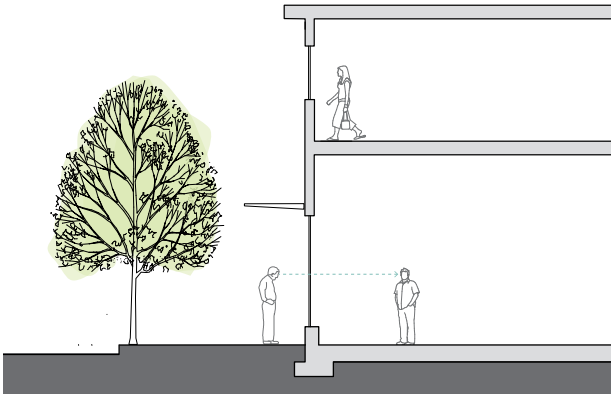
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.

6.1 TWENTIETH STREET
SAFETY + SECURITY

6.1.18 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.



Provide visual connections and overlook to enhance safety.

6.1.19 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they do not create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

6.1 TWENTIETH STREET
ENVIRONMENT

6.1.20 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Incorporate passive solar strategies and shading devices, Source: Canadian Architect

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

6.1 TWENTIETH STREET
ENVIRONMENT

6.1.21 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- A storage space for all units that is well located, adequately sized and properly ventilated should be provided.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Provide multi-stream collection facilities, Source: University of British Columbia

6.1 TWENTIETH STREET
HERITAGE

6.1.22 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artefacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

6.1 TWENTIETH STREET
SIGNAGE

6.1.23 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.



Use signage which expresses the character of the neighbourhood, Source: Pinterest

6.2 BRUNETTE

INTRODUCTION

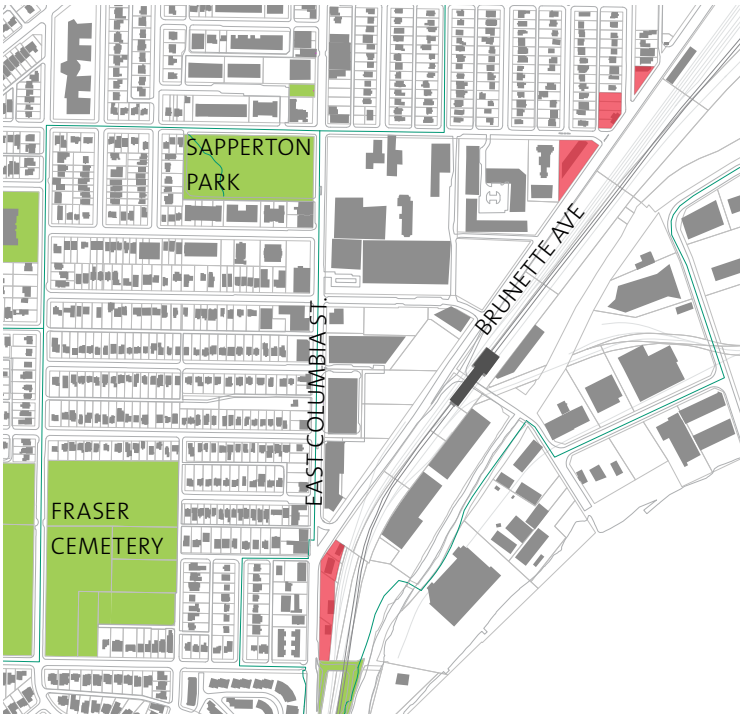
[BYLAW NO. 8151, 2019]

The Brunette Employment Lands, identified as Development Permit Area 6.2 [See Map 6.0], is designated in order to facilitate service commercial and light industrial development that serves the local residents and benefits from the drive-by traffic on Brunette Avenue. Although grittier, this area provides services such as car repairs, which are an important part of New Westminster's economic vitality.

Brunette Avenue is an important, high-traffic arterial that connects New Westminster to Highway 1. It also feeds into East Columbia Street, an important east-west connection in the city. Brunette Avenue is also a vital transportation route for truck traffic and provides important connectivity for commuters. This area is also in close proximity to the Sapperton SkyTrain Station.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and industrial development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



Commercial

Sapperton SkyTrain Station

Greenway/Trail

Park/Open Space/Community Facility

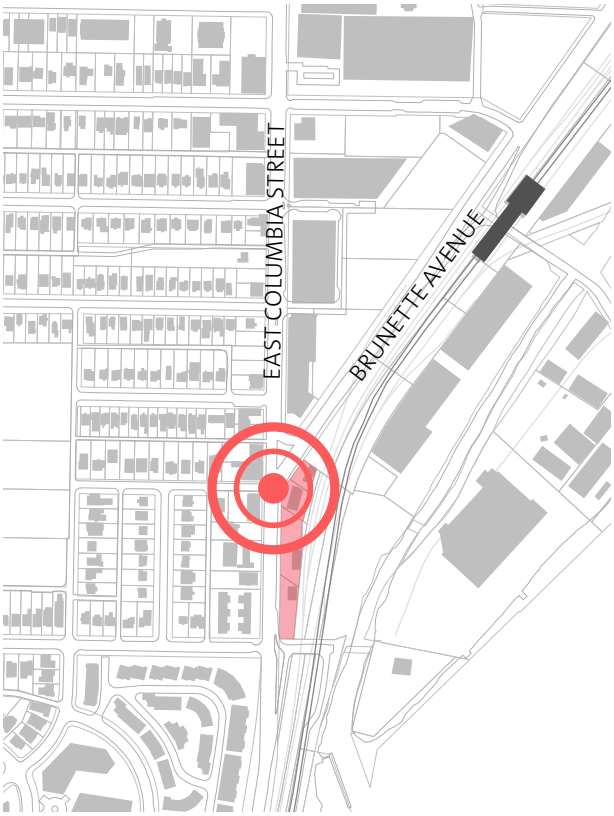
6.2 BRUNETTE
OPPORTUNITIES

OPPORTUNITIES

The Brunette Employment Lands have the opportunity to capitalize on their high-visibility location to create a more lively built expression along the street that creates visual interest, and provides a more comfortable environment for pedestrians and motorists. These areas will continue to serve important functions for regional commuter traffic but can also explore opportunities to create better interfaces with the surrounding community.

GATEWAYS AND ARRIVAL POINTS

Located adjacent to the Brewery District, the Brunette Employment Lands between Cumberland and the East Columbia intersection have a prominent position at major nexus within New Westminster. New development at this intersection should focus commercial uses to the street to create a more expressive and friendly street frontage, while locating parking strategically to minimize its visual impact. Enhancing pedestrian connectivity from the Brewery District to Sapperton Landing Park should be explored by creating safe and comfortable pedestrian walkways across the site.



East Columbia Street and Brunette Avenue as a gateway

6.2 BRUNETTE
NEIGHBOURHOOD INTERFACE



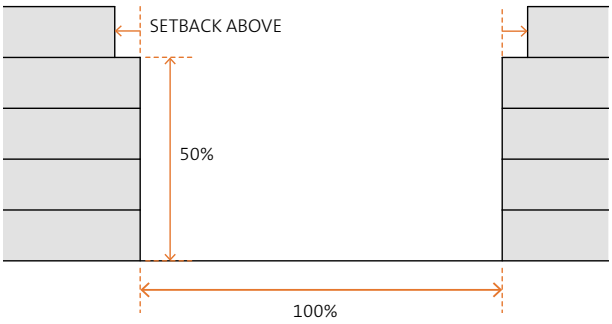
Build ground floor commercial or industrial uses up to the from property line, Source: Lamborgini Vancouver

6.2.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

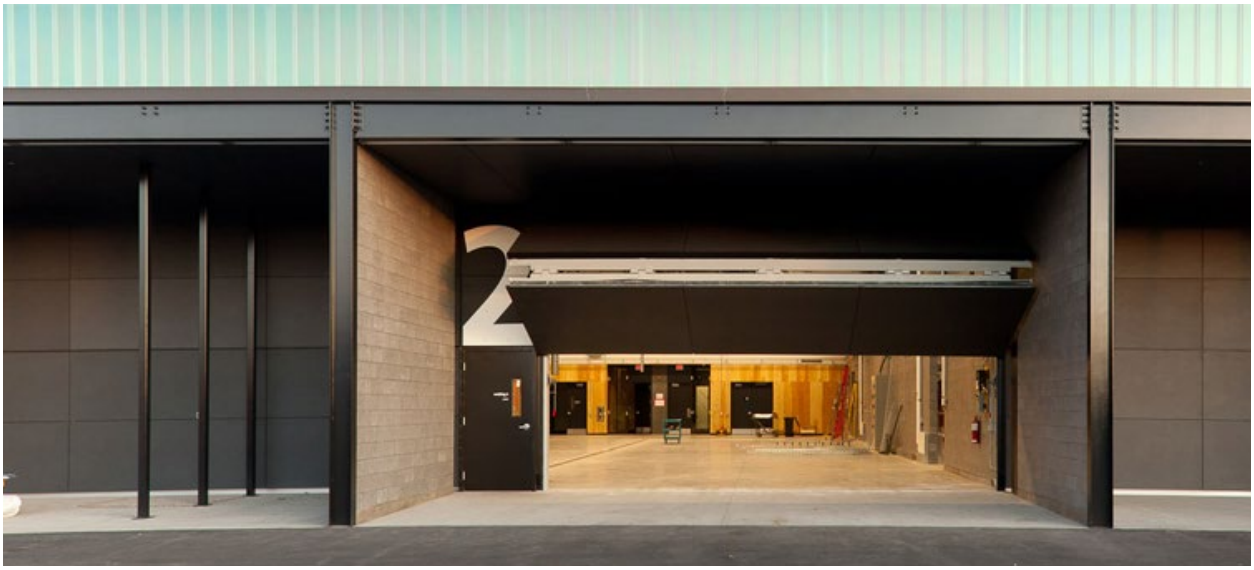
- Commercial and industrial uses should be oriented to address primary and secondary frontages in order to enhance safety, visibility and comfort for pedestrians.
- Off-street surface parking should be provided behind the buildings to screen it from the street. On sites with shallow lot depths, tuck-under parking may be an effective method of reducing the visual impact of parking.
- Parking and loading areas should also be visually screened from adjacent residential uses while still maintaining sight lines to adjacent streets for safety and security.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- Buildings should be designed to screen undesirable noises, smells and views from neighbouring residential uses.

Development within 10m of the SkyTrain guideway and within 25m of a SkyTrain station should follow TransLink's Adjacent and Integrated Development (AID) project consent process.



Building height to R.O.W. example of 50%

6.2 BRUNETTE
NEIGHBOURHOOD INTERFACE



New buildings can fit in with industrial uses and be well-designed, Source: Office McFarlane Biggar

6.2.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

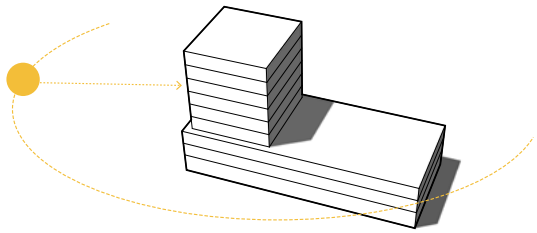
- Buildings should be designed to fit harmoniously with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.

6.2.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Buildings on lots adjacent to single detached dwellings or other ground oriented dwelling types should step masses above three storeys back a minimum of 1.5m (4'11") from the building edge.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways or rear streets.
- Ground floor commercial or industrial uses should be built up to the front property line when possible to maintain a continuous commercial street frontage and consistent street definition.

6.2 BRUNETTE
NEIGHBOURHOOD INTERFACE



Solar studies and shadow diagrams should be used to determine impact of shadows and access to daylight

6.2.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances, and commercial unit glazing for showrooms or office spaces should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.

6.2 BRUNETTE
BUILDING DESIGN



Allow façades to be transparent to create visual interest and safety along the streetscape, Source: Designboom

6.2.5 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Commercial and industrial entries should be clearly visible and identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Architectural and landscape features should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- Entrance to surface parking areas should be located off lanes or secondary streets, away from main vehicle and pedestrian thoroughfares.

6.2.6 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public streets should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Blank walls (over 5m or 16'5" in length) should be avoided. When unavoidable, use design treatments such as planters, climbing vines or plants, murals and public art or quality materials.
- Weather protection along commercial frontages which border sidewalks, pathways, and prominent occupied open space should be provided.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.
- Buildings with loading bays or roll-up garage doors as main walls should aim to maintain transparency by making portions glazed at eye level.

6.2 BRUNETTE
BUILDING DESIGN



Materials should reflect and enhance the character of the neighbourhood, Source: Architizer

6.2.7 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding neighbourhood.

- High quality materials should be used to enhance the quality and character of Brunette Avenue. Brick, metal panel, standing seam metal cladding and painted concrete are preferred cladding materials, while composite or cementitious panels are also permitted.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and to highlight architectural details (e.g. soffits, window and door trim, railings).
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

6.2.8 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain.

- Windows should be located to maximize connections with the public realm.
- Ground floor commercial and industrial uses should have a minimum glazing area of at least 50-60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.

6.2 BRUNETTE
BUILDING DESIGN

6.2.9 ROOFS

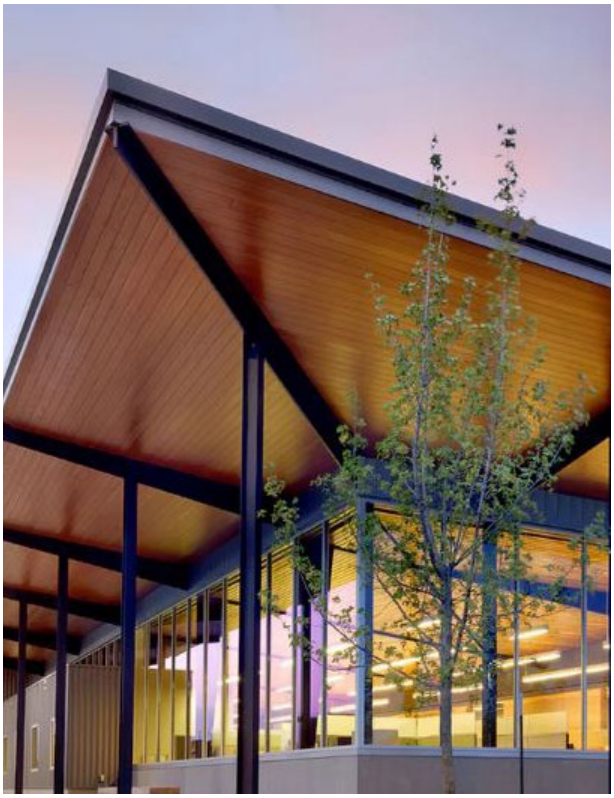
Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Industrial buildings should include high quality roof insulation to improve heat retention and reduce the amount of energy required for heating.

6.2.10 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with commercial spaces should have continuous weather protection along the face of the commercial or industrial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'-1").
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).



Weather protection can be integrated into building expression, Source: Clark Huesemann Architecture

6.2 BRUNETTE
BUILDING DESIGN



Provide shielded down-lighting to provide security without excessive light pollution, Source: Julie Snow Architecture

6.2.11 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

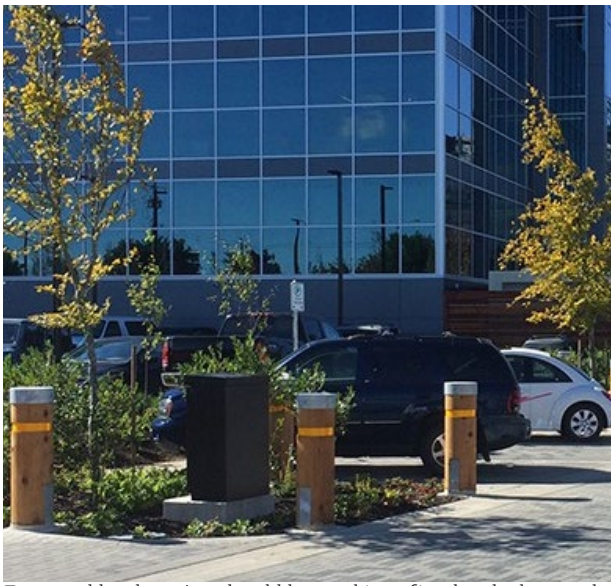
- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Shielded down lighting should be provided to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential areas.

6.2 BRUNETTE
OPEN SPACE + LANDSCAPING

6.2.12 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.
- Rainwater collection and storage in cisterns should be considered to use for landscape irrigation.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.



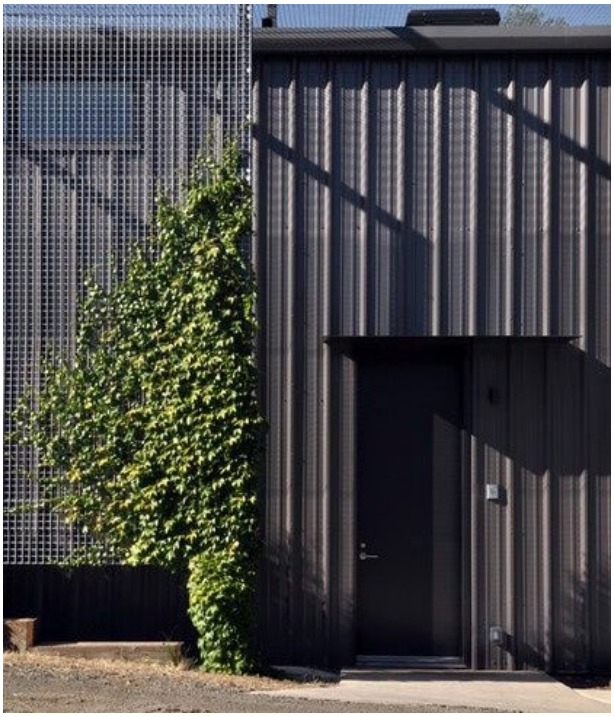
Trees and landscaping should be used to soften hard edges and provide relief, Source: PWL Partnership

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

6.2 BRUNETTE
OPEN SPACE + LANDSCAPING



Planting can be used to enliven blank façades, Source: mcnichols.com

6.2.13 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building occupants, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

6.2.14 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Waste and recycling receptacles should be provided near building entrance areas and near seating areas.
- Other public realm amenities which should be considered include bicycle racks, drinking fountains and waste receptacles (including recycling and compost bins).
- Amenities should be of a high quality and made of durable materials to minimize maintenance.

INTEGRATED STORMWATER MANAGEMENT PLAN

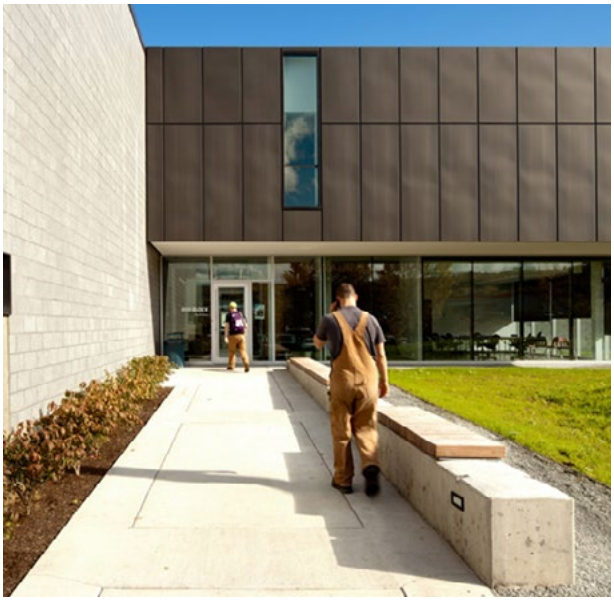
The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.

6.2 BRUNETTE
ACCESS + PARKING

6.2.15 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.



Create intuitive, unobstructed and easy to navigate pedestrian pathways, Source: Office McFarlane Biggar

6.2.16 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Pedestrian walkways should be physically and visually separated from parking areas (e.g. grade separation, bollards, trees in tree guards, distinct paving).
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic. The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances. Incorporate signage as appropriate.

6.2 BRUNETTE
ACCESS + PARKING



Incorporate green-space relief and bio-swales to parking areas, Source: Pinterest

6.2.17 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Development should support vibrant, safe streets by ensuring people oriented uses in buildings that front prominent sidewalks where substantial pedestrian use is expected. Parking structures and parking lots should be designed to be unobtrusive to the pedestrian environment.
- For surface parking lots, the visual scale of large expanses of pavement should be reduced by creating smaller parking areas divided by landscaped sections which provide semi-transparent screening.
- Landscaping should be used to soften views and reduce the visual scale of parking from the sidewalk and street. Ensure that landscaping supports public safety through allowing visual surveillance of parking areas.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- Parking for commercial uses should be easily accessible, well signed and convenient for customers.
- Structured parking should be integrated into the building design and have usable building space (e.g. shallow commercial or industrial units) facing pubic streets, parks and open spaces. Additional off-street parking may be provided behind the buildings, at the rear of the lot, as required.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.
- Trees and shrubs should be planted throughout any surface parking areas to intercept precipitation, reduce surface heating, enhance appearance and protect pedestrians from the elements. The use of native plants is preferred.
- Parking and other paved areas should be designed to minimize negative impacts on surface runoff volume and quality. This can be done by installing oil/water separators in high traffic areas, and/or ensuring runoff is directed to landscaped filtration areas such as bioswales, landscaped filter strips or bio-filtration strips.

[BYLAW NO. 8039, 2018]

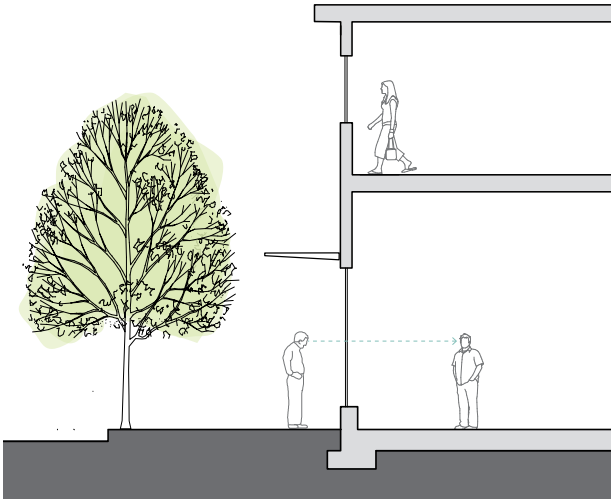
- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.

6.2 BRUNETTE
SAFETY + SECURITY

6.2.18 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.



Create visual connections to public pedestrian spaces.

6.2.19 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they do not create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials.

6.2 BRUNETTE
ENVIRONMENT



Integrate renewable energy infrastructure where possible, Source: City of Vancouver

ENERGY CONSERVATION
The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

6.2.20 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

6.2 BRUNETTE
ENVIRONMENT

6.2.21 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Provide a storage space for all units that is well located, adequately sized and properly ventilated.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.



Encourage the installation or provision of space for a multi-stream collection facility, Source: City of Vancouver

6.2 BRUNETTE
HERITAGE

6.2.22 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

6.3
MIXED EMPLOYMENT

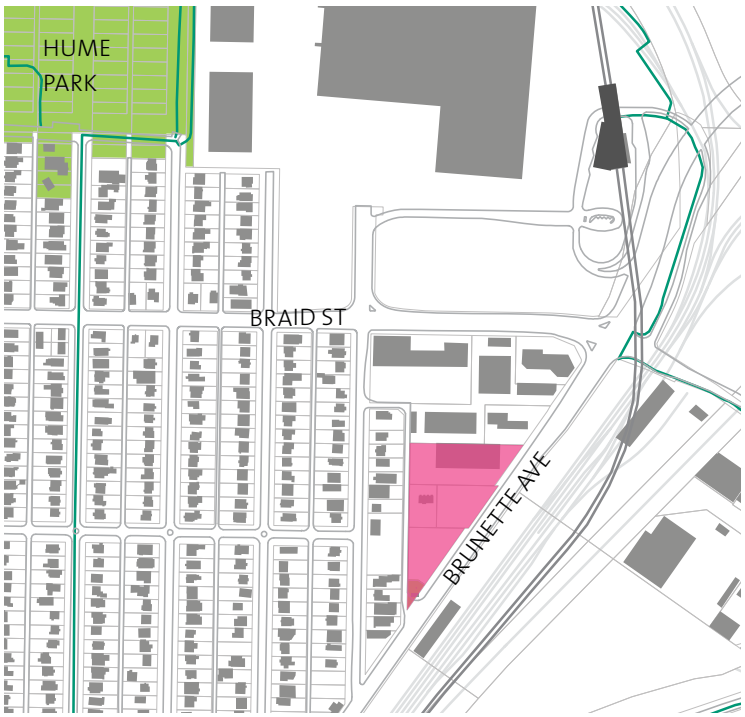
INTRODUCTION

The Mixed Employment Employment Lands, identified as Development Permit Area 6.3 [See Map 6.0], is designated in order to facilitate commercial, light industrial and service uses with a focus on employment generation. This area will also provide a transition between the Brunette Avenue and the rail lines, and the residential surrounding residential neighbourhood.

Located in east New Westminster between Brunette Avenue and Rousseau Street, this Mixed Employment Area currently provides a number of light industrial and service/commercial uses. Brunette Avenue is an important, high-traffic arterial that connects New Westminster to Highway 1. It also feeds into East Columbia Street and provides connections to Surrey, Richmond, Delta and Burnaby. It is a vital transportation route for truck traffic and provides important connectivity for commuters. This Mixed Employment Area is also within walking distance of Braid SkyTrain Station, making extremely well connected both locally and regionally. While Brunette Avenue defines the east edge of the site, the area is bordered to the west by single detached dwellings and no the north by more light industrial. This area is anticipated to transition to a higher density employment hub.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and industrial development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).



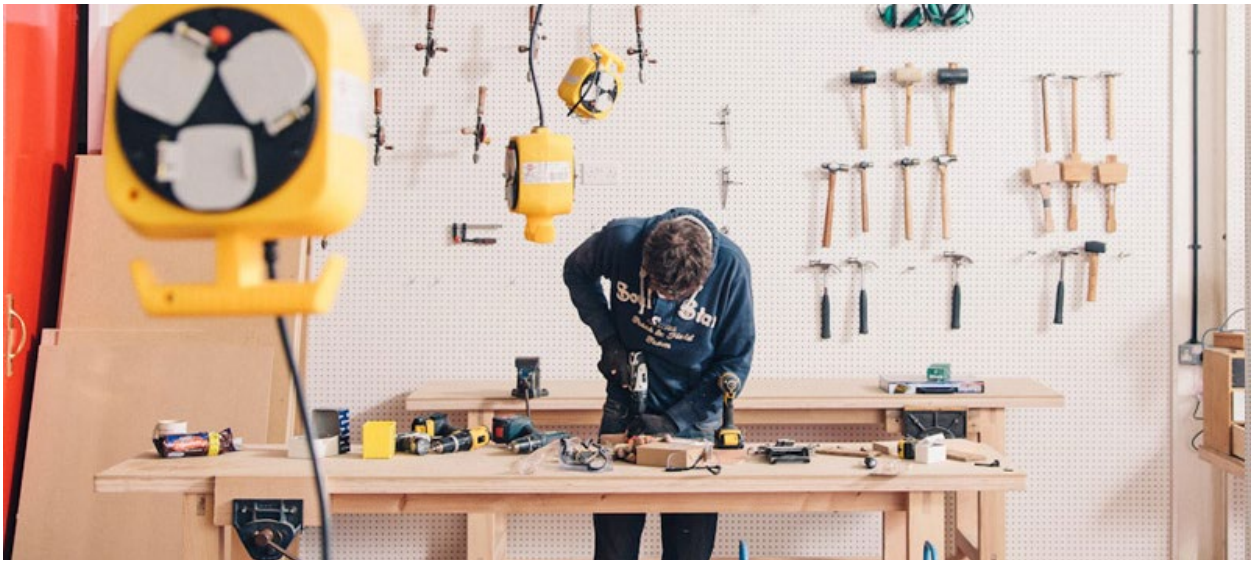
Mixed Employment Area

Braid SkyTrain Station

Greenway/Trail

Park/Open Space

6.3 MIXED EMPLOYMENT
OPPORTUNITIES



Create opportunities for ultra-light industrial spaces, Source: Ben Quinton

OPPORTUNITIES

This Mixed Employment Area is well-situated to capitalize on the new development taking place at the Brewery District, Royal Columbian Hospital as well as Sapperton Green. The site is situated in a high-visibility area with close proximity to regional transportation routes that has the potential to become an important employment and innovation node for the City of New Westminster. The Brewery District and Sapperton Green will bring new residents, amenities and jobs to the area. Similarly, the Royal Columbian Hospital redevelopment and expansion will increase the demand for medical and tech related innovation. This Mixed Employment area can capitalize on this by providing ultra-light industrial and office related uses.

6.3 MIXED EMPLOYMENT
NEIGHBOURHOOD INTERFACE

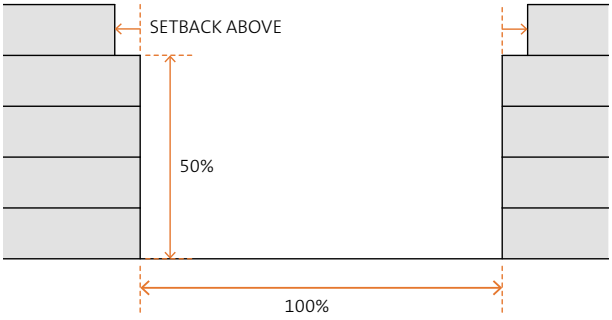


Present an active face to all internal site connections and secondary streets, Source: Ehrlich Yanai Rhee Chaney Architects

6.3.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Internal connections through the site should be created to connect the surrounding community and activate spaces at grade.
- Commercial and ultra-light industrial uses should be oriented to address secondary streets, laneways and any internal streets and/or pedestrian connections through the site in order to enhance safety, visibility and comfort for pedestrians.
- New developments should incorporate a street wall that complements the scale of adjacent buildings and is appropriate to the street width (i.e. street wall height should be 50% – 30% of the street R.O.W. width). Floors above this ratio height should be set back a minimum of 3m (9'10").
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- Taller masses should be set back from Rousseau and the planned development to the north of the site. Minimum tower separation is 27.4m (90').
- Parking and loading areas should also be visually screened from adjacent residential uses while still maintaining sight lines to adjacent streets for safety and security.



Building height to R.O.W. example of 50%

6.3 MIXED EMPLOYMENT
NEIGHBOURHOOD INTERFACE

6.3.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- Buildings should be designed to fit and transition with the existing context by creating a consistent visual rhythm along the streetscape.
- All buildings within a development should be designed with diversity to ensure a varied streetscape but create some cohesion by aligning window sills, cornices, and floor-to-floor spacing along the street block. Variety in massing, details, and/or material should be considered to avoid a monotonous appearance and reinforce individual building identity.
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.



Use articulation to visually break up larger masses, Source: Ehrlich Yanai Rhee Chaney Architects

6.3.3 MASSING + SETBACKS

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Ground floor commercial uses should be set back from the property line when appropriate to enhance public realm while maintaining a consistent street definition. Where setbacks are appropriate, they should provide adequate sidewalk width, space for public realm enhancements such as patios and seating areas, and/or space to accommodate street enhancements such as the provision of bike lanes.
- Massing should be used to minimize the impact of truck, train and traffic routes, and noise and create a buffer for adjacent residential neigbourhood.
- Where possible, a minimum 3.0m (9'10") setback should be provided along laneways or rear streets.

6.3 MIXED EMPLOYMENT
NEIGHBOURHOOD INTERFACE



Loading area screened by planting and architectural elements, Source: Tom Arbam

6.3.4 VIEWS + SHADOWS

Intent: Buildings should be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances, and commercial and ultra-light industrial unit glazing should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban context in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.
- The siting, form, and scale of buildings should mitigate blockage of significant views and solar access from existing or anticipated development, and that shadowing impacts on adjacent residential buildings and usable open spaces are minimized.
- When multiple tall buildings (over six storeys) are considered, they should be spaced diagonally to avoid direct lines of sight into each other and maintain views and daylighting. Additionally, new projects must demonstrate how it will account for future redevelopment opportunities on adjacent sites by providing appropriate setbacks and building siting.
- Buildings should be designed to screen undesirable uses and views from neighbouring residential uses.

6.3 MIXED EMPLOYMENT
BUILDING DESIGN



Entrances should be clearly identifiable, Source: Fast Company

6.3.5 ENTRANCES

Intent: Building entrances must be located and designed to provide active ground floor uses that contribute to safe and lively urban environments.

- Commercial and ultra-light industrial entries should be frequent and clearly identifiable from the fronting public street and sidewalk. This can be achieved through articulating the building massing and framing entrances with secondary roof elements.
- Architectural and landscape should be incorporated to create thresholds and gateways to further enhance a sense of arrival to the building and differentiate the public and private realm along the streetscape.
- Entrances to loading areas should be located off lanes or secondary streets, away from main vehicle and pedestrian thoroughfares. No access should be provided off of Brunette Avenue.



Integrate places to rest and lighting into entrance areas, Source: Ehrlich Yanai Rhee Chaney Architects

6.3 MIXED EMPLOYMENT
BUILDING DESIGN



Façades along busy streets can still provide some visual transparency without providing access, Source: Acton Ostry Architects



Use strategies to bring daylight into workshops and connect with the street, while still providing a sense of enclosure, Source: Architizer

6.3.6 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

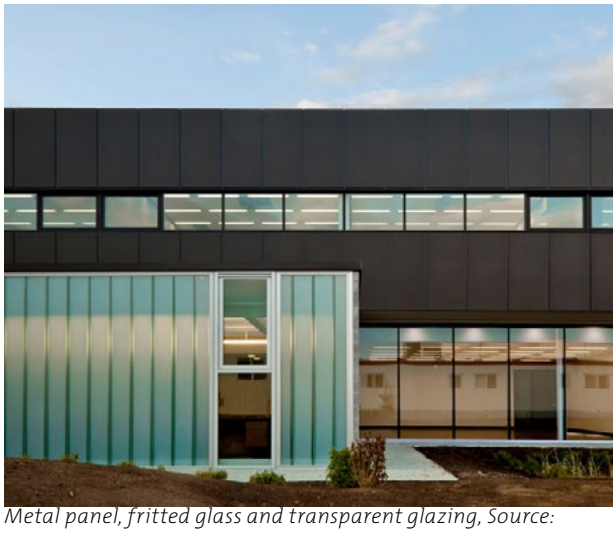
- The façades of buildings that front public or internal streets, pedestrian pathways, parks or open space should be designed to be welcoming, activate the street, create visual interest and enhance safety.
- Frontages along Brunette should maintain a level of transparency to ensure visibility and safety but will not be used as primary access to the development.
- Building entrances should be recessed by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance. This should be done with CPTED principles in mind to enhance safety.
- Large format ultra-light industrial buildings with compatible uses should incorporate smaller units/ workshops/storefronts wrapped around outside edges to better integrate these uses and make them more compatible with the desired character of the Mixed Employment Area.
- Continuous weather protection on commercial or active building frontages should be provided along sidewalks and open space.
- Site lines from interior spaces to the sidewalk/public space should be maintained to ensure safety.

6.3 MIXED EMPLOYMENT
BUILDING DESIGN

6.3.7 MATERIALS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of the Mixed Employment Area. Brick, metal panel, standing seam metal cladding, and concrete are preferred cladding materials, while composite or cementitious panels are also permitted. Wood may be used as an accent material.
- Colours should be muted but fit within the surrounding neighbourhood character. Accent colours may be bold but should be harmonious with the main colour and material palette to unify the design and highlight architectural details (e.g. soffits, recesses, window and door trims, railings, hardware, etc.)
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.



Metal panel, fritted glass and transparent glazing, Source: Office McFarlane Biggar

6.3.8 WINDOWS

Intent: Windows must be placed to encourage "eyes-on-the-street" while being mindful of strategies for reducing solar gain.

- Windows should be located to maximize connections with the public realm.
- Ground floor commercial and industrial uses should have a minimum glazing area of at least 50-60% between 0.9m (3') and 2.5m (8'2") above grade.
- Transparency at grade should be achieved by utilizing clear glass – tinted, reflective and opaque glass must be avoided. Ensure windows are not covered with advertising, signs and large vinyl wraps/screens.
- Exterior shading devices such as: fins, louvres and strategic overhangs should be used when possible to create shade from the summer sun while providing solar access in the winter months. These shading devices should be used primarily on south-facing façades but may also be utilized on west or east façades.



Windows should be located to maximize the connections with the public realm, Source: Works Architecture

6.3 MIXED EMPLOYMENT
BUILDING DESIGN

6.3.9 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Industrial buildings should include high quality roof insulation to improve heat retention and reduce the amount of energy required for heating.



Mechanical screening integrated into the façade, Source: Perkins+Will

6.3.10 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- All streets lined with accessible commercial uses should have continuous weather protection along the face of the commercial or industrial units. The minimum width of fixed canopies, and fixed or retractable awnings should be 1.5m (4-11") with a recommended minimum storefront height of 4.0m (13'-1").
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).



Workshop spaces with weather protection above entryways, Source: T+T Architecture

6.3 MIXED EMPLOYMENT
BUILDING DESIGN



Provide lighting for all outdoor spaces, Source: SLV Lighting

6.3.11 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Provide shielded, down lighting to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential areas.



Entrances should be well-lit, Source: Office McFarlane Biggar

6.3 MIXED EMPLOYMENT
OPEN SPACE + LANDSCAPING

6.3.12 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.
- Rainwater collection and storage in cisterns should be considered to use for landscape irrigation.
- New development should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.



Create active spaces with landscape interfaces, Source: PFS Studio

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

6.3 MIXED EMPLOYMENT
OPEN SPACE + LANDSCAPING

6.3.13 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building occupants, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.

6.3.14 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Benches should be provided near pick up and drop off areas, and along extended pedestrian routes. Multi-functional elements may also be used to provide seating, such as steps, raised planters or retaining walls and grassy landforms.
- Waste and recycling receptacles shall be provided and building entrance areas and near seating areas.
- Other public realm amenities which should be considered include bicycle racks, drinking fountains and waste receptacles (including recycling and compost bins).
- Amenities should be of a high quality and made of durable materials to minimize maintenance.

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.



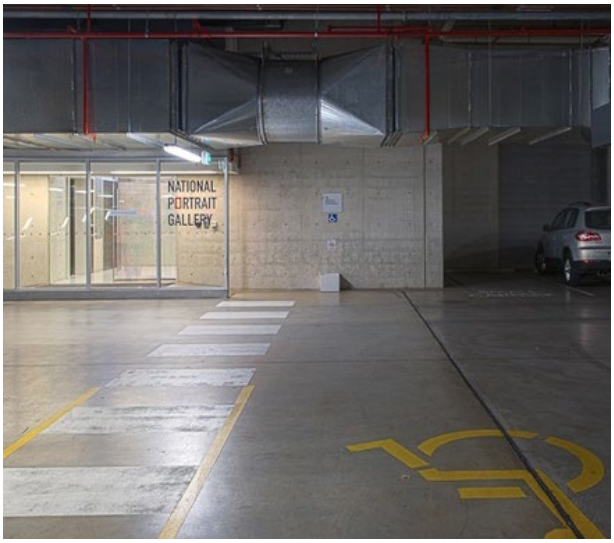
Outdoor space for employees, Source: James Burnett

6.3 MIXED EMPLOYMENT
OPEN SPACE + LANDSCAPING

6.3.15 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.



Accessible parking located close to an entrance, Source: Enable Canberra

6.3.16 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Pedestrian walkways should be physically and visually separated from parking areas (e.g. grade separation, bollards, trees in tree guards, distinct paving).
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicular traffic.
- Minimize the number of driveways and times driveways and/or internal streets cross sidewalks. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking..
- The comfort and interest of pedestrians on the sidewalk and in public spaces should be provided for through lighting, wayfinding, and seating.
- Paving materials are an important aspect in the usability and quality of a space. These materials should be high quality and durable to provide safe walking surfaces for users, with special consideration for universal access.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas and at main entrances.

6.3 MIXED EMPLOYMENT
ACCESS + PARKING



Bioswale integrated into parking area, Source: Cranbrook Freshwater Forum

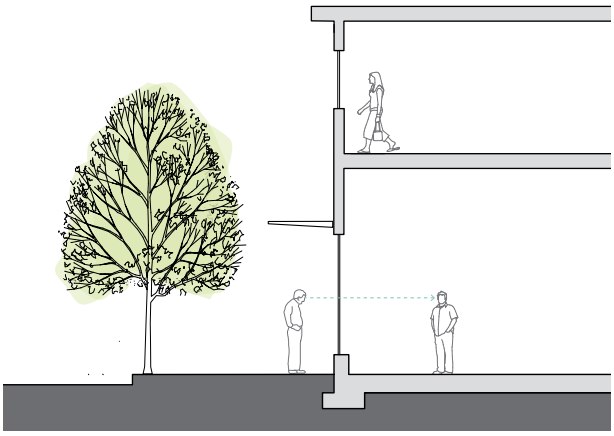
6.3.17 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- Underground parking has far less impact than above grade garages and is recommended in all developments to reduce potential pedestrian and vehicular conflicts.
- Where below grade structures are not possible, above ground parking structures should be located behind active street level uses. Attention and detail should be given to the design of the structure, including incorporating decorative grating applied to any face of the structure fronting a street, creative use of colour and/or colourful landscaping.
- Underground parking entries should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances.
- Adequate space should be provided for vehicles to pull in and wait at the parking gate while not obstructing pedestrian or vehicular movement and creating CPTED issues.
- Parking ramps should be positioned perpendicular to the street or lane, not parallel to streets.
- Ramps should be placed so that they are contained within the fabric of the building envelope.
- Parking should be accessed from a lane or secondary street and ensure a continuous pedestrian interface and neighbourhood quality on the primary street. Where lane access is available, access to parking areas or structures from a street will generally not be permitted.
- Development should support vibrant, safe streets by ensuring people oriented uses in buildings that front prominent sidewalks where substantial pedestrian use is expected. Parking structures and parking lots should be designed to be unobtrusive to the pedestrian environment.
- For surface parking lots, the visual scale of large expanses of pavement by creating smaller parking areas divided by landscaped sections which provide semi-transparent screening.
- Landscaping should be used to soften views and reduce the visual scale of parking from the sidewalk and street. Ensure that landscaping supports public safety through allowing visual surveillance of parking areas.
- Ensure parking for commercial uses is easily accessible, well signed and convenient for customers.
- Provide appropriately sized and conveniently located parking spaces in order to support transportation options such as carpools, and cooperative car use.

6.3 MIXED EMPLOYMENT

SAFETY + SECURITY



Maintain visual connections between interior and exterior spaces to enhance safety.

- Infrastructure within parking areas should be provided for electric vehicles to meet Electric Vehicle Ready requirements (i.e. Level 1 wiring for low-rise small commercial buildings, and Level 2 wiring for large commercial buildings).
- Trees and shrubs should be planted throughout any surface parking areas to intercept precipitation, reduce surface heating, enhance appearance and protect pedestrians from the elements. The use of native plants is preferred.
- Parking and other paved areas should be designed to minimize negative impacts on surface runoff volume and quality. This can be done by installing oil/water separators in high traffic areas, and/or ensuring runoff is directed to landscaped filtration areas such as bio-swales, landscaped filter strips or bio-filtration strips.

[BYLAW NO. 8039, 2018]

- Infrastructure for electrical vehicles for commercial and institutional uses with more than 10 parking spaces, should provide an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10. In some cases, in addition to an energized Level 2 outlet, electric vehicle supply equipment may be required.

6.3.18 PRIVACY

Intent: Buildings must be designed to clearly delineate between public and private spaces, while still creating visual connections to the surrounding public realm.

- Fencing and screening should be consistent with the overall site design and furnishings, and integrated into any landscaped areas.
- There should be no solid walls and solid fencing adjacent to private or public open space where safety and security is an issue. In areas where solid walls are unavoidable, care should be taken to ensure that materials and form fits within the architectural style of the larger development. Landscaping, screening and other architectural techniques can be employed to lessen the impact of solid walls or fencing. Chain link fencing will not be permitted.

6.3.19 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they do not create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes, and shared open space within the development.
- All building entrances should be legible from the street. Use public realm elements such as pathways, pavements, gates, lighting and landscaping to guide the public to and from entrances and exits.
- Ownership and intended use should be clearly defined through obvious design cues such as low fencing, benches and paving patterns/materials

6.3 MIXED EMPLOYMENT
ENVIRONMENT



A range of strategies can be employed for solar shading, including use of fins, planted elements and screens, Source: Perkins+Will

ENERGY CONSERVATION
The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

6.3.20 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.

6.3 MIXED EMPLOYMENT
ENVIRONMENT



Encourage the installation or provision of space for a multi-stream collection facility, Source: City of Vancouver

6.3.21 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Provide a storage space for all commercial units that is well located, adequately sized and properly ventilated.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within the building.

6.3 MIXED EMPLOYMENT
HERITAGE

HERITAGE REVITALIZATION AGREEMENT
A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

6.3.22 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character.

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment sites.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.
- New construction should respect and enhance the quality of neighbouring heritage buildings by using similar building proportions. The first storey will maintain a similar articulation to the heritage buildings on either side and upper storeys should respect the decorative details and articulation of neighbouring heritage buildings.
- New buildings in proximity to heritage assets should be designed to be compatible with their historical context without literally imitating older building styles. In these cases, new buildings should provide an original interpretation of the traditional building style (i.e. draw inspiration from fundamental design characteristics) while continuing to reinforce traditional development patterns and rhythms.

6.3 MIXED EMPLOYMENT
SIGNAGE

6.3.23 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- A comprehensive sign plan should be provided for all new developments.
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be appropriately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.



Signs should add to the interest of the buildings and reflect the character of the neighbourhood, Source: Pinterest

6.4 INDUSTRIAL



6.4 INDUSTRIAL
INTRODUCTION

INTRODUCTION

The Industrial Employment Lands, identified as Development Permit Area 6.4 [See Map 6.0], is designated in order to protect and allow the intensification of New Westminster's industrial land base.

New Westminster's industrial areas are predominantly located in the along the Fraser River, in the areas of North Arm North and Brunette Creek. Significant rail and transportation corridors provide important separation between these lands and adjacent neighbourhoods, but also act as barriers to access. The Brunette Creek area is in close proximity Sapperton SkyTrain Station and Highway 1 making it well connected both locally and regionally. On the west side of the city, North Arm North is well connected to routes linking New Westminster, Delta, Richmond, Surrey and Burnaby. The ongoing industrial activities in these neighbourhoods will continue into the future as they form an important part of New Westminster's economic vitality.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of industrial development,
- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule), and
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule).

6.4 INDUSTRIAL
INTRODUCTION

GENERAL PRINCIPLES

Industrial Lands are important economic generators for the city and encompass a variety of characteristics that add to the vitality of a neighbourhood.

1. CREATE NEIGHBOURHOOD CONNECTIONS

Creating a well-connected neighbourhood enhances quality of life by promoting walkability, increasing access to amenities and prioritizing pedestrian and bike connections. Considerations for urban mobility and connectivity need to be considered as a complementary set – walkability, cycling, public transit and vehicular and servicing movement are all important in planning a cohesive, functional and livable community. Private developments can enhance community connectivity by ensuring a fine-grained pedestrian experience and thoughtful design of attractive buildings and landscape interfaces along street frontages, side streets, laneways and greenways and providing connections to important waterfront green spaces and trails.

2. ESTABLISH WELL-DEFINED STREETS

Street definition creates the feeling of an outdoor room and is an important element in creating an urban environment that is comfortable for pedestrians. Buildings should be designed to frame streets and open spaces at an appropriate scale. Wherever possible, buildings should maintain a street-edge presence, and large parking and loading areas should be located behind buildings to enhance street definition.

3. DESIGN APPROPRIATELY SCALED BUILDINGS

Designing buildings with appropriate height and massing will ensure that buildings fit with future surrounding land uses, provide appropriate transitions to adjacent developments, and create a comfortable environment for neighbourhood. Massing strategies can be employed to lessen the visual impact of larger buildings, respond to topography and avoid overshadowing of public and private outdoor spaces. Buildings should be designed with context in mind and create sensitive transitions to neighbouring developments, whether it be commercial spaces, public spaces, single family residential or multi-unit residential buildings.

4. ACTIVATE BUILDING FRONTAGES

Creating an active frontage at grade enhances public safety and creates a lively streetscape. Industrial buildings with office, commercial or showroom components should have entries and/or ample glazing to these spaces along public right-of-ways to create visual interest and provide overlook onto public and private open spaces and sidewalks.

5. INTEGRATE SUSTAINABLE STRATEGIES

New development should aim to support a broad range of sustainability goals related to energy, water, waste, materials and ecology. Landscaping that features native plants, bioswales, greenroofs, pocket parks and private outdoor spaces can all be employed to enhance biodiversity as well as mitigate stormwater runoff. Designing buildings with passive solar strategies (orientation, shading, appropriate glazing and insulation types) and efficient mechanical systems are all ways to reduce energy demand. When possible, a green buildings rating system (LEED, PassiveHouse, etc) should be used to guide sustainable building development.

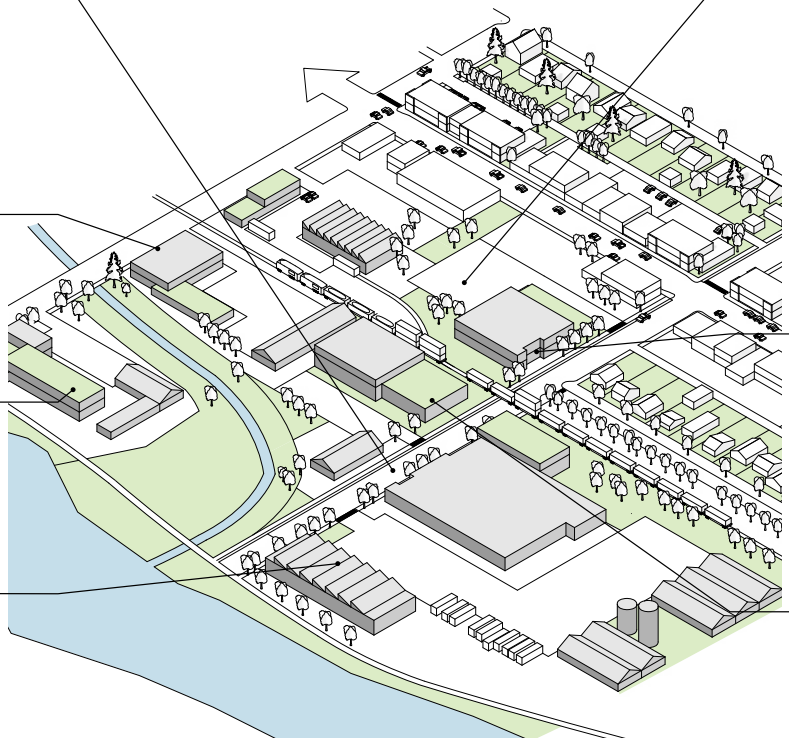
6. ENHANCE PUBLIC REALM+CONNECT TO NATURE

A successful neighbourhood is built around a strong public realm, providing places to walk, sit and interact. Private development should enhance the public realm of the neighbourhood to create spaces that are comfortable to walk and cycle in. Efforts should be taken to enhance connections to important waterfront greenways and trails.

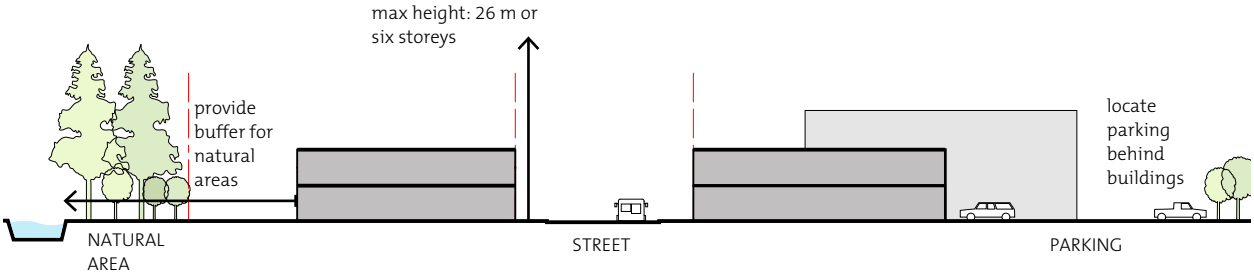
7. PROMOTE SAFETY + SECURITY

A well-designed building can create a sense of safety and comfort for both building users and the public. Through following the principles of Crime Prevention Through Environmental Design (CPTED), buildings can employ passive strategies that encourage casual surveillance of public spaces, clearly delineate public and private spaces, and ensure accessible and well defined pedestrian and vehicular entrances.

6.4 INDUSTRIAL
INTRODUCTION



Industrial Lands Axonometric



Typical Section - Industrial Lands

EMPLOYMENT LANDS

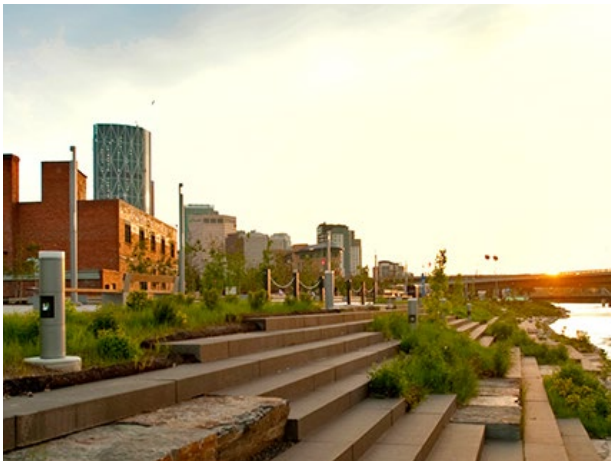
6.4 INDUSTRIAL
INTRODUCTION



Integration of development with the landscape creates an attractive and inviting environment, Source: Office McFarlane Biggar

OPPORTUNITIES

The industrial areas of North Arm North and Brunette Creek present opportunities for intensification while remaining industrial their function. Along with maintaining these important uses, improving access to the waterfront and associated trail networks from surrounding neighbourhoods is a main goal for new developments in these areas. New industrial developments should accommodate the Brunette Fraser Regional Greenway, the BC Parkway, or the Experience the Fraser Canyon to Coast Trail where appropriate. These important industrial areas will become more attractive and viable areas for intensified development though this improved access.



Industrial areas can be developed with a supportive and welcoming interface with trail networks and natural areas. Source: The New Calgary

6.4 INDUSTRIAL
NEIGHBOURHOOD INTERFACE



Orienting the building to front the street and locating parking and services to the rear creates a sensitive neighbourhood interface and can help minimize adverse impacts on pedestrians and neighbours, Source: TKA+D

6.4.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Off-street surface parking should be provided behind the buildings to screen it from the street. Parking should also be visually screened from adjacent residential uses while still maintaining sight lines to adjacent streets for safety and security.
- Buildings should be designed to respond to specific site conditions and opportunities, including: prominent intersections, corner lots, unique block structures, absence of laneways, steep topography, natural features, prominent open spaces and views.
- Mechanical equipment and service areas should be located to the rear of the building and implement landscape buffers and screening to minimize the impacts of noise and exhaust on pedestrians and neighbours.
- Buildings should have a maximum height of 19.8m (85') or six storeys.

6.4 INDUSTRIAL
NEIGHBOURHOOD INTERFACE



Use of a cohesive material palette and expression to unify buildings within a development, Source: Proj3ct

6.4.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- All buildings should be designed to have a high quality, cohesive appearance that enhances the overall quality of the area.
- A cohesive streetscape using similar datums for glazing, entrances, floor to floor heights, and rooflines along the block should be created.
- All principal and accessory buildings within a development and/or all elements of an individual building should be designed to the same architectural style. Provide enough variety (e.g. through massing, details) to avoid a monotonous appearance and reinforce individual building identity
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.



Massing used to emphasize a welcoming corner entrance, Source: TKA+D

6.4 INDUSTRIAL
NEIGHBOURHOOD INTERFACE

6.4.3 MASSING

Intent: Building massing and setbacks must respond to the existing context and create a comfortable pedestrian scale and a sensitive neighbourhood interface.

- Larger building masses and buildings with long frontages should be visually broken down using recesses, shifts in the massing and/or other methods of articulation to lessen visual impact on the pedestrian realm and create variation along the street.
- Buildings on lots adjacent to single detached dwellings and other ground oriented housing forms should ensure generous setbacks and a landscape buffer for screening parking and other uses that might produce noise or undesirable views.

6.4.4 VIEWS + SHADOWS

Intent: Buildings must be designed to reduce shadowing impact on adjacent developments and public spaces, and maintain important views in the community.

- Entrances, and commercial unit glazing for showrooms or office spaces should be positioned to ensure casual overlook of public spaces and streets to enhance visibility to the street and public spaces or "eyes on the street".
- Buildings should address the urban in which they are situated by:
  - Avoiding overshadowing existing buildings, private open spaces and public spaces,
  - Minimizing impact on neighbouring single detached dwellings and other ground oriented housing forms,
  - Orienting windows and entrances to primary and secondary street frontages to provide overlook,
  - Designing with solar orientation, daylighting and passive ventilation in mind.



Use of materials and glazing to provide shading while maintaining views, Source: Barhelemy Grino Architects

6.4 INDUSTRIAL
BUILDING DESIGN



Massing, open space, and furniture work together to create a well defined entrance, Source: Office McFarlane Biggar

6.4.5 ENTRANCES

Intent: Building entrances should be located and designed to be clearly visible and well defined.

- Massing should be articulated using voids, canopies and/or recesses to identify building entrances and create weather protection at main entrances.
- All main entrances for buildings should be located along public right of ways, or immediately adjacent to parking areas but visible from the street and public sidewalk.
- Industrial buildings with office, commercial or showroom components should have entries and/or ample glazing to these spaces along public right-of-ways.
- Pedestrian entrances should be prominent and easily identifiable on approach to the building.
- Architectural and landscape features should be incorporated to create gateways and further enhance a sense of arrival to the building.

6.4 INDUSTRIAL
BUILDING DESIGN



High quality materials and appropriate levels of transparency create visual interest and enhance safety, Source: Barhelemy Grino Architects

6.4.6 FAÇADES

Intent: Building façades must have appropriate levels of transparency and have a direct interface with public streets, pathways and open spaces.

- The façades of buildings that front public streets should be designed to be welcoming, create visual interest and enhance safety.
- Site lines from interior spaces to the sidewalk/public spaces should be maintained to ensure safety.
- Recess building entrances by a minimum of 0.6m (2') to provide for door swings, weather protection and to visually emphasize the building entrance.
- Blank walls facing onto public streets and walkways should be avoided if possible. When unavoidable, use design treatments such as planters, climbing vines or plants, murals or colourful/high quality materials to enhance blank façades.

6.4.7 MATERIALS

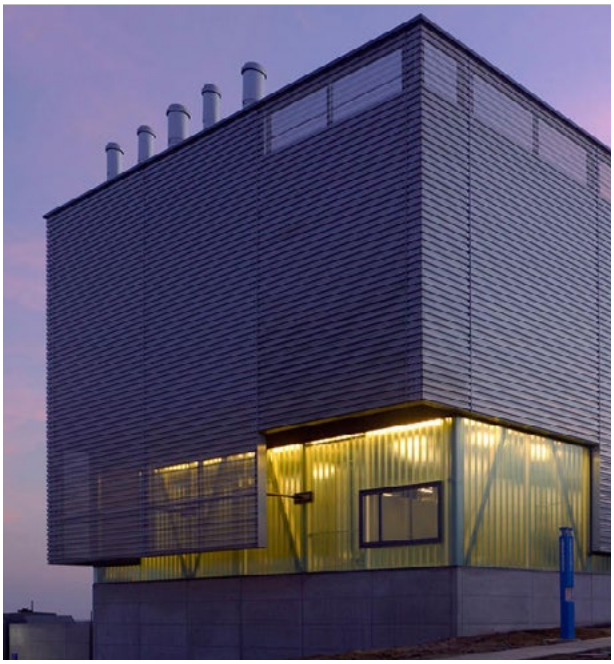
Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of the area. Metal panel, standing seam metal cladding, brick and concreted (painted or finished) are preferred cladding materials while composite or cementitious panels are also permitted.
- Colours should be muted but bolder accent colours may be used if they fit with the main colour and material palette of the building. Accent colours can be used to highlight architectural details or massing elements (soffits, recesses, window and door trims, railings, hardware, etc.)
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

6.4 INDUSTRIAL
BUILDING DESIGN



Clearstory windows and translucent glass allows daylight while still maintaining privacy, Source: Barkow Leibinger



Rooftop mechanical equipment incorporated into the building's overall expression through strategic screening
Source: Skidmore Owning Merrill LLP

6.4.8 WINDOWS

Intent: Windows must be placed to reduce solar gain, increase daylight in interior spaces and create a welcoming entrance.

- A solar heat gain coefficient of 50% or better for south facing windows should be ensured to maximize solar gain during winter.
- Exterior shading devices (fins, louvres, overhangs, etc) which shade from summer sun but provide solar access in winter months should be used. These should be used primarily on south-facing façades but may also be used on west or east façades.
- While glazing may not always be appropriate at grade, techniques to allow ample daylight into spaces such as light shelves, clearstory windows, and skylights should be used.

6.4.9 ROOFS

Intent: Roofs must be designed to fit with the architectural style of the building and maintain a clean appearance.

- Architectural elements and massing strategies should be used to screen mechanical and service equipment so it appears to be integrated with the overall expression.
- The surface of roofs should be finished with a material that is attractive and easy to maintain.
- Roofing materials and colours with a high albedo (e.g. materials that reflect heat energy from the sun) should be used to reduce the absorption of heat into the building and reduce the urban heat island effect.
- Industrial buildings should include high quality roof insulation to improve heat retention and reduce the amount of energy required for heating.

6.4 INDUSTRIAL
BUILDING DESIGN

6.4.10 WEATHER PROTECTION

Intent: Given the local climate of prolonged rainy periods, landscaping and well-designed and appropriately scaled architectural elements must be used to provide shelter from precipitation, wind and direct sun.

- Weather protection should be provided over all primary building entrances.
- Weather protection elements should fit with the architectural style of the development and use high quality materials such as glass, metal or similar materials to give a cohesive expression within the façade.
- Maintenance associated with elements for weather protection elements (i.e. avoid algae film or leaf build up on glass canopies, etc.) should be considered.
- The design of canopies should take water drainage into consideration (i.e. avoid water spillage between the building and canopy, particularly in pedestrian zones).



A large glass and wood awning integrated into a building's entrance provides substantial weather protection, Source: TKA+D

6.4.11 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks and open spaces should be equipped with pedestrian scale lighting. Private residential entries at grade should also be provided with sufficient exterior lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context. Shielded wall sconces and angled uplighting can help establish a façade pattern and create visual interest.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Required lighting for works yards and loading areas should be carefully designed and oriented to minimize impact on adjacent uses, especially residential.



Pedestrian scale lighting of a semi-public walkway Source: Barkow Leibinger

6.4 INDUSTRIAL
OPEN SPACE + LANDSCAPING

6.4.12 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan. Distribute trees and landscaping throughout the site to soften and screen public/private boundaries, reinforce circulation routes, create pleasant pedestrian conditions and/or maximize shade and/or stormwater benefits.
- Landscaping between pedestrian pathways and loading areas, as well as between buildings and neighbouring properties and public roadways is encouraged.
- Deciduous trees should be located on the south and west sides of buildings to provide shade and minimize unwanted heat gain during summer and provide solar access and passive solar gain during winter.
- Landscaped roofs should be provided to manage runoff, add visual appeal, improve energy efficiency and reduce heat island effects, and provide amenity value.
- Rainwater collection and storage in cisterns should be considered to use for landscape irrigation.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.



Trees and permeable parking surfaces can reduce heat island effects and improve stormwater infiltration, Source: Space Cube Design Lab

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

6.4 INDUSTRIAL
OPEN SPACE + LANDSCAPING

6.4.13 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building occupants, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Each development adjacent to any trail or greenway, as identified on the Parks, Trails and Greenway Streets Map should design buildings to interface with the walkway and provide appropriate setbacks and transitions to ensure a comfortable public realm.
- Each development should provide outdoor space for use by employees that is of a usable size and configuration. These spaces might include hard and soft landscaped areas such as courtyards, lawns, patios or naturalized open spaces, or seating options (e.g. benches, movable chairs/tables, etc) that are suited to different weather conditions.
- High quality, interesting, and durable outdoor spaces that are easily accessible should be provided. Coordinate the design of all elements including lighting, paving, outdoor furniture, and garbage receptacles. The design of the common space should be integrated with the site and building.
- All waterfront properties should provide public access to the river. These spaces may include lookout points, boardwalks, rest areas and gateway elements. Environmentally responsible materials should be used and all spaces should be designed to a high standard, with durable and robust materials that enhance the riverfront experience.

6.4.14 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Waste and recycling receptacles should be provided and building entrance areas and near seating areas.
- Other public realm amenities which should be considered include bicycle racks, drinking fountains and waste receptacles (including recycling and compost bins).

INTEGRATED STORMWATER MANAGEMENT PLAN

The City's Integrated Stormwater Management Plan (ISMP) outlines & guides the planning of stormwater management initiatives for the City. The long term initiative of the Plan is to minimize runoff volume and to reduce the risks and consequences of pollutants in stormwater runoff entering the Fraser and Brunette rivers. The ISMP includes a set of runoff reduction and water quality targets. The ISMP also includes a Best Management Practice Toolkit that provides guidelines for a range of common tools that infiltrate, treat or detain stormwater. New development will be required to use one or more of these tools in order to meet the ISMP targets.



Provide access and infrastructure to enhance waterfront trail networks, Source: Adventure Cycling

6.4 INDUSTRIAL
ACCESS + PARKING



Highly visible and easily accessible entrance ramp
Source: TKA+D

6.4.15 ACCESSIBILITY

Intent: All pathways, building entrances and site amenities in new developments must be accessible to people of varying ability.

- Access from the street to building entrances and walkways within the development should be universally accessible, with smooth, non-skid walking surfaces and gentle grades.
- Sidewalks and pathways should be a minimum 1.8m (5'11") wide with non-skid, uniform surfaces.
- Entrance ramps and lifts should be located in areas that are highly visible, easily accessible and connected to the sidewalk.
- Site furnishings (e.g. lighting, bollards, signage, guardrails, seating) should be located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Parking for persons with a disability should be located close to accessible building entrances.
- Light fixtures that emit white light (i.e. not orange light) should be used in all outdoor areas, as it facilitates better visibility.

6.4 INDUSTRIAL
ACCESS + PARKING

6.4.16 PEDESTRIAN + CYCLIST ACCESS

Intent: New developments must provide appropriate connections for both pedestrians and cyclists to ensure comfort, safety and visibility.

- Pedestrian walkways should be physically and visually separated from parking areas (e.g. grade separation, bollards, trees in tree guards, distinct paving).
- Pedestrian circulation that connects between buildings and shared amenities, as well as links to public streets and greenways should be provided.
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized. Provide lanes, wherever appropriate, to give parking access that minimizes disruption to sidewalks, bike routes and on-street parking.
- Short-term bicycle parking should be located in highly visible, well-lit, accessible and weather protected areas. Incorporate signage as appropriate.



Sheltered Bicycle parking in a highly visible location, Source: Wild Architecture

6.4 INDUSTRIAL
ACCESS + PARKING

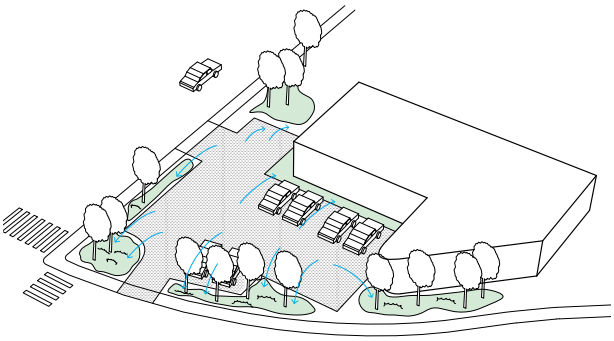


Conveniently located parking for people with disabilities, Source: TKA+D

6.4.17 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- For surface parking lots, the visual scale of large expanses of pavement should be reduced by creating smaller parking areas divided by landscaped sections which provide semi-transparent screening.
- Landscaping should be used to soften views and reduce the visual scale of parking from the sidewalk and street. Ensure that landscaping supports public safety through allowing visual surveillance of parking areas.
- The number of rail line crossings to new developments should be minimized through the coordination of access. Existing driveways should be removed or consolidated to reduce the need for trains to whistle.
- Appropriately sized and conveniently located parking spaces should be provided in order to support transportation options such as carpools and cooperative car use.
- Trees and shrubs should be planted throughout any surface parking areas to intercept precipitation, reduce surface heating, enhance appearance and protect pedestrians from the elements. The use of native plants is preferred.



Use permeable paving and storm water infiltration areas to minimize surface runoff

- Parking and other paved areas should be designed to minimize negative impacts on surface runoff volume and quality. This can be done by installing oil/water separators in high traffic areas, and/or ensuring runoff is directed to landscaped filtration areas such as bio-swales, landscaped filter strips or bio-filtration strips.

[BYLAW NO. 8039, 2018]

- Infrastructure for electric vehicles for industrial uses for employee parking should be considered with the following level of provision: for uses with more than 10 employee parking spaces, an energized outlet Level 2 or higher for a minimum of one parking space for every 10 spaces, plus one space for additional parking spaces that number less than 10.

6.4 INDUSTRIAL
SAFETY + SECURITY

6.4.18 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.
- Opportunities for visual oversight should be provided from buildings onto adjacent streets or lanes.
- All building entrances should be legible from the street. Use public realm elements such as pathways, lighting and landscaping to guide the public to and from entrances and exits.



Create transparency and visibility at main entrances and around pedestrian connections to enhance safety, Source: Barkow Leibinger

6.4 INDUSTRIAL
ENVIRONMENT

6.4.19 ENERGY CONSERVATION

Intent: Building energy performance must be optimized by employing passive strategies and where possible using energy from renewable sources.

- New buildings should use energy efficient heating, air conditioning and ventilation systems.
- Passive design principles should be used to lessen energy input to cool in hotter months and heat in colder months. Building energy consumption can also be reduced by encouraging use of alternative energy sources and the use of high quality durable materials with a long lifespan.
- The orientation and massing of buildings should maximize opportunities for passive solar heating and cooling, solar hot water and photovoltaics, and natural lighting and ventilation. Where possible, situate the long axis of major building elements in the east-west direction.
- Buildings should have units with exterior ventilation (operable windows) on two sides to encourage passive cooling through cross ventilation.
- Exterior shading devices should be used to manage heat gain from solar exposure. These may be adjustable, such as retractable canopies, or fixed, such as projecting roofs, deep balconies, light shelves, fixed fins and similar features into building design to shade during the summer but provide solar access in winter.
- Strategies should be used to facilitate passive heating in cooler months and reduce unwanted heat gain in summer months. A solar heat gain coefficient of 50% or better is encouraged for south or west facing windows to maximize solar gain during winter.
- Encourage glazing technologies that allow daylight penetration into buildings and minimize heat conduction (i.e. double or triple glazing).
- Where possible, install solar panels, wind turbines, geothermal pumps or other devices that generate renewable energy on-site. “Solar ready” design is encouraged to extend energy production later.
- Methods for improving building air tightness and overall thermal performance of the building envelope are encouraged.



Large movable glass doors double as awnings and maximize natural light and ventilation, Source: TKA+D

ENERGY CONSERVATION

The City of New Westminster is committed to energy conservation in building and design with a number of policies, plans and programs aimed at energy and greenhouse gas emissions reduction. ENERGY SAVE NEW WEST is a community energy program designed to improve the energy efficiency and reduce greenhouse gas emissions of residential homes and businesses in New Westminster.

6.4 INDUSTRIAL
ENVIRONMENT

6.4.20 WASTE MANAGEMENT

Intent: Building design, construction and operation must focus on reducing waste and promoting resilient materials and recycling efforts.

- New developments should provide on-site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability within individual developments.
- Encourage the installation or provision of space for a multi-stream (compost, recyclable, waste) collection facility in all buildings.
- Space should be provided to store bins when waiting for pick up to avoid bins being left on the street.
- The impact of odour from these areas should be reduced through careful location and an enclosed and properly ventilated design integrated within or outside the building.



Garbage area screened by architectural elements, Source: Aidlin Darling Design

6.4 INDUSTRIAL
HERITAGE

6.4.21 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.
- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.

HERITAGE REVITALIZATION AGREEMENT

A project including a heritage asset may be able to take advantage of conservation tools such as a Heritage Revitalization Agreement (HRA). This tool is a site specific agreement that provides long-term legal protection of a site in exchange for agreed-upon variations to the Zoning Bylaw. This could include incentives, such as an increase in density or reduced parking requirements, which would make it viable to conserve assets with heritage merit. The terms of an HRA strive to balance private with public interests, heritage conservation with livability and housing choice.

6.4 INDUSTRIAL
SIGNAGE



Clear, visible and intuitive signage, Source: Groosman

6.4.22 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be adequately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.



Highly visible sign integrated into the building detail
Source: Proj3ct

6.5 INTERTIDAL

INTRODUCTION

The Intertidal area, identified as Development Permit Area 6.5 [see Map 6.0] is designated in order to allow waterfront development associated with the working river and to provide an opportunity for continued commercial and industrial development. It is also expected that, wherever possible, opportunities to increase the shoreline habitat value and to develop the riverfront trail, should be integrated into new development.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial and industrial development.



Intertidal

6.5 INTERTIDAL
DEVELOPMENT PERMIT GUIDELINES

6.5.1 SITING

Intent: Building siting must respond to the existing context and create a comfortable pedestrian scale and sensitive neighbourhood interface.

- Consider existing buildings and outdoor spaces when siting new buildings, including the location of windows and entrances, overlook of outdoor space, impacts to air circulation and light penetration, etc.
- Site buildings to retain and enhance heritage assets by incorporating them into the development of the site, wherever possible, including buildings, engineering works and/or cultural landscapes, as well as significant landscape features (e.g. mature vegetation and trees, distinctive landforms).

6.5.2 CHARACTER

Intent: New buildings and developments must be designed in a cohesive manner that enhances the qualities and character of the neighbourhood in which they are situated.

- All buildings should be designed to have a high quality, cohesive appearance that enhances the overall quality of the area.
- All principal and accessory buildings within a development and/or all elements of an individual building should be designed to the same architectural style. Provide enough variety (e.g. through massing, details) to avoid a monotonous appearance and reinforce individual building identity
- Public realm elements (lighting, landscaping, etc) should add to the neighbourhood's public realm and provide comfortable spaces for pedestrians.

6.5.3 ENTRANCES

Intent: Building entrances should be located and designed to be clearly visible and well defined.

- Massing should be articulated using voids, canopies and/or recesses to identify building entrances and create weather protection at main entrances.
- All main entrances for buildings should be located along public right of ways, or immediately adjacent to parking areas but visible from the street and public sidewalk.
- Pedestrian entrances should be prominent and easily identifiable on approach to the building.
- Architectural and landscape features should be incorporated to create gateways and further enhance a sense of arrival to the building.

6.5.4 MATERIALS + COLOURS

Intent: All buildings within a development must use a cohesive material and colour palette that complements the character of the surrounding area.

- High quality materials should be used to enhance the quality and character of the area. Metal panel, standing seam metal cladding, brick and concreted (painted or finished) are preferred cladding materials while composite or cementitious panels are also permitted.
- Use a marine palette of high quality building materials such as wood and metal, and marina colour tones (e.g. red, blue).
- Colours should be muted but bolder accent colours may be used if they fit with the main colour and material palette of the building. Accent colours can be used to highlight architectural details or massing elements (soffits, recesses, window and door trims, railings, hardware, etc.)
- Matte finishes or finishes with a low level of reflectivity should be used. The use of reflective materials (e.g. mirrored glass, polished stone) should be avoided.

6.5 INTERTIDAL
DEVELOPMENT PERMIT GUIDELINES

6.5.5 LIGHTING

Intent: New developments and the spaces around them must be well lit with energy efficient lighting elements that are well integrated into the design.

- All public and semi-private sidewalks, gangways and open spaces should be equipped with pedestrian scale lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context. Shielded wall sconces and angled uplighting can help establish a façade pattern and create visual interest.
- Minimize energy used in exterior lighting by considering energy efficient lighting (e.g. LED, solar-powered) and timers, motion or photo-activated lighting for all exterior areas, including walkways and driveways and for security lighting.
- Required lighting for works yards and loading areas should be carefully designed and oriented to minimize impact on adjacent uses, especially residential.

URBAN FOREST MANAGEMENT PLAN

In recognition of the urban forest as a valued public resource at risk of decline, the City developed a city-wide Urban Forest Strategy that aims to shift the focus from individual trees in the city, to the protection and enhancement of the city's entire urban forest system.

The Strategy identifies a comprehensive set of 40 actions to reverse the current trend and increase the tree canopy cover from 18% to a target of 27% over the next 20 years. In order to achieve this, new development proposals must consider the Urban Forest Management Strategy and comply with the Tree Protection and Regulation Bylaw.

6.5.6 TREES + LANDSCAPING

Intent: New developments must integrate landscaping elements including trees, shrubs and ground cover to enhance public realm, improve air quality, absorb storm water and add to the city's tree canopy.

- Selection and placement of trees and other plant materials should be carefully considered within the city and neighbourhood context, as well as within microclimate conditions created by surrounding existing and planned buildings.
- Each development should use the BC Society of Landscape Architects' and BC Landscape and Nursery Association's "BC Landscape Standard Guidelines (Latest Edition)" in specifying, selection, site preparation, installation and maintenance of all trees and other plant materials.
- Wherever possible, retain and protect trees, vegetation, natural slopes and native soils and integrate these features into the overall landscape design.
- All new developments should integrate trees into their landscape plan.
- New developments should manage rainwater on site in a way that improves quality, diverts volume from conventional catch basins and meets the targets set by the City's Integrated Stormwater Management Plan. Rainwater on-site should be managed with designs that encourage infiltration, evapotranspiration and water re-use, including the creation of bio-retention areas, such as swales, rain-gardens, vegetated islands and overflow ponds.

6.5.7 OPEN SPACE + TRAILS

Intent: Developments must integrate semi-private and private open space to improve quality of life for building occupants, as well as enhance biodiversity and the overall quality of the neighbourhood.

- Each development should provide the riverfront trail. Buildings should be designed to interface with the trail and provide appropriate setbacks and transitions to ensure a comfortable public realm.

6.5 INTERTIDAL
DEVELOPMENT PERMIT GUIDELINES

- Provide public features at key points, such as waterfront lookout points, rest spots and entry gateway elements.
- Environmentally responsible materials should be used and the trail should be designed to a high standard, with durable and robust materials that enhance the riverfront experience.

6.5.8 FURNITURE + AMENITIES

Intent: New developments must aim to provide a range of amenities to enhance semi-public and semi-private spaces in and around the building.

- Waste and recycling receptacles should be provided and building entrance areas and near seating areas.
- Other public realm amenities which should be considered include bicycle racks, drinking fountains and waste receptacles (including recycling and compost bins).

6.5.9 PEDESTRIAN ACCESS

Intent: New developments must provide appropriate connections for pedestrians to ensure comfort, safety and visibility.

- Pedestrian walkways should be physically and visually separated from parking areas (e.g. grade separation, bollards, trees in tree guards, distinct paving).
- Ensure safe circulation by distinguishing areas for walking and cycling from parking and vehicle traffic.
- The number of driveways and times driveways and/or internal streets cross sidewalks should be minimized.

6.5.10 VEHICULAR ACCESS + PARKING

Intent: Vehicle parking associated with a development must be located and designed to reinforce a pedestrian oriented neighbourhood character and scale.

- For surface parking lots, the visual scale of large expanses of pavement should be reduced by creating smaller parking areas divided by landscaped sections which provide semi-transparent screening.
- Trees and shrubs should be planted throughout any surface parking areas to intercept precipitation, reduce surface heating, enhance appearance and protect pedestrians from the elements. The use of native plants is preferred.
- Parking and other paved areas should be designed to minimize negative impacts on surface runoff volume and quality. This can be done by installing oil/water separators in high traffic areas, and/or ensuring runoff is directed to landscaped filtration areas such as bio-swales, landscaped filter strips or bio-filtration strips.
- Entrances should be designed to ensure access to the dyke for maintenance.

6.5.11 SAFETY

Intent: New developments must enhance personal safety and security through building siting, orientation and design.

- Each development should provide a Crime Prevention Through Environmental Design (CPTED) analysis outlining the use of CPTED strategies in the design of developments and buildings, including open space.
- Clear sightlines should be provided from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design front entries so they don't create entrapment areas that are not visible from indoors.

6.5.12 ENVIRONMENT

- Wherever possible, increase the shoreline habitat value and connectivity (i.e. improve from green to yellow FREMP coded classification, and improve from yellow to red FREMP coded classification).

6.5.13 HERITAGE

Intent: Heritage elements must be recognized, preserved and enhanced to strengthen neighbourhood history and character

- Each development should follow the Standards and Guidelines for the Conservation of Historic Places in Canada for all physical work to heritage assets.

6.5 INTERTIDAL
DEVELOPMENT PERMIT GUIDELINES

- When possible, reuse historic artifacts on redevelopment site.
- New materials should be harmonious with the historic context, and original materials should be maintained where possible.
- New construction should be compatible with adjacent heritage materials and complement any existing heritage pattern and scale of the streetscape by providing an appropriate transition between differing scales and heights of neighbouring buildings.

6.5.14 SIGNAGE

Intent: Provide signage that is clear and visible without being visually obtrusive.

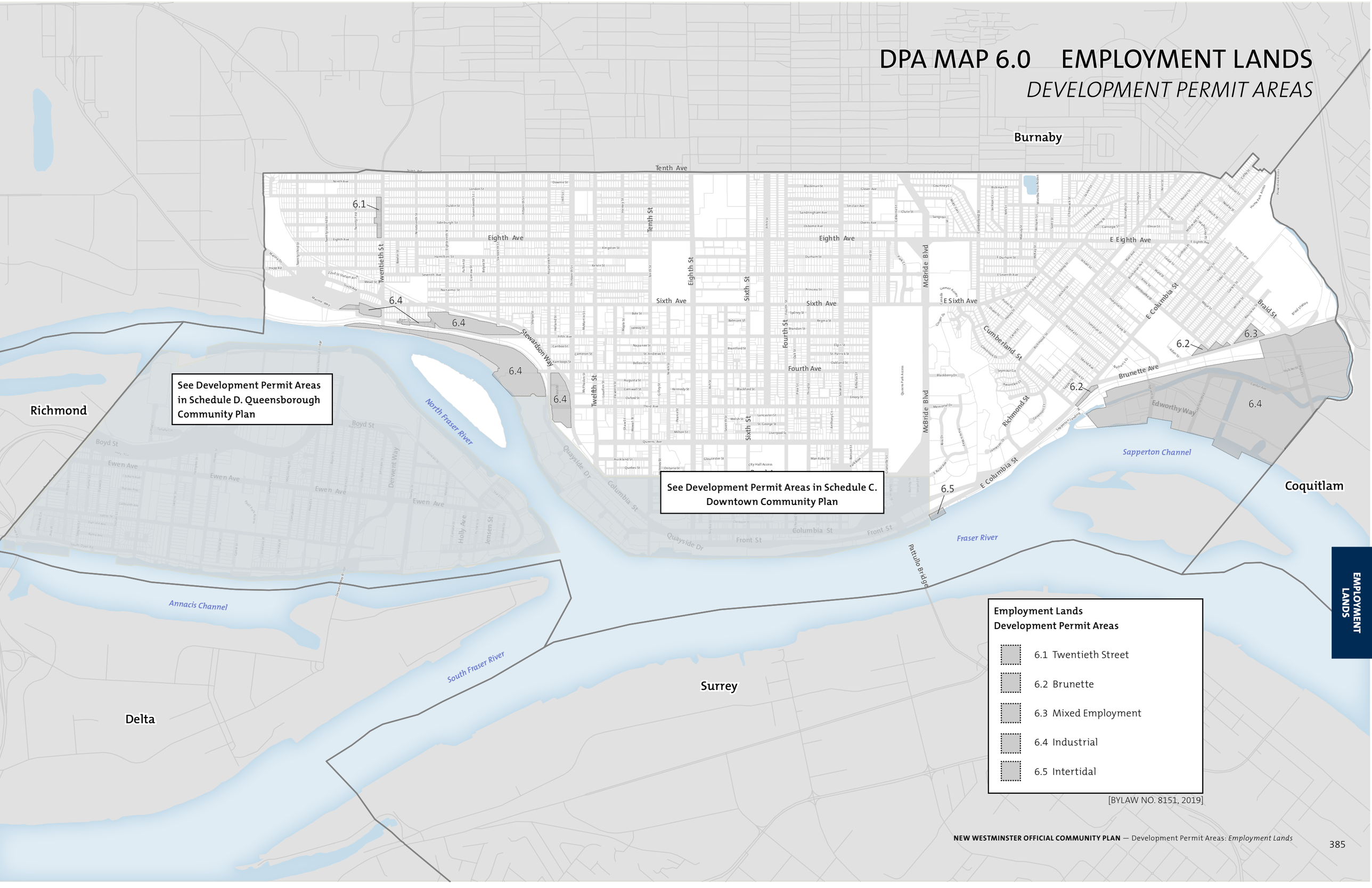
- Signs should be designed to be consistent with the architectural style, scale and materials of the development and its surrounding context.
- Signs should be integrated into the detailing of the building, but subordinate to the overall building composition.
- Signs should be visible from the street without being visually obtrusive. Signs should be designed so that the size, location and information is oriented to pedestrians.
- Signs should be adequately lit and visible at all times. To achieve this, use of indirect lighting from fixtures integrated into the design of the building is encouraged.
- Signs should add to the interest of the building and respect the historic character of the area, and not create visual clutter.

6.5.15 APPROVALS

- Obtain the necessary approvals and comply with the requirements of relevant environmental approval agencies such as Transport Canada, Environment Canada, Fisheries and Oceans Canada, BC Ministry of Environment or Port Metro Vancouver.

DPA MAP 6.0 EMPLOYMENT LANDS

DEVELOPMENT PERMIT AREAS



Employment Lands
Development Permit Areas

- 6.1 Twentieth Street
- 6.2 Brunette
- 6.3 Mixed Employment
- 6.4 Industrial
- 6.5 Intertidal

[BYLAW NO. 8151, 2019]

EMPLOYMENT LANDS

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7.0
NATURAL FEATURES



7.0 NATURAL FEATURES
INTRODUCTION

INTRODUCTION

There is one Development Permit Area in this section, which is identified on Map 7.0. The Development Permit Area encompasses sensitive environmental habitat that should be protected and enhanced, and establishes guidelines for the restoration, maintenance, and protection of the natural environment, ecosystems and biological diversity.

7.1 BRUNETTE RIVER

INTRODUCTION

The Brunette River area, identified as Development Permit Area 7.1 [see Map 7.0], is designated in order to preserve its valuable aquatic and wildlife habitat while allowing for the continuation of the Brunette Fraser Greenway, and associated trail features.

Flowing southeast from Burnaby Lake to the Fraser River, the Brunette River provides a critical ecological linkage for many of the highest value riparian systems found within Metro Vancouver. The river corridor is recognized as an important site for green infrastructure and biodiversity within Metro Vancouver, where over 20% of the watershed currently exists as protected park, water bodies, wetlands or undeveloped green space. Flowing towards its outlet at the Fraser River, the natural state of the river's riparian edges within New Westminster become more disturbed and impacted by industrial development. As efforts are made towards restoring and protecting important habitat within this urban context, opportunities are also available to implement regional goals the Brunette Fraser Greenway.

Additional guidelines specific to the Sapperton Reach are included in the Brunette River Master Plan | Sapperton Reach (April 5, 2016).

This area is designated as a Development Permit Area with the following purposes:

- protection of the natural environment, its ecosystems and biological diversity (as outlined in the Justification section of this schedule),
- establishment of objectives to promote energy conservation (as outlined in the Justification section of this schedule),
- protection of development from hazardous conditions,
- establishment of objectives for the form and character of commercial, industrial, multi-unit residential and mixed use development.



Approximate Wetted Width

Naturalized Zone (10m)

Transition Zone (10m)

Activity Zone (up to 20m)

Urban Improvement Zone (up to 20m)

Greenway/Trail

School/Park/Open Space

7.1 BRUNETTE RIVER
GENERAL PRINCIPLES

GENERAL PRINCIPLES

Natural Features are a significant component of the Brunette River corridor, and their protection and enhancement must be considered during land use and development planning.

A more sustainable built form that ultimately adds value to the relationship between the natural and built environment along the river corridor can be created using comprehensive designs facilitated by integrated, multi-disciplinary, professional design teams. The Brunette River Development Permit Area Guidelines reflect best practices in support of the following the following seven principles:

1. GEOTECHNICAL HAZARD MITIGATION

In the case of steep slopes along the bank of the Brunette River corridor, geotechnical stability must be maintained. Geotechnical and slope stability hazards associated with river banks include erosion and landslides.

2. STORMWATER MANAGEMENT

Stormwater management can be used to improve hydrological function, reduce erosion and control runoff within a development site. Management of stormwater within the Brunette River corridor is intended to safeguard human life and property from flood and erosion damage. Best Management Practices for rainwater management can conserve ecological integrity by protecting both significant aquatic species and habitats, and preserve watershed ecological health while allowing development to proceed.

3. HABITAT PROTECTION + ENHANCEMENT

The City of New Westminster has adopted Provincial guidelines for Riparian Area Regulations (RAR), and as a result, all land use planning and development within the city must comply with the Streamside Protection and Enhancement Area (SPEA) established through RAR. Providing habitat protection and enhancement within the Brunette River corridor will protect fish habitat and the ecological integrity and function of riparian areas.

4. CONTAMINATED SITE MANAGEMENT

The majority of the land within the Brunette River corridor has historically been used for industrial uses, and within that, the majority is classed as heavy industry. As sites are redeveloped, reclamation of former industrial sites is crucial to restoring river and riparian ecological health. Managing contaminated sites, including soil, water, sediment and soil vapour contamination will minimize the risk to people, wildlife and pets. The Provincial Contaminated Sites Regulation applies to the entirety of the corridor.

5. URBAN FOREST MANAGEMENT

Through its Urban Forest Management Strategy, the City has targeted a 27% urban forest canopy cover, a 9% increase from 2016, for all publicly and privately owned trees and supporting vegetation within its boundaries. Protecting and enhancing the urban forest within the riparian zone will contribute to carbon sequestration, reduced stormwater runoff and erosion, increased wildlife habitat, climate management and heat island mitigation, improved air quality, improved aesthetics, and improved psychological well-being.

6. RECREATION PLANNING , EDUCATION + INTERPRETATION

As the city continues to grow and densify more pressure will be placed on well-used and well-loved parks, trails and recreation facilities. Providing for recreation, education and interpretation within publicly accessible areas will help promote community engagement in conservation and climate awareness.

7. MANAGING THE DEVELOPMENT INTERFACE

Ecosystem management relates not only to active natural and habitat areas, but requires careful consideration and integration of adjacent development and land uses. Through thoughtful design at the development interface and beyond, habitat quality, stormwater function and hazard mitigation objectives are better supported. Appropriately managing the development interface will to ensure that adjacent environmental values are protected while acknowledging existing land values, land use entitlements and economic objectives.

7.1 BRUNETTE RIVER
GLOSSARY OF TERMS

GLOSSARY OF TERMS

Biodiversity: is defined broadly as the variability of life on earth and the ecological processes that support it.

Bioswale: is a constructed stormwater management drainage feature characterized by the use of plant material filter the flow of runoff.

High Water Mark: is the visible mark of a stream where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the stream a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and include the active floodplain (British Columbia Riparian Areas Regulation Assessment Methods).

Infiltration Gallery: is a stormwater management drainage feature designed to collect and convey stormwater to soil-based storage (aquifer).

Large Woody Debris: a larger tree trunk that has fallen (may also be called downed wood). These features provide shelter, feeding sites, and movement pathways for wildlife.

Pollinator Garden: a garden specifically designed and planted with flowers that provide nectar or pollen to support a range of pollinating insects, such as hoverflies, bees, beetles, wasps, butterflies and moths.

Riparian Areas Regulation (RAR) Assessment: means a report prepared in accordance with the assessment methods to assess the potential impact of a proposed development in a riparian assessment area and which is certified for the purposes of this regulation by a qualified environmental professional.

Standing Wildlife Trees: dead wildlife trees installed at variable spacing, providing important habitat for birds, mammals, amphibians and other organisms.

Stormwater Pond: a body of water that collects and stores urban stormwater runoff. These ponds are designed to mimic the ecological function of naturally occurring ponds or wetlands to manage water quality and prevent downstream flooding.

Streamside Protection and Enhancement Area (SPEA): an area a) adjacent to a stream that links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation, and existing and potential adjacent upland vegetation that exerts an influence on the stream and, b) the size of which is determined according to this regulation on the basis of an assessment report provided by a qualified environmental professional in respect of a development proposal (British Columbia Riparian Areas Regulation Assessment Methods).

Top of Bank (ToB): means a) the point closest to the boundary of an active floodplain of a stream where a break in the slope of land occurs such that the grade beyond the break is flatter than 3:1 at any point for a minimum distance of 15 meters measured perpendicularly from the break, and, b) for a floodplain area not contained in a ravine, the edge of the active floodplain of a stream where the slope of the land beyond the edge is flatter than 3:1 at any point for a minimum distance of 15 meters measured perpendicularly from the edge (British Columbia Riparian Areas Regulation Assessment Methods).

Urban forest: all of the publicly and privately owned trees and supporting vegetation in an urban area.

Wildlife Corridors: a link of wildlife habitat, generally native vegetation, which joins two or more larger areas of similar wildlife habitat. Corridors are critical for the maintenance of ecological processes including allowing for the movement of animals and the continuation of viable populations.

7.1 BRUNETTE RIVER

RIVER REACHES

RIVER REACHES

Individual reaches, defined by biophysical characteristics, as well as current and future land use considerations have been identified (see Figure 1). This Development Permit Area, including the additional detail in the Brunette River Master Plan | Sapperton Reach (April 5, 2016), applied to the Sapperton Reach. In the future, this Development Permit Area will be extend to the remainder of the reaches.

1. HUME PARK REACH

The Hume Park Reach extends from the Columbia Street overpass to the eastern property boundary of Hume Park.

- Opportunities: environmental values protected as park land, relatively intact ecosystem, existing trails, public access.
- Constraints: active flood plain, active park programming.

2. SAPPERTON REACH

The Sapperton Reach extends from the eastern property boundary of Hume Park to the approximate location of the SkyTrain overpass. The reach condition is defined by the steep embankment (>30%) of the south bank, riffle-glide stream features and availability of in-stream cover habitat.

- Opportunities: ecosystem restoration, improvements to the Central Valley Greenway connection, redevelopment of industrial warehouse site, restoration of natural hydrology, development of new recreational amenities.
- Constraints: development encroachment into the riparian zone, invasive species, environmental degradation.

3. BRAID REACH

The Braid Reach extends from the approximate location of the SkyTrain overpass to the Braid Street bridge within the industrial lands.

- Opportunities: redevelopment of industrial uses within riparian zone, restoration of natural ecosystem, connection to the Brunette Fraser Greenway, regional Sky Train connection.
- Constraints: impact from heavy industry, high potential for contaminated soils, timeline for redevelopment unknown.

4. CANFOR REACH

The Canfor Reach extends from the Braid Street bridge within the industrial lands to confluence with the Fraser River.

- Opportunities: redevelopment of industrial uses within riparian zone, restoration of natural ecosystem, connection to the Central Valley Greenway, regional Skytrain connection.
- Constraints: impact from heavy industry, high potential for contaminated soils, timeline for redevelopment unknown.

7.1 BRUNETTE RIVER

RIVER REACHES



Figure 1. River Reaches

7.1 BRUNETTE RIVER
MANAGEMENT ZONES

7.1.1 MANAGEMENT ZONES

Intent: Four landscape zones are identified to guide ecosystem management and restoration, landscape programming and design.

- **The Naturalized Zone** – *measured from the active river channel to 5m or 10m* (16.4ft or 32.8ft) above/beyond the Top of Bank* – supports biodiversity, allows for wildlife movement and protects slope stability. Split rail fencing should be used to identify the naturalized zone, and to protect the integrity of the ecosystem from encroachment by humans and pets. Minimal recreational trail connections and/or river crossings are permitted where boardwalks and railings are used to limit impact.
  *Where the potential for wildlife corridors exist below ToB (defined as a 10m/32.8ft corridor with slope <3:1), the minimum 5m Naturalized Zone is permitted. Where no corridor exists, the Naturalized Zone measures 10m/32.8ft from ToB.
- **The Transition Zone** – *measured as a minimum 5m, and desirably 10m (32.8ft), where feasible, beyond the boundary of the Naturalized Zone* – allows for a more gradual landscape transition from the Naturalized Zone (fenced/protected edge) towards the amenity programming of the Activity/Urban Improvement Zone (permitting more intensive programming and design intervention). The Transition Zone accommodates habitat (edge) improvements, including the placement of coarse woody debris, raptor perches, and landscape plantings selected for both habitat (food/structure) values and aesthetic quality. The Transition Zone also permits the Brunette Fraser Regional Greenway pedestrian/cycle corridor and associated resting areas or viewpoints.
- **The Activity Zone** – *measured as a maximum of 20m (65.6ft) located between the Transition Zone and the Urban Improvement Zone* – allows for more intensive landscape programming in support of adjacent land use objectives, including recreational programming, stormwater management and habitat enhancement (e.g. pollinator gardens). The Brunette Fraser Greenway pedestrian corridor is permitted within this zone. Where residential uses are proposed, naturalized playscapes and community gardens are encouraged, subject to contaminated sites remediation. Where permitted, non-invasive vegetation, such as gardens and ornamental plants, may be planted in containers designed to complement the natural environment.
- **The Urban Improvement Zone** – *measured as a maximum 20m (65.6ft) along the outermost extents of the DPA (opposite the active river channel)* – permits permanent structures (building program) within the Brunette River DPA, subject to architectural design guidelines (in support of DPA objectives).

Figure 2 provides a general outline of the features and permitted uses identified within each Management Zone.

7.1 BRUNETTE RIVER
MANAGEMENT ZONES

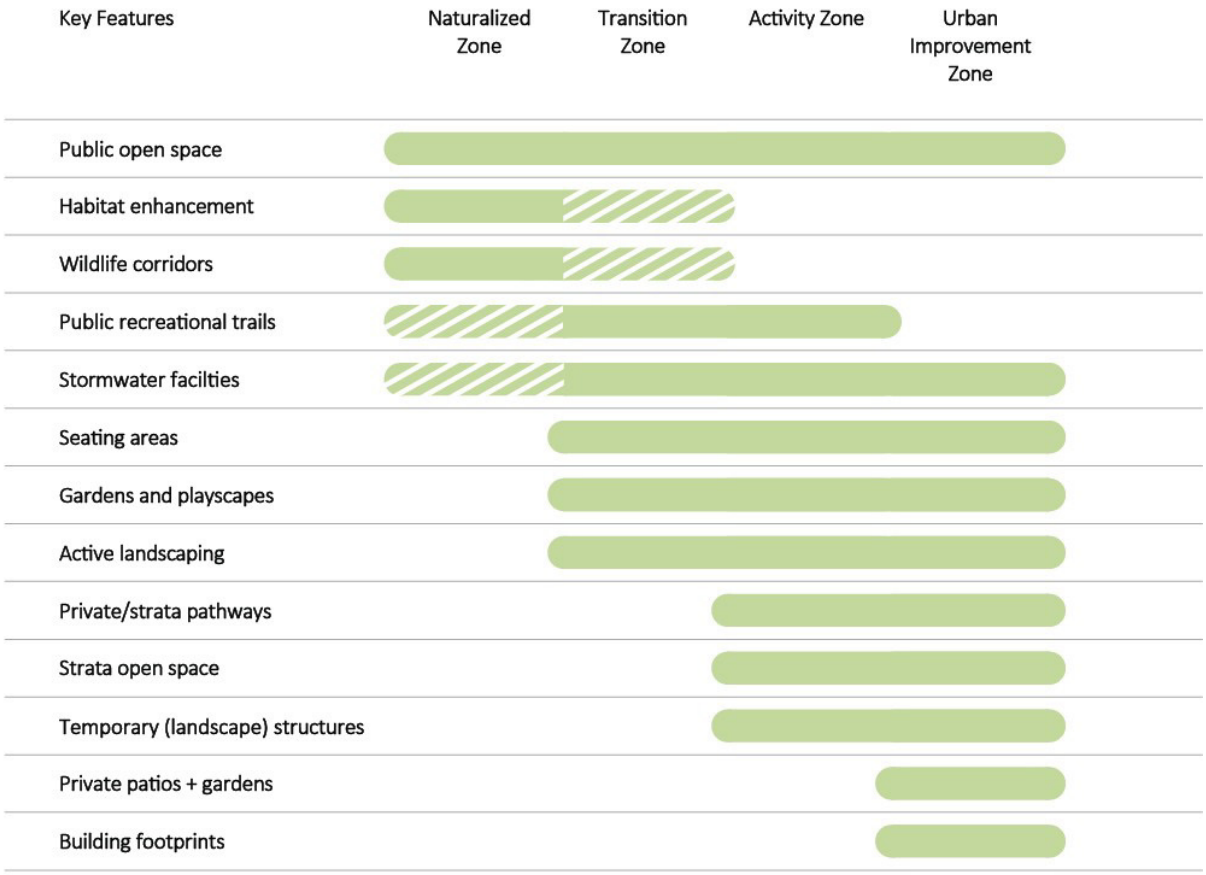


Figure 2. Example Features, Permitted Uses and Management Zones

7.1 BRUNETTE RIVER
GEOTECHNICAL HAZARD + STORMWATER MANAGEMENT

7.1.2 GEOTECHNICAL HAZARD

Intent: RAR requires consideration for various measures that protect the integrity of the SPEA. In the case of steep slopes along the bank of the Brunette River corridor, geotechnical stability must be maintained to ensure no slope instabilities impact the SPEA.

- **Geotechnical Setback |** Conform to the generalized Geotechnical Setback of 5m (16.4ft) from the Top of Bank or 3:1 from the Toe of Slope, whichever is greater. The generalized setback can be varied upon completion of a site specific detailed assessment by a Professional Geotechnical Engineer.
- **Bank Stabilization |** Where steep/unstable slopes occur, additional stabilization measures may be required as per the recommendation of a Geotechnical Engineer. Where stabilization is impractical, an additional setback area of 5 to 10m (16.4ft - 32.8ft) may be required.
- **Forest restoration |** Natural forest should be restored as a means to stabilize the bank, slow stormwater runoff and reduce erosion.

7.1.3 STORMWATER MANAGEMENT

Intent: Redevelopment near the Brunette River proves an opportunity to restore hydrological function to heavily manipulated landscapes and mitigate geotechnical or flood hazard within the riparian area. Towards this end, DPA objectives including controlling stormwater quality, erosion and flood protection within the Brunette River corridor.

- **Permeable Surfaces |** All development and hardscaping should be designed to minimize impermeable surfaces. Where use of impermeable materials cannot be avoided, all runoff should be directed towards stormwater management infrastructure (infiltration galleries, bioswales, stormwater ponds etc).
- **Low Impact Design |** Low Impact Development techniques should be used to minimize stormwater runoff. All runoff should be directed towards low impact (green) stormwater management infrastructure, such as infiltration galleries, bioswales, stormwater ponds etc. Reducing, slowing and cleaning stormwater discharges naturally improves both ecological and economic outcomes compared with using piped systems.
- **Stormwater Facilities |** Where appropriate, incorporate stormwater management facilities to control volume, rates and quality of stormwater runoff into the Brunette River, while creating landscape features, where approved by a geotechnical engineer. Appropriate plantings should be selected for functionality, low maintenance and considered in light of habitat enhancement objectives.
- **Hydrological Function |** Pre-development hydrological function should be restored and new development should addresses stormwater quantity, quality, reuse and infiltration. Stormwater should be captured as close to where it falls as practical, and concentrated runoff should be avoided.
- **Integrated Stormwater Management Planning |** New development should achieve the Integrated Stormwater Management Plan (ISMP) targets within site programming and design.



Landscape features can minimize stormwater runoff.

7.1 BRUNETTE RIVER
HABITAT PROTECTION AND ENHANCEMENT

7.1.4 HABITAT PROTECTION + ENHANCEMENT

Intent: While maintaining healthy aquatic and riparian habitat is a primary goal of RAR, streamside setbacks provide the additional value of helping to protect wildlife passage and habitat for species at risk, encouraging urban forest cover, and fostering opportunities for recreational use.

- **Environmental Assessment |** Submit a study by a Qualified Environmental Professional (QEP) that identifies sensitive habitats or species at risk, and mitigation measures.
- **Habitat Diversity |** Consider appropriate habitat enhancement measures – including but not limited to: understory enhancement and/or pollinator plantings, wildlife trees and Large Woody Debris (LWD), nesting boxes, and/or raptor perches – according to objectives of each Management Zone. Habitat enhancement should be focused within the Naturalized Zone, and supported throughout adjacent Zones.
- **Invasive Plant Species Management |** Invasive plant species that dominate large tracts of the Brunette River Corridor, primarily represented by Himalayan blackberry and Japanese knotweed, should be removed using the appropriate method.
- **Tree Planting |** All areas treated for invasive species should be replanted with a mix of native tree species. Densities should target 400-800 stems/ha within the Naturalized Zone, and include both native conifer and deciduous species. Tree Planting plans should consider urban forest management objectives. Tree planning within the Transition, Activity and Urban Improvement Zones should be appropriate to the objectives within each respective zone.
- **Large Woody Debris |** Within the Naturalized and Transition Zones, large tree trunks that have fallen, often called downed or coarse wood, that provide shelter, feeding sites, and movement pathways for wildlife should be retained and reintroduced. These large trees also act as nurse logs for plants, add organic matter and nutrients to the soil, and help to stabilize slopes, reduce erosion, and control sediment runoff.



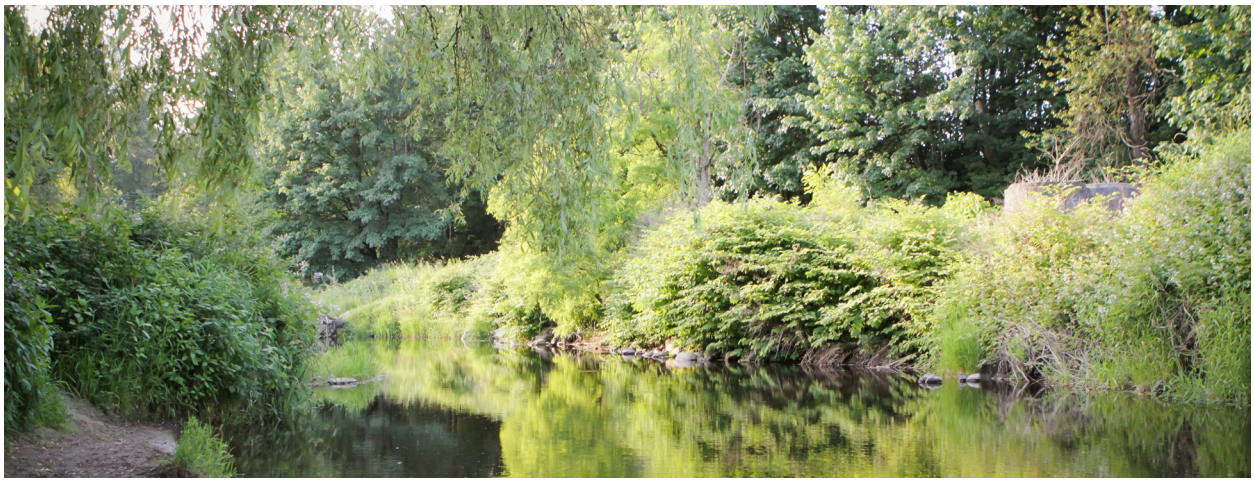


Choose plants that are appropriate for the area.

7.1 BRUNETTE RIVER

HABITAT PROTECTION AND ENHANCEMENT

- **Standing Wildlife Trees |** Planted wildlife trees or standing trees should be installed within the Naturalized and Transition Zones where opportunities present, as important habitat features for birds, mammals, amphibians and other organisms. Wildlife trees provide forage, roosting and nesting sites for a diversity of bird species, as well as providing a source of organic nutrient inputs. Consider the following:
  - Large conifers tend to decay less quickly than deciduous trees; however, a variety of species should be used to provide a range of micro-habitats.
  - One third to one half the length of a wildlife tree should be buried to ensure stability.
  - Trees should be placed leaning away from structures and people.
  - Logs should be a minimum of 40cm (15.7in) in diameter and 6 m (19.7ft) long.
  - Wildlife trees should be installed at variable spacing (single trees no closer than 10m/32.8ft apart) and in clusters (several trees grouped together).
- **Raptor Perches and Nest Sites |** Consider installing raptor perches along the forest edge and in habitat islands within the Naturalized and Transition Zones, at heights that exceed the natural canopy height (30-40m/98.4ft-131.2ft). Raptors have a preference for perching above hunting areas; open spaces, meadow habitat and wetland areas provide good habitat for prey. Perches can be metal or wood poles with a perch/nesting structure at the top.
- **Wildlife Corridors |** Wildlife corridors within the Naturalized Zone should be protected, in addition to the legislated RAR setback which focuses on protecting fish and fish habitat. The minimum natural area setback for functional wildlife movement is 30m (98.4ft), but ideally it is 50 – 100m (164-328ft). Accommodate wildlife movement within the Naturalized Zone where the active flood plain is wide and flat. Otherwise, a wildlife corridor of 15m (49ft) is measured from the top of bank.
- **Species at Risk |** Identify species at risk and develop habitat protection and enhancement strategies in conjunction with a Registered Professional Biologist (RPBio) in light of known ecological communities and species at risk, including but not limited to: Nooksack Dace (Chehalis lineage), Painted Turtle (Pacific Coast population), Great Blue Heron, and the Black cottonwood-red alder/salmonberry, Western redcedar/three-leaved foamflower, Western redcedar /swordfern Dry Maritime forest types.



Brunette River.

7.1 BRUNETTE RIVER

CONTAMINATED SITE MANAGEMENT AND URBAN FOREST MANAGEMENT

7.1.5 CONTAMINATED SITE MANAGEMENT

Intent With a long history of industrial use along the length of the Brunette River, reclamation of former industrial sites is crucial to restoring river and riparian ecological health.

- **Contaminated Soils |** Apply the Provincial Contaminated Sites Regulation to the entirety of the corridor.

7.1.6 URBAN FOREST MANAGEMENT

Intent: The New Westminster Urban Forest Management Strategy provides guidance for improving the environmental, social and economic health of the city through increasing forest cover.

- **Canopy Cover |** Existing canopy cover should be protected, impervious surfaces minimized, and soil volume available for tree planting maximized. Where appropriate, trees should be planted within all management zones, but opportunities for enhancement of riparian values may be most concentrated within the Naturalized Zone.
- **Tree Protection |** Healthy trees outside the development footprint, immediately prior to and during redevelopment, should be retained under the direction of a Registered Professional Arborist. If trees need to be removed, they should be replaced with native tree species that contribute to habitat enhancement objectives. The Tree Bylaw requirements must be met.
- **Specimen Variety |** Urban forest diversity should be improved by planting no more than 10% of any species, 20% of any genus and 30% of any family.



Tree planting.

7.1 BRUNETTE RIVER
RECREATION PLANNING, EDUCATION + INTERPRETATION

7.1.7 RECREATION PLANNING, EDUCATION + INTERPRETATION

Intent: Beyond the recreational and experiential value of linear parks, interpretive signage along the Brunette River corridor provides an opportunity reveal more specific values and functions of the riparian edge along its length. Community stewardship projects and interpretive programs provide opportunities for more dynamic involvement of citizens with benefits reaching beyond social engagement to greater mental and physical well-being associated with volunteerism.

- **Recreational Corridor |** The regional goal for a major green corridor linking the Fraser River and Burnaby Lake Park should be realized. This nature-oriented corridor has been recognized and is recommended for enhancement within regional biodiversity and green infrastructure planning initiatives. Target a minimum 4m (13.1ft) wide pathway with a minimum 0.5m (1.6ft) horizontal clearance on each side.
- **Playscapes |** Play spaces within the Activity Zone, should provide opportunities for logs, boulders and other natural materials to form the basis of play structures.
- **Gardens |** Pollinator and community gardens within the Activity Zone, with an emphasis on using natural landscape materials, are encouraged.
- **Viewpoints |** Construct viewpoint opportunities for viewing wildlife and scenery, landscape features or other points of interest along portions of the river. Where viewpoints and river crossings encroach into the Naturalized Zone, use boardwalks and fencing to prevent impact into the natural ecosystem.
- **Signage |** Ensure that areas set aside for conservation, protection and enhancement are supported through interpretive signage and ecosystem information including tools for living in and around sensitive habitats and ecosystems. Educational signage can also be used to reinforce the rationale related to the exclusion of people and pets from naturalized areas. Signage should be designed in keeping with the natural aesthetic of the riparian area and its landscaping. Signage should also reflect the history of the Brunette River corridor, its context within an urbanizing watershed, and its changing use over time.



Pollinators are encouraged.



Opportunities for community stewardship are supported.

7.1 BRUNETTE RIVER
MANAGING THE DEVELOPMENT INTERFACE

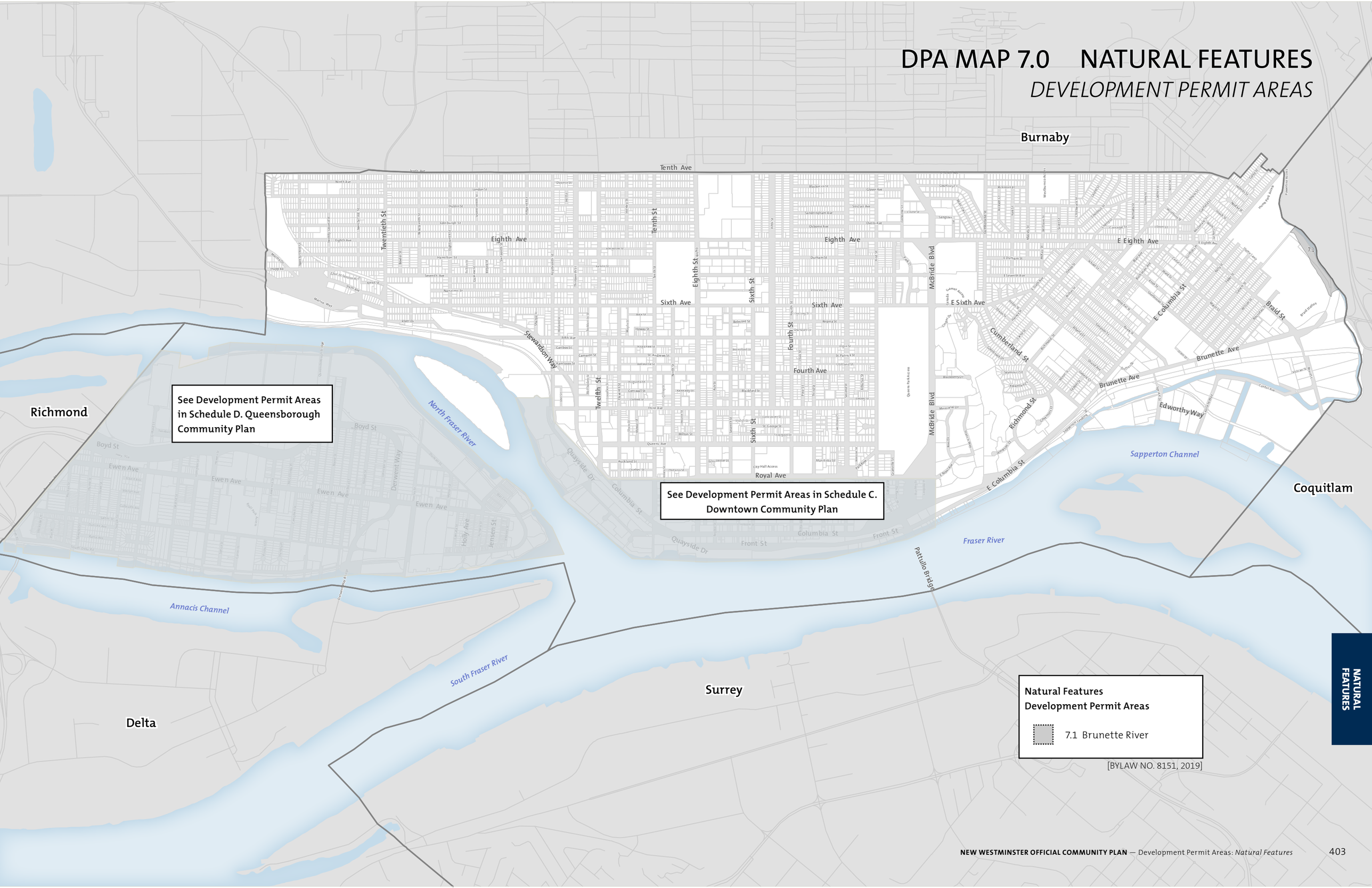
7.1.8 MANAGING THE DEVELOPMENT INTERFACE

Intent: Ecosystem management relates not only to active natural and habitat areas, but requires careful consideration and integration of adjacent development and land uses. Through thoughtful building and site design at the development interface and beyond, habitat quality, stormwater function and hazard mitigation objectives are better supported.

- **Buildings |** Buildings and structures are only permitted within the Urban Improvement Zone, and gradual landscape transitions to naturalized habitat should be maximized, to the greatest extent feasible
- **Native Vegetation |** Target the use of at least 50% native plants in landscaping and gardens within the Urban Improvement and Activity Zones, 75% within the Transition Zone, and 100% within the Naturalized Zone. Landscaping with native plants has dual benefits of reducing demand for potable water and increasing infiltration of rainwater.
- **Awareness |** Awareness and stewardship of wildlife habitat and conservation goals should be promoted. Signage can be used to remind and educate residents, employees and the public of adjacent ecological values, and potential for wildlife conflict.
- **Public / Private Interface |** A well landscaped hierarchy of public, semi-public and private green spaces (natural features, gardens, courtyards and patios) should be provided. High quality landscaping within the Active and Urban Improvement Zones should be provided as means to provide buffers and visually soften development edges, and also to improve air quality and moderate temperature.
- **Landscape Buffers |** Planting of landscape buffers should be used mitigate negative impacts to river health from spills of deleterious materials from industrial activities. These may include visual screening of industrial and transportation activities, parking areas and utilities. Planting of additional trees also helps to achieve tree canopy targets.
- **Cohesiveness |** A smooth physical and programmatic transition between Management Zones should be achieved. Zone boundaries should not be delineated with built materials and should utilize same or similar and/or gradual ascending or descending arrangements of landscape elements with varying textures, forms, and colors. Habitat enhancement should be considered in light of objectives of each Management Zone, where such efforts are concentrated within the Naturalized Zone and expanded, as appropriate, into adjacent Zones.
- **Access |** Where appropriate and where in support of regional recreation and transportation objectives, enable access to, and movement throughout the site, except in the case of the Naturalized Zone where human and pet access is prohibited. Special provisions can be made to allow access through the Naturalized Zone (in particular for designated river crossings or to provide viewing platforms) under the direction of a Qualified Environmental Professional.
- **Energy Conservation |** Energy conservation measures should be employed in the design and construction of all buildings, including considerations for massing, shading and glazing.
- **Water Conservation |** Water conservation measures should be employed in the design and construction of all buildings and landscaping, including low flow fixtures, rainwater capture, greywater re-use (where possible) and native plantings.
- **Site Permeability |** Continuous horizontal and vertical building facades adjacent to public spaces should be minimized wherever possible. Permeable and welcoming open scape should be created within the Transition, Activity and Urban Improvement Zones, and connect beyond the site.
- **Architectural Design |** Architectural design which complements the natural setting and features (riparian habitat, creek corridor, natural vegetation and wildlife trees) should be implemented.

DPA MAP 7.0 NATURAL FEATURES

DEVELOPMENT PERMIT AREAS



See Development Permit Areas in Schedule D. Queensborough Community Plan

See Development Permit Areas in Schedule C. Downtown Community Plan

Natural Features Development Permit Areas

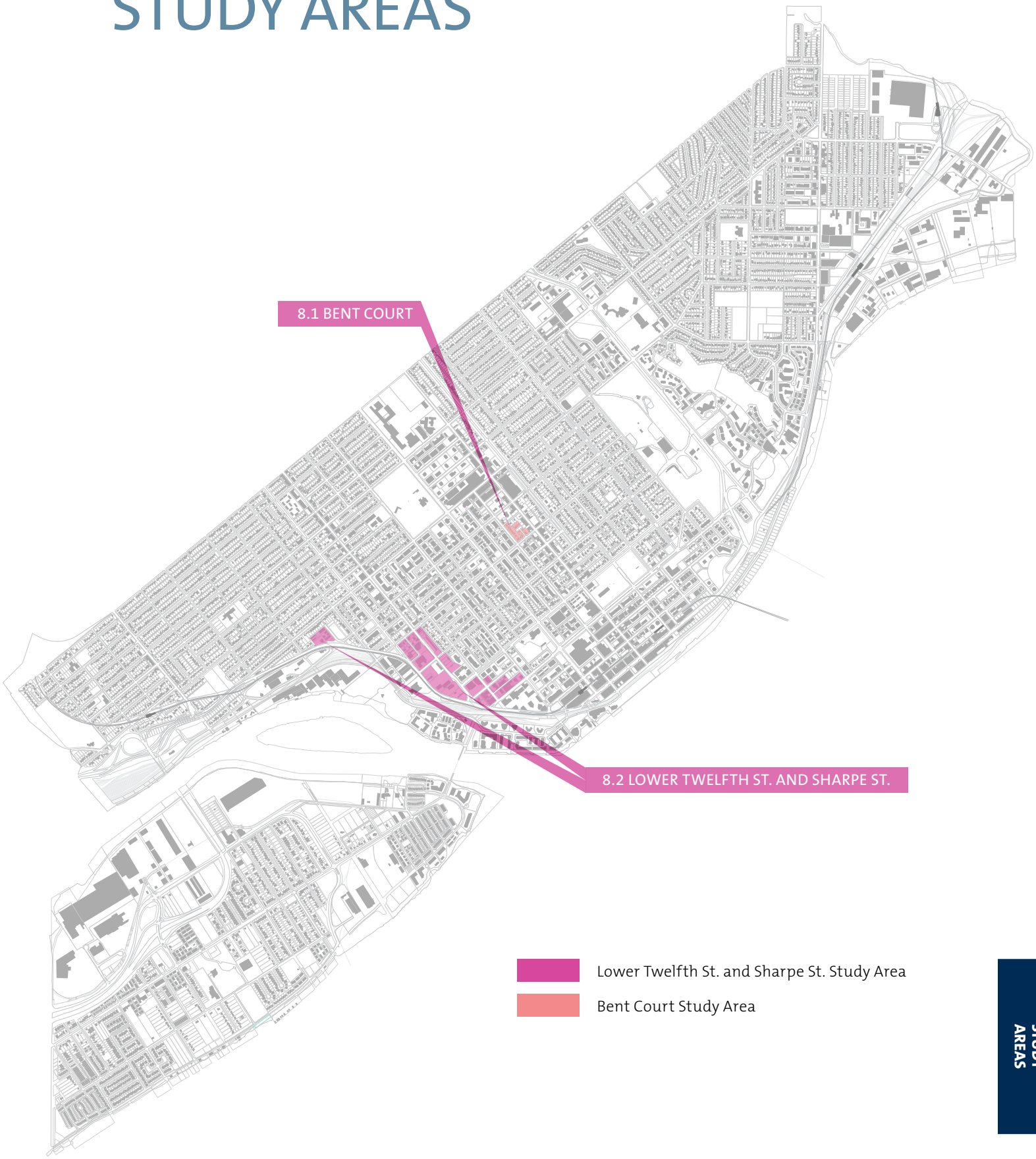
7.1 Brunette River

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NATURAL FEATURES

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8.0
STUDY AREAS



8.0 STUDY AREAS
INTRODUCTION



Industrial Building in the Lower Twelfth Street Area.

INTRODUCTION

There are two Development Permit Areas in this section, which are identified on Map 8.0. These Development Permit Areas are intended as study areas where additional analysis needs to be completed before more specific land use designations can be applied and design guidelines can be created.

STUDY AREAS

8.1 Bent Court

8.2 Lower Twelfth Street & Sharpe Street

8.1
BENT COURT

INTRODUCTION

The Bent Court study area, identified as Development Permit Area 8.1 [See Map 8.0], is designated in order to provide a mixed use and mixed density area which preserves existing heritage assets and streetscape character while recognizing existing development entitlements.

New design guidelines will be developed for new development in this area that will ensure that new buildings have a high quality design and are complementary to heritage buildings that are preserved. In the meantime properties will be evaluated against this objective through a Heritage Revitalization Agreement process.

Through a Heritage Revitalization Agreement, a development that preserves heritage buildings may be eligible for incentives such as reduced parking requirements, increased flexibility of other parking requirements (e.g. size, location), reduction in or waiving of required commercial space and consideration of purchase of City owned land and rights-of way to facilitate consolidation of provision of parking which would make it viable to conserve assets with heritage merit.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, multi-family residential and mixed use development,
- 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.



Bent Court Study Area

School/Park/Open Space

Applications to develop properties located within this Development Permit Area for multi-unit residential, through a Heritage Revitalization Agreement, should consider the design guidelines included in the Multiple Unit Residential Development Permit Area.

Applications to develop properties located within this Development Permit Area for commercial uses, in accordance with existing commercial zoning, must instead comply with the design guidelines included in the Uptown Mixed Use Node Development Permit Area.

8.2
LOWER TWELFTH ST. & SHARPE ST.

INTRODUCTION

The Lower Twelfth Street and Sharpe Street study area, identified as Development Permit Area 8.2 [see Map 8.0], is intended to encourage a creative and flexible combination of land uses such as residential, commercial and ultra-light industrial or other employment generating uses. A Master Plan, which includes more specific land use designations and design guidelines, will be created for the area.

Applications for the development of a catalyst project that sets the standards for this Development Permit Area and meets the objective of combining a non-traditional mix of uses, including ultra-light industrial uses, may be considered. Other catalyst projects that strongly support other City priorities may also be considered.

This area is designated as a Development Permit Area with the following purposes:

- establishment of objectives for the form and character of commercial, industrial, multi-family residential and mixed use development,
- 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.

[BYLAW NO. 8151, 2019]

Applications to develop properties located within this Development Permit Area for commercial or industrial uses, in accordance with existing zoning, must instead comply with the design guidelines included in the Brunette Employment Lands Development Permit Area.

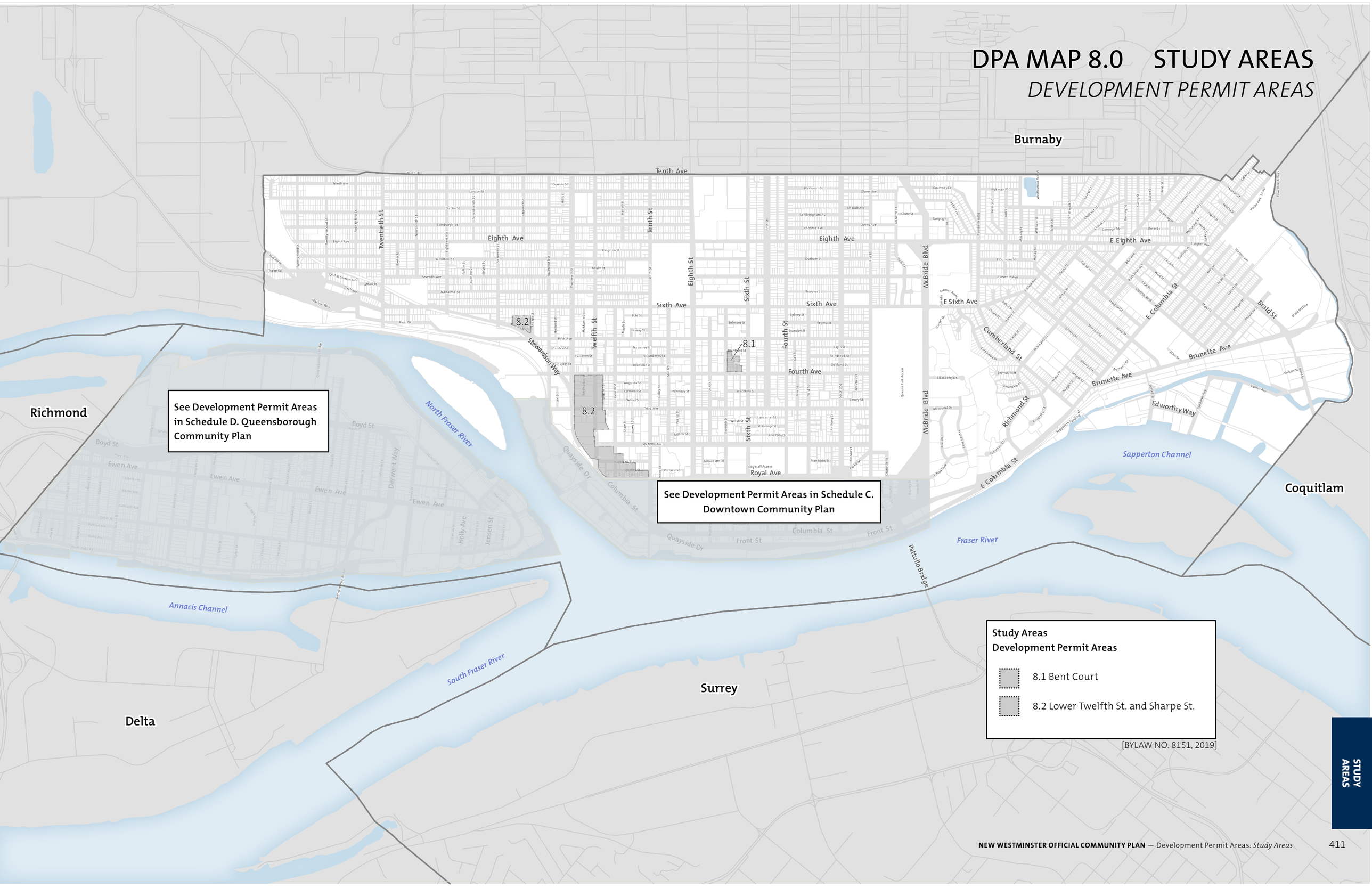


Lower Twelfth St. and Sharpe St. Study Area

School/Park/Open Space

DPA MAP 8.0 STUDY AREAS

DEVELOPMENT PERMIT AREAS



[BYLAW NO. 8151, 2019]

STUDY AREAS

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NEW WESTMINSTER

511 Royal Avenue • New Westminster, BC V3L 1H9
General Inquiries (604) 527-4532 • Fax (604)527-4511