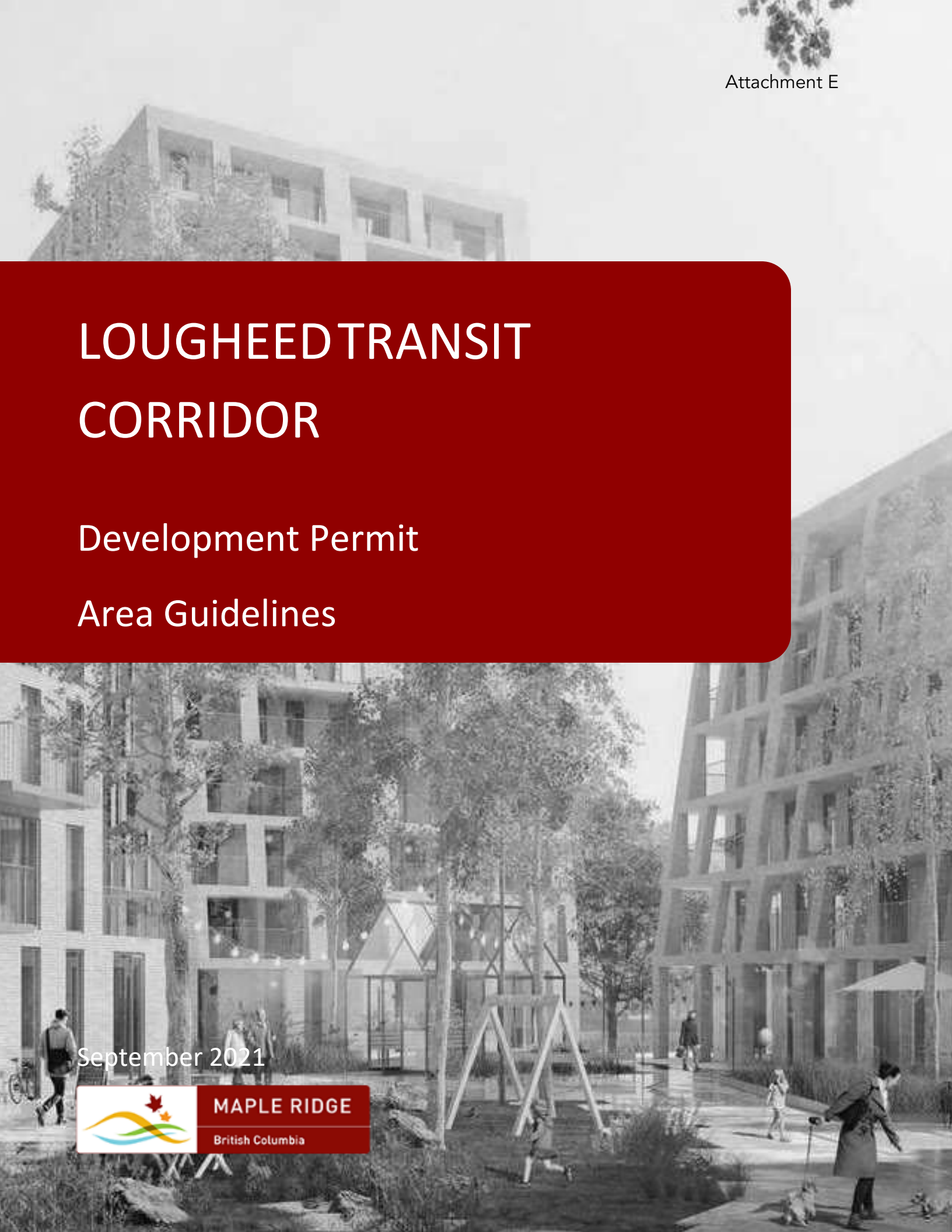
Attachment E

LOUGHEED TRANSIT CORRIDOR

Development Permit

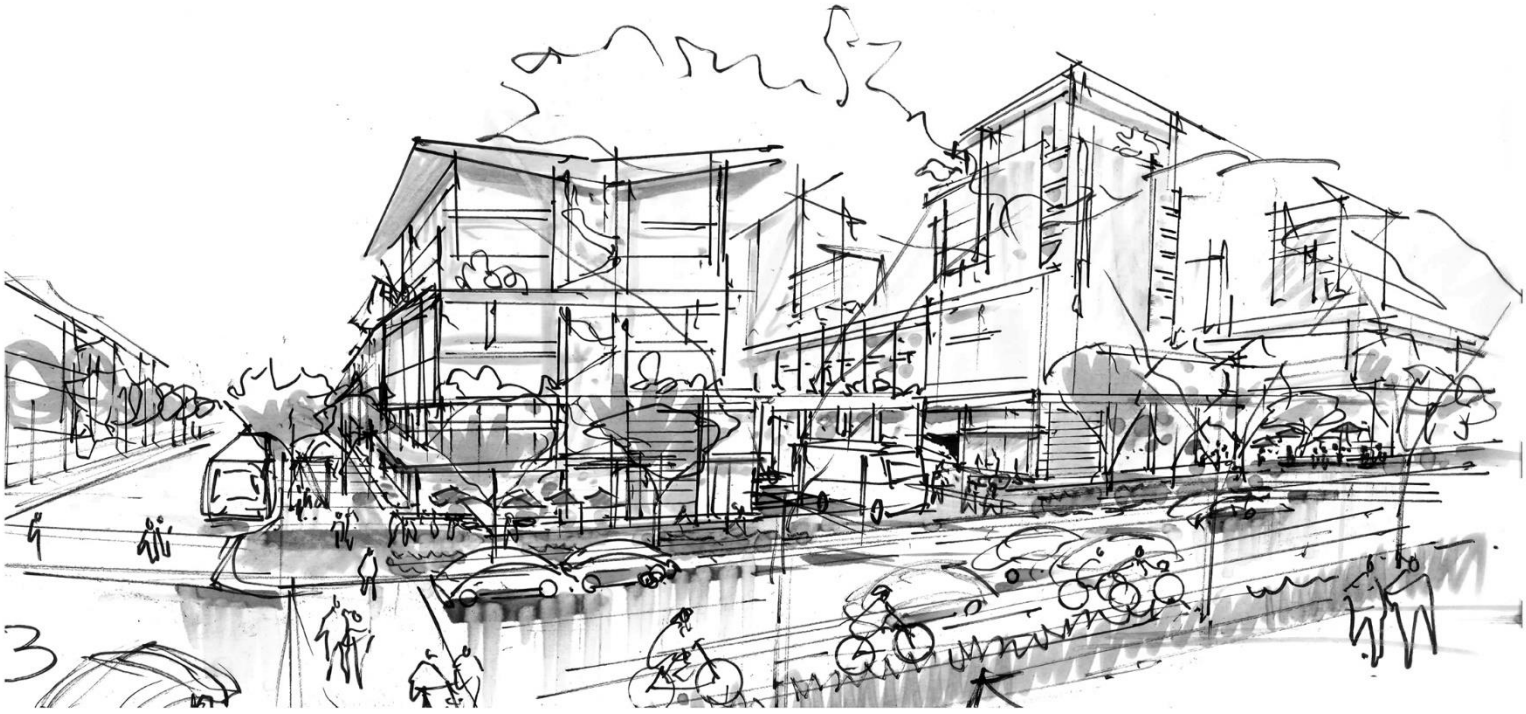
Area Guidelines



September 2021

MAPLE RIDGE
British Columbia

1.
Overview and Purpose



1 Overview and Purpose

1.1 Application

The Lougheed Transit Corridor Development Permit Area (DPA) is designated pursuant to Section 44(1) of the Local Government Act, specifically the following sub-sections:

a) protection of the natural environment, its ecosystems and biological diversity;
b) protection of development from hazardous conditions;
c) revitalization of an area in which a commercial use is permitted;
d) establishment of objectives for the forms and character of intensive residential development;
e) establishment of objectives to promote energy conservation;
f) establishment of objectives to promote water conservation;
g) establishment of objectives to promote the reduction of greenhouse gas emissions.

For all properties within the Lougheed Transit Area Plan as identified on Schedule X of the Official Community Plan, Bylaw 7060-2014.

The Lougheed Transit Corridor DPA Guidelines apply to the following Lougheed Transit Corridor land use designations and development of:

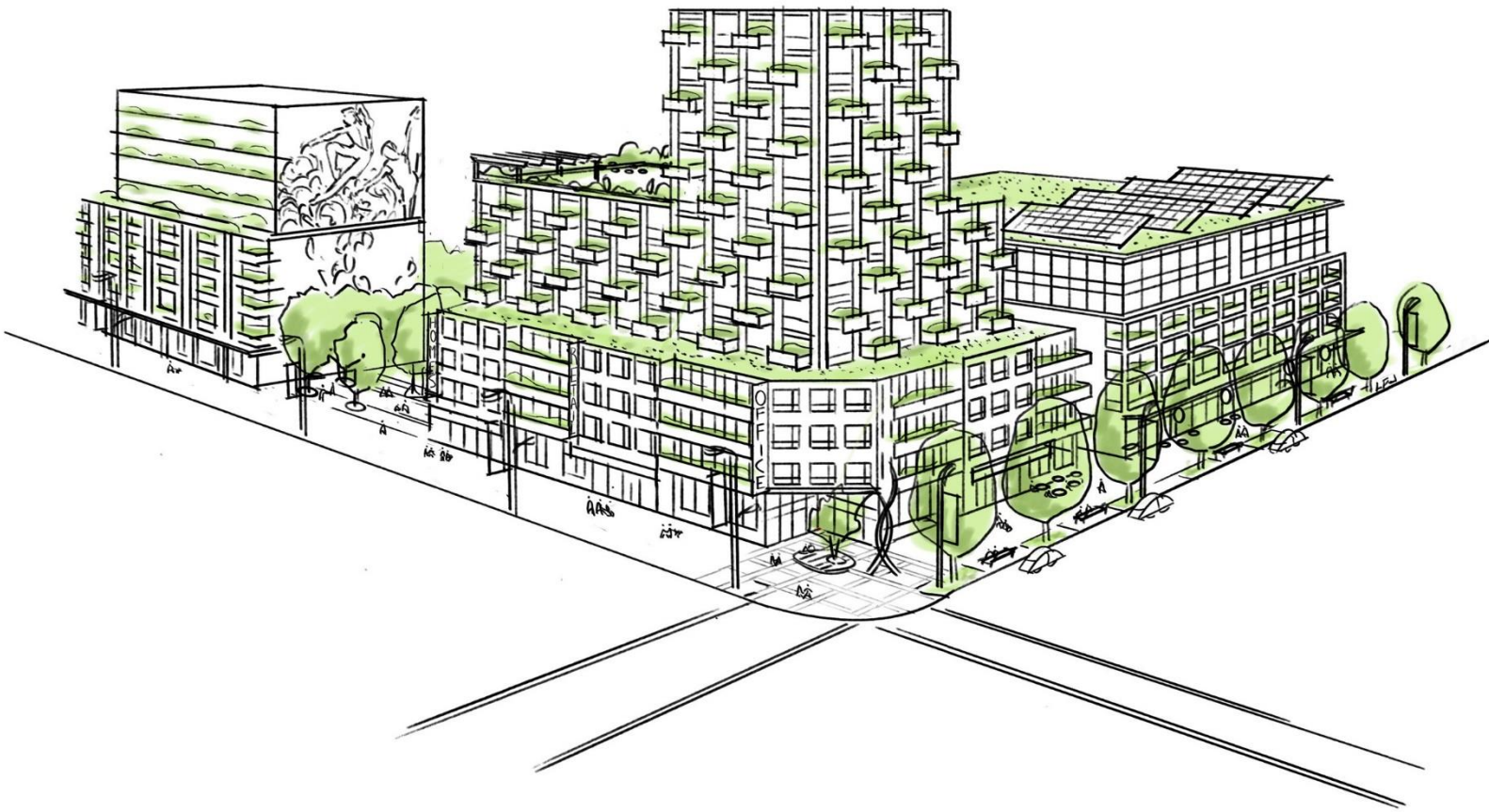
- Mixed-Use Commercial
- Flexible Employment
- Transit Corridor Multi-Family
- Intensive Attached Residential

The Lougheed Transit Corridor DPA Guidelines outline design criteria for new development. These Development Permit Guidelines work in tandem with policies in the Lougheed Transit Corridor Area Plan and regulations in the City of Maple Ridge Zoning Bylaw, which must also be taken into consideration for Development Permit approval. Other accompanying documents (bylaws, policies) and resources may need to be consulted during the development proposal process.

In the event of a conflict between the Lougheed Transit Corridor DPA Guidelines and the Lougheed Transit Corridor Land Use Designations on Schedule X adopted by the City, the latter shall take precedence. In the event of a conflict between the Lougheed Transit Corridor DPA Guidelines and regulations outlined in the *City of Maple Ridge Zoning Bylaw 7600-2019*, the latter two should take precedence. However, in the event of a conflict between Lougheed Transit Corridor DPA Guidelines and other Maple Ridge DPA Guidelines, the Lougheed Transit Corridor DPA Guidelines take precedence.

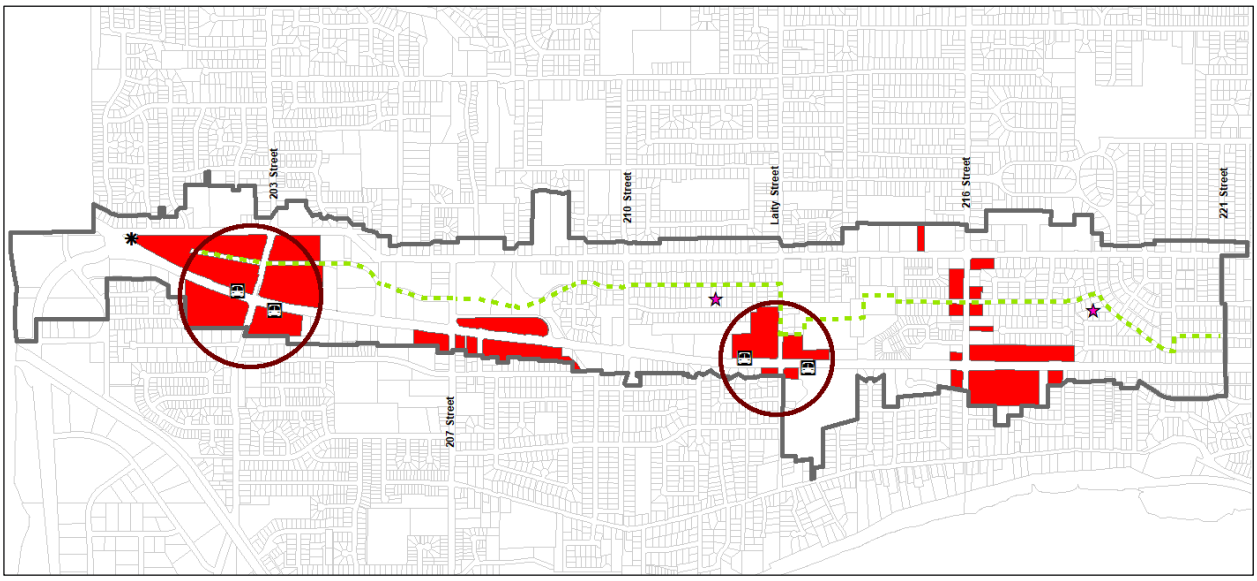
2.

Transit Node and High Street



2 Transit Node and Complete Street Form and Character

This section applies to commercial, mixed-use and residential development in the West Side and Ridge Junction Transit Nodes, and their supporting 'Complete Streets': 203 Street, 216 Street and Laity Street.



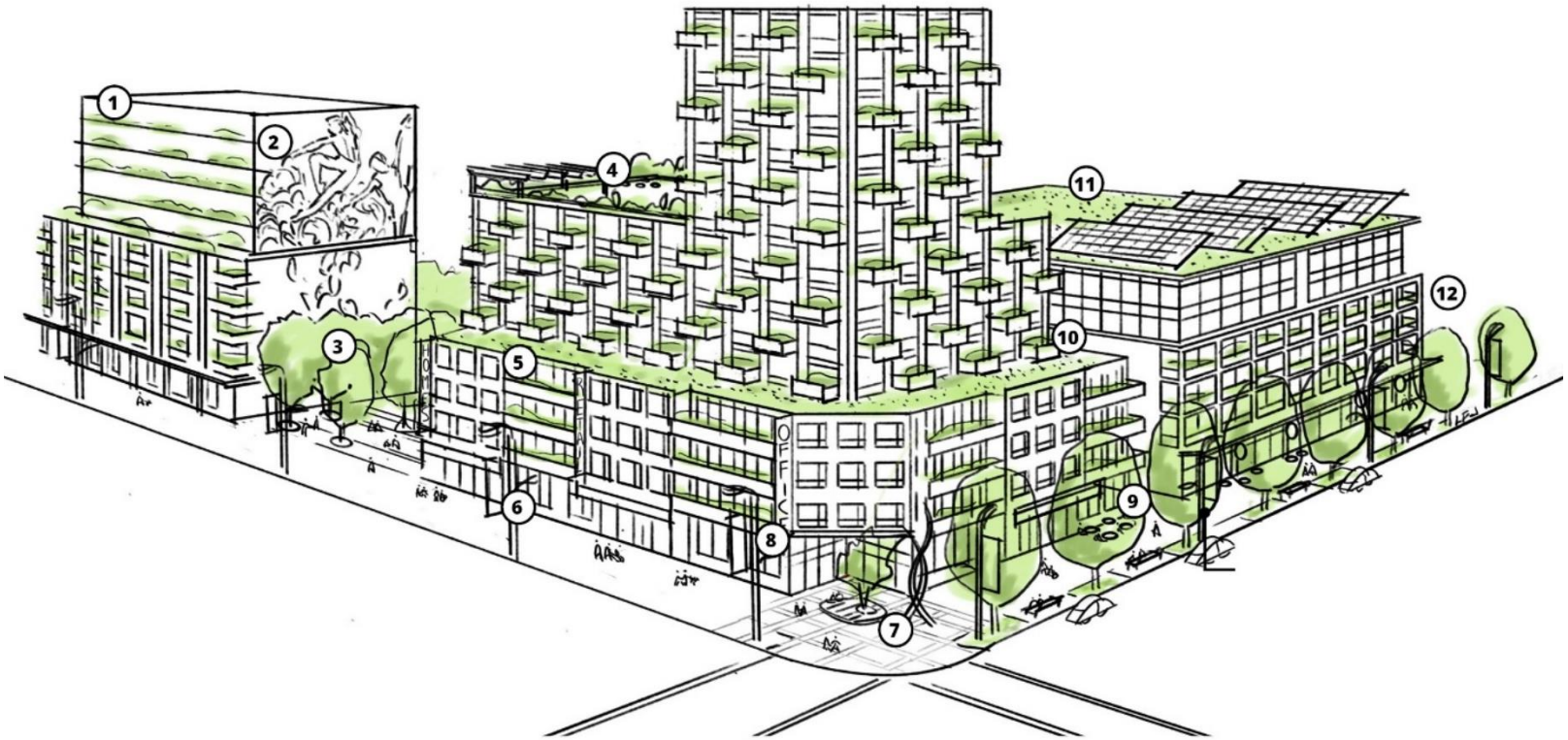
WEST SIDE TRANSIT NODE

THE COMMERCIAL HEART OF WEST MAPLE RIDGE

The largest node in the Transit Corridor is the western gateway into the city. Landmark buildings and features are desirable at the intersection of Dewdney Trunk Road and Lougheed Highway, where triangular lots lend themselves to creative architectural expression.

The area is envisioned as a vibrant urban village offering employment opportunities and multi-family housing in a mixed-use form. With an elevated urban design and public realm, attractive streetscapes are focused on the Off-Lougheed Greenway and outdoor plaza space for community gatherings. 203 Street between Dewdney Trunk Road and Lougheed Highway will be enhanced to create an inviting 'Complete Street' streetscape connecting local and regional public transportation. The 203 Street 'Complete Street' provides an enjoyable route that link local bus services on Dewdney Trunk Road to regional bus routes on Lougheed Highway.

WEST SIDE TRANSIT NODE - DESIGN DIRECTION SUMMARY



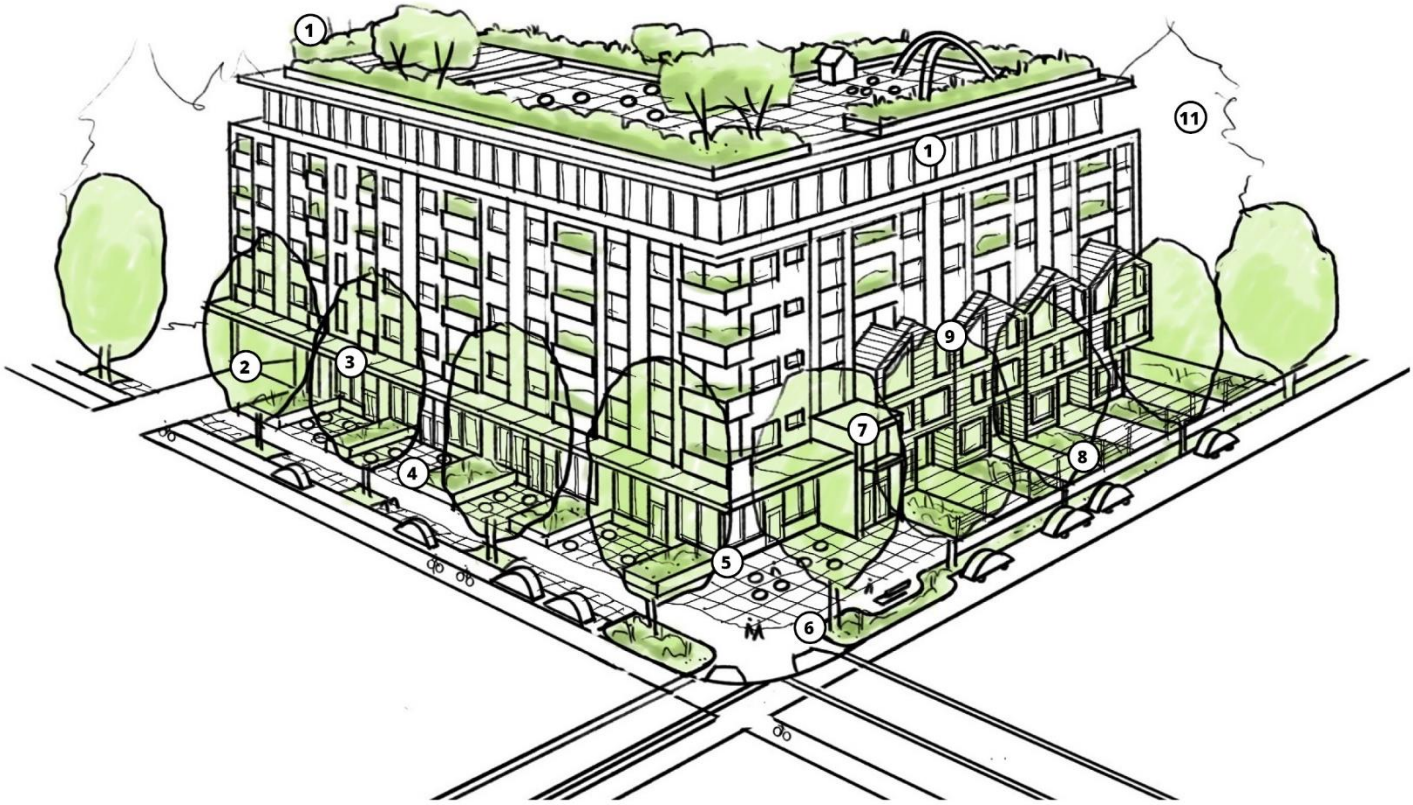
1. Building steps back after the 6th floor on Lougheed Highway and Dewdney Trunk Road.
2. A mural provides visual interest on a blank wall
3. Urban Plazas break up the block and provide pedestrian connections to public space amenities at the heart of the neighbourhood.
4. Rooftops provide residents with shared outdoor amenity space.
5. Residential and office units have private outdoor space.
6. Banners and street furniture contribute to neighbourhood identity
7. Entrances have arrival areas and entry courtyards with amenities such as seating, landscaping and public art.
8. Signage is both pedestrian and highway oriented.
9. Patio space is provided for smaller scale retail catering to food and beverage.
10. Buildings stepback after the 4th floor (except when located on an arterial).
11. Greenroofs, raingardens, solar panels and solar fins contribute to sustainability.
12. Any at grade parking is located to the rear.

THE RIDGE JUNCTION TRANSIT NODE

AN URBAN NEIGHBOURHOOD STEEPED IN MAPLE RIDGE HISTORY

Ridge Meadows Hospital and the Maple Ridge Cemetery are key destinations that are landmarks of the Laity Street Rapid Bus transit stop and Laity Street 'Complete Street'. Building off the walkable road network and important healthcare function of this neighbourhood, the Area Plan encourages commercial use in both retail and service industry opportunities. Ensuring affordable housing units for existing residents, as well as expanding housing options, will be an important focus in the neighbourhood.

THE RIDGE JUNCTION TRANSIT NODE - DESIGN DIRECTION SUMMARY



1. Rooftops provide residents with shared outdoor amenity space.
2. Underground parking stalls are accessed by a single entry and have electric vehicle charging connections.
3. Ground floor retail has continuous weather protection and ample glazing.
4. A setback provides areas for planters, storefront display and patio space.
5. Buildings on a corner site orient entrances towards both streets.
6. Seating and accessible design provides a welcoming streetscape.
7. Apartment lobby entrance is distinct and easy to identify and provides bike parking and seating.
8. Ground floor residential uses are ground oriented, with private entrances and patios; and, a pathway connecting to the sidewalk.
9. Residential uses are distinguished from retail uses through architectural expression, such as articulated roof line.
10. Articulation and materials create visual interest, a varied streetscape and human scale.
11. Coniferous trees and raingardens support biodiversity and intercept rainwater.

2.1 Building Design, Massing and Siting

HEIGHT

2.1.1 Reflect a pedestrian-scale in the articulation and massing of buildings and their facades.

2.1.2 Buildings on the south side of Dewdney Trunk Road and the north side of Lougheed Highway should be designed to step storeys back above the 8th storey.

2.1.3 Buildings along all major corridors excluding Dewdney Trunk Road and Lougheed Highway, should be designed to step-back above the 4th storey to reinforce a pedestrian-scale.

2.1.4 Buildings along Area Plan boundaries on the north side of Dewdney Trunk Road and the south side of Lougheed Highway that are higher than 4 storeys should be designed to step-down to 3 storeys to create a transition to lower building heights.

2.1.5 Buildings greater than 10 storeys should be designed with a pedestrian-oriented podium.

2.1.6 Consider view corridors to the Golden Ears Mountains.

SITING

2.1.7 Buildings should be set-back along Lougheed Corridor and Dewdney Trunk Road to provide generous space for businesses to spill out and animate the street, for people to walk and socialize, and for the establishment of a healthy and broad tree canopy, while still framing the street to create a human scaled, urban room.

2.1.8 Buildings fronting Lougheed Highway and Dewdney Trunk Road should be sited to provide sufficient buffering from road traffic while maintaining an urban development form.

2.1.9 Buildings fronting 'Complete Streets' should be sited to provide space for street furniture and outdoor display outside of the public right-of-way to create an animated street.

2.1.10 Developments should provide additional setbacks for the establishment of corner or mid-block plazas to be animated by adjacent businesses.

2.1.11 Site buildings to capitalize on daylight and solar opportunities.

ACCESS AND ENTRANCES

2.1.12 Separate residential entrances from commercial entrances.

2.1.13 Distinguish entrances of residential buildings with arrival areas and courtyards.

2.1.14 Design commercial buildings to have the primary customer entrance on the 'Complete Street' or Off-Lougheed Greenway where applicable.

2.2 Street Front

DESIGN

2.2.1 Enhance the block with corner commercial buildings.

2.2.2 Articulate large buildings into smaller modules to establish a human scale and a cadence along the street.

2.2.3 Provide a high floor-to-ceiling height for ground floor commercial and retail uses to create a sense of openness and scale. 4.5 metres is recommended.

2.2.4 Individuality within a unified appearance is encouraged for buildings with multiple units and uses which could be expressed through colour, materials and articulation of architectural elements.

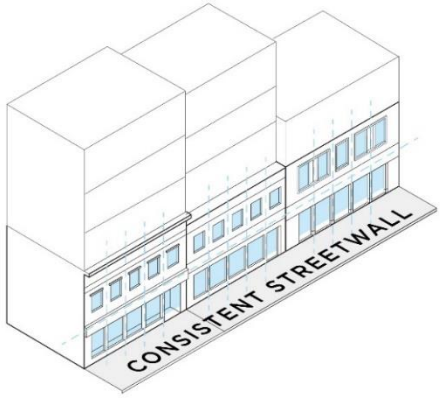


Figure 1 Consistent streetwall

2.2.5 Maintain the horizontal rhythm of the street wall. Strategies may include using a similar alignment of windowsills, building line, cornices, roof lines, and floor-to-floor spacing along a street block.

2.2.6 Provide a visual division between the street level and upper floors.

2.2.7 Include continuous pedestrian weather protection through the use of canopies, awnings overhangs or other architectural strategies.

2.2.8 Ensure awnings or canopies use materials such as glass or metal and are appropriately placed at the first storey.

2.2.9 Provide transparency at ground level to create and vibrant pedestrian experience.

2.2.10 Avoid blank walls.

2.3 Public Realm

OUTDOOR SPACE

2.3.1 Orient outdoor plazas for optimal solar access.

2.3.2 Integrate pedestrian amenities with site design and landscaping. Pedestrian amenities may include seating, shelters, gathering places, and wayfinding.

2.3.3 Allow the setback area to accommodate display space for businesses to create a shared sense of place along this street.

2.3.4 Paving should be compatible with the streetscape materials palette and patterned to respond to surrounding building architecture (entrances, pilasters, etc.), create visual interest and merge seamlessly into the overall paving pattern of adjacent sidewalks.

2.3.5 Provide public art and work with public artists early in and throughout the design process to provide space for and incorporate their work in a meaningful way.

2.3.6 Use public art as a means to advance reconciliation and redress.

2.3.7 Incorporate public art as either a free-standing element or integrated with architecture to enhance the gateway function of transit nodes.

2.3.8 Integrate public art as part of public realm components such as benches, storm grates, and light poles.

2.3.9 Provide utilities such as power and water in outdoor spaces to support flexible programming opportunities.

2.3.10 Ensure universal access for all public spaces and buildings. Public spaces should provide universal access to people of all ages and abilities and offer spaces for informal play and respite.

2.3.11 Paving materials should be high-quality and authentic. Mortar set pavers are preferred. Avoid the use of tinted, coloured or stamped concrete.

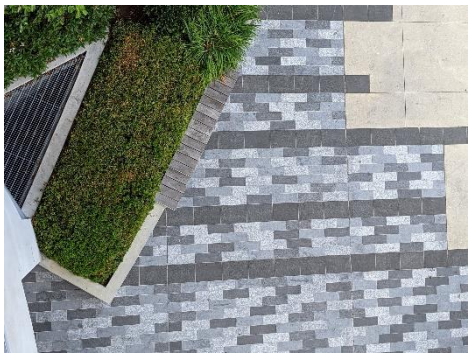


Figure 2 Transit node public plaza

SEATING AND FURNISHINGS

2.3.12 Provide a variety of seating opportunities in locations that receive direct sun during the day and in places that have rain protection.

2.3.13 Design seating to be integral to the building and landscape design and use materials that complement the material palette of the landscape.

2.3.14 Provide accessible seating options along walkways at approximately every 50m.

2.3.15 Incorporate seating into site planning that adds to the aesthetic and character of the area. Include ledges and seat walls, berms, and other unique feature seating beyond typical bench designs.

VISIBILITY AND CONNECTIVITY

2.3.16 Provide connections between buildings, sidewalks and outdoor open spaces to provide route options for people walking and rolling; and, to create connections between rear parking areas, front entrances and other amenities. Routes should be clearly identified with signage. The design of these spaces should be welcoming for use by the public (not gated, well lit, seating/rest areas included, urban condition softened through the use of vegetation).

2.3.17 Ensure a clear visual connection between the transit stop on 203 Street and the plaza.

2.3.18 Ensure public space is highly visible from streets. Select plant varieties that are open and transparent; and, ensure a clear visual line from 1.2 m to 2.5m off of the ground to provide direct sightlines from the street to sidewalk.

2.3.19 When pedestrian walkways run adjacent a building, the building should provide fenestration and transparency to create a human scale and interest.

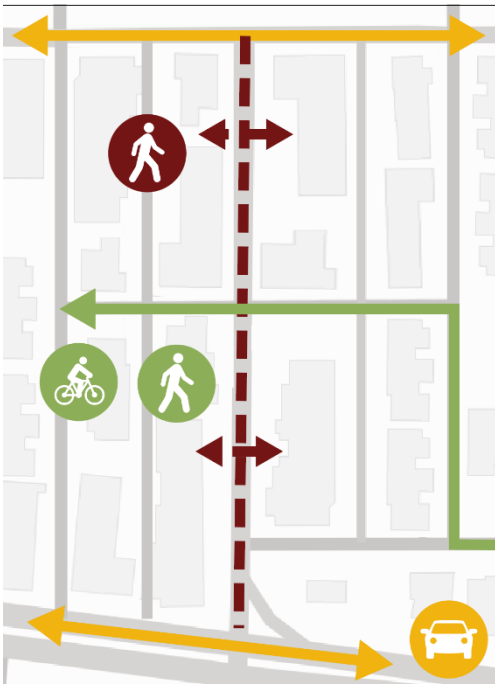


Figure 3 Multi-modal connectivity

2.4 Signage and Lighting

2.4.1 Business signage should be oriented for pedestrian rather than vehicular sight lines, such as under canopies, etc.

2.4.2 Signage shall comply with the sign bylaw.

2.4.3 Ensure signage respects the building scale, character and materials.

2.4.4 No freestanding signs are permitted.

2.4.5 Lighting should be used to create safety through visibility, but also public space experience through the use of string and catenary lights, light based public art installments and other lighting design options.

2.4.6 Design outdoor lighting to minimize light pollution and select fixtures that are Dark Sky Compliant.

2.4.7 Consider including small scale, low level lighting along pedestrian routes, such as under benches, within bollards, lighting associated with public art, and up-lighting of trees to add character and ambiance to pedestrian areas.

2.4.8 Streetlight standards should be adaptable for electric vehicle charging.

2.5 Access, Parking and Circulation

ROAD DESIGN AND GREENWAY DESIGN

2.5.1 Adjacent to commercial land uses, design the greenway to be easily closed off to vehicles with elements such as removable bollards, to allow for weekend markets and festivals, while still providing access to the lane for parking and delivery access.

2.5.2 Create a greenway that provides separated space for walking and cycling while still accommodating the efficient movement of goods and those who choose to drive and take transit.

2.5.3 Design boulevards to provide an ample buffer for people walking and rolling, where feasible.

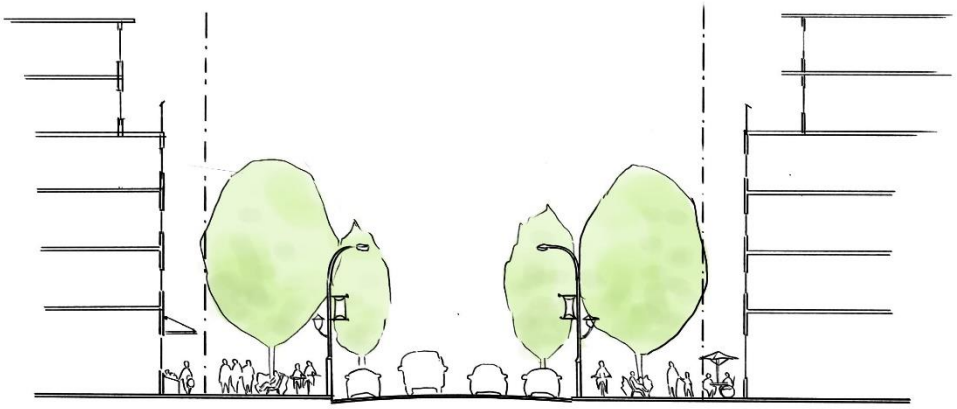


Figure 4 Typical condition of the greenway within the Transit Node DPA

VEHICLE ACCESS PARKING AND CIRCULATION

2.5.4 Prioritize underground parking.

2.5.5 Underground parking access should be from a rear lane or lower classified street.

2.5.6 Provide clear wayfinding and signage to indicate the location of public underground parking.

2.5.7 Limit at-grade parking. When provided, it should be located to the rear or side of buildings. Surface parking between the street and building frontage is not permitted.

2.5.8 Screen at grade parking with landscaping to reduce the visual impact.

2.5.9 Use artistic installation to create a visually pleasing vertical elements to screen structured parking.

2.5.10 Where at grade parking is present, provide pedestrian walkways with tree canopy to create safe and comfortable connections between the parking area and the building entrance.

2.5.11 Where at grade parking is present, provide raingardens with capacity to infiltrate the rainwater that is generated as a result of the impermeable paved area.

2.5.12 Seek opportunities to reduce impermeability and to increase permeability, such as permeable paving or other finishes, and the overall reduction of paved area.

2.5.13 Paving should be of a light colour to reduce the urban heat island effect.

2.5.14 All residential parking spaces should provide electric vehicle charging connections or adaptability.

2.5.15 Commercial parking should provide some electric vehicle charging connections (i.e. 10%).

BICYCLE STORAGE AND PARKING

2.5.16 Provide secure bicycle storage facilities for short-term uses adjacent that are conveniently located near the entrances to commercial and residential buildings.

2.5.17 Provide long-term bicycle parking for commercial tenants as well as residential tenants. Bicycle parking should be located for convenient access and in a secure and indoor space.

2.5.18 Provide end of trip facilities for commercial tenants such as: showers, changing areas and storage lockers.

PEDESTRIAN AND BICYCLE ACCESS

2.5.19 Provide pedestrian-scale lighting along all pathways.

2.5.20 Avoid dead-end paths and provide route options.

2.6 Landscape Design

STREET TREES

2.6.1 Provide street trees that are well adapted to urban conditions and are resilient to climate change.

2.6.2 Provide street trees that create a large and transparent tree canopy.

2.6.3 Provide wide softscape boulevards for street trees to allow them to thrive over the long term (i.e. 3m wide).

2.6.4 Where space is constrained or the character is more urban, provide soil cells or structural soil for street trees to allow for healthy long-term growth.

GENERAL PLANTING

2.6.5 Use native and drought resistant plants in landscaping when possible.

2.6.6 Provide edible landscaping in shared residential open spaces such as courtyards and on rooftops (i.e. blueberries, huckleberries, apples, figs, bay trees).

2.6.7 Design landscapes to support native pollinators (i.e. native flowering plants, composted mulch/incorporate logs) and song birds (i.e. include coniferous trees for refuge; include plants with persistent fruits in winter; and, design plant areas so that they have multiple layers of foliage (ex. ground cover, shrub layer and trees)).

2.6.8 Reduce the urban heat island effect by incorporating trees with significant tree canopy to shade areas of paving.

2.6.9 Where space is limited, provide columnar tree species.

2.6.10 All areas that are not paved are to be planted with sod, ground cover, perennials, shrubs or trees. Large expanses of rock and gravel are discouraged (strategic use of river rock in raingardens, and under building overhangs is acceptable).

2.6.11 Planted/garden areas are to be finished with composted bark mulch.

2.6.12 Use shrubs and perennials to soften the edge between public pathways and private residential entrances.

2.6.13 Avoid opaque hedges (i.e. cedar, laurel, yew hedges) along property lines to avoid shading public and private spaces and obscuring views.

2.6.14 Maintain sightlines to streets, lanes, and/or pathways from windows, balconies and private patios. For example, select dwarf or low growing shrubs species for planting next to ground level patios (1.2m height maximum). Fences should be 1.2m height maximum. Trees species should provide transparency except where coniferous trees are being used to increase habitat and rainwater infiltration.

WATER AND RAINWATER

2.6.15 Provide irrigation for all planted areas.

2.6.16 Create raingardens at corners to infiltrate rainwater

2.6.17 Green roofs and cisterns are encouraged.

2.6.18 Find opportunities to integrate coniferous trees to provide rainwater interception.

2.6.19 Street trees should have power to accommodate seasonal string lights and event needs.

LANDSCAPE MATERIALS

2.6.20 When screens or fences are being incorporated into the design, use material that is attractive, durable and contributes to the quality of the overall landscape design, such as wood.

2.6.21 Paving materials should be high-quality and authentic. Mortar set pavers are preferred for public plazas and within setbacks. Avoid the use of tinted, coloured or stamped concrete.

2.7 Refuse, Recycling and Servicing Areas

2.7.1 Locate and enclose trash, composting and recycling to reduce visibility from public areas.

2.7.2 Screen mechanical equipment.

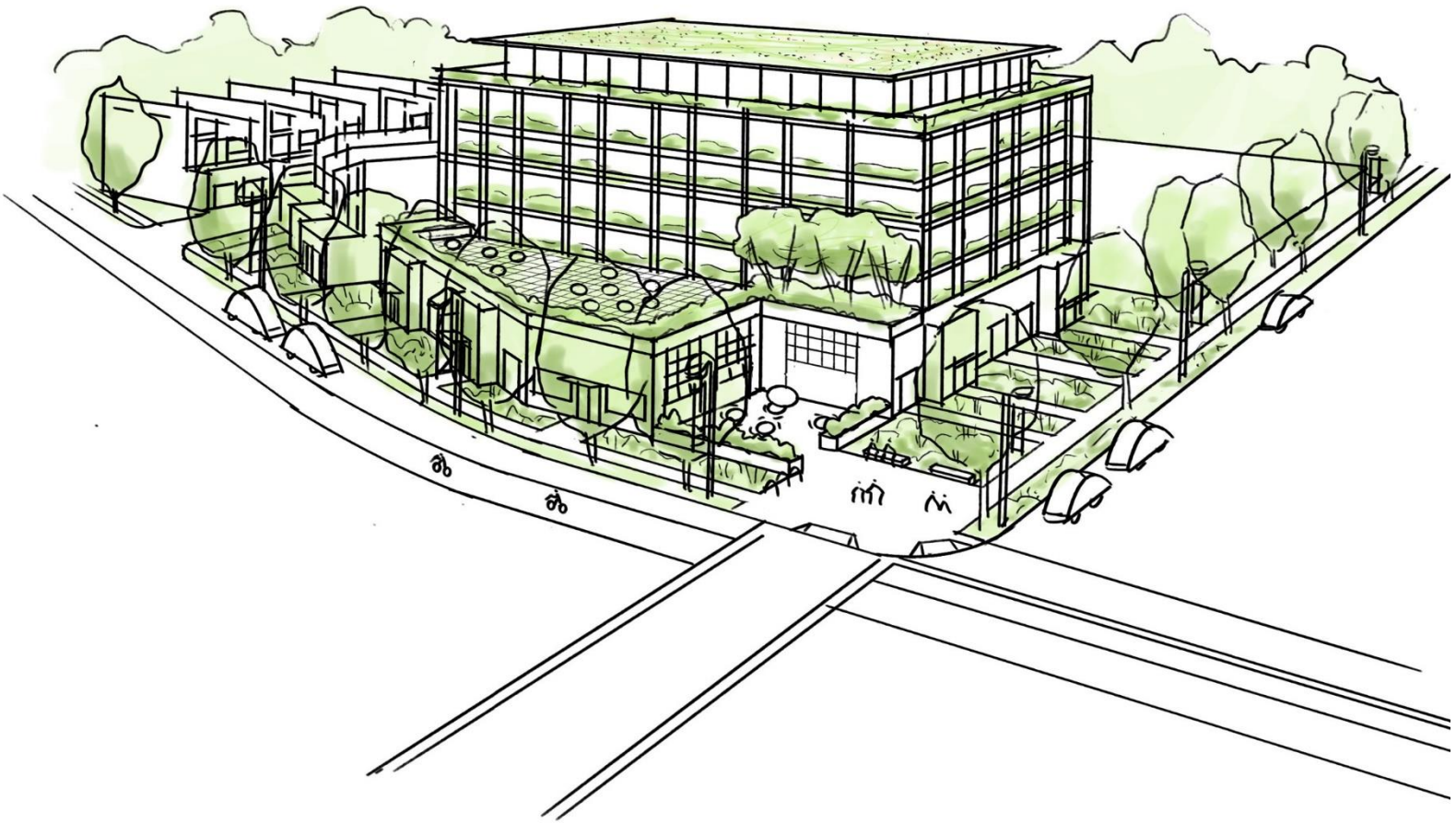
2.7.3 Avoid conflict with neighbouring properties.

2.7.4 Locate building ventilation systems to minimize noise and exhaust nuisances for pedestrian areas.

2.7.5 Locate recycling, servicing and loading areas off of the laneway or to the rear of the building.

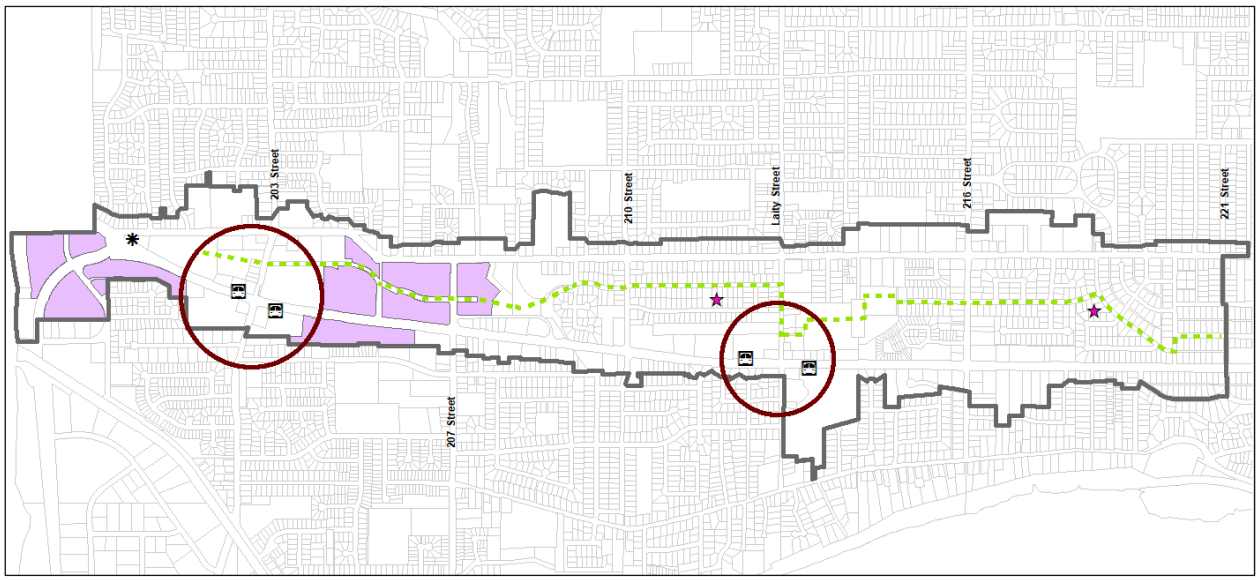
3.

Flexible Employment



3 Flexible Employment

This section applies to industrial and commercial development on lands designated Flexible Employment.



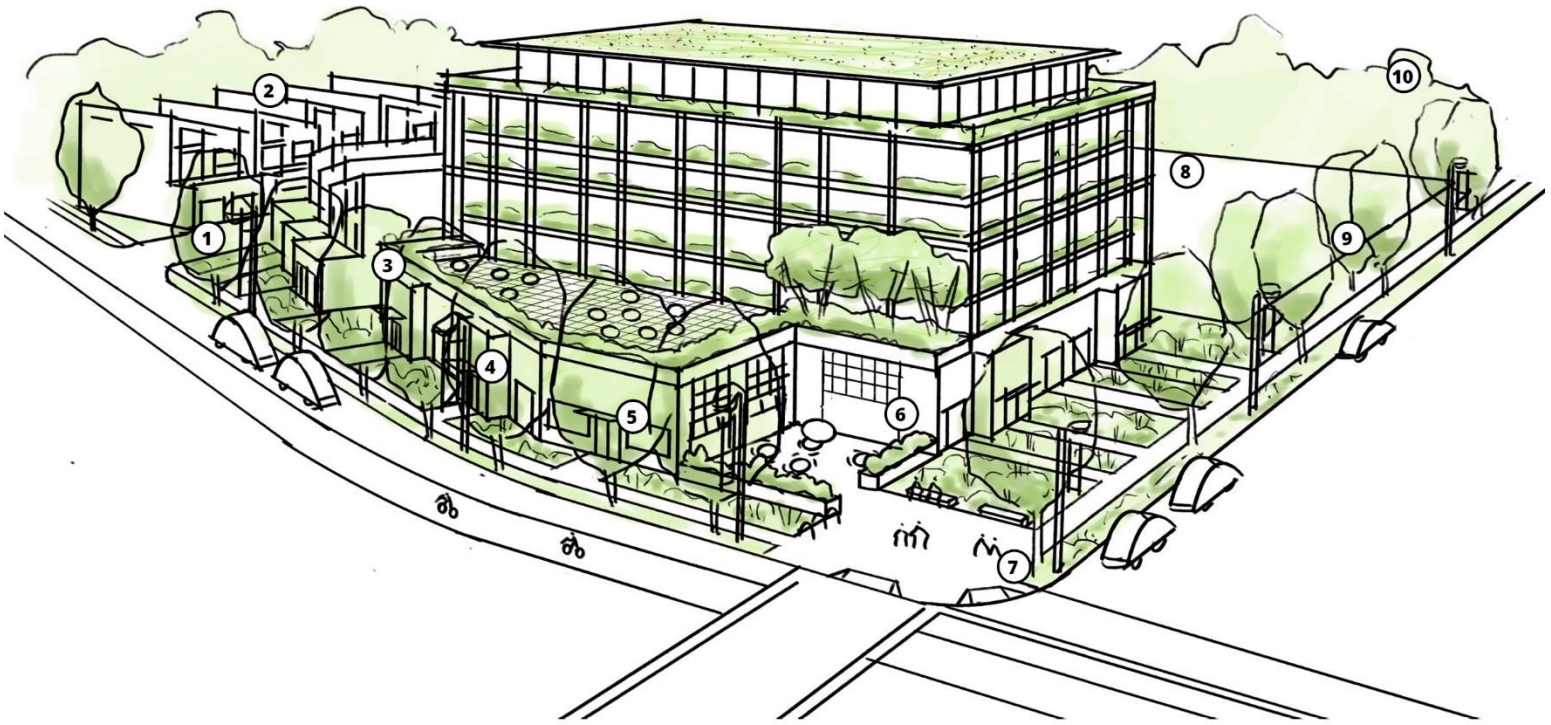
GATEWAY CENTRE

Warehousing and distributions centres are located in proximity to the truck routes of Lougheed Highway and Golden Ears for access to the broader regional market.

MCKENNEY EMPLOYMENT DISTRICT

This district is an enclave of light industrial employment uses. Warehousing and distribution are permitted, with loading bays and freight access from Dewdney Trunk Road and Lougheed Highway. A smaller building typology is supported here, with a network of internal block walkways for accessible pedestrian navigation. The Off-Lougheed Greenway bisects the district and serves as an access point for workers and clients. Buildings fronting the Greenway have the highest pedestrian focus, through urban design and public realm design considerations. Multi-level buildings are permitted here, and live-work units are also encouraged. The District is a destination that provides small store-front experiences for manufacturing businesses, such as food and beverage, and maker industries.

FLEXIBLE EMPLOYMENT - DESIGN DIRECTION SUMMARY



1. Vehicle access point is limited to one.
2. Live-work units are located near the greenway and other open space amenities when present; and, they have a distinct residential language and private outdoor space.
3. Continuous building wall is broken up with massing and articulation to create visual interest.
4. Multiple entrances along the building front are provided. Articulation and materials create visual interest and make them easy to identify.
5. Glazing on the ground floor provides visual interest from the street.
6. An outdoor patio is located along the public facing street and next to retail oriented production space. Bicycle parking is provided.
7. Design and finishes are accessible and made of high quality materials. Seating and accessibility contribute to a welcoming streetscape.
8. Parking, loading and servicing areas are located to the rear of the building.
9. Trees and low growing shrubs buffer large paved areas and the sidewalk.
10. A green buffer provides visual separation from adjacent residential and commercial uses. Coniferous tree and native shrub species contribute to biodiversity and rainwater interception.

3.1 Building Design, Massing and Siting

HEIGHT

3.1.1 Provide higher floor to ceiling height at the entrance of one storey buildings to clearly identify the entry and to contribute to the overall urban landscape. Consider a higher floor-to-ceiling height overall to provide flexibility of future uses.

ENTRANCES

3.1.2 Locate and design main building entries to be clearly identified from streets, sidewalks and pathways, and entry driveways.

3.1.3 Encourage entry features such as building articulation, courtyards, and public art installation.

3.1.4 Distinguish entrances with arrival seating areas, gardens and courtyards.

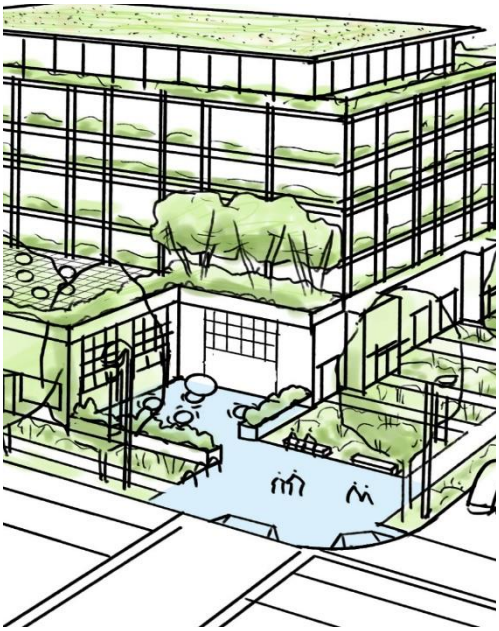
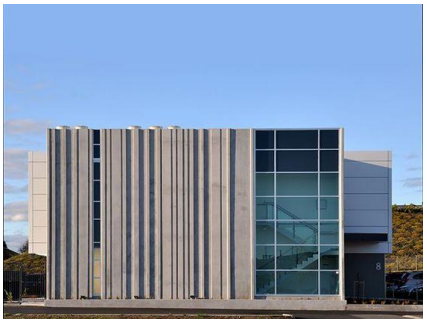


Figure 5 Entry features

MASSING

3.1.5 Individuality within a unified appearance is encouraged for buildings with multiple units and uses which could be expressed through colour, materials and articulation of architectural elements.

MATERIALS AND CHARACTER



3.1.6 Emphasize the “industrial/workshop” look and feel of this special use by encouraging the use of roll up doors and frames and higher ceilings in working areas.

3.1.7 Materials such as corrugated metal siding/roofing, different types of flat metal siding, galvanized powder coated steel, fiber cement siding are suitable.

3.1.8 Incorporate a range of materials, for example, ribbed or corrugated steel, cladding, panelised cladding (expressed joints), polycarbonate sheeting, glass, timber and louvre screening.

3.1.9 Avoid rendered finishes and large expanses of flat pre-finished steel cladding.

3.1.10 Include glazing as a major component of greenway-facing building facades.

3.1.11 Large expanses of stucco are not desirable.

3.2 Street Front

3.2.1 Buildings that are located adjacent to the Off-Lougheed Greenway should be oriented towards the greenway (i.e. main entrance faces the greenway, loading faces away, offices/work spaces with fenestration face the greenway).

3.2.2 Provide a street presence with welcoming entrances and architectural interest in building designs fronting the Off-Lougheed Greenway (i.e. entrance canopies, seating, pedestrian pathways connected to the sidewalk, high-quality materials that provide texture).

3.2.3 Avoid continuous unarticulated façades of over 45 metre in length.

3.2.4 When pedestrian walkways run adjacent a building, the building should provide fenestration and transparency to create a human scale and interest.

3.2.5 Buildings with significant expanses of blank walls should incorporate features such as texture, graphics, reveals, colours, vegetation and/or decorative floodlighting to provide visual interest.

3.3 Public Realm

SEATING AND FURNISHING

3.3.1 Design seating to be integral to the design concept and use materials that complement the material palette of adjacent buildings and streetscape.

3.3.2 A variety of seating opportunities should be provided in locations that receive direct sun during the day and in places that have rain protection.

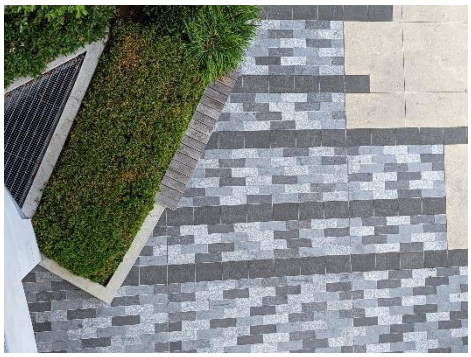
3.3.3 Coordinate site furnishings (e.g. garbage containers, bike racks, lighting, tables and seating) with streetscape furnishings.

3.3.4 Provide seating along walkways and sidewalks, at approximately every 50 metres.

3.3.5 Provide outdoor seating and dining areas for people to use during lunch hour and on breaks. These spaces should provide a variety of sun and shade options, and rain cover; as well as screening from at grade parking using vegetation.

3.3.6 Provide public art and work with public artists early in and throughout the design process to provide space for and incorporate their work in a meaningful way.

CONNECTIVITY AND ACCESS



3.3.7 Provide separated pedestrian connections between buildings, sidewalks and outdoor open spaces. Use materials and vegetation to define and differentiate these spaces from spaces that are dedicated to vehicle movement.

3.3.8 Pedestrian walkways between buildings are encouraged to break up larger building footprints. Walkways should be well lit, with appropriate seating, landscaping and access considerations.

3.3.9 Ensure universal access for all public spaces.

3.3.10 Integrate pedestrian amenities with walls and/or landscaped areas (i.e. seat-walls, and benches).

3.3.11 Ensure surfacing is universally accessible, yet explore opportunities for various treatments to create visual interest.

LANDSCAPE MATERIALS

3.3.12 Paving should be compatible with the streetscape materials palette and patterned to both respond to surrounding building architecture (entrances, pilasters, etc.) and merge seamlessly into the overall paving pattern of adjacent sidewalks.

3.3.13 Paving materials of pedestrian areas and gathering areas should be high-quality and authentic (i.e. use pavers or broom finish cast-in-place concrete and avoid stamped and/or coloured concrete).

3.4 Signage and Lighting

3.4.1 Business signage should be oriented for pedestrians rather than vehicular sight lines, such as under canopies, etc.

3.4.2 Signage shall comply with sign bylaw.

3.4.3 Ensure signage respects the building scale, character and materials.

3.4.4 No freestanding signs permitted.

3.4.5 Lighting should be used to create safety through visibility, but also public space experience through the use of string and catenary lights and light-based public art installations.

3.4.6 Design outdoor lighting to minimize light pollution and select fixture that protect the night sky.

3.4.7 Consider including small scale, low level lighting along pedestrian routes, such as under benches, within bollards, lighting associated with public art, and up-lighting of trees to add character and ambiance to pedestrian areas.

3.5 Access, Parking and Circulation

VEHICLE ACCESS, PARKING AND CIRCULATION

3.5.1 At grade parking should be screened with landscaping to reduce the visual impact from surrounding public spaces and properties.

3.5.2 Above ground parking structures and at grade parking should use artistic installation, architectural finishes or vegetation to create a visually pleasing vertical element.

3.5.3 Loading facilities should be located away from public streets and into the rear or the interior of a site.

3.5.4 Provide pedestrian walkways with tree canopy to create safe and comfortable connections through parking lots to the building entrance or to a “Campus Street” connecting to the front entrance.

3.5.5 Where at grade parking is present, provide raingardens with capacity to infiltrate the rainwater that is generated as a result of the impermeable paved area.

3.5.6 Seek opportunities to reduce impermeability and to increase permeability, such as permeable paving or other finishes, and the overall reduction of paved area.

3.5.7 Paving should be of a light colour to reduce the urban heat island effect.

3.5.8 Provide some electric vehicle charging connections (i.e. 10% of all employee parking).

BICYCLE ACCESS AND PARKING

3.5.9 Provide secure and sheltered bicycle storage facilities for short-term uses near building entrances.

3.5.10 Provide interior secured long-term bicycle parking. When bicycle parking is provided in a parkade, the access path for bicycles should be distinct/separated from the vehicle access route.

3.5.11 Provide end of trip facilities such as: showers, changing areas and storage lockers.

3.6 Landscaping and Open Space

STREET TREES

3.6.1 Provide street trees with a generous boulevard width in order to accommodate long term tree health and growth (i.e. 3m wide).

3.6.2 Where space is limited, provide soil cells or structural soil for street trees to allow for healthy long-term growth.

GENERAL PLANTING

3.6.3 Use native and drought resistant plants in landscaping when possible.

3.6.4 Provide trees that are well adapted to urban conditions and are resilient to climate change.

3.6.5 Provide trees that create a large and transparent tree canopy.

3.6.6 Landscapes that are intended to screen the view of at grade parking areas should be wide enough to establish large mature tree and shrub sizes (i.e. 6m). They should be designed to support native pollinators (i.e. native flowering plants, composted mulch/incorporate logs) and song birds (i.e. include coniferous trees for refuge; include plants with persistent fruits in winter; and, design plant areas so that they have multiple layers of foliage (ex. ground cover, shrub layer and trees)).

3.6.7 Reduce the urban heat island effect by incorporating trees with significant tree canopy to shade areas of paving.

3.6.8 Paving should be of a light colour to reduce urban heath island effect.

3.6.9 Find opportunities to integrate coniferous trees to provide rainwater interception.

3.6.10 All areas that are not paved are to be planted with sod, ground cover, perennials, shrubs or trees. Large expanses of rock and gravel are discouraged (strategic use of river rock in raingardens, and under building overhangs is acceptable).

3.6.11 Planted areas are to be finished with composted bark mulch.

WATER AND RAINWATER

3.6.12 Create raingardens at corners to infiltrate rainwater.

3.6.13 Green roofs and cisterns are encouraged.

3.6.14 Provide irrigation for all planted areas.

LANDSCAPE CHARACTER

3.6.15 Use shrubs and perennials to adjacent to walkways to soften the edge between public pathways and parking areas, drive aisles, outdoor work yards, and building edges. Screens should provide transparency and not fully obscure the view.

3.6.16 Avoid opaque hedges (i.e. cedar, laurel, yew hedges) along property lines to avoid shading public and private spaces and obscuring views.

3.6.17 Maintain sightlines to streets, lanes, and/or pathways from windows. For example, select dwarf or low growing shrubs species for planting next to ground level windows (1.2m height maximum). Trees species should provide transparency except where coniferous trees are being used to increase habitat and rainwater infiltration.

3.6.18 Provide trees on both the inside of the sidewalk and on the outside of the sidewalk in order to create a double-sided canopy. This condition is especially encouraged along the Off Lougheed Greenway.

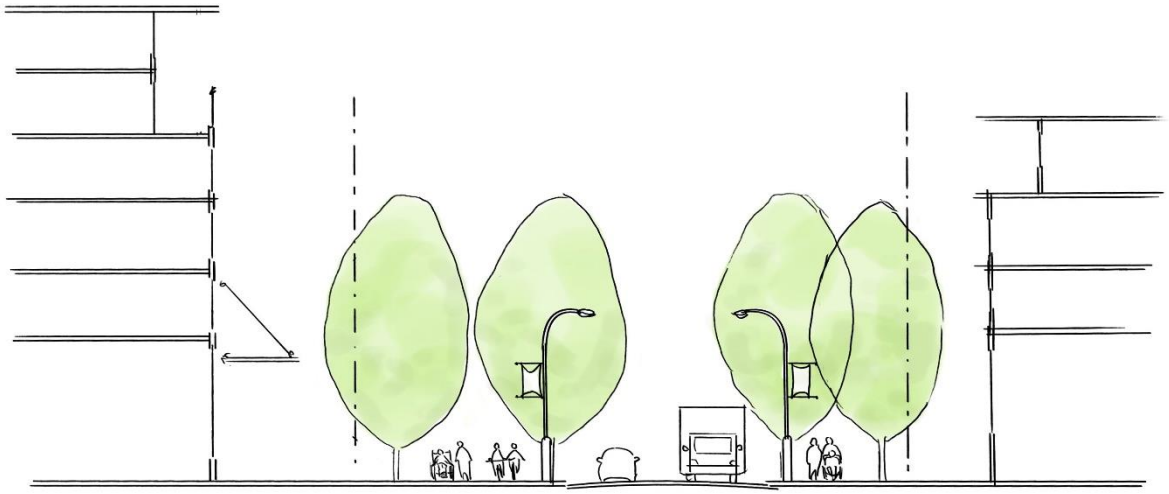


Figure 6 Typical condition of the Off Lougheed Greenway in the Flexible Employment DPA

LANDSCAPE MATERIALS

3.6.19 When screens or fences are being incorporated into the design, use material that is attractive, durable and contributes to the quality of the overall design, such as wood.

3.6.20 Paving materials should be high-quality and authentic. Avoid the use of tinted, coloured or stamped concrete.

3.7 Refuse, Recycling and Servicing Areas

3.7.1 Outdoor storage is not permitted according to the zoning bylaw in these land uses, therefore no guidelines are provided regarding outdoor storage.

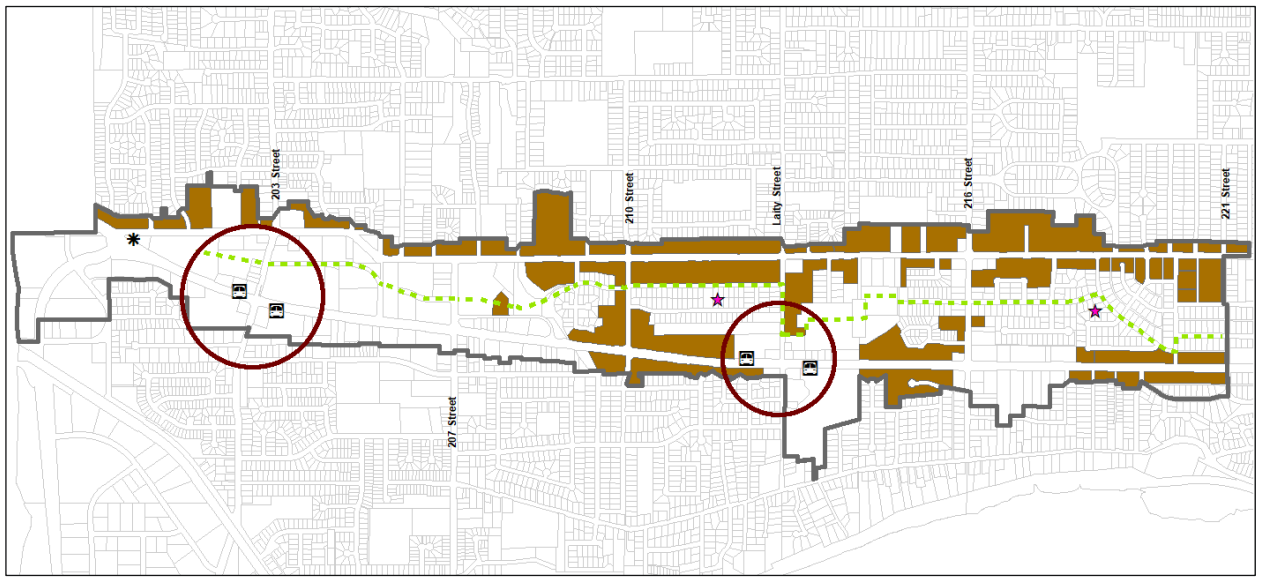
3.7.2 Whenever possible, overhead servicing doors and loading docks should be located to the rear, and should not be located on a building façade that faces the Off-Lougheed Greenway.

4.

Transit Corridor Multi-Family

4 Transit Corridor Multi-Family

This section is for all residential development on lands designated Transit Corridor Multi-Family.



LOUGHEED CORRIDOR MULTI-FAMILY DEVELOPMENT

TRANSIT CORRIDOR MULTIFAMILY - DESIGN DIRECTION SUMMARY

1. A single access point to underground parking is provided to avoid interruptions to the side walk or greenway (where applicable).
2. Design and finishes are accessible. Entrances are design to be flush with grade and have no step.
3. Ground floor residential uses are ground oriented, with private entrances, yards and/or patios; and, a pathway connecting to the sidewalk.
4. Articulation and materials create visual interest, a varied streetscape and human scale.
5. Greenroofs and raingardens contribute to sustainability.
6. Buildings on a corner site orient entrances towards both streets.
7. Seating and accessible design provides a welcoming streetscape.
8. Apartment lobby entrance is distinct and easy to identify and provides bike parking and seating.
9. Rooftops provide residents with shared outdoor amenity space.
10. Buildings step down toward adjacent existing buildings, when they are smaller in scale.

4.1 Building Design, Massing and Siting

HEIGHT

4.1.1 Buildings over 4 storeys in height are encouraged to step subsequent storeys back to maintain a pedestrian scale of development and provide architectural interest.

4.1.2 Consider view corridors to Golden Ears Mountain.

SITING

4.1.3 Buildings should be setback from the fronting street to provide generous space for ground oriented patios and yards for each ground level unit, and to provide opportunities for planting large canopy trees while still framing the street to create a human scaled, urban room.

4.1.4 When a building is located on a corner, the building should address both street frontages (i.e. provide windows and entrances on both streets).

4.1.5 Site buildings to capitalize on daylight and solar opportunities. Site buildings to allow for shared open spaces to be south facing, and to allow for large canopy deciduous trees on the south side of buildings to shade buildings and units in summer.

Figure 7 Generous setback to allow for a ground-oriented outdoor spaces. Building siting and massing addresses both streets on the corner.

MASSING

4.1.6 Design large buildings into smaller modules.

4.1.7 Individuality within a unified appearance is encouraged for buildings with multiple units and uses which could be expressed through colour, materials and articulation of architectural elements.

4.2 Access, Parking and Circulation

4.2.1 Parking should be provided underground.

4.2.2 At grade parking should be for a maximum of 10% of the required spaces.

4.2.3 At grade parking should be screened with landscaping to reduce the visual impact from surrounding public open spaces, private properties as well as from on site residential units.

4.2.4 Above ground parking structures and at grade parking should use artistic installation, architectural finishes or vegetation to create a visually pleasing vertical element.

4.2.5 Underground parking access should be from a rear lane or lower classified street.

4.2.6 Where pedestrian walkways are located adjacent to a building façade, provide windows to create visual interest.

Figure 8 Distinct and separate unit entrances

4.2.7 Landscaping along walkways is encouraged to soften hardscapes.

4.2.8 Ensure surfacing is universally accessible, yet explore opportunities for various treatments to create visual interest.

4.2.9 Provide secure and sheltered bicycle storage facilities for short-term uses.

4.2.10 Provide long-term bicycle parking.

4.2.11 Distinguish entrances with arrival areas and courtyards.

4.2.12 Where ground floor residential is permitted, provide at grade entrances for each unit on the ground floor, consider these for larger family units.

4.2.13 Where at grade parking is present, provide raingardens with capacity to infiltrate the rainwater that is generated as a result of the impermeable paved area.

4.2.14 Seek opportunities to reduce impermeability and to increase permeability, such as permeable paving or other finishes, and the overall reduction of paved area.

4.2.15 Paving should be of a light colour to reduce the urban heat island effect.

4.2.16 All residential underground parking spaces should provide electric vehicle charging connections or adaptability.

4.2.17 Parking access points should be limited to one to reduce the number of driveway let downs that interrupt the public sidewalk and/or greenway.

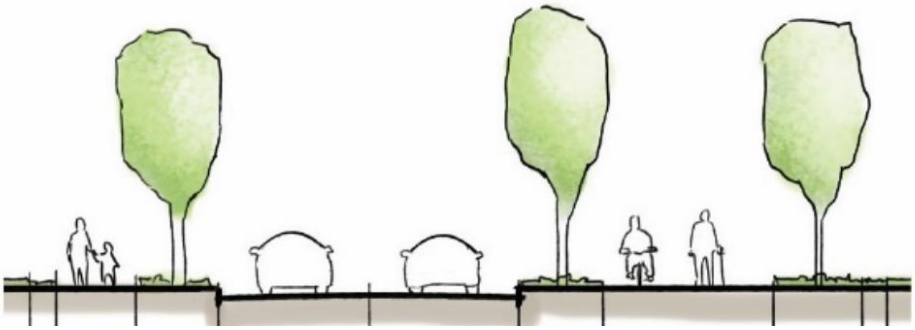


Figure 9 Typical condition of the Off Lougheed Greenway in the Transit Corridor Multi-Family DPA

4.3 Landscaping and Open Space

STREET TREES

4.3.1 Provide street trees that are well adapted to urban conditions and are resilient to climate change.

4.3.2 Provide street trees that create a large and transparent tree canopy.

4.3.3 Provide edible landscaping in shared residential open spaces and as a part of private outdoor patios (i.e. blueberries, huckleberries, apples, figs, bay trees).

4.3.4 Where trees are planted in a paved street boulevard, provide soil cells or structural soil for to allow for healthy long-term growth. Where the boulevard is planted with shrubs or grass, and is 2.0m wide or more then soil cells and structural soil are not required.

GENERAL PLANTING

4.3.5 Design landscapes to support native pollinators (i.e. native flowering plants, composted mulch/incorporate logs) and song birds (i.e. include coniferous trees for refuge; include plants with persistent fruits in winter; and, design plant areas so that they have multiple layers of foliage (ex. ground cover, shrub layer and trees)).

4.3.6 Reduce the urban heat island effect by incorporating trees with significant tree canopy to shade areas of paving.

4.3.7 Where space is limited, provide columnar tree species.

4.3.8 Find opportunities to integrate coniferous trees to provide rainwater interception.

4.3.9 All areas that are not paved are to be planted with sod, ground cover, perennials, shrubs or trees. Large expanses of rock and gravel are discouraged (strategic use of river rock in raingardens, and under building overhangs is acceptable).

4.3.10 Planted/garden areas are to be finished with composted bark mulch.

WATER AND RAINWATER

4.3.11 Provide irrigation for all planted areas.

4.3.12 Create raingardens to infiltrate rainwater.

4.3.13 Green roofs and cisterns are encouraged.

4.3.14 Use native and drought resistant plants in landscaping when possible.

LANDSCAPE CHARACTER

4.3.15 When screens or fences are being incorporated into the design, use material that is attractive, durable and contributes to the quality of the residential landscape design, such as wood.

4.3.16 Paving materials should be high-quality and authentic (i.e. cast in place concrete, pavers, stone etc. Avoid the use of tinted, coloured or stamped concrete).

4.4 Refuse, Recycling and Servicing Areas

4.4.1 Locate and enclose trash, composting and recycling to reduce visibility from public areas as well as adjacent and on-site residential units.

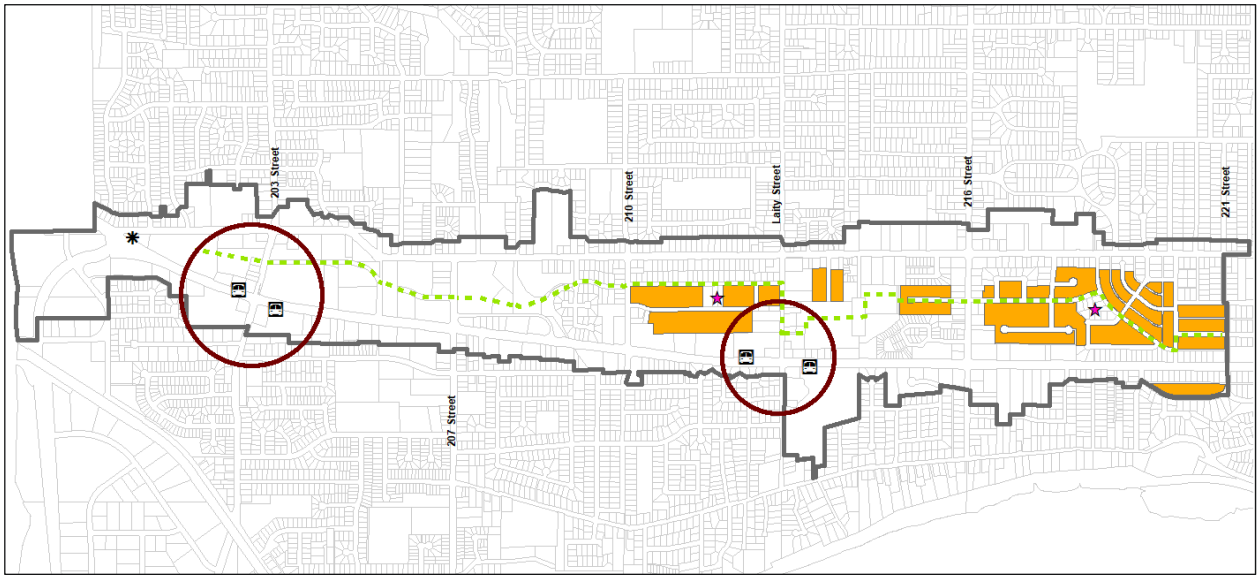
4.4.2 Screen mechanical equipment

4.4.3 Locate building ventilation systems to minimize noise and exhaust nuisances for pedestrian areas and residential units.

5.

Intensive Attached Residential

5 Intensive Attached Residential



INTENSIVE ATTACHED RESIDENTIAL - DESIGN DIRECTION SUMMARY

1. Each unit has a private entrance and private outdoor space.
2. Coniferous trees and raingardens support biodiversity and intercept rainwater.
3. Parking is located to the rear off of the laneway.
4. Seating and accessible design provides a welcoming streetscape.
5. Buildings on a corner site orient entrances towards both streets.
6. Articulation and materials create visual interest and a varied streetscape.
7. Roof overhang, porch and entrance emphasize residential character.
8. A low fence and shrubs delineate public space from private gardens, while maintaining sightlines from the sidewalk to the home.

5.1 Building Design, Massing and Siting

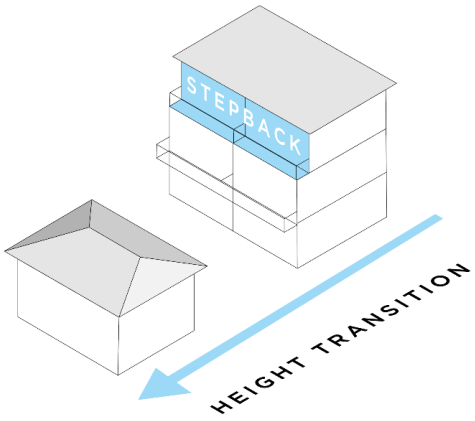
5.1.1 Respect the neighbourhood context, in terms of size, scale and massing.

5.1.2 Transition to neighbouring properties by stepping massing down.

5.1.3 Emphasize residential character with a clearly identifiable front entrance with roof overhang and private open space such as a porch or patio, oriented to the street.

5.1.4 Encourage building articulation to create a comfortable scale and interesting streetscape.

5.1.5 Create unit and building diversity to ensure a varied streetscape.



5.2 Landscaping and Open Space

STREET TREES

5.2.1 Provide street trees that are well adapted to urban conditions and are resilient to climate change.

5.2.2 Provide street trees that create a large and transparent tree canopy.

GENERAL PLANTING

5.2.3 Design landscapes to support native pollinators (i.e. native flowering plants, composted mulch/incorporate logs) and song birds (i.e. include coniferous trees for refuge; include plants with persistent fruits in winter; and, design plant areas so that they have multiple layers of foliage (ex. ground cover, shrub layer and trees)).

5.2.4 Reduce the urban heat island effect by incorporating trees with significant tree canopy to shade areas of paving.

5.2.5 Where space is limited, provide columnar tree species.

5.2.6 Find opportunities to integrate coniferous trees to provide rainwater interception.

5.2.7 All areas that are not paved are to be planted with sod, ground cover, perennials, shrubs or trees. Large expanses of rock and gravel are discouraged (strategic use of river rock in raingardens, and under building overhangs is acceptable).

5.2.8 Planted/garden areas are to be finished with composted bark mulch.

WATER AND RAINWATER

5.2.9 Permeable surfaces for pathways and driveways as well as other opportunities for infiltration and on-site rainwater retention are encouraged. Consider permeable pavers or reducing overall paved area. Also consider water cisterns and green roofs, as well as raingardens on site.

PRIVATE AND SEMI-PRIVATE OPEN SPACE

5.2.10 Provide usable private open space for each unit (i.e. minimum 3m width, and an overall private outdoor area of at least 9m^2).

5.2.11 Delineate semi-private and shared or public open space through the use of planted areas and/or fence. Shrubs should be a low growing or dwarf species to maintain views beyond the open space and to maintain a visible connection to the street or shared open space. Fences should also be low (i.e. max 1.2m). Trees species should be selected to provide transparency.

LANDSCAPE LIGHTING

5.2.12 Design outdoor lighting to minimize light pollution and select fixtures that protect the night sky.

5.2.13 Consider including small scale, low level lighting along pedestrian routes, such as under benches, to illuminate address signage, within bollards and up-lighting of trees to add character and ambiance.

LANDSCAPE MATERIALS

5.2.14 When screens or fences are being incorporated into the design, use material that is attractive, durable and contributes to the quality of the residential landscape design, such as wood.

5.2.15 Paving materials should be high-quality and authentic. Avoid the use of tinted, coloured or stamped concrete.

LANDSCAPE CHARACTER

5.2.16 Maintain sightlines to streets, lanes, and/or pathways from windows, balconies and private patios. For example, select dwarf or low growing shrubs species for planting next to ground level patios (1.2m height maximum). Fences should be 1.2m height maximum. Trees species should provide transparency except where coniferous trees are being used to increase habitat and rainwater infiltration.

5.2.17 Avoid opaque hedges (i.e. cedar, laurel, yew hedges) along property lines to avoid shading public and private spaces and obscuring views.

5.2.18 Applicants are encouraged to provide a welcoming streetscape (i.e. provide seating areas adjacent to the public sidewalk for residents as well as passersby).

5.2.19 Use shrubs and perennials to soften the edge between public pathways and private residential entrances.

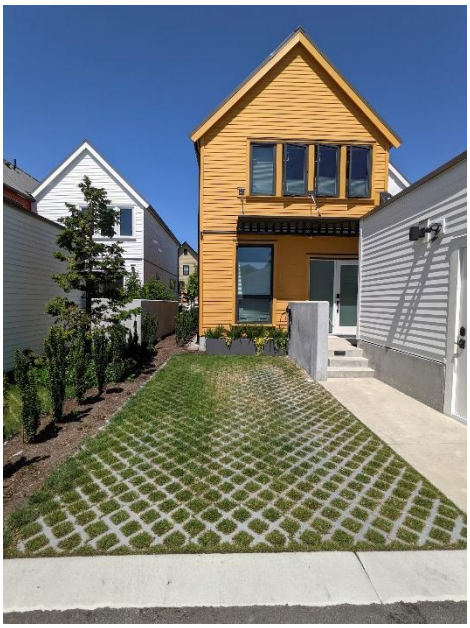
5.3 Vehicle Access, Parking and Circulation

5.3.1 Require a clear access route to the entrance of the units, with lighting.

5.3.2 Share site access between units/developments wherever possible to reduce the amount of paved surface and to reduce the number of driveways along street frontages.

5.3.3 Electric vehicle charging connections are encouraged for all residential parking spaces.

5.3.4 Use alternative driveway surfacing materials for increased permeability.



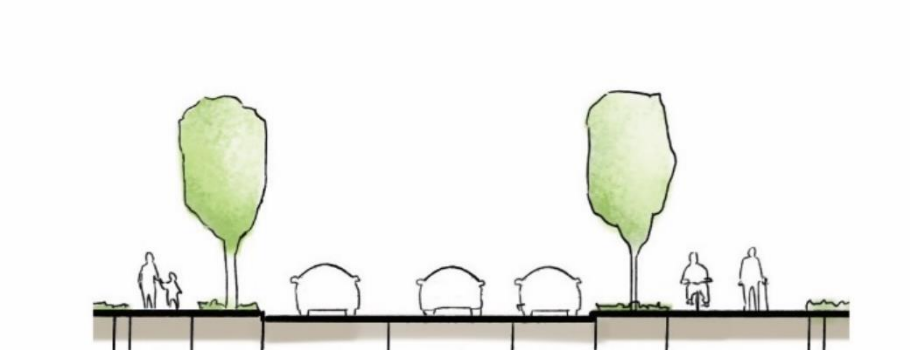


Figure 10 Typical condition of the Off Lougheed Greenway in the Intensive Residential DPA