

VISION MANDATE:

“Sustainable mobility for a livable, appealing and viable downtown” is a “core value” integral to the growth of Richmond and the City Centre and will help to:

- **“Build Community”:** Meet the mobility needs of a diverse community with an accessible, continuous, and integrated transportation system, while minimizing the need to travel far for daily services;
- **“Build Green”:** Improve, optimize and promote travel modes that reduce greenhouse gas emissions, encourage active, healthy living, and allow more responsible and sustainable use of valuable urban space;
- **“Build Economic Vitality”:** Build upon the convenience of the Canada Line and an enhanced City Centre transportation system to maximize the accessibility of businesses and ensure the efficient movement of goods and services;
- **“Build a Legacy”:** Enhance the quality, convenience, and safety of the transportation system while mitigating the negative impacts of traffic to create a sustainable and livable downtown for future generations.

2.3 Mobility & Access

ISSUE:

While the City Centre’s population is projected to grow to 120,000 residents by 2100, it is expected to more than double (from 40,000 to 90,000 people) to 2031. From a transportation perspective, meeting the challenge of how best to accommodate the magnitude and rate of this growth in a sustainable manner will be addressed in large part by two key elements:

Urban Transit Villages: Six urban transit villages will be developed in the City Centre, based on the principles of transit-oriented development, that will foster a lifestyle change and enable residents to live, work, shop, learn, and play in a pedestrian-friendly environment where a private automobile is seen as an option, not a necessity.

Canada Line: The completion of the Canada Line rapid transit service in 2009 is a critical element in the City Centre’s mobility system and will enable the strengthened integration of land use and transportation strategies.

To ensure a well-connected community that provides sustainable travel options, the City Centre transportation system must meet its mobility needs by:

- pursuing a more multi-modal approach that promotes a culture of walking, cycling and transit use to reduce greenhouse gas emissions and the traffic burden on City Centre streets;
- putting in place a comprehensive transit service and infrastructure to provide viable and competitive travel choices for movement within the City Centre, as well as to/from the rest of Richmond and other regional destinations;
- providing adequate transportation infrastructure and facilities within the City Centre for all road users, in balance with other competing needs for urban space;
- ensuring adequate accommodation for the delivery of goods and services to support anticipated residential and retail/commercial/industrial development;
- employing transportation demand management (TDM) measures to help shift travel demand away from private automobile use towards more efficient and sustainable modes.

OBJECTIVE:

Provide a framework for a “well connected community” designed to promote a culture of walking, cycling, rolling, and transit use through complementary objectives for each of the different components and users of the transportation system:

- **Street Network:** redefine and complete the street network to balance the needs of all road users and create shorter blocks that increase accessibility to destinations;
- **Transit:** establish a comprehensive hierarchy of transit services and supporting amenities to enable transit to become the preferred travel choice for medium to long distance trips;
- **Walking:** assist people to move in comfort, safety, and dignity along all City Centre streets;
- **Accessibility:** establish barrier-free access;
- **Cycling:** establish a safe, continuous and convenient cycling network that serves cyclists of all ages and abilities;
- **Driving & Parking:** make driving an option, not a routine choice, and manage parking better to minimize its footprint;
- **Goods Movement & Emergency Services:** accommodate efficient goods movement and minimize response times for emergency services;
- **Supporting Measures:** implement policies and programs that make the transportation system smarter, help to manage travel demand, and encourage a shift to more sustainable travel modes;
- **Car-Free Measures:** encourage measures that support car-free lifestyles through enhanced first-to-last kilometre connectivity, alternative transportation options, and home delivery services and facilities.

Bylaw 9892
2020/07/13



Street Network

A hierarchy of multi-modal streets that signify desired functions with a tighter grid to provide more direct access.



Walking

A city's walkability is a critical measure of the quality of its public realm, and of its health and vitality.



Driving & Parking

Achieve a sustainable balance among road capacity requirements and on- and off-street parking.



Supporting Measures

Policies and incentives support sustainable travel modes and increase transportation efficiency.



Transit

The Canada Line is the backbone of transit service supplemented with regional and local bus service.



Cycling

Designated bike routes actively encourage cycling as a legitimate and viable transportation choice.



Goods Movement & Emergency Services

Efficiently move goods and give priority to emergency services.



Car-Free Measures

Concierges, delivery services, and other measures can help make driving unnecessary.

POLICIES	
2.3.1 Street Network	
a)	Tighter Street Grid Create smaller blocks (e.g., 100 m (328 ft.) long block faces within 400 m (1,312 ft.) of a Village Centre) to support higher density land uses and provide more direct access for pedestrians, cyclists, and transit.
b)	Hierarchy of Streets Establish four classes of streets (major thoroughfare, major street, minor street, lane/mew) to support desired functions, character, and travel mode choices.
c)	Cross-Street Pattern Establish a cross-street network that provides both alternative continuous corridors across the City Centre and local circulation and access.
2.3.2 Transit	
a)	Rapid Transit & Bus Service Encourage greater transit use by providing a hierarchy of transit services, expanding transit connections and coverage, and increasing service frequencies. Pursue implementation of the future Capstan Station through the development of the surrounding area.
b)	Transit Villages Make each Canada Line station and the Richmond Oval Village Centre a focal point for higher density, mixed use development that offers opportunities for multi-modal integration with transit.
c)	Accessible Transit Support a seamless, integrated, regional, door-to-door transit system with a central reservation service for users with cognitive and/or physical disabilities who cannot use conventional transit service.
d)	Transit Quality Improve the quality of transit trips through amenities such as comfortable and weather-protected bus shelters, transit schedules and arrival time information at transit stations and major bus stops, and transit priority measures where feasible.
2.3.3 Walking	
a)	Street Network Ensure that every street is walkable and has a sidewalk, street trees, boulevard, pedestrian lighting, narrower street crossings, conveniently timed pedestrian signals, and where possible, curbside parking that buffers traffic and improves the walking environment.
b)	Streetscape Provide an appealing and animated environment for pedestrians through landscaping, interesting street furniture, gathering places and resting areas, wayfinding, and building fronts with continuous weather protection.
c)	Accessibility Enhance the use of universal accessible design features to allow all pedestrians to travel independently.
2.3.4 Cycling	
a)	Accommodation on Street Network Ensure that all streets accommodate bikes and selected streets are enhanced with specific cycling facilities that are matched to the street type. Where feasible, cycling routes should be physically separated from vehicle traffic on major thoroughfares and major streets.
b)	Trails & Bridges Integrate the on-street cycling network with off-street trails and seek new links to facilitate water crossings (e.g., to BCIT).
c)	End-of-Trip Facilities Provide secure end-of-trip facilities, such as bike racks and bike lockers, in Villages Centres and areas of high activity.
d)	Integration with Transit Encourage bicycle accommodation on the Canada Line at all times, bicycle-accessible transit stations and bus stops, and bike racks and bike lockers at all transit stations and terminals.
2.3.5 Driving & Parking	
a)	Street Network Establish a hierarchy of streets that utilizes major and minor streets for local access (thus, reducing local traffic on major thoroughfares) and minor streets and lanes for parking, driveway access, and loading.
b)	On-Street Parking Management Match on-street parking to the street type whereby parking may be short-term in lanes, full-time or off-peak on minor streets, and accommodated in lay-bys on some major streets and major thoroughfares.
c)	Off-Street Parking Management Minimize the footprint of parking areas through measures such as shared parking areas, reduced parking supply requirements near Village Centres, and reserved parking spaces for car-share programs.
2.3.6 Goods Movement & Emergency Services	
a)	Goods Movement Corridors Designate major thoroughfares and major streets as the primary goods movement corridors, with minor streets and lanes providing access for local deliveries and loading.
b)	Emergency Services Give priority to emergency service access and timely response via traffic signal pre-emption on selected major thorough-fares and parking regulations that ensure lanes and mews are kept accessible.
2.3.7 Supporting Measures	
a)	Transportation Demand Management (TDM) Measures Better manage travel demand by encouraging alternative transportation choices and lifestyles which enable a significant shift towards more sustainable travel modes (e.g., transit, shuttles, co-op cars).
b)	Intelligent Transportation Systems (ITS) Strategies Incorporate the use of information technologies to improve the performance and efficiency of travel modes.
2.3.8 Fostering a Car-Free Lifestyle	
a)	One or No Car Goal Work towards a goal where most households and employees will only need one car or no car at all.
b)	Multi-Modal Mobility Hubs Establish transportation network nodes that seamlessly integrate multiple travel options, supportive infrastructure, and placemaking strategies to create pedestrian-friendly centres that help to maximize first-to-last kilometre connectivity without need for private motor vehicles.

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2.3.1 Street Network

The key success indicator for the street network is:

A redefined street network balances the needs of all road users – pedestrians, cyclists, transit, and drivers – and creates shorter blocks that increase accessibility to destinations.

Challenges

- Large block sizes (i.e., block face length greater than 200 m (656 ft.)) inhibits optimal land uses and adversely affects accessibility.
- Too few continuous major thoroughfares across the City Centre provide alternative routes for through-traffic.
- Many existing developments are auto-oriented and feature large surface parking lots and multiple access driveways.
- Streets are designed primarily for vehicular movements.
- Unappealing streetscapes and incomplete sidewalk and cycling networks form a hostile environment for pedestrians and cyclists.

Proposed Strategies

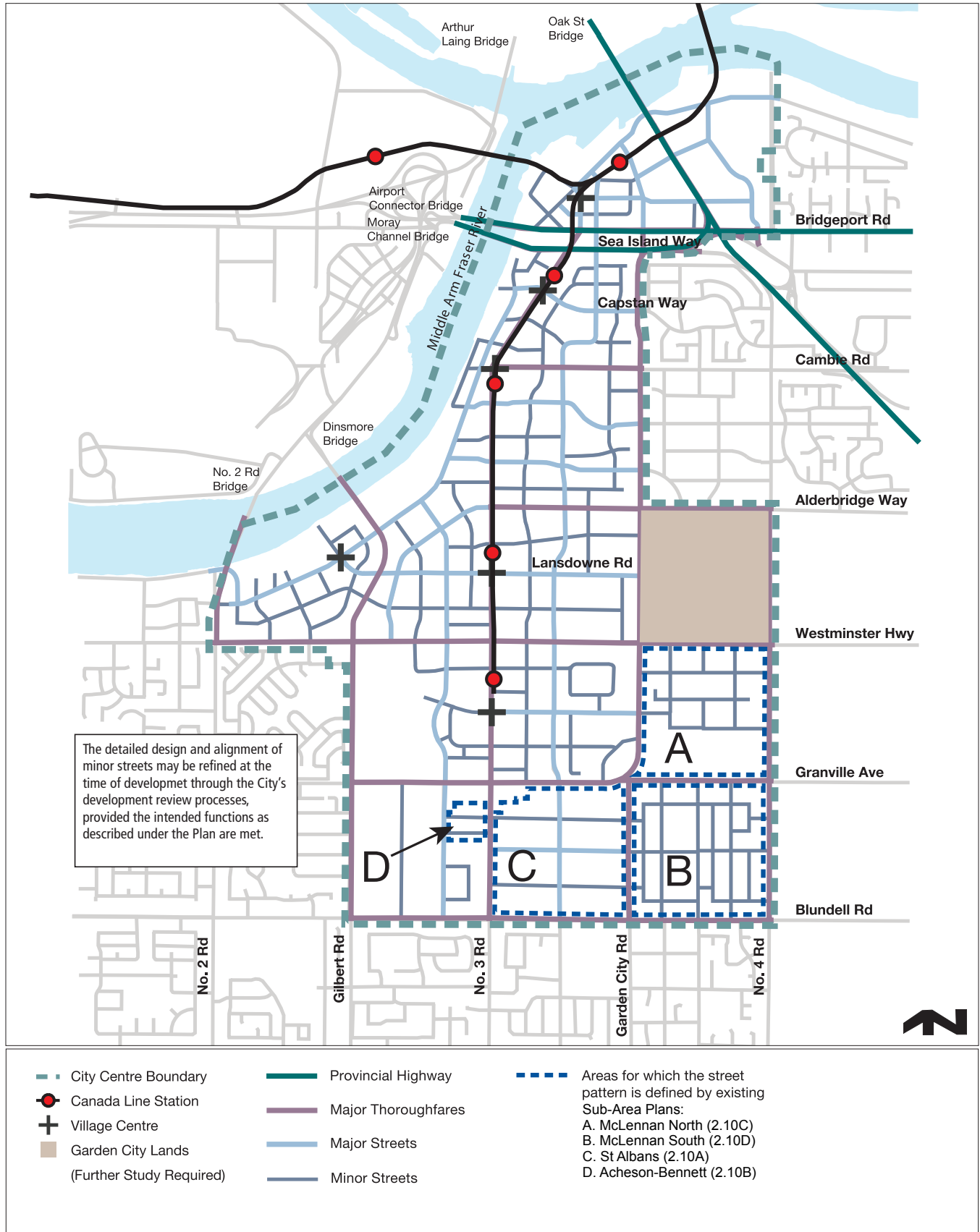
- At tighter street grid and streetscape enhancements to support higher density land uses and provide more direct access.
- A hierarchy of streets that signifies desired functions and character and supports travel mode choices.
- A simple cross-street network that provides alternative continuous corridors across the City Centre, as well as local circulation and access.
- Improved transit, pedestrian, and cycling environments to help offset the reliance on private automobiles and reduce the demand for increased road capacity.



Aerial photo of existing street grid.

Street Network Map (2031)

Bylaw 9892
2020/07/13



Major Thoroughfares

Purpose: a walkable, urban arterial primarily intended to accommodate city-wide and City Centre traffic travelling longer distances.

Size: a longer corridor with a minimum of 4 travel lanes plus left-turn lanes and typically a landscaped centre median.

Location: set in a grid pattern such that major thoroughfares are spaced roughly 800 m (2,625 ft.) apart (e.g., a 10 minute walk).

Parking: in some cases, on-street parking may be provided with a lay-by depending on traffic conditions.

Pedestrians: a sidewalk on both sides of the street and special measures provided to help minimize traffic impacts and create a comfortable, attractive pedestrian environment (e.g., landscaping).

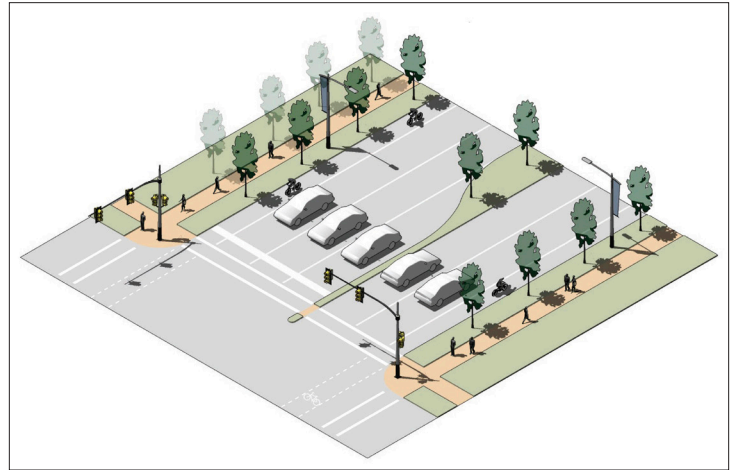
Bicycles: on-street bike lanes where designated and, in some cases, off-street bike paths.

Transit: a high ridership transit corridor with frequent regional, city, and local transit services and supporting amenities.

Trucks & Emergency Vehicles: a primary goods movement and emergency response route with traffic signal priority to reduce response time.

Driveways: restricted or, where this is not possible, limited to multiple property access (i.e., a driveway shared by two or more properties or a multi-lot consolidation).

Major Thoroughfares



Element	Width	Notes
Sidewalk	2.0 m (6.5 ft.)	<ul style="list-style-type: none"> Minimum width.
Boulevard	1.5 m (5 ft.)	<ul style="list-style-type: none"> Continuous planting strip with street trees. Applies to new realigned and redeveloped streets. In busy pedestrian areas and near bus stops, use the boulevard to extend sidewalks and provide space for transit shelters and pedestrian circulation, and replace the planting strip with planter boxes or tree wells, as appropriate.
Greenway	2.0 m (6.5 ft.)	<ul style="list-style-type: none"> Minimum width (in addition to standard sidewalk and boulevard requirements). Includes an additional row of trees and planting. Applies to one side of designated streets.
Bike Lane	1.5 m to 1.8 m (5 ft. to 6 ft.)	<ul style="list-style-type: none"> Minimum width. Applies to both sides of designated streets. Widening of existing major thoroughfares for bike lanes should occur in conjunction with redevelopment or realignment. Where streets are not widened, any existing cycling facilities would be retained. If street is not a cycling route, then current traffic lanes remain at existing widths.
Travel Lanes	3.1 m to 3.25 m (10.2 ft. to 10.7 ft.)	Typical widths: <ul style="list-style-type: none"> median lane: 3.1 m (10.2 ft.); curb lane: 3.25 m (10.7 ft.).
Centre Median	4.45 m (14.6 ft.)	<ul style="list-style-type: none"> Typical width. Centre median is reduced at intersections to accommodate left-turn lane.
Total Right-of-Way Required	26.45 m to 30.05 m (86.8 ft. to 98.6 ft.)	Typical minimum street widths including: <ul style="list-style-type: none"> cycling & greenway: 29.45 m to 30.05 m (96.6 ft. to 98.6 ft.). cycling only: 27.45 m to 28.05 m (90 ft. to 92 ft.). greenway only: 26.45 m (86.8 ft.).

Major Streets

Purpose: a walkable, urban collector primarily intended to link Village Centres and various neighbourhoods within the City Centre.

Size: a long corridor with 2 to 4 travel lanes plus left-turn lanes at most intersections.

Location: set in a grid pattern that subdivides the major thoroughfare grid to create roughly 400 m (1,312 ft.) square blocks (e.g., a 5 minute walk).

Parking: in some cases, on-street parking may be provided (e.g., during off-peak hours).

Pedestrians: a primary pedestrian route enhanced with sidewalks on both sides of the street and special landscape features and furnishings.

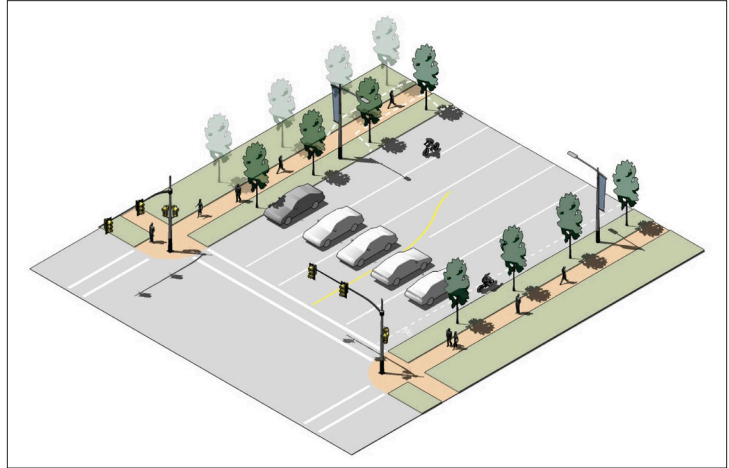
Bicycles: on-street bike lanes on designated streets (but enhanced outside lanes accommodating shared bike/ vehicle use may be permitted in some cases).

Transit: a high ridership transit corridor with frequent local services.

Trucks & Emergency Vehicles: a secondary goods movement and emergency response route.

Driveways: discouraged or, where alternative access cannot be secured, limited to multiple property access (i.e., a driveway shared by two or more properties or a multi-lot consolidation).

Major Street (with Cycling)



Element	Width	Notes
Sidewalk	2.0 m (6.5 ft.)	<ul style="list-style-type: none"> Minimum width.
Boulevard	1.5 m (5 ft.)	<ul style="list-style-type: none"> Continuous planting strip with street trees. Applies to new realigned and redeveloped streets. In busy pedestrian areas and near bus stops, use the boulevard to extend sidewalks and provide space for transit shelters and pedestrian circulation, and replace the planting strip with planter boxes or tree wells, as appropriate.
Greenway	2.0 m (6.5 ft.)	<ul style="list-style-type: none"> Minimum width (in addition to standard sidewalk and boulevard requirements). Includes an additional row of trees and planting. Applies to one side of designated streets.
Bike Lane	1.5 m to 1.8 m (5 ft. to 6 ft.)	<ul style="list-style-type: none"> Minimum width. Bike lanes are preferred on new streets. Wide curb lanes: 4.3 m (14.1 ft.) are acceptable where right-of-way is constrained (to the satisfaction of the City). Where existing streets are not cycling routes, the streets would not be widened.
Travel Lanes	3.1 m to 3.25 m (10.2 ft. to 10.7 ft.)	Typical widths: <ul style="list-style-type: none"> median lane: 3.1 m (10.2 ft.); curb lane: 3.25 m (10.7 ft.).
Total Right-of-Way Required	25.35 m to 28.85 m (83.2 ft. to 94.7 ft.)	Typical minimum street widths, including: <ul style="list-style-type: none"> bike lanes & greenway: 28.25 m to 28.85 m (92.7 ft. to 94.7 ft.); bike lanes only: 26.25 m to 26.85 m (87 ft. to 88 ft.); new street with wider curb lanes: 25.35 m (83.2 ft.).

Minor Streets

Purpose: a walkable route primarily intended to serve fronting properties and provide for vehicle, bicycle, and pedestrian circulation within each of the City Centre’s villages and neighbourhoods.

Size: a corridor of varying length with 2 travel lanes (or 4 lanes when warranted by traffic volumes and composition).

Location: set in a grid pattern that subdivides the major thoroughfare and major street grids to create roughly 200 m (656 ft.) square blocks (e.g., a 2½ minute walk).

Parking: on-street parking typical.

Pedestrians: a pedestrian-oriented streetscape design predominates and encourages lower vehicle travel speeds and, in some cases, situations where vehicles, pedestrians and cyclists enjoy “equal” priority in terms of shared road space.

Bicycles: enhanced curb lanes accommodating shared bike/vehicle use are preferred, but in some cases, mixed vehicle/bike lanes may be permitted.

Transit: a possible local transit corridor.

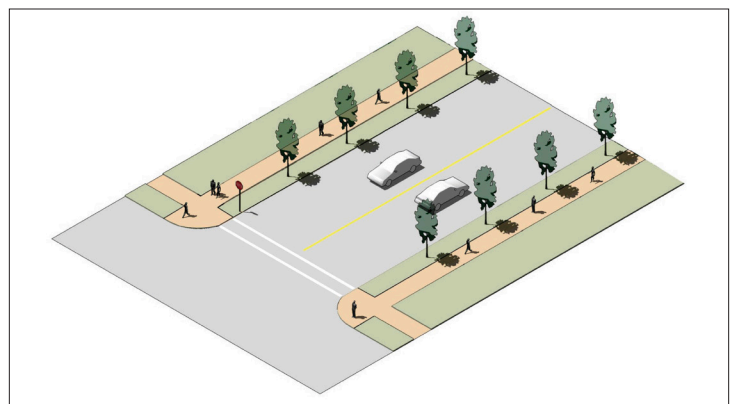
Trucks: local goods movement and emergency response route.

Driveways: direct vehicle access to fronting properties may be permitted where access from a rear lane is not possible impacts on the pedestrian environment are minimized.

Minor Street - Commercial & High Density Residential



Minor Street - Medium & Low Density Residential



Element	Width	Notes
Sidewalk	2.0 m (6.5 ft.)	<ul style="list-style-type: none"> Minimum width.
Boulevard	1.5 m (5 ft.)	<ul style="list-style-type: none"> Continuous planting strip with street trees. Applies to new realigned and redeveloped streets.
Cycling	Part of Parking/Travel Lanes	<ul style="list-style-type: none"> Wide curb lanes: 4.3 m (14.1 ft.) where right-of-way is available, or else in mixed traffic. Some streets will have additional features to be “bicycle-friendly” such as signage and pavement markings, but will not be widened.
Parking	2.25 m to 2.5 m (7.4 ft. to 8.2 ft.)	Typical widths: <ul style="list-style-type: none"> Commercial & High Density Residential: 2.5 m to 3.0 m width (8.2 ft. to 10 ft.); Medium & Low Density Residential: 2.25 m (7.4 ft.) width.
Travel Lanes	3.0 m to 3.2 m (10 ft. to 10.5 ft.)	Typical widths: <ul style="list-style-type: none"> Commercial & High Density Residential: 3.2 m (10.5 ft.); Medium & Low Density Residential: 3.0 m (10 ft.).
Total Right-of-Way Required	18 m to 19.7 m (59 ft. to 64.6 ft.)	Typical minimum street widths: <ul style="list-style-type: none"> New Commercial & High Density Residential: 18.7 m to 19.7 m (61.4 ft. to 64.6 ft.); New Medium & Low Density Residential: 18 m (59 ft.).

Lanes & Mews

Purpose: a mid-block route to support fronting properties in the form of:

- Lanes: primarily intended for vehicle access for loading, parking and servicing purposes;
- Mews: primarily intended as a multi-modal route that is a pedestrian/ bike link with limited or restricted vehicle movement.

Size: a short corridor (e.g., 5 blocks or less), 6 m to 9 m (20 ft. to 30 ft.) in width and typically designed to allow two vehicles to pass (e.g., general purpose, service, and/or emergency).

Location: subdivides larger city blocks (i.e., with one or more block faces longer than 200 m (656 ft.) in one or two directions to create a grid pattern with corridors set at approximately 100 m (328 ft.) intervals (a 1¼ minute walk).

Parking: typically limited to short-term stopping and vehicle loading (where vehicles are permitted).

Pedestrians:

- Lane: provides access to fronting properties with mixed vehicle/bike/ pedestrian traffic and may include sidewalks along one or both sides.
- Mew: provides a pedestrian route and limited or restricted vehicle movement.

Bicycles:

- Lane: provides access to fronting properties with mixed vehicle/bike/ pedestrian traffic.
- Mew: may provide a bike route and limited or restricted vehicle movement.

Transit: not applicable.

Trucks: primary location of goods loading/delivery for fronting properties.

Driveways: the preferred location for direct vehicle access to fronting properties (where vehicles are permitted).

Types of Lanes & Mews

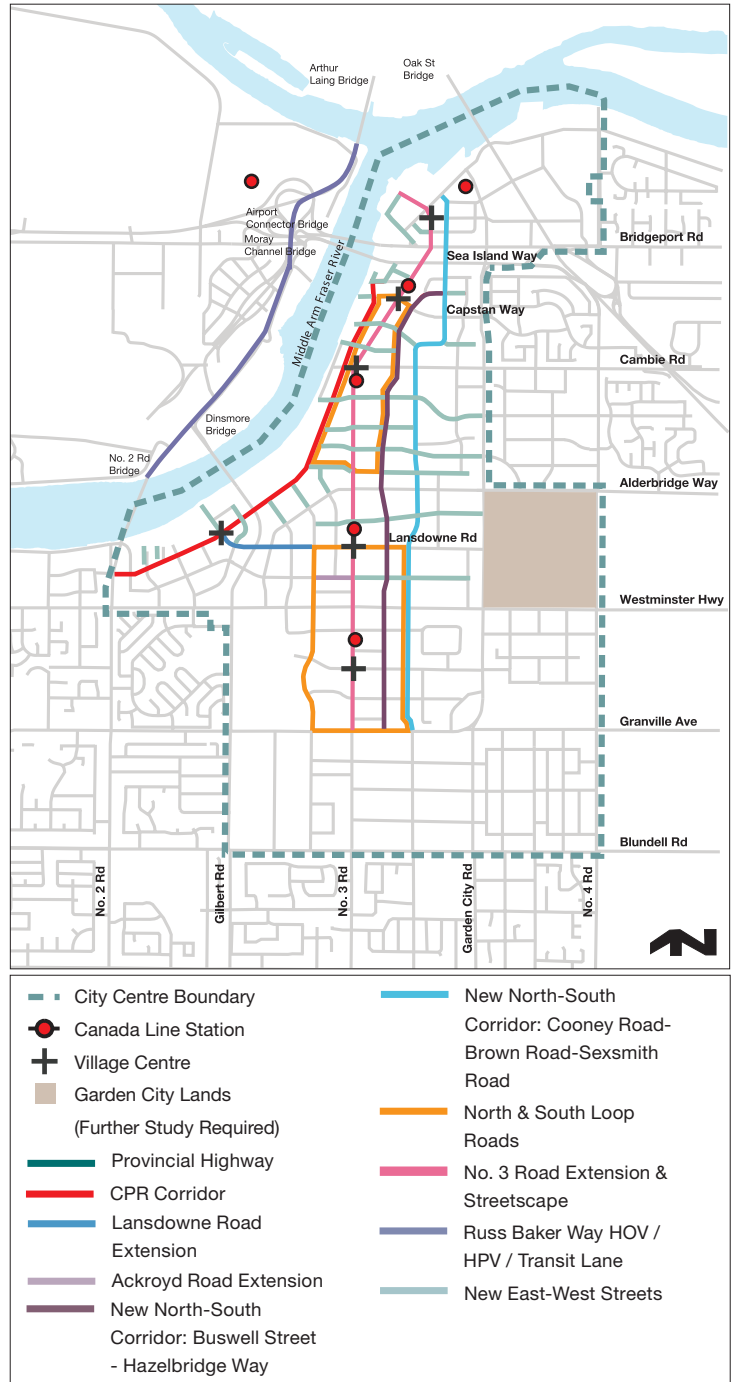


Roadway	Improvement
CPR Corridor	<ul style="list-style-type: none"> • New four-lane road with bike lanes and centre median. • Enhances access to local businesses as well as to north Richmond for through traffic. • Forms western leg of North Loop Road. • Allows conversion of some sections of River Road to become waterfront park.
Lansdowne Road Extension	<ul style="list-style-type: none"> • Westward extension from Minoru Blvd. to Hollybridge Way. • Incorporates a major greenway that is a critical link between Oval site, No. 3 Road and Garden City lands.
Ackroyd Road Extension	<ul style="list-style-type: none"> • Westward extension from No. 3 Road to Minoru Blvd. that aligns with Elmbridge Way. • Improves local access and circulation.
No. 3 Road Extension & Streetscape Enhancements	<ul style="list-style-type: none"> • Realigned and extended at northern end with the creation of a waterfront plaza at its terminus. • Streetscape enhancements north of Granville Avenue.
New North-South Corridors	<ul style="list-style-type: none"> • Buswell Street-Hazelbridge Way. • Cooney Road-Brown Road-Sexsmith Road. • Continuous streets that enhance cross-town travel.
New East-West Streets	<ul style="list-style-type: none"> • New streets improve access to the waterfront and local businesses.
North & South Loop Roads	<ul style="list-style-type: none"> • North Loop Road: CPR Corridor, Capstan Way, Hazelbridge Way, Leslie Road. • Complements the completed South Loop Road: Minoru Blvd., Lansdowne Road, Cooney Road, Granville Avenue. • Enhance local traffic access to City Centre destinations.

Key Street Improvements Map (2031) Bylaw 9593 2017/05/08

These street improvements have a higher priority as they are key to:

- establishing a tighter street grid;
- enhancing connectivity between City Centre neighbourhoods;
- improving access to local businesses as well as the waterfront.



2.3.2 Transit

The key success indicator for transit is:
A convenient and well-integrated transit network enables transit to become the preferred travel choice for medium to long distance trips within the City Centre and to local and regional destinations.

Challenges

- Traditional reliance on private automobiles for travel.
- Incomplete network coverage does not serve or connect all of Richmond with the City Centre.
- Relatively infrequent service on some routes, particularly outside of peak hours.
- Transfer(s) required due to lack of direct service between some origins and destinations.
- Lack of comfort and appeal at some bus stops.

Proposed Strategies

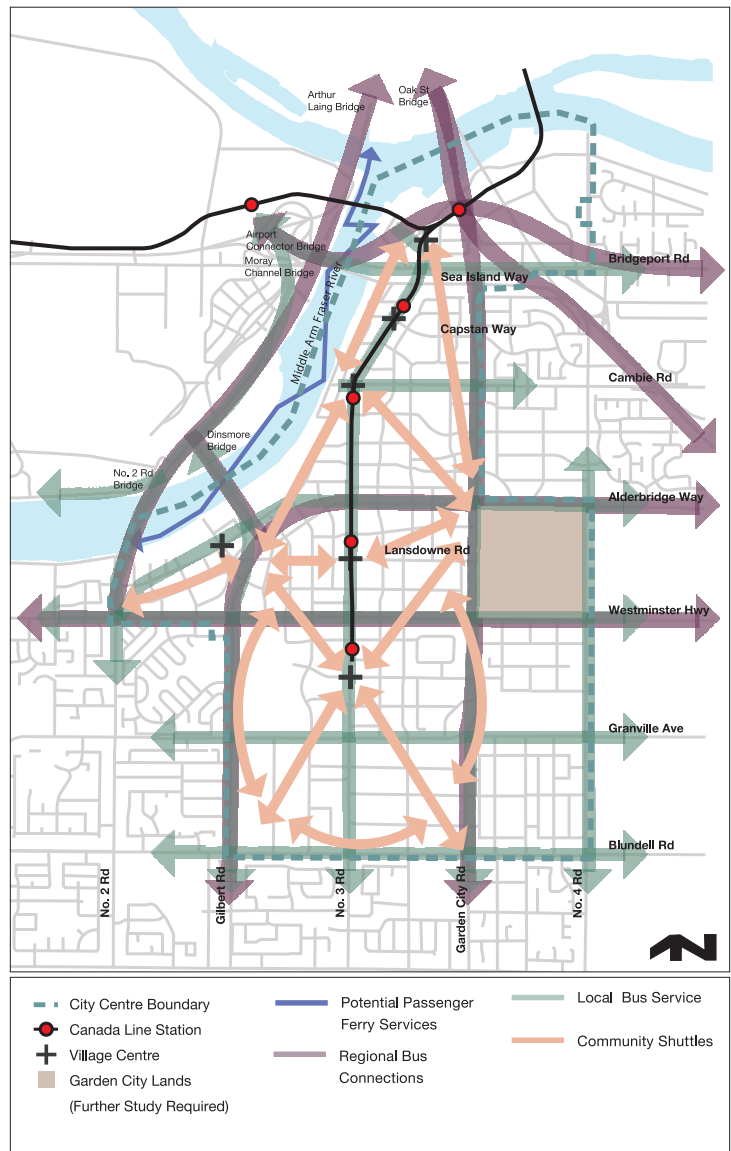
- The Canada Line enables strong transit usage in the City Centre.
- Greater transit use helps reduce greenhouse gas emissions and the traffic burden on City Centre streets.
- Higher density, mixed use developments around transit stations and villages that enable a car-free lifestyle.
- Complete the street network to allow greater access to transit.
- Frequent and convenient routes between transit stations, villages and key activity centres in the City Centre and to local and regional destinations.
- Provide users with better certainty on bus arrival times.
- Create an attractive transit environment for passengers.



<p>Transit Network Features</p>
<p>Canada Line Rapid Transit Four stations initially (Bridgeport, Aberdeen, Lansdowne, Richmond-Brighouse), and a future station at Capstan (to be implemented via the Capstan Station Bonus in coordination with private development), each of which will be a focus for higher-density, mixed use development and multi-modal integration.</p>
<p>Regional Bus Connections New and expanded direct connections fully integrated with local services to regional centres such as UBC, Burnaby and Surrey.</p>
<p>Local Bus Services Increase the number and frequency of services to meet demand and nurture transit trip-making habits through:</p> <ul style="list-style-type: none"> • the provision of direct service to Canada Line stations (i.e., no bus-to-bus transfers required) from the rest of Richmond; • smaller community shuttles with more frequent stops that link destinations between transit villages.
<p>Accessible Transit Support an expanded, seamlessly integrated regional door-to-door accessible transit system with a central operating hub for passengers with cognitive and/or physical disabilities who cannot use conventional transit.</p>
<p>Transit Stations & Exchanges Encourage high-quality design with adjacent retail services at some or all transit stations that provide safe, convenient pedestrian access, wayfinding and connections to on-street bus stops.</p>
<p>Transit Villages Encourage mixed use developments based around transit villages (Canada Line stations and Oval village centre) where residents are within a 5 to 10 minute walk of frequent and efficient transit service and can live without owning a car.</p>
<p>Bus Stops Provide attractive, conveniently located, accessible, and covered shelters with transit service information that are generally spaced every 250 m to 400 m (820 ft. to 1,312 ft.).</p>
<p>Transit Service Quality Improve the quality of transit trips by:</p> <ul style="list-style-type: none"> • providing transit schedules and arrival time information; • implementing transit priority measures where feasible; • encouraging transit passes to be offered to residents and employees in new developments; • supporting a discounted or subsidized fare for certain transit trips such as short hops within the City Centre.
<p>Other Transit Modes Explore opportunities for passenger ferry services along the waterfront and a future transit system linking the Canada Line to other destinations in Richmond.</p>

Bylaw 8837
2012/03/12

Transit Network Map (2031) Bylaw 8841
2013/02/12



2.3.3 Walking

The key success indicator for walking is:

The creation of a culture of walking allows people to move in comfort, safety and dignity along shorter blocks that are pedestrian-oriented and accessible.

Challenges

- An unappealing pedestrian environment and incomplete sidewalk network.
- Long city blocks inhibit pedestrian access to destinations.
- Large setbacks of developments from the sidewalk require pedestrians to cross surface parking lots.

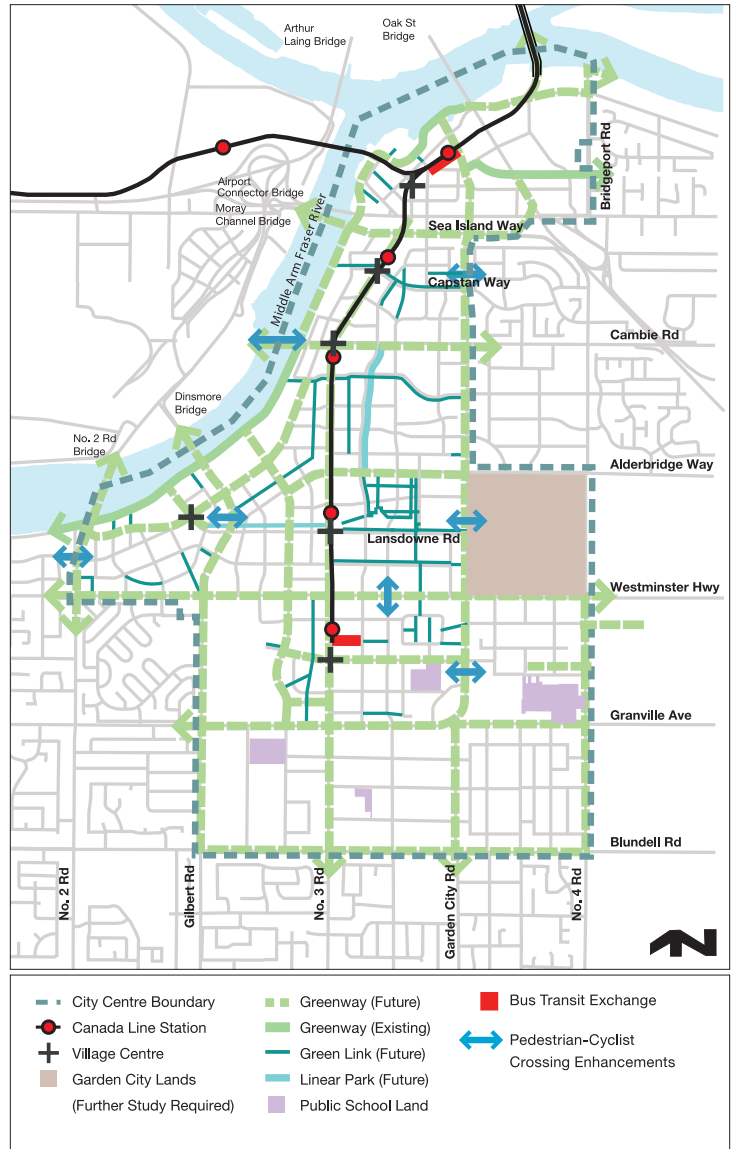
Proposed Strategies

- A walkable downtown that encourages and facilitates social interaction, local economic vitality, personal health, and community safety and supports environmental sustainability objectives.
- Shorter city blocks and new pedestrian mews as the street network is completed.
- Appealing and animated streetscapes with resting plazas and gathering places.
- Increased interesting street-facing building fronts that have continuous weather protection.
- A wayfinding system that directs pedestrians to key amenities, activity centres, transit stations and bus stops.
- Pedestrians favoured in traffic control at intersections.
- Universal accessible design that allows all pedestrians to travel independently.



Walking Features
<p>Street Network</p> <ul style="list-style-type: none"> • Every street is walkable and has a sidewalk, a minimum of 2.0 m (6.5 ft.) wide and preferably 2.5 m (8.2 ft.) wide, with street trees, boulevards and pedestrian lighting. • Shorter city blocks, narrower street crossings and conveniently timed pedestrian signals. • Increased curbside parking on minor streets acts as a buffer from adjacent vehicle traffic. • A wayfinding system to guide pedestrians to key destinations. • An enhanced pedestrian-cyclist crossings at selected locations, particularly near schools.
<p>Streetscape</p> <ul style="list-style-type: none"> • A creative, fun and welcoming environment for pedestrians via landscaping, artwork, attractive street furniture, open spaces, gathering places, and resting areas. • Orient ground level businesses to pedestrian access from the sidewalk. • Continuous store awnings provide weather protection.
<p>Transit Villages & Connections</p> <ul style="list-style-type: none"> • Transit schedules and route information available at transit stations and bus stops. • Fully accessible transit stops conveniently located and easily recognizable with sufficient space for waiting passengers. • Covered walkways provided between transit stops and village centres.
<p>Urban Greenways & Trails</p> <ul style="list-style-type: none"> • Enhanced streetscape features along urban greenways and within pedestrian precincts around transit villages. • Improved trails along the dyke and new links across water boundaries (e.g., Middle and North Arms of the Fraser River).
<p>Accessibility</p> <ul style="list-style-type: none"> • Enhanced use of universal accessible design features such as accessible pedestrian signals and tactile wayfinding. • Lighting along trail networks where feasible. • Priority given to pedestrian access and safety through parking lots. • Installation of ramps at all intersections.

Pedestrian Environment Map (2031)



2.3.4 Cycling

The key success indicator for cycling is:

A safe, continuous and convenient network of bike routes that serves cyclists of all ages and abilities and encourages more people to cycle more often.

Challenges

- A lack of continuous north-south and east-west routes across the City Centre.
- Establishing functional cycling facilities on existing streets that connect destinations.
- Providing safe facilities through barriers such as highway interchanges, river crossings and high traffic volume intersections.
- Providing connections to, and integration with, transit service.
- A lack of appreciation by some motorists that cyclists are legitimate road users.

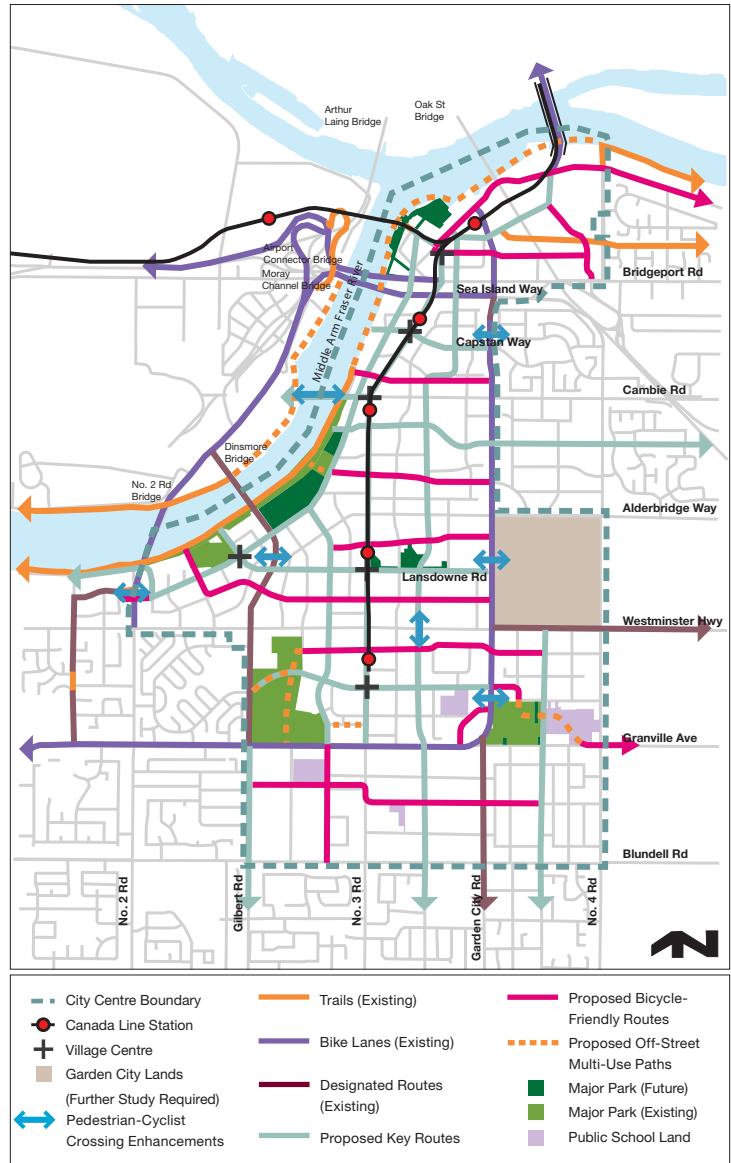
Proposed Strategies

- Facilitate cycling so that it is faster and easier to cycle than drive in the City Centre.
- Every street will accommodate bikes, but some streets are enhanced with designated cycling facilities.
- The form of cycling facility is matched to street type (e.g., bike lanes on major thoroughfares, shared curb lanes on minor streets).
- Physical separation of cycling facilities from vehicle traffic on major thoroughfares and streets, where feasible.
- Local cycling connections to Canada Line stations and transit villages.
- Secure end-of-trip facilities at all transit stations and villages.



Cycling Network Map (2031)

<p>Cycling Network Features</p> <p>Accommodation on Street Network</p> <ul style="list-style-type: none"> • Provide signage and pavement markings to clearly delineate cycling facilities from other street components. • Minimize potential conflicts and safely accommodate multiple road users such as transit service and cycling. • Enhanced pedestrian-cyclist crossings at selected locations, particularly near schools. <p>Designated Cycling Routes</p> <ul style="list-style-type: none"> • Designated routes feature signage, pavement markings and bicycle-friendly traffic signals. • Designated bike lanes on major thoroughfares and some major streets with a typical width of 1.5 m to 1.8 m (5 ft. to 6 ft.). • Cycling routes are physically separated from vehicle traffic on major thoroughfares and major streets where feasible. • Shared wide curb lanes on some major streets and on minor streets with typical width of 4.3 m (14.1 ft.). • Bicycle-friendly routes feature pavement markings, signage and signal loop detectors but road is not widened. <p>Trails & Bridges</p> <ul style="list-style-type: none"> • Integration of on-street cycling network with off-street trails and pathways including the Canada Line Bridge over the North Arm of the Fraser River. • Off-street pathways have typical width of 3.0 m to 4.0 m (10 ft. to 13.1 ft.). • Proposed new pedestrian/cycling bridge from the west end of Cambie Road to Sea Island. <p>End-of-Trip Facilities</p> <ul style="list-style-type: none"> • Secure end-of-trip facilities (bike racks, lockers, cages) at civic sites, parks, transit villages, and activity centres. • Bylaw requirement for all new developments to provide short-term and long-term secure bicycle parking. <p>Integration with Transit</p> <ul style="list-style-type: none"> • Bicycle accommodation on the Canada Line and all buses during all hours of operation. • Bike racks and bike lockers at all rapid transit stations and transit exchanges. <p>Promotion & Education</p> <ul style="list-style-type: none"> • Safe cycling courses for adults and children. • Area-wide event to promote cycling for all trips. • Education and enforcement programs to encourage sharing the road among motorists and cyclists.



2.3.5 Driving & Parking

The key success indicator for driving and parking is:

Driving is considered an option, not a routine choice and parking is better managed to minimize its footprint on the urban environment.

Challenges

- Reversing the current lifestyle of traditional reliance on private vehicles for travel.
- Broadening the concept of “freedom to travel” to include other modes besides private vehicles.
- Limit the number of continuous major thoroughfares across the City Centre; concentrate vehicle travel on a few streets.
- Alternative travel modes are not competitive with driving in terms of travel time, service and facility availability, and convenience.
- Private parking lot management discourages shared use.

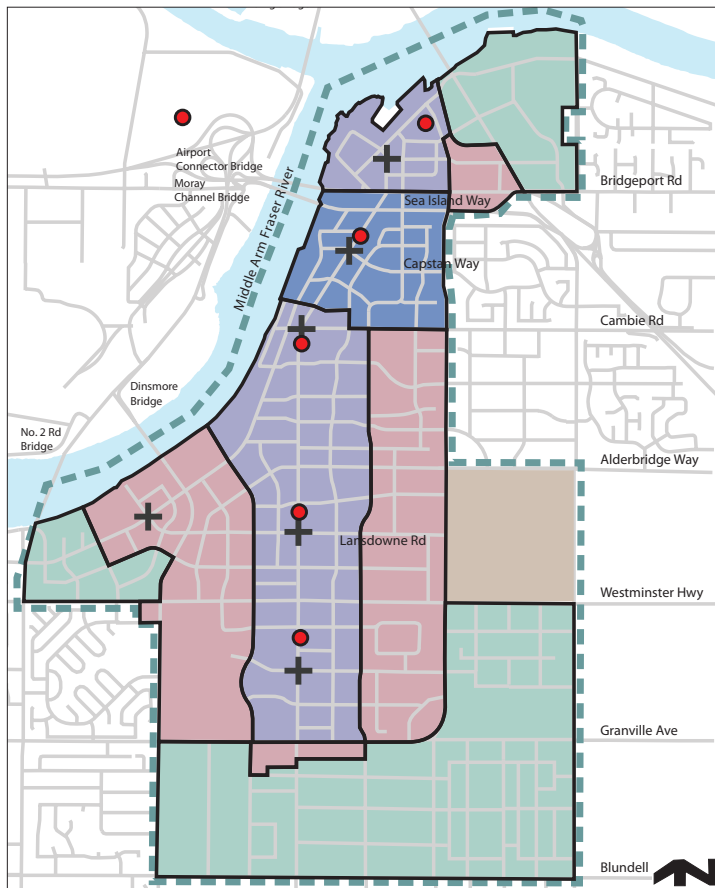
Proposed Strategies

- Encourage options to private vehicle ownership such as car-sharing and home delivery.
- Increase the capacity of the road network without major widening.
- A tighter street grid to minimize unnecessary circulation.
- Balance reduced parking strategies (as incentive to lower auto usage) with accessible, short-term parking in selected areas that supports businesses.
- Promote the concept that having a parking space is not necessarily a part of home ownership.
- Encourage businesses to allow customers to park in one site while shopping at multiple nearby establishments.
- Encourage developers to invest in alternative transportation as opposed to parking infrastructure.



Parking Bylaw Map Bylaw 8841 2013/02/12

<p>Driving & Parking Features</p> <p>Future Street Network</p> <ul style="list-style-type: none"> Major and minor streets provide local access and reduce local traffic on major thoroughfares. Minor streets and lanes provide parking, driveway access and loading zones.
<p>Driving Environment</p> <ul style="list-style-type: none"> Make driving more efficient by providing operational enhancements such as traffic signal timing optimization. Provide real-time traffic and parking information signs in key locations. Encourage "car-free" incentives to minimize private vehicle trips, such as taxis and home delivery of goods. Limit the widening of streets except to accommodate other travel modes such as cycling and bus only lanes.
<p>On-Street Parking</p> <ul style="list-style-type: none"> Mews and some lanes have short-term parking. Minor streets have full-time curb-side parking. Some major streets and thoroughfares have parking during off-peak periods or with lay-bys. Short-term parking in commercial areas is regulated via parking meters to encourage turnover of supply. Areas adjacent to transit stations and terminals are designated for short-term passenger pick up and drop off but no long-term parking.
<p>Off-Street Parking</p> <ul style="list-style-type: none"> Encourage multiple developments to share common parking. Provide reserved parking spaces for car-share programs. Consider reduced parking stall dimensions. Provide access via lanes (preferred) and minor and major streets (when necessary) but not from major thoroughfares so as to reduce the impact on through traffic movements.
<p>Parking Supply & Management</p> <ul style="list-style-type: none"> Offer reduced parking supply requirements near transit villages. Pursue means to help fund alternative transportation, including public transit infrastructure, through reduced parking requirements Parking spaces optional rather than mandatory for residential units. Encourage the provision of car-share vehicles and transit passes in lieu of parking spaces in new developments.



	City Centre Boundary		Zone 1
	Canada Line Station		Zone 1A
	Village Centre		Zone 2
	Garden City Lands (Further Study Required)		Zone 3

Basic Parking Rate Reductions Based on Bylaw Requirements as of 2007				
Zone		Residential	Non-Residential	College/University
	Zone 1 & 1A	33%	15%	25%
	Zone 2	20%	5%	20%
	Zone 3	7%	0%	10%
Additional Parking Rate Reductions** Dependent on Transportation Demand Measures				
	Zone 1 & 1A	up to 43%	up to 25%	up to 35%
	Zone 2	up to 30%	up to 15%	up to 30%
	Zone 3	up to 17%	up to 10%	up to 20%

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2012/03/12
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**Inclusive of Basic Parking Rate Reductions.
Note: Only for the area generally bounded by No. 3 Road, Cook Road, Murdoch Avenue, Minoru Boulevard, and the minor street north of Richmond City Hall, the *Basic Parking Rate Reductions and Additional Parking Rate Reductions Dependent on Transportation Demand Measures* shall be increased to permit a minimum rate of 0.375 spaces per dwelling for affordable housing and 0.6 spaces per dwelling for market rental housing (secured with legal agreements).

2.3.6 Goods Movement & Emergency Services

The key success indicator for goods movement and emergency services is:

Goods movement is efficiently accommodated and special traffic management systems minimize the response times of emergency service providers.

Challenges

- Maintaining the convenient and timely access for goods movement and emergency services as the City Centre grows.
- Reducing potential conflicts with other road users including pedestrians, cyclists and transit.

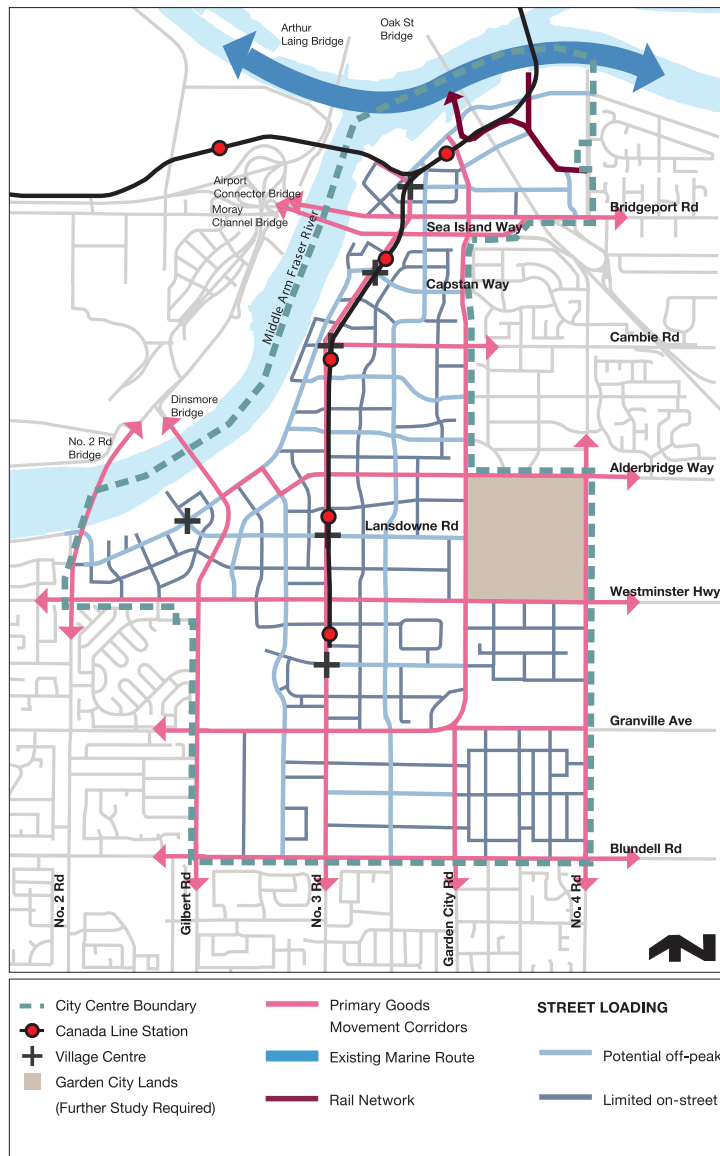
Proposed Strategies

- Major thoroughfares operate as primary goods movement corridors with no direct driveway access to properties.
- Delivery and loading activities primarily occur in service lanes to minimize impact on traffic flow and potential on-street parking.
- On-street loading zones consolidated as much as possible.
- Common parking and loading areas shared by several businesses.
- Major thoroughfares include signal pre-emption for emergency service access.
- Future emergency service facilities located to minimize response times.
- Future street network creates more opportunities for alternative forms of police patrol, such as on foot or bike.
- Minimize dangerous goods movement in City Centre



Goods Movement & Loading Map (2031)

<p>Goods Movement & Emergency Services Features</p> <p>Goods Movement Corridors</p> <ul style="list-style-type: none"> Major thoroughfares and streets act as the primary goods movement corridors with minor streets and lanes providing access for local deliveries and loading. Support other modes of goods movement such as rail in the Bridgeport area and the potential for short-sea shipping routes along the Fraser River.
<p>Loading Locations</p> <ul style="list-style-type: none"> Provide off-street loading docks within parking areas for zones of high trucking activity. Construction loading zones provided where feasible to facilitate pick up and drop off of construction materials and minimize traffic disruption. Service lanes and mews are the preferred on-street locations. Limited to areas adjacent to on-street parking on minor streets. Available on some major streets in off-peak periods but not permitted on major thoroughfares.
<p>Emergency Services</p> <ul style="list-style-type: none"> Priority is given to emergency service access and timely response. Major thoroughfares and some major and minor street intersections incorporate traffic signal pre-emption capability. Parking regulations ensure that lanes and mews are kept accessible for emergency vehicles. Consider response time requirements for emergency services when identifying priority routes.
<p>Planning & Policy</p> <ul style="list-style-type: none"> Maintain liaison with the Provincial Emergency Program to protect local disaster response routes as part of the regional network. Restrict unnecessary dangerous goods movement in City Centre. Seek to minimize response times when planning the site of future emergency service facilities. On-going liaison with stakeholders (e.g., trucking industry) to enhance goods movement.



2.3.7 Supporting Measures

The key success indicator for transportation supporting measures is:

Policies and programs are in place that make the transportation system smarter, manage travel demand and encourage a shift to sustainable travel modes.

Challenges

- The full benefits of potential measures require a co-ordinated approach amongst all levels of government and stakeholders.
- Some technology-based measures are still in the development stage.
- Existing lifestyles and policies (e.g., fixed work hours, few tax incentives for transit use) impede implementation.

Proposed Strategies

- Greater use of transportation demand management (TDM) measures, which are strategies that encourage alternative transportation use in order to increase transportation system efficiency.
- Greater use of intelligent transportation systems (ITS) strategies, which is the use of information technologies (GPS, telecommunications, the Internet) to improve transportation system performance and efficiency.
- Work with local, regional, provincial, and federal agencies to collaboratively implement initiatives that are outside the direct control of the City.

<p>Potential Supporting Measures</p> <p>Incentives to Use Other Modes & Reduce Driving</p> <p>Key Measures</p> <ul style="list-style-type: none"> • Car-share and car co-op programs that reduce private vehicle ownership and use. • High occupancy vehicle (HOV) lanes that give priority to transit and rideshare vehicles. • Ride-matching services to enable carpooling. • Community and employer transit pass programs. • Safe and active (e.g., walking and cycling) routes to schools. <p>Additional Measures</p> <ul style="list-style-type: none"> • Equitable transit fare structure and more convenient fare payment such as electronic “smart” cards. • Public bike-share system of network of distributed bikes available for free or nominal charge use. • Home delivery of goods and services. • Marketing and education to promote sustainable travel modes. <p>Workplace TDM</p> <p>Key Measures</p> <ul style="list-style-type: none"> • Free or discounted transit passes. • Guaranteed ride home on an occasional basis for commuters who typically do not use a private vehicle. • Secure bike parking with showers and lockers. • Ridesharing using company or privately owned vehicles with reserved parking. • Cash-out amount equivalent to subsidized benefit of free workplace parking in lieu of providing parking. <p>Additional Measures</p> <ul style="list-style-type: none"> • Alternative workplace schedules such as flexible hours, compressed work week and staggered shifts. • Telecommuting and tele- or videoconferencing. • Company shuttle between transit station and workplace. • Reimbursement of business travel expenses for modes other than vehicles. <p>Parking & Land Use Management</p> <p>Key Measures</p> <ul style="list-style-type: none"> • Park and ride lots at transit stations and terminals. • Reduced and maximum parking bylaw requirements. • Direct user fee for parking with free or discounted parking for rideshare vehicles. <p>Additional Measures</p> <ul style="list-style-type: none"> • Variable parking rates that are higher for prime locations and peak times. • Parking rates that equal or exceed transit fares. • Manage and price the most convenient parking spaces to favour priority users. • Minimize discounts for long-term parking passes. <p>Policy Measures</p> <p>Key Measures</p> <ul style="list-style-type: none"> • Universal accessible design to ensure barrier-free access. • Review tax policies to encourage sustainable travel modes. • Distance-based vehicle insurance rates. • Consider tax exemptions for employer-provided transit benefits. <p>Additional Measures</p> <ul style="list-style-type: none"> • Explore region-wide road pricing (e.g., tolls, congestion charges). <p>Intelligent Transportation Systems (ITS)</p> <p>Key Measures</p> <ul style="list-style-type: none"> • On-line and wireless pre-trip and en route traveller information such as traffic conditions. • Traffic signal co-ordination and optimization and transit priority at intersections. • Participation in a regional transportation management centre. <p>Additional Measures</p> <ul style="list-style-type: none"> • Encourage telecommunications as a substitute for physical travel (e.g., telecommuting, distance-learning, on-line shopping).

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2.3.8 Fostering a Car-Free Lifestyle

The key success indicator for fostering a car-free lifestyle is:

An improved shift to sustainable travel modes resulting from the enhanced convenience, flexibility, attractiveness, and integration of alternative transportation options within the urban fabric.

Challenges

- People often make multi-purpose trips or need to carry bulky items, which can make giving up a car difficult.
- People may need their cars for work.
- Some activities can be difficult to access without a car (e.g., skiing, team sports, child care).
- It can be challenging to introduce new travel options in developed, high density areas.

The principles of transit-oriented development and complete communities together with the complementary policies and key directions for each component of the transportation system jointly seek to foster a “car-free” lifestyle as a viable option for City Centre households over time.

Ideally, with more choices, it will be possible and even desirable for residents to have only one or perhaps no private car at all. If an effective range of mobility choices, infrastructure, services, and supporting initiatives are in place, the car-free lifestyle becomes feasible and public investments in the Canada Line and the transit system, as well as the City’s commitment to sustainability, are maximized.

Strategies

- Implement measures, such as multi-modal mobility hubs, to encourage people to walk, cycle, and take transit.
- Foster attractive, pedestrian-friendly, transit-orient, urban villages.
- Ensure convenient access to alternative travel options and superior first-to-last kilometre connectivity.
- Encourage customer service and residential development models that make it easier to shop and do day-to-day activities without a car.



Checklist for a Car-Free Lifestyle	
Transit Villages	<ul style="list-style-type: none"> • Compact, mixed use development that enables easy walking to convenient transit linkages. • The daily needs of City Centre residents and workers are within reach of walking and transit.
Access to Transportation Options	<ul style="list-style-type: none"> • Enable people to conveniently access multiple travel modes when needed so that owning a motor vehicle is not necessary. • Encourage all developments to support car-free lifestyles by supporting transit, car- and bike-share, ride hailing, taxis, autonomous cars, and multi-modal mobility hubs. • Encourage retail and other destination-type uses to provide priority space for travel modes that support car-free lifestyles.
Access to Retail Goods and Services	<ul style="list-style-type: none"> • Encourage retail uses to provide home pick-up and delivery services, ideally at no or minimal cost. • Encourage retailers to schedule delivery and pick-up at times when residents are most likely to be at home and traffic volumes are low (e.g., evenings). • Encourage retailers and other service providers (e.g., furniture movers) to avoid the use of large vehicles that are difficult to accommodate in dense urban areas. • Encourage co-ordinated delivery services for multi-tenant retail developments. • Ensure that sidewalks and pathways have sufficient width to accommodate pedestrian modes including scooters and handcarts.
Home Delivery & Pick-Up Services	<ul style="list-style-type: none"> • Encourage residential developments to provide spaces for concierge services to enable home deliveries and pick-up (e.g., groceries, drycleaning, etc.). • Ensure sufficient common space/secure areas for the temporary storage of goods to be picked-up and deliveries until the owner arrives home. • Ensure that loading areas are publicly accessible for larger delivery trucks and publicly accessible. • Provide on-street loading zones, where feasible, to allow for home delivery/pick-up in higher density projects without off-street parking or service lanes are not readily available.

Multi-Modal Mobility Hubs

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Purpose: multi-modal mobility hubs are key transportation network nodes designed to seamlessly integrate multiple travel modes, supportive infrastructure, and placemaking strategies with the aim of creating pedestrian-oriented centres that help to maximize first-to-last kilometre connectivity.

Features: effective mobility hubs require an integrated suite of pedestrian-friendly, transportation and related features, which may include, but may not be limited to:

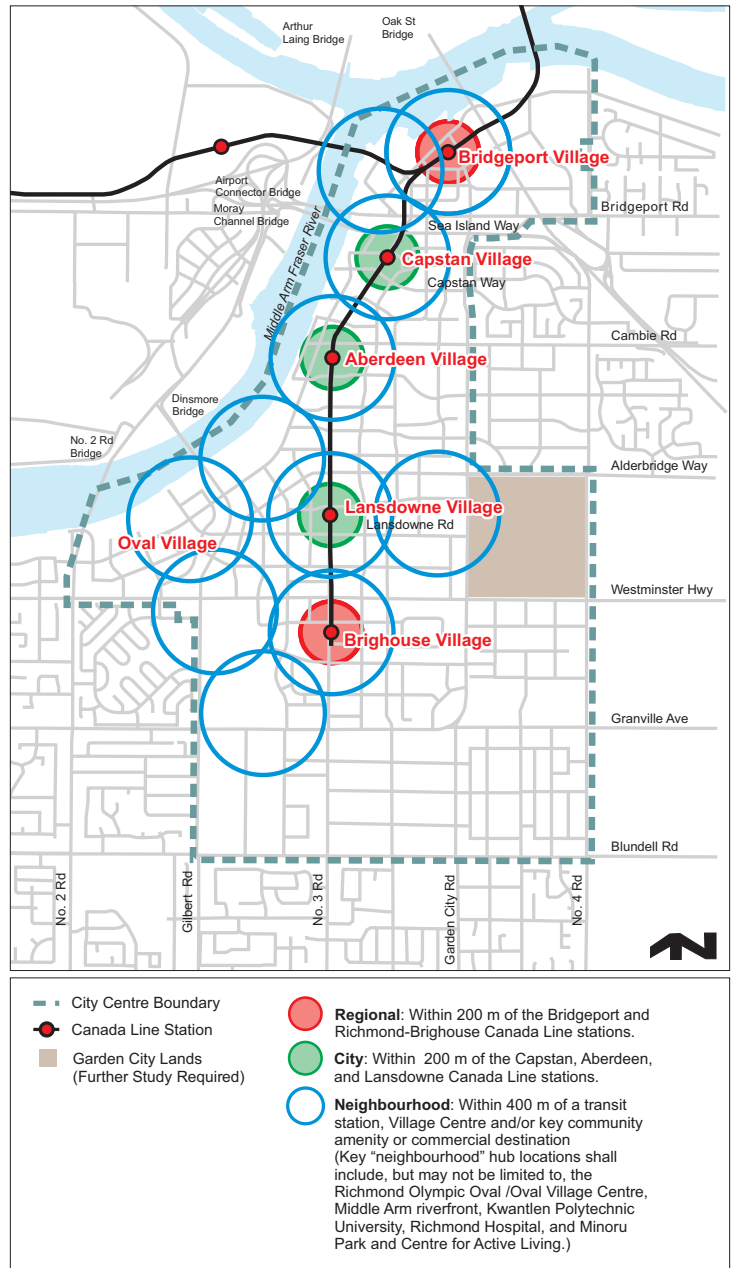
- public transit stops for rail, bus, community shuttle, and HandyDart with supporting amenities such as shelters and real-time arrival information;
- bike- and car-share facilities;
- taxi and ride-hailing services;
- secure bike storage and repair services;
- kiss-and-ride;
- shops and services;
- Wi-Fi, weather protection, seating, wayfinding signage, public washrooms, and special features such as public art;
- personal safety and security features (e.g., Crime Prevention through Environmental Design measures).

Development Approach: successful mobility hubs are integrated with the urban fabric and responsive to surrounding land uses and evolving community needs. This requires a strategic development approach that:

- encourages site-specific mobility programming tailored to the distinct needs of users in “regional”, “city”, and “neighbourhood” locations;
- offers flexible, cost-effective design options that support the establishment of hubs in high-demand, high density locations;
- can readily adapt to growth and increasing demands for new and emerging technologies and travel options (e.g., bike-share, ride hailing, and autonomous vehicles);
- employs placemaking strategies supportive of attractive, safe, and pedestrian-friendly facilities that complement the quality and character of the public realm.

Multi-Modal Mobility Hub Map

Bylaw 9892
2020/07/13



Bylaw 9892
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Alternative Mobility Hub Strategies

Multi-modal mobility hubs are places of connectivity that help to bridge the gap between high-frequency transit and each person's origin and destination by co-locating an integrated suite of mobility services, amenities, and technologies with a concentration of employment, housing, shopping, and/or recreation uses.

Mobility hub designs may vary based on user needs and location-specific opportunities. Development strategies may include, but may not be limited to:

- the street-level clustering of transportation amenities and complementary urban uses on one or several adjacent sites;
- a stand-alone hub that concentrates transportation amenities in a purpose-built facility in proximity to complementary urban uses; or
- a hybrid approach that integrates transportation amenities with complementary urban uses in the form of a high-amenity, transit-oriented, mixed use development.



Clustered, street-level transportation amenities.

Source: Hamburger Hochbahn AG



CF Richmond Centre – Proposed mobility hub integrated with underground parking and convenient public access to grade.



Marine Gateway and the Marine Drive Canada Line Station, Vancouver. Photo: Andrew Latreille / Courtesy: Perkins+Will