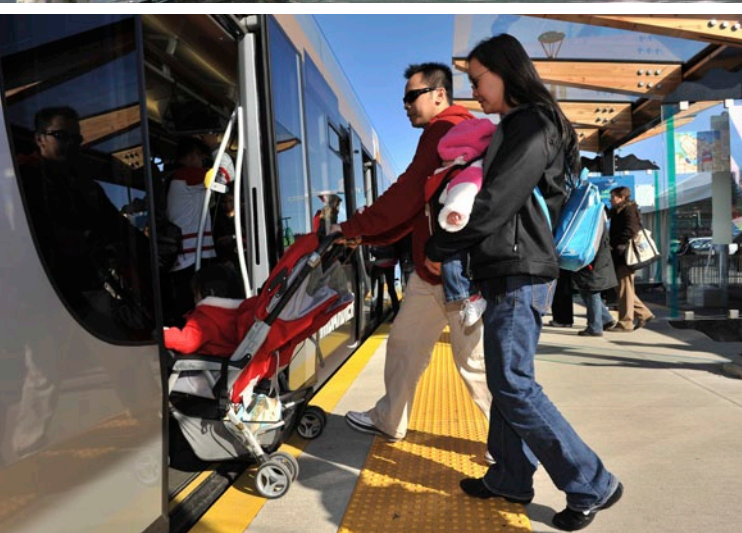
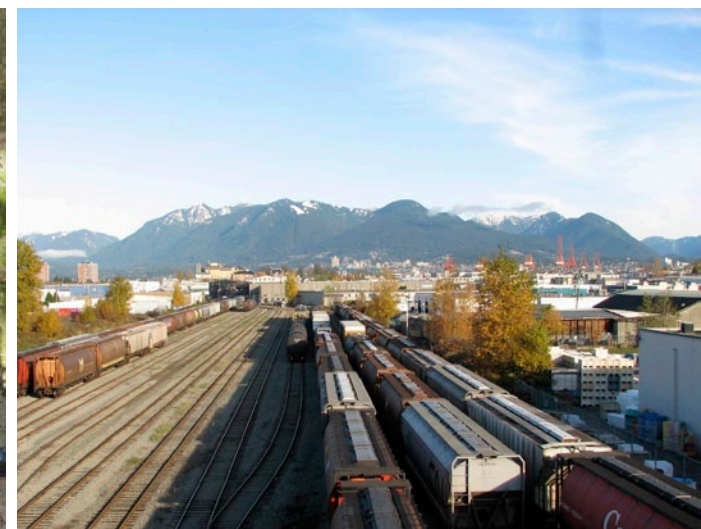




TALK VANCOUVER.com

Transportation 2040

June 2012 Draft Directions



TRANSPORTATION 2040

June 2012 Draft Directions

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OVERVIEW

The City of Vancouver is currently developing **Transportation 2040**, a 30 year transportation vision for the city that will help guide decisions and transportation investments for the next 15 years. The plan will provide a blueprint for us to move forward and meet the challenges of the future.

Staff are currently seeking feedback on the draft directions contained here. They are based upon best practices from around the world as well as local expertise and public input. Key inputs include:

- broad **public consultation** in 2011, with over 8000 people participating at events including town hall meetings, artist-facilitated co-design workshops, surveys, and online discussion boards;
- **ongoing engagement** with over 50 stakeholders, including representatives from other government agencies, emergency services, healthcare and social service providers, industry leaders, non-profit organizations, and local business groups.
- approved high-level direction and detailed ideas generated through the **Greenest City** planning process, which were the result of extensive public engagement in 2010.

Once finalized, the directions will form a substantial part of a more detailed plan that will be presented to Council for approval this Fall.

Visit talkvancouver.com/transportation to learn more and have your say.

MOVING PEOPLE, MOVING GOODS

Moving People

The City's transportation decisions will generally reflect a "hierarchy of modes" for moving people, as prioritized below.

1. **Walking**
2. **Cycling**
3. **Transit**
4. **Taxi / Commercial Transport / Shared Vehicles**
5. **Private Automobiles**

The hierarchy is intended to help ensure that the needs and safety of each group of road users are sequentially considered when decisions are made, that each group is given proper consideration, and that the measures will not make existing conditions worse for more vulnerable road users. Each and every time a new roadway is designed or an existing one improved, opportunities for improving walking and cycling will be reviewed.

This approach does not mean that users at the top of the list will always receive the most beneficial treatment on every street. In constrained urban environments, it is not always possible to provide for all users' demands, and compromises sometimes have to be made, including accommodating users on parallel streets.

Moreover, different streets may have different functions, and play a special role for a particular mode or use (e.g. for transit or goods movement). In these cases, general hierarchy may not always apply, especially in very constrained rights-of-way.

Moving Goods

The movement of goods is a critical function of the transportation system to support a thriving economy. This plan recognizes that there are different scales of goods movement with differing needs.

Port-Related Goods

The City's preference is to have as much large-scale, long-distance goods movement happen by rail as is feasible. This will apply primarily to goods moving to, from and through Port and intermodal rail facilities.

Containers movement for the local market will likely occur by truck.

Local Goods

The movement of goods and services in the local market should be scaled appropriately to minimize impacts on neighbourhoods and the environment. The City will prioritize initiatives that support low-impact goods movement, including:

- Active transportation, such as cargo tricycles, for shorter-distance deliveries
- Electric or low-emission trucks
- Smaller vehicles for pedestrian environments

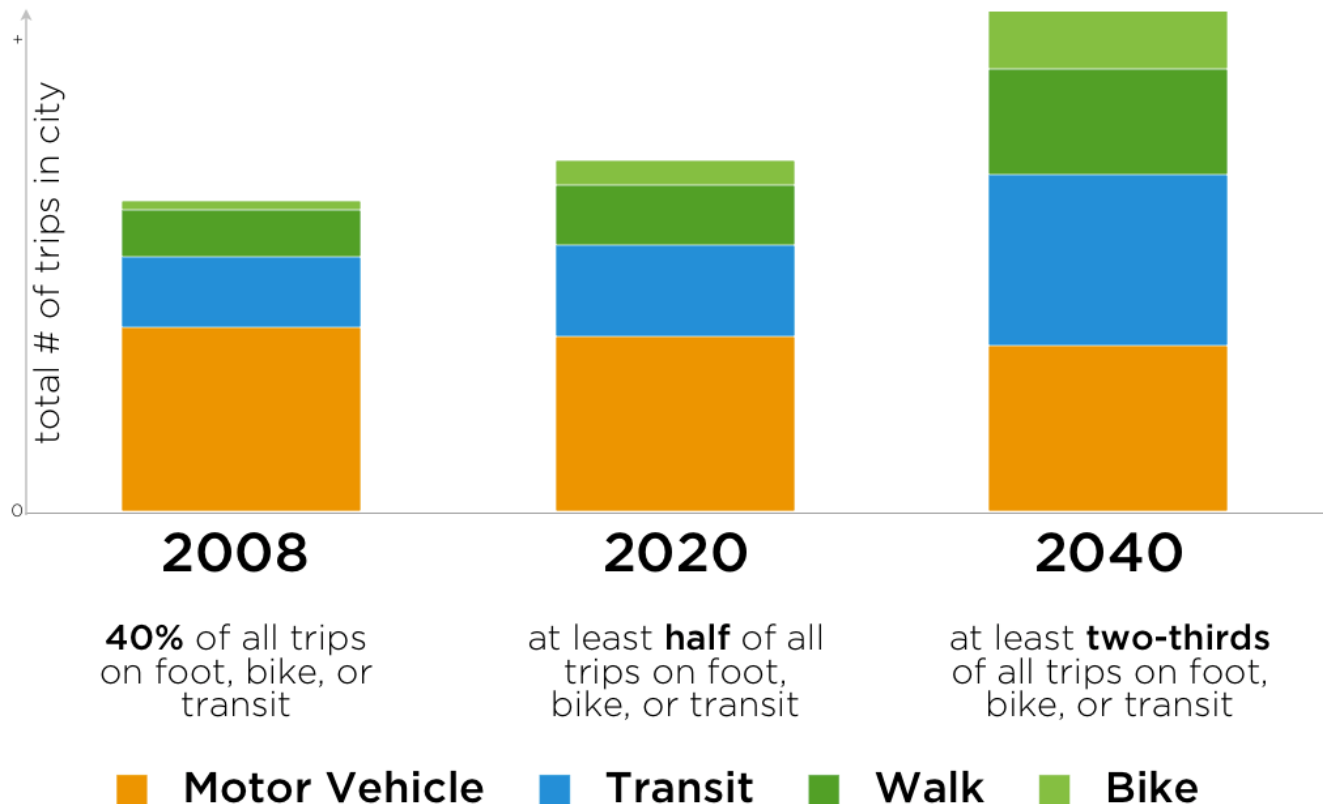
The City recognizes that larger trucks will remain necessary for local goods movement in many cases for efficiency.

Smart Investments

The plan supports fiscal responsibility, prioritizing investments where the greatest benefits can be achieved, pursuing funding partnerships wherever possible, and exploring new ideas through low-cost pilots.

TARGETS

The draft directions support Greenest City transportation targets, and set new targets for 2040.



DIRECTIONS

The draft directions include long-term policies and specific actions arranged into a number of topics, summarized below.

- **Walking** — Make walking safe, convenient, and delightful. Ensure streets, sidewalks, and laneways support a vibrant public life that encourages a walking culture, healthy lifestyles, and social connectedness.
- **Cycling** — Make cycling feel safe, convenient, comfortable, and fun for people of all ages and abilities.
- **Transit** — Support transit improvements to increase capacity and ensure service that is fast, frequent, reliable, fully accessible, and comfortable.
- **Motor Vehicles** — Manage the road network efficiently to improve safety and support a gradual reduction in car dependence. Make it easier to drive less. Accelerate the shift to low carbon vehicles.
- **Goods, Services, Emergency Response, and Commercial Transit** — Support a thriving economy and Vancouver's role as a major port while reducing environmental and neighbourhood impacts related to goods and services movement. Maintain effective emergency response times for police, fire, and ambulance.
- **Land Use** — Support shorter trips and sustainable transportation choices through mixed land use, pedestrian-oriented design, densities that support walking, cycling, and transit, and new housing choices that put residents close to jobs, schools, recreation, and transit.
- **Special Project Areas** — This section identifies specific areas with unique opportunities, complex challenges, and/or potentially significant changes to support higher level objectives of the plan.

WALKING

Make walking safe, convenient, comfortable and delightful. Ensure streets and sidewalks support a vibrant public life that encourages a walking culture, healthy lifestyles, and social connectedness.

POLICIES AT A GLANCE

1. Pedestrian Network

- 1.1. Make streets safer for pedestrians
- 1.2. Provide generous, unobstructed sidewalks on all streets
- 1.3. Make streets accessible for all people
- 1.4. Make streets and public spaces rain-friendly
- 1.5. Address gaps in the pedestrian network
- 1.6. Provide a blueprint for great pedestrian realm design
- 1.7. Make the city easy to navigate on foot

2. Public Spaces

- 2.1. Enable and encourage creative uses of the street
- 2.2. Create public plazas and gathering spaces throughout the city

3. Promotion & Encouragement

- 3.1. Promote walking as a fun, practical, and healthy transportation choice

4. Legislation & Enforcement

- 4.1. Support laws and enforcement practices that protect vulnerable road users

POLICIES AND ACTIONS IN DETAIL

1. PEDESTRIAN NETWORK

The pedestrian network refers to the city's streets, sidewalks, and paths that are intended for walking, which includes movement with wheelchairs and other mobility aids. Much of the city's fine-grained street network was laid out over a century ago, forming the bones of a city that is relatively easy to walk in. While Vancouver's pedestrian network is fairly complete, gaps and barriers do exist, and opportunities exist to improve safety, comfort, and accessibility. Additionally, as new streets are built and existing ones rebuilt, opportunities abound to create a better pedestrian realm that fosters feelings of safety, comfort, and delight.

1.1. Make streets safer for pedestrians

Pedestrians are the most vulnerable road users. When collisions occur, they are more likely to be injured or killed, particularly if the collision involves high speeds. Pedestrians are involved in less than 2% of collisions, but account for about 45% of fatalities. Although collisions involving pedestrians have been declining over the past 15 years, the City will address safety "hotspots", prioritizing improvements to high-crash locations and areas with high walking potential. It will also continue to implement pedestrian-oriented designs as streets are rebuilt, improving safety for all modes of travel.

Intersections are particularly important, since this is where about 75% of collisions involving pedestrians occur. Measures to improve intersection safety can include: minimizing crossing distances; installing countdown timers and reviewing signal times to ensure adequate time to cross; maximizing visibility at crosswalks through pedestrian lighting, high-visibility pavement markings, and clear sight lines; and reducing vehicle speeds through traffic calming measures.

Actions

- 1.1.1. Address pedestrian safety "hot spots" by implementing recommendations from the 2012 Pedestrian Safety Study, and through future safety assessments as needed.
- 1.1.2. Install pedestrian countdown timers at new intersections and citywide through ongoing replacement programs. Monitor safety impacts and consider a more rapid replacement strategy if benefits are significant.
- 1.1.3. Implement sidewalk treatments to prioritize pedestrian movement across lanes, driveways, and some local streets as opportunities arise.
- 1.1.4. Pilot a pedestrian scramble on Robson Street in consultation with the local community, at a location with high volumes of pedestrians, strong demand for diagonal crossings, and many conflicts with turning vehicles. Consider wider application if successful.
- 1.1.5. Implement an ongoing pedestrian spot improvement program to address emerging pedestrian safety and capacity issues.
- 1.1.6. Install pedestrian-scale lighting along priority walking streets and at locations with higher pedestrian collisions.
- 1.1.7. Consider ways to improve lane environments for pedestrians while maintaining essential functions such as loading, parking, fire access, and services, particularly in locations where:
 - a. the lane is the shortest path between high pedestrian generators; and
 - b. the lane serves as a primary residential and/or business access point.

1.2. Provide generous, unobstructed sidewalks on all streets

Sidewalks can get very crowded in busy commercial areas, near transit stations, or other major destinations. As pedestrian volumes and street activity increase, it will be even more important to ensure there is adequate sidewalk space that is free from obstructions.

Actions

- 1.2.1. Develop minimum and desired pedestrian space guidelines for different types of streets, outlining sidewalk clear zone widths, accessibility features, surface treatments, and furniture placement.
- 1.2.2. Review and enforce bylaws to ensure sidewalk clear zones remain free of obstructions, and remove barriers where feasible.
- 1.2.3. Remove peak-period parking bans where possible to enable more flexible use of the curb lane, including widening sidewalks at pinch points.
- 1.2.4. Continue to secure appropriate sidewalk widths around new development through setback requirements.

1.3. Make streets accessible for all people

The city's streets and public spaces should be usable by all people—including seniors, families with young children, and people with mobility, vision, and cognitive impairments—to the greatest extent possible, without the need for specialized design. An accessible public realm promotes equity by allowing all people to meet their daily needs and participate in public life. It will become even more important in the future—the number of people aged 60 or older is expected to more than double by 2040.

Accessibility improvements—such as clear, unobstructed pathways, smooth rolling surfaces, curb ramps, accessible pedestrian signals, and comfortable places to rest—will be considered as part of all street capital projects.

Actions

- 1.3.1. Continue to install or replace missing or deficient curb ramps. Review and implement prioritization criteria in consultation with interested community groups.
- 1.3.2. Continue to install accessible pedestrian signals citywide through ongoing replacement programs, at locations prioritized in consultation with representatives of the visually-impaired community.
- 1.3.3. Continue to maintain and rehabilitate sidewalks and pathways so they are free of trip hazards and debris. Use smooth materials and designs that are comfortable for users of strollers, wheelchairs, or other mobility aids.
- 1.3.4. Implement strategies to maintain accessibility around construction zones and special events, for example by implementing an escalating fine structure for contractors who repeatedly break related city bylaws.
- 1.3.5. Provide accessible public restrooms in high-demand locations wherever possible, through measures including:
 - a. encouraging TransLink to provide public restrooms at all transit stations;
 - b. monitoring the performance of existing automated public toilets (APTs), and installing and maintaining additional APTs if successful;
 - c. maintaining or extending hours for City-owned facilities at parks, libraries, community centres, and other locations;
 - d. working with private partners to make their restrooms available for public use; and
 - e. identifying restroom locations through wayfinding maps and online tools.
- 1.3.6. Maintain and update universal accessibility guidelines to help guide urban design and street reconstruction.

1.4. Make streets and public spaces rain-friendly

Vancouver is rainy for much of the year. Drizzly days discourage many people from walking, and puddles can create instant obstacles and “splash zones”. Awnings are helpful, but poorly-designed ones often cover only sandwich boards or drip water onto people passing below. The City has implemented weather protection guidelines, but these only apply to certain building types in parts of the city.

Public realm design and maintenance approaches can minimize the annoyances of a rainy day and even celebrate rain, helping Vancouverites embrace our wet climate.

Actions

- 1.4.1. Review and expand weather protection guidelines to encourage wide, continuous, well-designed awnings or canopies for all development in commercial areas throughout the city.
- 1.4.2. Include strategies to reduce ponding in street maintenance guidelines. Prioritize locations with high volumes of pedestrians.
- 1.4.3. Incorporate rain-friendly design features into public spaces.

1.5. Address gaps in the pedestrian network

Vancouver is fortunate to have a fine-grained road network through most of the city. Short blocks with frequent intersections make for direct walking paths with multiple options to most destinations. Gaps or barriers in the network do exist however, particularly across False Creek, around rail yards, and in locations where the regular street network breaks down. Pedestrians currently do not have access on the east side of the Burrard Bridge, for example, and the Granville Bridge pedestrian paths are narrow, uncomfortable, and inaccessible for many people due to steps at pedestrian crossings. The rail infrastructure in False Creek Flats, while providing critical transportation function, is a significant north-south barrier. Some arterials, such as portions of Oak Street and Marine Drive, have longer blocks with greater distances between signalized crossings so crossing them on foot is challenging.

The City will address significant gaps in the network. In other areas with poor pedestrian connectivity, new or improved pathways and signalized crossings will be created where feasible. Priority will be given to locations that increase access to transit or other major pedestrian generators.

Actions

- 1.5.1. Improve pedestrian connectivity and accessibility by addressing gaps and deficiencies in the network. High priority locations include:
 - a. False Creek Bridges;
 - b. False Creek Flats / Northeast False Creek;
 - c. transit stations with poor connectivity; and
 - d. major streets with long blocks and/or limited crossing opportunities
- 1.5.2. Review crosswalks that are currently closed for pedestrians, and consider opening them wherever feasible and safe.

1.6. Provide a blueprint for great pedestrian realm design

The quality of the pedestrian realm has a significant impact not just on whether people walk, but on civic life as a whole. Great streets improve safety for all modes of travel, and are designed to be accessible to everyone. They are comfortable, allowing for movement while supporting public life and local commerce. When designed as a green network, they also contribute to the natural environment and support local ecosystems.

City street design guidelines will support high-quality, pedestrian-friendly streets that feel safe, interesting, and comfortable. At the same time, they will recognize that streets aren't all the same—some are part of the transit or truck network, for example, while others might be gathering spaces. Some streets may function in different ways depending on the time of day, week, or season. Commercial streets should be lively spaces that attract people and support local businesses.

Action

- 1.6.1. Advance street types and guidelines for the pedestrian realm to guide new developments, street and sidewalk restoration, and other improvements. Street types will reflect transportation function and land use context, as well as other local features or special attributes.

1.7. Make the city easy to navigate on foot

Maps and other wayfinding measures are essential to helping people navigate the city and find their way around. The City has made great strides in recent years, and will continue to refine and improve wayfinding measures, for example by working with local businesses, and by ensuring the system is easily understandable to locals and newcomers alike, including those with limited cognitive ability.

Action

- 1.7.1. Identify opportunities and implement measures to make the pedestrian wayfinding system more consistent, legible, and user-friendly. Provide data in an open format to support third-party mobile application development.

2. PUBLIC SPACES

Streets and sidewalks are a significant part of the public realm. They are not just spaces to move through, but places to *be*. Recently, the 2010 Winter Olympic Games and VIVA Vancouver pedestrian and public space initiatives have demonstrated that streets can serve multiple functions, fulfilling transportation needs while supporting a vibrant public life that benefits both commerce and community.

2.1. Enable and encourage creative uses of the street

On many streets, opportunities exist to use space differently to support a vibrant city and economy while still meeting the transportation needs of the city. The City will continue to enable and encourage creative uses of streets and public rights-of-way through pilots, competitions, and funding partnerships.

Actions

- 2.1.1. Expand existing special event and VIVA Vancouver programs to enable and encourage creative uses of the street through pilots, competitions, and funding partnerships.
- 2.1.2. Streamline processes to make it easier to hold temporary and recurring events in public rights-of-way.

2.2. Create public plazas and gathering spaces throughout the city

Public plazas and gathering spaces play a vital role in public life. They enable celebrations and protests, community events and neighbourly interaction. When designed, located, and programmed appropriately, they are vibrant spaces that support local businesses while encouraging walking, cycling, and transit use.

There are many different approaches to pedestrian priority streets and spaces, including car-free approaches that restrict general automobile traffic through parts or all of the day, and shared space approaches that mix pedestrians with other forms of traffic on a single shared surface, with priority given to pedestrians and design details that invite pedestrians to use the entire street. Streets can change function and operations depending on the time of day, week, or season. In all cases, the needs of cyclists, transit, services, and deliveries require careful consideration.

Actions

- 2.2.1. Create pedestrian-priority streets and spaces in the downtown, considering needs for transit, services, and deliveries to determine appropriate design treatments. Potential locations (subject to additional consultation with nearby residents and businesses) could include Robson Square and portions of Robson, Granville, Hamilton, and/or Mainland streets.
- 2.2.2. Implement a permit-based 'pavement to plazas' program to transform on-street parking spaces or excess road space or rights-of-way into mini-plazas or sidewalk extensions. Consider making successful locations permanent.
- 2.2.3. Explore opportunities to transform excess portions of rights-of-way—such as overly wide lanes or spaces created by streets coming together at odd angles—into more pedestrian-friendly spaces.
- 2.2.4. Use street-end closures and other traffic calming measures as opportunities to create mini-plazas or parks.

3. PROMOTION & ENCOURAGEMENT

Vancouver is already a highly walkable city. However, promotional programs are useful to inform people of the convenience, health benefits and cost-effectiveness of walking for daily needs. These programs will help to further build a culture of walking in Vancouver.

3.1. Promote walking as a fun, practical, and healthy transportation choice

Effective marketing programs can influence behaviour and change attitudes by strategically promoting different messages that resonate with various market segments. For example, messages about the convenience and practicality of walking may connect with certain groups, whereas messages about the low cost and health benefits of walking may resonate with others.

Actions

- 3.1.1. Develop a program to promote walking as a fun, practical, and healthy transportation choice, and a normal part of everyday life, identifying market research needs, partners, and resource allocation.
- 3.1.2. Continue a safe routes to school program that provides (a) higher standard walking and cycling facilities within at least one block of schools and (b) promotional strategies that encourage students to use active travel modes.

4. ENFORCEMENT & LEGISLATION

Legislation and enforcement should protect vulnerable road users who are most likely to be injured or killed in a collision.

4.1. Support laws and enforcement practices that protect vulnerable road users

Pedestrians are particularly vulnerable to injury and death by collision and should therefore be given special attention in road safety policy. Children, seniors, and people with disabilities are especially vulnerable when traveling on foot or with the assistance of a mobility aid.

In many European countries and some U.S. states, pedestrians and people traveling by bike, skateboard, and motorcycle have been categorized as “vulnerable road users” and traffic laws and enforcement practices have been

modified to provide them with enhanced protection.

Actions

- 4.1.1. Work with partners such as TransLink, the VPD, and ICBC to develop and implement education and awareness campaigns to promote pedestrian and cyclist safety.
- 4.1.2. Work with the VPD to implement enforcement, education and awareness approaches that target behaviour endangering vulnerable road users.

CYCLING

Make cycling feel safe, convenient, comfortable, and fun for people of all ages and abilities.

POLICIES AT A GLANCE

1. Cycling Network

- 1.1. Build cycling routes that feel comfortable for people of all ages and abilities
- 1.2. Expand the cycling network to efficiently connect people to destinations
- 1.3. Maintain bikeways in a state of good repair
- 1.4. Make the cycling network easy to navigate

2. Parking and End-of-Trip Facilities

- 2.1. Provide abundant and convenient bicycle parking and end of trip facilities

3. Multi-Modal Integration

- 3.1. Make it easy to combine cycling with other forms of transportation
- 3.2. Provide a public bicycle system

4. Education, Promotion, and Encouragement

- 4.1. Support cycling skills training to improve cyclist safety and confidence
- 4.2. Support motorist training to improve cycling safety
- 4.3. Promote cycling as a fun, practical, and healthy transportation choice

5. Enforcement and Legislation

- 5.1. Support laws that protect vulnerable road users
- 5.2. Work to reduce bicycle theft

POLICIES AND ACTIONS IN DETAIL

1. CYCLING NETWORK

The availability of comfortable, well-connected routes for cycling is essential to increase cycling and improve cyclist safety. While this section focuses on designated cycling routes, most cycling trips require travelling on other streets to reach destinations. Accordingly, all public streets should be designed with the safety of cyclists and other vulnerable road users in mind.

1.1. Build cycling routes that feel comfortable for people of all ages and abilities

Many people are interested in cycling but afraid of motor vehicle traffic. For cycling to be a viable and mainstream transportation choice, routes should feel comfortable and low stress for people of **all ages and abilities (AAA)**, including children, the elderly, and novice cyclists.

Appropriate designs depend mostly upon motor vehicle speeds and volumes. Routes on arterials and other busy streets should be physically separated wherever possible. Routes on neighbourhood streets may require traffic restrictions, speed management and/or parking restrictions to ensure comfort for people of all ages and abilities. Designs should maximize cyclist visibility at intersections and driveways, and minimize the potential for conflicts with car doors, pedestrians, and other cyclists. Potential impacts to adjacent residents and businesses—including access for customers and deliveries, and on-street parking—must also be carefully considered.

Actions

- 1.1.1. Develop a cycling comfort index to help identify gaps and deficiencies in the cycling network, and to inform design approaches for new routes and route upgrades.
- 1.1.2. Adopt and implement route design guidelines to support a network of routes that feel comfortable for people of all ages and abilities (Class AAA), including design treatments and interventions for:
 - a. physically separating cyclists on busy streets where motor vehicle volumes or speeds will remain high;
 - b. managing traffic volumes and speeds on neighbourhood routes through traffic diversion and other calming measures;
 - c. providing sufficient operating space for cyclists through parking management and other measures;
 - d. designing safe intersections and crossings with improved visibility;
 - e. highlighting potential conflict zones with pavement markings; and
 - f. prioritizing cyclist movements on key routes by synchronizing traffic signals at the prevailing speed of cyclists.
- 1.1.3. Expand the network of Class AAA routes that feel comfortable for all ages and abilities by upgrading selected existing routes and filling in critical gaps. Work with local businesses to develop access, loading, and parking mitigation strategies in advance of construction. Potential early candidates include Adanac, 10th Avenue, Cornwall/Point Grey, and Commercial Drive.
- 1.1.4. Construct permanent bikeway enhancements where temporary interventions have successfully reduced motor vehicle volumes and speeds on the cycling route.

1.2. Expand the cycling network to efficiently connect people to destinations

Cycling routes are most useful when they connect to form a cohesive and legible network providing direct and convenient routes to important destinations like schools, community centres, transit stations, and employment and shopping areas. A good network is easy to understand and has a critical density of routes, spaced more closely together in urban centres and areas with the highest cycling potential. Topography is another important factor to consider in network design, since steep hills can discourage all but the most determined cyclist.

A complete network for all ages and abilities cannot be created overnight. While priority will be given to locations with the highest existing or potential demand, the City will also expand the network elsewhere as opportunities arise. AAA facilities may not always be feasible in the short term, for example in areas with very limited rights-of-way.

Actions

- 1.2.1. Review the existing bike network to identify missing routes, gaps and deficiencies, with a focus on facilities that feel comfortable to people of all ages and abilities.
- 1.2.2. Develop and implement rolling (~5 year) short-term improvement strategies to address gaps and deficiencies in the network:
 - a. using route spacing guidelines for different areas of the city, with closer spacing in the Metro Core and areas with very high cycling potential
 - b. upgrading key existing routes with high existing or potential ridership;
 - c. prioritizing critical gaps in the network and connections to high demand and high cycling potential locations, including schools, community centres, major transit stations, and commercial high streets; and
 - d. favouring simple and direct connections with few deviations to establish an easily understood and memorable network of routes, while also considering the importance of topography in route choice.
- 1.2.3. Implement an ongoing program of spot improvements for existing bicycle routes to address emerging safety and bicycle capacity issues, and to fill gaps in the network.
- 1.2.4. Consider cycling improvements as part of all street capital projects, installing and upgrading routes as opportunities arise through construction and rehabilitation projects.

1.3. Maintain bikeways in a state of good repair

People on bicycles are especially vulnerable to potholes, uneven paving, glass, leaves, and other debris on the road surface—far more than when in a motorized vehicle. Black ice and snow are particularly dangerous hazards that can deter even the most confident cyclist. Routine and targeted maintenance helps ensure routes are smooth and free of debris, improving safety and comfort for new riders and experienced cyclists alike.

Actions

- 1.3.1. Develop and implement maintenance and cleaning guidelines for bike routes, prioritizing routes with high ridership.
- 1.3.2. Develop a strategy to improve cycling access around construction zones and special events, for example by implementing an escalating fine structure for contractors who repeatedly break related city bylaws.

1.4. Make the cycling network easy to navigate

A seamless, easy-to-understand wayfinding system—including directional signage, maps, and trip-planning tools—is important to help people find the network and confidently navigate from place to place.

Actions

- 1.4.1. Develop and implement a consistent, legible wayfinding system on all bike routes and greenways.
- 1.4.2. Produce and regularly update a citywide bike map, including a digital version. Provide route information in an open format to support third-party mobile application development.

2. PARKING & END-OF-TRIP FACILITIES

People need convenient places to securely park their bicycle when they reach their destination—whether for five minutes or for the entire day. End-of-trip facilities such as showers, changing, and gear storage facilities are also useful for commuters, especially when traveling longer distances or in rainy weather.

2.1. Provide abundant and convenient bicycle parking and end-of-trip facilities

Different kinds of bicycle parking offer varying levels of convenience and security. While simple on-street racks can be convenient for people running short errands, additional security is important in locations where bicycles are parked for longer periods, for example at home, work, or transit stations. Parking should be quick and convenient to access at the beginning and end of every trip. Abundant outdoor parking improves access to shops and destinations, and care should be taken to ensure sufficient space exists for pedestrian movement.

Actions

- 2.1.1. Periodically review policies for new developments to ensure abundant and conveniently located secure bicycle parking and end-of-trip facilities. Minimum requirements should support long-term mode share targets and ownership levels.
- 2.1.2. Develop a retrofit program to make it easier to add bicycle parking and other end-of-trip facilities to existing buildings.
- 2.1.3. Prioritize and implement abundant and secure bicycle parking at major transit stations and other high-demand locations, including at least one downtown bike centre.
- 2.1.4. Provide abundant, covered (where possible), and conveniently located bicycle parking at civic facilities.
- 2.1.5. Create policy to ensure sufficient bicycle parking at corporate-sponsored and community events.
- 2.1.6. Partner with schools to provide secure, covered, and conveniently located bicycle parking near school entrances.
- 2.1.7. Develop and implement a plan to provide abundant on-street bicycle parking while ensuring sufficient space for pedestrian movement, including an on-street bike corral program and guidelines for bike rack design and placement.
- 2.1.8. Implement convenient secure bicycle storage in high turnover areas through the use of pay as you go bicycle lockers.

3. *MULTI-MODAL INTEGRATION*

The role of cycling is greatly enhanced when integrated into a multi-modal system. Cycling cost-effectively extends the catchment area for transit services and provides fast and flexible mobility to customers at the beginning and end of their transit trips. Cycling can also extend walking trips, or be combined with other modes to maximize convenience.

3.1. **Make it easy to combine cycling with other forms of transportation**

The ability to transport one's bicycle on public transit greatly improves the attractiveness of both transit and cycling. While TransLink's transit fleet is now 100% accessible to bicycles, passenger crowding and space constraints limit the number of bicycles that can be carried. A larger part of the solution is secure and abundant bicycle parking at stations and major exchanges so people can leave a bike at the transit station while continuing to or from their final destination on transit.

Actions

- 3.1.1. Ensure safe, convenient, legible connections between major transit stations and the bicycle network.
- 3.1.2. Work with TransLink to plan and implement abundant, secure, weather-protected bicycle parking at transit stations.
- 3.1.3. Support measures to facilitate on-board carrying capacity of bicycles on taxis and public transit vehicles.
- 3.1.4. Advocate for broader measures to accommodate bicycle circulation in new transit stations and station upgrades.

3.2. **Provide a public bicycle system**

A public bicycle sharing system provides a convenient and easy way to extend both walking and transit trips. Implementation should focus on areas with high cycling potential, good cycling facilities, and locations that maximize integration with transit, and be coordinated with route safety improvements, as well as cycling education and skills programs. The system should be designed for compatibility with TransLink's SmartCard system, and allow for future expansion to UBC and other areas in the region.

Action

- 3.2.1. Develop and implement a public bicycle system in the Metro Core and other areas with high cycling potential.

4. *EDUCATION, PROMOTION & ENCOURAGEMENT*

Educational programs that teach bicycle handling skills, knowledge of traffic rules, and cycling etiquette are essential to improving safety, as is giving attention to cycling within motorist training and testing. Promotion is also important, as many people are receptive to the idea of cycling or cycling more frequently but need encouragement to actually change their behaviour.

4.1. **Support cycling skills training to improve cyclist safety and confidence**

Few people in North America have any formal training when it comes to cycling, especially in traffic. As a result, many people are afraid to ride on city streets, and those that do ride are sometimes singled out by motorists for flaunting rules of the road or riding in an unsafe manner.

The most effective way to provide universal cycling skills training is to incorporate it into the elementary school curriculum, as is done in many European countries. By focusing on children, the next generation is more likely to cycle frequently and to have a higher level of cycling competence and awareness. Providing training for adults is also important, especially women, immigrants, and other groups under-represented in the cycling population. Education

programs will complement more comfortable infrastructure and improve compliance of rules and regulations.

It is important to note that educational programs are best delivered by other organizations with expertise in training cyclists, but the City can provide support with resources.

Actions

- 4.1.1. Develop a long-term strategy to support cycling education and skills development, identifying partners and potential resource allocations.
- 4.1.2. Advocate for making cycling skills training a core part of the elementary school curriculum.
- 4.1.3. Develop cycling skills training parks in key locations around the city.

4.2. Support motorist training to improve cycling safety

In North America, typically only 1% of questions on driver examinations relate to interactions with people on foot and bicycles, compared with more than 50% in Northern Europe. Placing greater emphasis on vulnerable road users in driver training and testing can help to increase driver awareness, vigilance, and expectation of pedestrians and cyclists.

Actions

- 4.2.1. Advocate for making cycle safety awareness a key component of all driver training courses and examinations in British Columbia, including for commercial licenses.
- 4.2.2. Educate all road users on the proper use of bicycle boxes, cross-bikes, separate traffic signal phases, and other facilities.
- 4.2.3. Educate scooter, moped, and e-bike users on safe, legal, and respectful use of roads and paths.

4.3. Promote cycling as a fun, practical, and healthy transportation choice

Effective marketing programs can help change attitudes and encourage more people to cycle by strategically promoting different messages that resonate with each market segment. People who are “interested but concerned” may respond well to images of safe cycling, especially of women and children; after some cycling experience, individuals may respond well to health messages, encouraging them to try more and longer trips. Messages promoting convenience, time-savings, and cost issues may also encourage cycling.

Actions

- 4.3.1. Develop a program to promote cycling as a fun, practical, and healthy transportation choice, and a normal part of everyday life, identifying market research needs, partners, and resource allocation.
- 4.3.2. Continue to support and streamline permitting processes for community events, festivals, and rides that encourage and celebrate cycling.
- 4.3.3. Continue a safe routes to school program to encourage students to use active modes to and from school.
- 4.3.4. Develop a recurring citywide cyclovia-style bicycle event.

5. ENFORCEMENT & LEGISLATION

The *BC Motor Vehicle Act* specifies the rules of the road for cars and bicycles as well as the penalties associated with breaking those rules. Police agencies play a critical role in enforcing these laws, helping to ensure that roads are safe for all users, and that vehicles (including bicycles) are protected from theft.

5.1. Support laws and enforcement practices that protect vulnerable road users

Like pedestrians, people traveling by bicycle, skateboard or motorcycle, among others, are vulnerable to death and severe injury by collision with motor vehicles and should therefore be given special attention in road safety policy.

In many European countries and some U.S. States, these types of users have been categorized as “vulnerable road users” and traffic laws and enforcement practices have been modified to provide them with enhanced protection.

Actions

- 5.1.1. Advocate for changes to the BC Motor Vehicle Act to provide enhanced legal protection for vulnerable road users and clearer definition of cycling-specific facilities and traffic control devices.
- 5.1.2. Maintain and enforce 30 km/h speed limits on bike routes and greenways.
- 5.1.3. Advocate for provincial legislative changes to enable municipal control over blanket speed limits for City streets.
- 5.1.4. Work with partners such as TransLink, the VPD, and ICBC to develop and implement education and awareness campaigns to promote pedestrian and cyclist safety.
- 5.1.5. Work with the VPD to implement enforcement, education and awareness approaches that target behaviours that endanger vulnerable roadway users.
- 5.1.6. Establish guidelines on the types of electric-assist vehicles that can use active transportation facilities.
- 5.1.7. Encourage the further development of the VPD bicycle squad.

5.2. Work to reduce bicycle theft

The risk of bicycle theft is a major deterrent to cycling. TransLink market research reveals that one in five cyclists in Greater Vancouver have experienced theft in the past five years. Of those who had a bike stolen, 23% did not replace the bicycle for a year, and an additional 32% for longer than one year. Tackling bicycle theft is an important measure to help increase cycling.

Action

- 5.2.1. Participate in a regional bicycle theft police task force to research, implement, and coordinate programs and enforcement practices that address bicycle theft, including development of a bicycle bait program.

TRANSIT

Support transit improvements to increase capacity and ensure service that is fast, frequent, reliable, fully accessible, and comfortable.

POLICIES AT A GLANCE

1. Transit Network

- 1.1. Support new and improved regional rapid transit
- 1.2. Support new and improved local transit
- 1.3. Use transit priority measures to improve transit reliability
- 1.4. Support increased water-based transit

2. Transit-supportive Public Realm

- 2.1. Support a transit system that is easy to navigate
- 2.2. Improve waiting areas at transit stops

3. Integration with Other Modes

- 3.1. Make it easy to combine cycling and transit trips (cross-reference)
- 3.2. Provide a public bicycle system (cross-reference)
- 3.3. Support improved integration with taxis (cross-reference)

4. Neighbourhood Impacts

- 4.1. Support reduced transit-related environmental and noise emissions
- 4.2. Support improved maintenance on transit routes

5. Accessibility and Equity

- 5.1. Support equitable fares that encourage transit use
- 5.2. Support a universally accessible transit system

6. Transit Financing

- 6.1. Support stable and equitable long-term transit funding sources

7. Other Regional and Inter-Regional Transit

- 7.1. Support improved inter-regional transit (cross-reference)

POLICIES AND ACTIONS IN DETAIL

1. TRANSIT NETWORK

A successful transit system has a range of services. Fast, frequent, reliable, high-capacity rapid transit is essential to attract new riders, serve longer trips, and meet mode share targets. Local transit service with more frequent stops is also important, particularly for people with mobility challenges who require stops close to their destination.

Unlike most North American cities, transit demand far exceeds capacity in Vancouver. Overcrowded buses routinely pass long lines of waiting passengers. To meet existing demand, serve future growth, and support our long-term targets, more service is essential.

1.1. Support new and improved regional rapid transit

Fast, frequent, reliable, high-capacity regional rapid transit is essential to attract new riders and meet mode share targets. Encouraging more people to shift away from the private automobile requires transit that competes favourably with driving in terms of speed, comfort, and reliability.

To achieve our targets and serve future growth, significant new service is especially important for the Broadway Corridor. The busiest bus corridor in North America, it links major regional destinations, including Central Broadway—the largest employment area in BC after Downtown Vancouver—as well as VGH and UBC.

Actions

- 1.1.1. Advocate for an underground Millennium Line extension serving the Broadway Corridor as a regional priority.
- 1.1.2. Support SkyTrain station upgrades and other measures to increase system capacity.
- 1.1.3. Work with TransLink to provide new or improved rapid transit service on high demand corridors, including Hastings, 41st/49th Avenue, Commercial/Victoria, and Main/Fraser.
- 1.1.4. Protect and design for future high-capacity rapid transit corridors and potential station locations.
- 1.1.5. Support regional transit projects outside City boundaries that demonstrate a strong business case.
- 1.1.6. Support an expanded commuter rail network, including West Coast Express and potential new routes.

1.2. Support new and improved local transit

Local transit service is an essential part of the service spectrum, particularly for people with mobility challenges who require stops close to their destination.

Actions

- 1.2.1. Work with TransLink and the Province to improve frequency, capacity, and reliability of local service on high-demand corridors.
- 1.2.2. Explore wider stop spacing on local routes to attract more riders and provide more frequent service, while balancing the need for local access.
- 1.2.3. Support new or adjusted services to address transit network gaps.
- 1.2.4. Support strategic expansion of the trolley network, including mid-route turnaround facilities on busy routes to improve reliability and service flexibility.
- 1.2.5. Advance a Downtown-False Creek-Arbutus streetcar service, through measures including:
 - a. protecting rights-of-way and designing streets to accommodate the service; and
 - b. working with TransLink on a business case.

1.3. Use transit priority measures to improve transit reliability

Transit priority measures such as bus bulges, queue jumpers, signal priority, and lane priority or reallocation can be effective ways to improve transit capacity and reliability. The City generally supports these measures, but care must be taken to use tools that are most appropriate and effective, and to balance competing demands on any particular street. Accordingly, creative approaches to transit priority should be used to minimize space requirements in restricted rights-of-way. In some cases, highly localized, strategic interventions may provide substantial benefit.

Action

1.3.1. Work with TransLink to develop and implement transit priority measures by:

- a. reviewing transit reliability for different routes, identifying where and why delays are occurring;
- b. developing guidelines regarding the application of potential transit priority measures; and
- c. supporting and strategically implementing priority measures.

1.4. Support increased water-based transit

Vancouver is a city by the ocean, and opportunities exist to increase the use of our waterways for both publicly- and privately-operated transit. Ferries serving False Creek and the Fraser River could play a larger role in moving people, particularly if services were better integrated with TransLink.

Many older docks have steep ramps or other features that make them difficult or impossible to use by persons with disabilities, and the City is working to ensure new docks are accessible to the greatest extent possible.

Actions

- 1.4.1. Upgrade existing False Creek public docks as feasible to accommodate people of all ages and abilities, and provide new docks as opportunities arise.
- 1.4.2. Support the integration of ferries in False Creek with public transit (e.g. SmartCard integration, transit stop locations) and active transportation.
- 1.4.3. Support new passenger ferry services in False Creek, the Burrard Inlet, and/or the Fraser River where a strong business case can be made.

2. TRANSIT-SUPPORTIVE PUBLIC REALM

While the City does not own or operate the regional transit system, it does have significant control over its streets and rights-of-way. To that end, it can play a significant role in improving the waiting experience for transit users, promoting intermodal connectivity, and facilitating improved transit reliability through transit priority measures.

2.1. Support a transit system that is easy to navigate

A seamless, easy-to-understand wayfinding system—including directional signage, maps, and trip-planning tools—is important to help people understand the transit network and confidently navigate from place to place. The City and TransLink should coordinate efforts to make the system as legible as possible.

Actions

- 2.1.1. Continue to work with TransLink to implement consistent and legible wayfinding at and around all rapid transit stations and major transit interchanges.
- 2.1.2. Work with TransLink to support the provision of real-time information at transit stops, and to provide data in an open format to support third-party mobile application development.

2.2. Improve waiting areas at transit stops

The City can help improve the transit experience by making waiting areas as comfortable as possible. Weather protection, seating, waste bins, signage, and pedestrian lighting are just some of the amenities that can make waiting for the bus more pleasant.

Action

- 2.2.1. Provide safe and comfortable waiting areas at all bus stops where sufficient sidewalk and boulevard space exists. In locations where sidewalk space is too limited for a full shelter, pursue opportunities to locate amenities on private property.

3. INTEGRATION WITH OTHER MODES

Bicycle and transit make for a powerful combination. Cycling is an inexpensive way to extend the catchment area of rapid transit, but measures need to be taken to address concerns of safety and theft. See the *Cycling* section for specific policies and actions on integrating cycling with transit.

Taxis can also extend the transit system. See the *Goods, Services, and Emergency Response* section for specific policies and actions on integrating taxis with transit.

4. NEIGHBOURHOOD IMPACTS

While transit is a valuable amenity, efforts should be made to mitigate negative impacts on neighbourhoods.

4.1. Support reduced transit-related environmental and noise emissions

Noise and air pollution are often raised as concerns by residents who live near bus routes, particularly those served by diesel buses climbing hills. Mitigating noise and air pollution related to transit is important to maintaining a high quality of life, particularly as the city continues to place more people and jobs along high-frequency transit corridors. However, added costs for improved noise and emissions technologies need to be balanced against the provision of additional transit service to meet increasing demands.

Actions

- 4.1.1. Support specifications for new transit vehicles that reduce noise and air emissions.
- 4.1.2. Support an expanded trolley network.

4.2. Support improved maintenance on transit routes

Buses are heavy, especially when filled to capacity, resulting in significant wear-and-tear on city streets. They are also exempted from weight restrictions applied to other large commercial vehicles. Maintaining roads on busy transit routes requires additional investment as a result.

Actions

- 4.2.1. Consider high volume bus routes when reviewing potential additions to the Major Road Network (MRN).
- 4.2.2. Explore potential for maintenance cost-sharing on non-MRN streets with high volume bus routes.

5. ACCESSIBILITY & EQUITY

An effective transit system is accessible to people of all ages and abilities and much cheaper than owning and operating an automobile. Applying principles of universal design to the entire transit system—including vehicles as well as stations and waiting areas—ensures the widest range of users are able to use it, and reduces the need for more expensive specialized services. For persons with limited mobility, local routes with stops located closer to destinations and paratransit services like HandyDART will continue to be important parts of the transit service spectrum.

5.1. Support equitable fares that encourage transit use

The current three-zone fare system is often criticized for being unfair to those who live on the edge of a boundary zone. The implementation of a SmartCard system across the region in 2013 will allow for a more equitable distance-based fare system, and increase opportunities for innovative fare structures and programs that encourage transit use and reward sustainable behaviour.

Actions

- 5.1.1. Support distance-based fare structures.
- 5.1.2. Support fare options that encourage transit use by families and visitors.
- 5.1.3. Encourage bundling of transit fares into the ticket cost of major events.
- 5.1.4. Support integrating the TransLink SmartCard system with other forms of transportation, including bike- and car-sharing, parking payment, private ferry services, and taxis.
- 5.1.5. Support using the SmartCard system to incentivize transit use and other sustainable behavior.

5.2. Support a universally accessible transit system

Transit is especially important for persons with mobility and vision challenges, and for whom other modes of transportation are less viable. A universally accessible transit system provides mobility and freedom that enables every resident to meet their daily needs and participate in civic life. Although TransLink's fleet is 100% accessible for people using wheelchairs, about 30% of stops in the city are deemed inaccessible.

Actions

- 5.2.1. Provide accessible waiting and boarding areas at all transit stops as feasible, prioritizing high-demand locations including stops with higher usage by persons with disabilities. Work with TransLink to improve wayfinding in rapid transit stations to elevators.
- 5.2.2. Support alternative delivery mechanisms for paratransit services— including potential increased use of taxis—to lower per-ride costs, improve reliability, and reduce booking times. Require taxi driver education to ensure safe handling of customers with disabilities.

6. TRANSIT FINANCING

The regional transit system is facing a major funding crisis. Sufficient and stable funding is required to provide the service needed to meet existing and future transit demands. Without new sources of funding, it will be difficult to maintain the existing levels of service, let alone meet future targets or serve latent demand.

In 2010, the *Livable Cities* agreement between the Province of BC and the Mayors' Council on Regional Transportation recognized the limitations of existing sources—such as property taxes, the current vehicle fuel tax and transit fares—and began a collaborative process to develop a long-term sustainable funding strategy.

6.1. Support stable and equitable long-term transit funding sources

In order to continue existing operations and fund new transit initiatives—ranging from expanding the bus fleet to advancing new rapid transit projects—partnerships are required between senior governments, TransLink, Metro Vancouver, the City, and other municipal governments in the region.

A number of new funding tools are currently being explored, some of which require enabling legislation at the provincial level. To date, the City has supported the regional fuel tax, a transportation carbon tax, and road pricing as preferable alternatives to raising property taxes. Other new sources such as a vehicle registration fee could also be effective in supporting both City and regional objectives.

Actions

6.1.1. Continue working with funding partners to expand stable, equitable funding sources to (i) maintain and (ii) increase transit service levels. Potential sources include (but are not limited to):

- a. increased fuel taxes;
- b. a regional carbon tax;
- c. vehicle registration fees; and
- d. regional road pricing.

Favour options which do not increase property taxes and encourage shifts to more sustainable modes.

7. INTER-REGIONAL COMMERCIAL TRANSIT

The City supports improved commercial transit connections to centres outside the region—including Vancouver Island, Whistler, Seattle, and beyond. See the *Goods, Services, Emergency Response, and Commercial Transport* section for details.

MOTOR VEHICLES

Manage the road network efficiently to improve safety and support a gradual reduction in car dependence. Make it easier to drive less. Accelerate the shift to low carbon vehicles.

POLICIES AT A GLANCE

1. Network

- 1.1. Optimize network operations to manage congestion impacts
- 1.2. Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- 1.3. Manage traffic to improve safety and neighbourhood livability

2. Parking

- 2.1. Use off-street parking requirements to support reduced ownership and use
- 2.2. Support strategies that reduce the need for parking
- 2.3. Separate parking and housing costs to increase housing affordability
- 2.4. Approach parking as a shared district resource
- 2.5. Design parking to be flexible and adaptable
- 2.6. Make it easier for drivers to find available parking spaces
- 2.7. Manage parking in neighbourhoods
- 2.8. Support cycling, low-carbon vehicles, and car sharing (cross-reference)
- 2.9. Support efficient loading and servicing (cross-reference)

3. Car Sharing

- 3.1. Support increased car sharing

4. Other Demand Management Tools

- 4.1. Support employer, institutional, and district transportation demand management programs
- 4.2. Support regional road or congestion pricing, with revenue directed towards transit improvements
- 4.3. Support pay-as-you-drive insurance premiums that reward drivers for driving less

5. Low Carbon Vehicles

- 5.1. Provide charging infrastructure to support electric vehicles
- 5.2. Support early deployment of electric vehicles

POLICIES AND ACTIONS IN DETAIL

1. ROAD NETWORK

Vancouver's fine-grained street network provides many benefits. It results in fairly direct travel routes, minimizing overall trip distances and supporting other modes. It also provides greater flexibility to close or modify portions of routes—to host street celebrations or festivals, for example—since parallel routes are usually close by.

While the City's previous transportation plan committed to not expanding road space to accommodate additional growth, this plan must go even further. As the number of residents, employees, and visitors continue to grow, the amount of trips and street activities will also rise. Accommodating this growth will require reallocation of road space to maximize efficiency of existing rights-of-way.

1.1. Optimize network operations to manage congestion impacts

Motor vehicles will continue to be a significant part of the transportation system for the foreseeable future. Coordinating signal timing, managing turn movements, and carefully monitoring traffic volumes will be important components to managing congestion and avoiding gridlock. At the same time, measures to facilitate motor vehicle movement should not come at the expense of safety, particularly for vulnerable road users, or adversely affect transit reliability.

Action

- 1.1.1. Continue to optimize network operations such as signal timing and rush hour regulations to manage congestion impacts.

1.2. Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space

While walking and cycling are top priorities for the city, the needs of other street users must also be considered when allocating road space. In particular, transit and truck routes play an essential role in the city, moving thousands of people and enabling goods and services to be delivered in a timely manner. Accordingly, measures to improve conditions for pedestrians and cyclists on these routes should include careful assessments to determine potential impacts to transit and goods and services movement. Impacts to general motor vehicle traffic should also be considered, including the potential for drivers to shift to other modes or use alternate routes.

Some streets require an additional level of consideration, because they serve as important transit and/or truck routes, or because they handle a particularly high volume of motor vehicle traffic on relatively limited space.

Action

- 1.2.1. Monitor vehicle volumes to understand traffic trends and potential spare capacity. Where improvements to the pedestrian or cycling environment are needed but the ability to reallocate road space is limited, seek alternative approaches such as property acquisition or building setbacks.

1.3. Manage traffic to improve safety and neighbourhood livability

Vancouver's grid of streets provides a multitude of routes for cars as well as pedestrians and cyclists. When delays occur on the arterial network, some drivers will shortcut through local streets, and speeds and volumes can raise safety and livability concerns for residents. Traffic calming and diversion tactics can be effective countermeasures, but since resources are limited, priorities will be given to areas with high pedestrian volumes and demonstrable problems.

Collisions also occur on the arterial network, and the City will continue to monitor collisions rates, and address locations with a high number of crashes.

Collisions between motor vehicles and pedestrians or cyclists are particularly significant, since these road users lack physical protection and are much more likely to suffer serious injury or death. See the Walking and Cycling sections for additional policies and actions to improve safety for vulnerable road users.

Actions

- 1.3.1. Continue to implement strategic traffic calming on local streets to improve safety and neighbourhood livability:
 - a. prioritizing measures around neighbourhood bike routes, schools and other key pedestrian generators;
 - b. considering a street's function in the broader transportation network when determining the degree and type of traffic calming;
 - c. considering neighbourhood access issues prior to implementing diversion measures on local streets with high traffic volumes (>2500 vehicles per day); and
 - d. ensuring neighbourhood access for emergency responders.
- 1.3.2. Refine the traffic calming evaluation process to encourage broad resident discussion and support prior to request submission.
- 1.3.3. Continue to monitor collision rates across the city, and address locations with a high number of motor vehicle collisions.

2. PARKING

Parking is one of the City's biggest transportation levers. Parking requirements not only impact travel choice, but significantly shape the public realm and affect housing costs. Too much surface parking creates a hostile pedestrian environment that is unpleasant to walk or cycle in; underpriced parking can contribute to congestion problems and negatively affect neighbourhood livability. Appropriately priced parking encourages turnover in retail areas, thereby supporting local economic activity.

2.1. Use off-street parking requirements to support reduced auto ownership and use

Parking adds a significant expense to development, particularly when it means additional levels of underground parking that never fill up. One way to address this is to build less parking per unit. Reducing or eliminating parking requirements can reduce housing or lease costs while encouraging more sustainable modes of transportation and contributing to a more vibrant, pedestrian-friendly public realm. Parking maximums are also important, since they eliminate the risk that developers will build parking in excess of City objectives.

Actions

- 2.1.1. Develop and implement a strategy to (a) eliminate minimum parking requirements downtown, near rapid transit stations, and for guaranteed rental developments, and (b) revise minimum requirements elsewhere based on target mode shares.
- 2.1.2. Introduce parking maximum allowances throughout the city based upon current ownership levels or existing mode share.

2.2. Support strategies that reduce the need for parking

Before determining how many parking spaces to build, developers should first make every effort to reduce the need for parking spaces by implementing strategies that reduce the need to drive. Integrating transportation demand management strategies into new development at the outset reduces the need for parking while supporting more sustainable transportation choices and making more income available for housing. Potential strategies could include providing on-site car-sharing, enhanced pedestrian and cycling facilities, occupant transit pass programs, availability

of location-based mortgages, and occupancy agreements.

Actions

- 2.2.1. Clarify the parking bylaw to reflect larger City transportation objectives, and to actively encourage strategies that reduce parking demand.
- 2.2.2. Require demand management plans in all rezonings, multi-family, office, and mixed-use developments, encourage demand management strategies in all other developments, and allow staff to reduce minimum parking requirements in response.
- 2.2.3. Monitor the impacts of demand management plans, and use the results to improve effectiveness and revise policies as appropriate.
- 2.2.4. Create a developer-friendly, Council-endorsed toolkit to assist developers and staff in developing transportation management strategies for new development.

2.3. Separate parking and housing costs to increase housing affordability

Allowing people to purchase or rent housing and parking separately can mean significant savings for households choosing to go car-light or car-free. Firstly, it directly reduces the cost of a home: a single underground parking space can add \$40,000 to \$50,000 to the cost of a home, or upwards of \$200-\$250 in monthly mortgage payments at current rates. Secondly, by making a hidden cost of driving explicit, it creates a greater incentive not to own a vehicle, increasing the likelihood that someone will forgo car ownership and choose other modes of transportation. Residents who choose to go this route can apply the resulting savings—amounting to \$10,000 or more per year—to housing. In effect, more money is available to spend on housing that costs less. Lastly, it provides greater choice in the housing market.

Actions

- 2.3.1. Require unbundling as a condition for approval for mixed-use, multi-family, and rental developments in the downtown and near rapid transit stations.
- 2.3.2. Encourage unbundling elsewhere in the city by offering a reduction from the minimum parking requirement.

2.4. Approach parking as a shared district resource

Approaching parking as a shared neighbourhood resource rather than attaching it to individual buildings is common practice in many cities and has many benefits. It enables adjacent developments that require parking at different times of day to share the same spaces rather than build their own purpose-built ones. It also transforms underused existing parking into a resource that new developments nearby can tap into rather than building their own spaces, thereby increasing overall efficiency. Finally, it helps to alleviate concerns around unbundling, since residents who choose to own a car later on can lease a space nearby, and developers can lease excess spaces to non-occupants. This practice is already in place for some heritage properties but could be expanded.

Actions

- 2.4.1. Develop and implement design guidelines for larger developments to enable parking access for people who don't live or work in the building (e.g. mechanical parking, multiple levels of security).
- 2.4.2. Consider requiring parking in larger developments to be publicly accessible, to enable use as a shared resource.
- 2.4.3. Allow and encourage developers to lease parking spaces off-site instead of providing new spaces, to take advantage of nearby parking oversupply.
- 2.4.4. Develop a long-term strategy for Downtown parking, considering total parking supply, future demands, and other potential uses.

2.5. Design parking to be flexible and adaptable

New parking spaces should be “future-proofed” so that they can be converted to other uses—such as storage, bicycle parking, or even living space—when they are no longer needed for parking cars. The City will also make it easier to convert unused spaces in older buildings with a demonstrated oversupply.

Actions

- 2.5.1. Modify codes and policy and encourage flexible design so that parking spaces can be converted to other uses in the future (e.g. living space, bicycle parking, storage) as demand changes.
- 2.5.2. Develop retrofit policies for existing buildings with excess parking, to enable conversion to other uses.

2.6. Make it easier for drivers to find available parking spaces

A lot of traffic is the result of drivers cruising around in search of an available parking space—which accounts for up to 40% of traffic in some cities. The City can reduce congestion, support local businesses, and increase customer convenience by providing drivers with better information on available spaces, and by setting on-street prices to ensure a limited number of on-street spaces are always available. New and emerging technologies will continue to make this easier.

Actions

- 2.6.1. Provide real-time availability information for City-owned off-street parking, through electronic signage and mobile device applications.
- 2.6.2. Use variable pricing strategies to manage curb space, ensuring on-street space availability and reducing traffic caused by drivers searching for available parking.

2.7. Manage parking in neighbourhoods

Curb space on residential streets is often in high demand, and it can be difficult for visitors to find a space. In this context, some neighbours oppose reduced parking requirements for new development because they assume new residents will simply park in the street rather than reduce car ownership. While there is strong evidence that providing less off-street parking reduces car ownership, particularly when demand management strategies are used, this is a legitimate concern.

Part of the problem is that curb space is often unregulated and, where permit programs do exist, it is undervalued. As a result, many residents park in the street even when off-street parking is readily available. Fewer spaces are available for visitors, and there is a perceived shortfall. A thoughtful approach to neighbourhood parking can address these concerns and result in more efficient use of road space. This could allow some on-street parking to be converted to other uses such as wider sidewalks, public space, or improved cycling facilities, and even generate revenue that can be directed towards local amenities.

Actions

- 2.7.1. Adjust the residential parking permit program to address parking spillover concerns associated with off-street reductions and to better reflect market value of street space. Possible approaches include:
 - a. gradually increasing permit costs to reflect market value;
 - b. limiting the number of permits per household;
 - c. increasing costs for each additional permit per household;
 - d. capping the total number of permits and allowing residents to trade rights; and/or
 - e. piloting a neighbourhood parking benefit district, where permit costs are increased and a portion of the revenue is directed towards local improvements such as sidewalks, lighting, and nearby amenities.

2.8. Support cycling, low-carbon vehicles, and car-sharing

Parking policies play an important role in supporting cycling, low-carbon vehicles, and car-sharing. These areas are addressed elsewhere in the plan. For cycling-related parking strategies, see *Cycling Policy 2.1*. Car-sharing and low-carbon vehicle parking strategies are covered later in this section.

2.9. Support efficient loading and servicing

Parking plays a key role in the delivery of goods and services. This plan includes a number of actions to support efficient loading and servicing. For details, see the *Goods, Services, and Emergency Response* section.

3. CAR-SHARING

Car-sharing is a system where a fleet of communal vehicles is made available to members in convenient locations. While members typically pay a small monthly administration fee to cover some of the fixed costs, most usage costs are paid on a per-kilometre and/or per-hour basis. Car sharing makes it easier to go car light or car-free, helping members save money while still having access to a car when they really need one. Car sharing also provides members with flexibility, since they can access different types of vehicle depending on their need.

Car sharing also reduces the number of cars on the road, freeing up road space for other uses. Surveys indicate that more than one in five members give up a car, and more than three in ten avoid buying a car altogether. One shared vehicle typically replaces up to 20 personally owned vehicles.

3.1. Support increased car-sharing

Vancouver is a North American car-sharing leader, with three organizations currently providing service locally, and over 700 cars distributed throughout the city. Currently, the city supports car sharing by allowing developers to replace 5 parking spaces with 1 car share space in some new developments. The City also reserves on-street parking spaces for car-share vehicles.

The City also supports conventional and peer-to-peer ride sharing programs. Most cars on the road today have only a single occupant.

Actions

- 3.1.1. Expand requirements and incentives for car-sharing in new developments.
- 3.1.2. Continue to make priority on-street locations available for car-sharing, at market rates.
- 3.1.3. Support citywide distribution of car-share vehicles with focus at or near major transit exchanges.
- 3.1.4. Adopt parking design guidelines for larger developments that enable non-residents to access on-site car-sharing vehicles.

4. OTHER DEMAND MANAGEMENT TOOLS

Minimizing unnecessary driving trips reduces automobile congestion and improves traffic flow for goods and services in the process. Many of the directions contained in this plan are effectively “demand management” strategies, since they make alternatives to driving more appealing.

4.1. Support employer-, institutional- and district-based transportation demand management programs

Transportation Demand Management (TDM) programs are a way for businesses and other institutions to encourage reduced driving in a comprehensive manner. They employ multiple strategies which are complementary and coordinated, and typically include initiatives to improve travel choice as well as incentives to reduce automobile travel. A clear mandate, ongoing institutional support, effective marketing, and a commitment to monitoring results are important parts of a successful TDM program.

In recent years, the City has demonstrated leadership by implementing a coordinated program encouraging City Hall campus employees to reduce automobile trips. Measures include charging for parking, and using the revenue to provide transit pass discounts and active transportation incentives. Active transportation end-of-trip facilities have also been significantly improved. The City will continue to show corporate leadership and support initiatives from other groups and organizations. While TDM programs are typically instituted by large companies and institutions, creative approaches could facilitate programs on a smaller scale, for example through BIAs or strata councils.

Actions

- 4.1.1. Support programs that help large employers, institutions, strata councils, and others develop strategies to help reduce motor vehicle trips, and to encourage trips by walking, cycling, and transit.
- 4.1.2. Demonstrate leadership by providing a transportation demand management program to all City employees, and by sharing strategies and results with others.
- 4.1.3. Support a BIA-led pilot to enable small businesses to share resources in developing a district TDM program.
- 4.1.4. Support programs such as TransLink's TravelSmart that provide personalized travel programs, advice, and support to residents, schools, and workplaces.

4.2. Support regional road or congestion pricing, with revenue directed towards transit improvements

Some cities have implemented system-wide road pricing to reduce general automobile congestion, improve traffic flow for goods and services, and help pay for transit improvements. The City is supportive of this approach for the Metro Vancouver region, provided it is done in an equitable fashion and brings substantial transit capacity improvements. See the *Transit* section for more details.

Action

- 4.2.1. Support regional road pricing to reduce congestion and help fund transit and other sustainable transportation improvements.

4.3. Support pay-as-you-drive insurance programs that reward drivers for driving less

Automobile insurance in BC is currently a fixed, sunk cost for drivers. Since the price of insurance does not vary with the amount driven, drivers have an incentive to drive more in order to “get their money’s worth”. Pay-as-you-drive (PAYD) is a distance-based approach to auto insurance premiums, where drivers pay less when they drive less since longer-distance driving corresponds with increased exposure to crashes. Advocates estimate that it could reduce average annual mileage 5-15% in BC, and reduce traffic-related casualties by 12-15%.

Action

- 4.3.1. Support a pilot program for pay-as-you-drive or distance-based insurance premiums.

5. LOW CARBON VEHICLES

Even with an increase in walking, cycling, and transit, there will still be cars on the road for the foreseeable future. Widespread adoption of low- and zero-emissions vehicles will be critical to meeting our greenhouse gas reduction targets, and ensuring a cleaner, greener future. The City will support and build upon the actions established through its participation in Project Get Ready, a multi-stakeholder non-profit initiative to facilitate the uptake of low carbon vehicle technologies.

5.1. Provide charging infrastructure to support electric vehicles

Convenient charging infrastructure must be in place for electric vehicles to become a practical alternative to a conventional automobile.

Actions

- 5.1.1. Continue to require all new developments to include electric vehicle charging infrastructure.
- 5.1.2. Develop retrofit programs to facilitate charging infrastructure in existing buildings.
- 5.1.3. Partner with private industry to provide charging locations in retail locations, existing parking lots, and other under-utilized land.

5.2. Support early deployment of electric vehicles

The City will continue to demonstrate leadership by encouraging the uptake of low-carbon vehicles in car-sharing programs, and by integrating electric vehicles into its own operations where practical. E-bikes and scooters could also play larger role in the future transportation mix.

Actions

- 5.2.1. Support the adoption of low carbon and electric vehicle technology for car-sharing vehicles.
- 5.2.2. Convert the City's own fleet to plug-in electric, hybrid, or fuel cell vehicles as feasible.
- 5.2.3. Create opportunities for low carbon vehicles, including electric scooters, to park in the city.

GOODS, SERVICES, EMERGENCY RESPONSE, AND COMMERCIAL TRANSIT

Support a thriving economy and Vancouver's role as a major port and Pacific gateway while managing environmental and neighbourhood impacts related to goods and services movement. Maintain effective emergency response times for police, fire, and ambulance services.

POLICIES AT A GLANCE

1. Regional and Beyond Goods and Services

- 1.1. Protect and improve rail corridors for goods and passenger movement
- 1.2. Support port-related truck movement on key regional routes
- 1.3. Support Port Metro Vancouver efforts to reduce port-related environmental and traffic impacts
- 1.4. Support YVR as a primary air gateway

2. Local Goods and Services Movement

- 2.1. Maintain an efficient network of designated truck routes
- 2.2. Provide for efficient loading and unloading
- 2.3. Support low impact goods and services movement and delivery
- 2.4. Support local production and distribution to reduce the need for large-scale transport

3. Emergency Responders

- 3.1. Consider emergency vehicle access in street designs and traffic calming measures
- 3.2. Provide up-to-date, readily accessible information on traffic calming measures and closures

4. Taxis and Commercial Transit

- 4.1. Support improved movement and loading for taxis and commercial transit
- 4.2. Support continued electrification of the taxi fleet
- 4.3. Support safe use of taxis for persons with disabilities
- 4.4. Support improved inter-regional commercial transit

POLICIES AND ACTIONS IN DETAIL

1. REGIONAL & BEYOND GOODS & SERVICES MOVEMENT

Vancouver is a port city and Canada's premier Asia-Pacific gateway. Large-scale, high-volume, long-distance goods and services movement plays an important role in the provincial and national economy, and will continue to be a high priority for the city.

1.1. Protect and improve rail corridors for goods and passenger movement

Rail is the most efficient and environmentally-friendly way to move goods and people over land over long distances, but infrastructure bottlenecks limit both reliability and the potential for modal shift. The City will protect existing rail corridors and support measures to increase rail capacity and reliability. Rail grade separation strategies should be seen as opportunities to improve pedestrian and cycling route connectivity, particularly in the False Creek Flats area.

Actions

- 1.1.1. Implement the Burrard Inlet Line Rail Grade Separation Strategy.
- 1.1.2. Develop and implement long-term rail corridor strategies to increase capacity and reliability for False Creek Flats, the Grandview Cut, and the north shore of the Fraser River.
- 1.1.3. Support improvements to the regional rail network to address major bottlenecks such as the New Westminster Rail Bridge.

1.2. Support Port-related truck movement on key regional routes

Truck routes that directly serve the Port are especially important to the regional and national economies. The City will strive to ensure these routes are as efficient for truck movement as possible, without compromising safety for pedestrians and other road users.

Actions

- 1.2.1. Advocate for the Port to re-open Clark Drive as the primary north-south access point for Port facilities, and to maintain McGill Avenue as the primary eastern access point.
- 1.2.2. Continue to work with the Port to identify bottlenecks on key regional movement corridors and develop strategies to address issues as needed.

1.3. Support Port Metro Vancouver efforts to reduce environmental and traffic impacts

Many of the biggest opportunities to reduce Port-related environmental and traffic impacts lie within the Port's jurisdiction. The City will support Port Metro Vancouver efforts in this regard, including: using shore power for berthed vessels; exploring short-sea shipping as an alternative to reduce truck trips; using the container truck licensing system to require improved efficiency, safety, and environmental performance for trucks using the port; and exploring lower emissions rail technology and larger rail vehicle carrying capacity.

Action

- 1.3.1. Support Port Metro Vancouver initiatives that reduce environmental and traffic impacts.

1.4. Support Vancouver International Airport as British Columbia's primary air gateway

The City supports the Vancouver International Airport's role as the primary air gateway for both passengers and cargo in British Columbia. The opening of the Canada Line in 2009 has significantly improved transit access for airport visitors and employees alike; improving Canada Line connections to the rest of the rapid transit network will enhance regional connectivity even further.

Actions

- 1.4.1. Support new and improved connections between the Canada Line and the rest of the regional rapid transit network.
- 1.4.2. Consider airport needs on major transit and road network corridors connecting to the airport, including the Canada Line, and Cambie, Oak, and Granville streets.

2. LOCAL GOODS & SERVICES MOVEMENT

While large-scale port-related goods movement deservedly gets much of the attention, smaller scale local movements and deliveries are key parts of a thriving local economy and high quality of life. The City also has more direct opportunities to influence this scale of goods movement to maximize efficiencies and reduce impacts.

2.1. Maintain an efficient network of designated truck routes

The City will continue to provide a robust and flexible grid of truck routes that supports reliability and efficiency while minimizing impacts on any one particular street.

Actions

- 2.1.1. Monitor the local truck network within the city and identify opportunities to improve reliability.

2.2. Provide for efficient loading and unloading

For goods and services to be delivered efficiently, access to destinations and sufficient space for loading and unloading are critical. The City will work to maximize loading zone efficiency, and continue to consider access and loading requirements when reviewing new buildings and designing streets, plazas, bicycle lanes, and traffic calming measures.

Actions

- 2.2.1. Review loading zone policies to ensure efficient and appropriate short-term use, and consider the following interventions as appropriate:
 - a. reviewing and revising eligibility criteria for commercial vehicle permits with priority for cargo carrying trucks and couriers;
 - b. increasing enforcement;
 - c. introducing paid loading zones, with the potential for variable rate structures to promote turnover; and
 - d. providing additional loading zones where required.
- 2.2.2. Revise parking requirements for new development to ensure sufficient off-street loading spaces for smaller service and delivery vehicles.
- 2.2.3. Ensure commercial laneways continue to support efficient goods movement.

2.3. Support low-impact goods and services movement and delivery

There is tremendous opportunity to efficiently deliver goods and services in quieter and less polluting ways, especially at the small scale and in urban environments. The City will support low-impact ways to deliver goods and services, including active transportation (such as cargo bikes), low-carbon truck fleets, and short-haul electric and electric-assist vehicles, rail, and ship.

Actions

- 2.3.1. Support strategies to facilitate efficient low-impact urban goods and services movement, including consideration of:
 - a. "hub and spoke" delivery models incorporating urban freight consolidation centres;
 - b. flexible loading options for cycle-based and other small-scale vehicles; and
 - c. right-sizing of service and delivery vehicles.
- 2.3.2. Continue to demonstrate corporate leadership in procurement and operations by using low-impact approaches for City-related services and deliveries.
- 2.3.3. Explore opportunities to optimize services that occur in laneways, to reduce the footprint for waste and recycling collection.

2.4. Support local production and distribution to reduce the need for large-scale transport

One of the best ways to reduce the negative impacts of large-scale goods movement is to reduce long-distance trips. The City will support local production and distribution to reduce the need for transport of goods through, for example: preserving industrial land and enabling small-scale manufacturing in some areas of the city; bulk purchasing opportunities to bring together and support local producers (including community shared agriculture); and food production in the city, including roof-top gardens and urban agriculture.

Action

- 2.4.1. Continue supporting local production and distribution through measures including the preservation of industrial land, enabling small-scale manufacturing in some areas of the city, and supporting local urban agriculture.

3. EMERGENCY RESPONSE

In an emergency, every second counts. It is critical that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion. At the same time, efforts to minimize response times should not sacrifice traffic calming and other measures intended to reduce crashes, increase safety, enhance livability and encourage active transportation.

3.1. Consider emergency vehicle access in street designs and traffic calming measures

Effective streets designs and traffic calming measures reduce the number and severity of crashes. Emergencies still occur, however, and it is important to maintain neighbourhood access for emergency services.

Actions

- 3.1.1. Work with emergency responders when developing new traffic calming plans and designs.
- 3.1.2. Work with emergency responders to designate primary emergency response routes where certain traffic calming measures will not be implemented.

3.2. Provide up-to-date, readily-accessible information on traffic calming measures and closures

Emergency response suffers when service providers lack information on traffic calming measures, road closures, and other detours. Making this information readily available can save lives by reducing the time to respond to an emergency.

Action

- 3.2.1. Maintain and make available to emergency service providers an inventory of traffic calming measures, road closures, and other detours.

4. TAXIS & COMMERCIAL TRANSIT

Taxis and other commercial transportation providers are an important part of the transportation system for both residents and visitors. By providing a flexible alternative when walking, cycling, and public transit are not options, they help to fill a gap and reduce dependency on the private automobile. Commercial transport also plays a key role in longer trips, particularly those that extend beyond the region's boundaries.

4.1. Support improved movement and loading for taxis and commercial transit

Taxis help reduce dependency on the private automobile by providing a flexible alternative when walking, cycling, and transit are not viable options. The City supports giving taxis priority over general traffic provided it does not hinder public transit service or compromise public safety.

Actions

- 4.1.1. Pilot and evaluate a program that allows taxis to travel in bus lanes.
- 4.1.2. Continue to facilitate taxi loading and unloading at high-demand locations.
- 4.1.3. Support incorporating taxis into TransLink's smartcard system.

4.2. Support continued electrification of the taxi fleet

Vancouver's taxi industry demonstrated leadership by embracing hybrid technologies early on. The City supports continued innovation using electric and other low- or zero-emissions technologies.

Action

- 4.2.1. Provide convenient access to electric vehicle charging locations across the city.

4.3. Support safe use of taxis for persons with disabilities

Conventional transit service is not always an option for some persons with disabilities, and HandyDart service can be impractical when trips need to be made on short notice. Taxis can fill an important service gap, providing a flexible service with potentially reduced operational costs.

TransLink already uses taxis for limited paratransit service through its TaxiSaver Program. See the *Transit* section for additional policies and actions on transit accessibility.

Action

- 4.3.1. Require taxi driver education, training, and testing to ensure safe handling of customers with disabilities.

4.4. Support improved inter-regional commercial transit

The City supports improved commercial transit connections to centres outside the region—including Vancouver Island, Whistler, Seattle, Portland, and beyond. Improved passenger rail, bus and ferry service, and seaplane connections provide attractive and potentially less expensive options to driving, while supporting local tourism and business.

Action

- 4.4.1. Work with TransLink, the Province, and other government agencies to improve inter-regional transit services, including heavy passenger rail, ferry, coach, and air.

LAND USE

Support shorter trips and sustainable transportation choices through mixed land use, pedestrian-oriented design, densities that support walking, cycling, and transit, and new housing choices that put residents close to jobs, schools, recreation, and transit.

POLICIES AT A GLANCE

1. Land Use Directions

- 1.1. Prioritize and encourage density and a diverse mix of services, amenities, jobs, and housing types in areas well-served by frequent, high-capacity transit
- 1.2. Locate major trip generators near rapid transit stations or along transit corridors
- 1.3. Encourage building designs that contribute to a public realm that feels safe and interesting to walk in

2. Infrastructure Prioritization

- 2.1. Prioritize City transportation infrastructure investments in areas where density and land use optimize sustainable transportation choices

1. LAND USE DIRECTIONS

Land use and transportation are closely connected, and good land use decisions have been and will continue to be a huge part of Vancouver's transportation successes. The built environment influences travel behaviour in a number of ways, often referred to as the "5 Ds of the Built Environment":

- *Destinations* – locating major destinations and centres at rapid transit stations or along corridors make them easy to serve efficiently by frequent transit;
- *Distance* – a well-connected, fine-grained pedestrian network enables shorter, more direct walking connections and is easier to serve cost-effectively with transit;
- *Density* – higher levels of residential and employment density support more local amenities and justify high levels of transit service;
- *Diversity* – a diverse mix of land uses and housing types makes it easier to live, work, shop, and play without having to travel far; and
- *Design* – buildings that are designed to prioritize pedestrians contribute to a public realm that feels interesting and safe to walk and cycle in

Since this is not a land use plan, this section does not contain any specific actions, but only high level directions intended to help guide future land use plans and decisions to support sustainable transportation choices.

1.1. Prioritize and encourage density and a diverse mix of services, amenities, jobs, and housing types in areas well-served by frequent, high-capacity transit

Areas that can be well-served by transit have greater capacity for people and jobs, so it makes sense to consider higher density developments in these areas. At the same time, station areas are not all the same, so it is important to recognize local context, including neighbourhood character, the need for industrial land, and so on.

A diverse land use mix is also important, since it brings people closer to their daily destinations, reducing the distances people travel and supporting more sustainable choices like walking and cycling. A diversity of housing choices and tenures, including affordable and family housing, is especially important near high capacity transit, since these areas are less car dependent. Residents who forgo car ownership can apply the resulting savings—which can amount to \$10,000 or more per year—to housing or other expenses. The savings increase further when residents are given a choice not to purchase parking they don't need. In effect, more money is available to spend on housing that costs less.

1.2. Locate major trip generators near rapid transit stations or along transit corridors

An efficient transit corridor connects multiple high demand locations along a reasonably direct line. For the customer, the transit trips become more competitive since it is perceived as a direct route between any two points on the line. For the transit provider, more destinations and riders can be captured in fewer kilometres travelled leading to more cost-effective service provision

Locating major destinations at rapid transit stations or along frequent transit corridors make them easy to serve efficiently by frequent transit. As a result, fewer trips need to be made by automobile.

1.3. Design buildings to contribute to a public realm that feels interesting and safe to walk in

Well-designed buildings help to increase the safety and attractiveness of the street environment, and can strongly influence whether someone chooses to walk, cycle, take transit or drive. Intimately-scaled buildings maintain visual interest for pedestrians and cyclists who are traveling at relatively slow speeds. Active frontages with many windows and doors create "eyes on the street", increasing feelings of personal security. The City will continue to implement design guidelines for new buildings that support an interesting, pedestrian-scaled streetscape, and pursue measures

to consolidate driveways and locate motor vehicle access points in lanes and away from bicycle routes and pedestrian paths wherever possible.

2. INFRASTRUCTURE PRIORITIZATION

The plan supports fiscal responsibility, prioritizing investments where the greatest benefits can be achieved.

2.1. Prioritize City transportation infrastructure investments in areas where density and land use optimize sustainable transportation choices

Areas with higher densities generate more trips and require higher levels of service. Prioritizing investments to support walking, cycling, and transit in these areas benefit more people overall.

SPECIAL PROJECT & STUDY AREAS

Transportation challenges can be complex, with multiple and sometimes competing objectives. The areas listed below require more detailed study, and the directions will be informed by the high level policies laid out in the transportation plan.

FUTURE

1. **ROBSON SQUARE / STREET**
 - Objective: create a central civic plaza and improve walking conditions in one of the city's busiest pedestrian areas.
 - Specific measures could include: closing Robson Square to cars seasonally or year round, with options to either allow transit through or reroute it; and eliminating rush regulations on Robson Street to allow for permanent parking, wider sidewalks, parking-to-parklets, and so on.
2. **POINT GREY ROAD / CORNWALL**
 - Objective: provide high quality pedestrian and cycling facilities to address a missing link in the AAA seawall network; improve AAA cycling connections with the Burrard Bridge; and address high collision locations for cyclists.
 - Specific measures could include: using street end closures and diverters to reduce motor vehicle volumes and speeds on Point Grey Road, improve bike and pedestrian connections, and significantly enhance local parks by linking them with new public spaces across the right-of-way.
3. **FALSE CREEK CROSSINGS**
 - Objective: make it safer, more accessible, and more convenient for pedestrians and cyclists to cross False Creek.
 - Specific measures could include: reallocating motor vehicle lanes with spare capacity to allow for new or improved pedestrian and cyclist facilities for all three False Creek bridges in both directions.
4. **COMMERCIAL DRIVE**
 - Objectives: improve conditions for walking and cycling while enhancing the social and economic vibrancy of the Drive; maintain or improve reliability of local bus service on one of the city's highest volume bus corridors.
 - Specific measures could include: separated bicycle lanes; removal of rush hour regulations; wider sidewalks and reduced sidewalk clutter; on-street bike corrals; pop up cafes or parklets; and/or improved neighbourhood parking management.
5. **KINGSWAY / MAIN / QUEBEC**
 - Objectives: develop a network and design strategy to manage traffic flows and volumes, enhance the public realm, and improve pedestrian and cycling connections.
 - Specific measures could include: cancelling planned north extension of Kingsway; reviewing property holdings and examining connectivity needs to Mount Pleasant industrial area; upgrading the 10th Avenue bike route; improving the Kingsway streetscape; creating more safe pedestrian crossings across Kingsway.
6. **GRANDVIEW CUT / BNSF RAILWAY**
 - Objectives: Develop a strategy to address long-term needs for passenger and freight rail capacity and reliability; explore opportunities to create additional pedestrian and cycling connections across cut.
 - Specific measures could include: creating rail over- or underpasses at strategic points to address pinch points.
7. **ARBUTUS CORRIDOR**
 - Objectives: create a corridor plan that incorporates both an active transportation greenway as well as a future streetcar or light rail connection; improve east-west pedestrian connectivity across the corridor.

8. SW MARINE DRIVE

- Objectives: improve cycling conditions while accommodating existing truck movements and future transit routes; improve north-south pedestrian connectivity.
- Specific measures could include: enhancements to the painted bike lanes on SW Marine Drive as part of repaving

9. FRASER RIVER

- Objective: develop near- and long-term visions for an active transportation greenway and transit corridor; review and improve street network connectivity; Review long-term needs for freight and passenger movement; explore potential for water transit, including docking facilities.

UNDER WAY OR COMPLETE

A. WATERFRONT HUB (policy complete)

- Objective: develop a structure plan to improve Waterfront Station area as the region's pre-eminent multi-modal hub and transportation gateway to the city.
- Specific measures could include: extending the seawall and road network; integrating with the future downtown streetcar; making transfers easier; improving the transit concourse and public realm; creating opportunities for adjacent development; and maintaining or increasing rail capacity.

B. VIADUCTS

- Objective: explore options to remove some or all of the Georgia and Dunsmuir viaducts to repair a major hole in the urban fabric; improve pedestrian and cyclist conditions and unlock development potential while managing traffic impacts.

C. EASTERN CORE STRATEGY

- Objectives: support a comprehensive land use vision and improve connectivity for all modes, especially in the north-south direction; explore measures to improve rail capacity and reliability for both freight and passenger service.

D. BURRARD INLET LINE

- Objectives: improve rail capacity and reliability; improve active transportation connectivity across the rail tracks.
- Specific measures include: creating overpasses at Powell, Malkin, and Union or Venables, and Central Valley Greenway to improve rail capacity and closing streets at Raymur, Glen, and Parker streets; designing overpasses to create new AAA pedestrian and cyclist connections.