

# **GOAL ONE**

**Convenient Choices for Everyone** 

# **?** THE PROBLEM TODAY

"Walking, rolling, cycling, transit, and shared cars aren't convenient or available choices where I live and for the trips I need to make, so I need to rely on my own car."

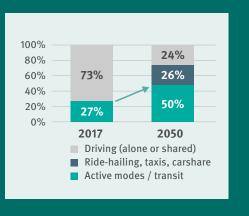


WHERE WE WANT TO BE

We all have universally accessible choices that allow us to conveniently connect to opportunities without needing to rely on a car such that, by 2050, active transportation and transit are competitive choices accounting for at least half of all passenger trips, with taxi, ridehail, and carshare accounting for most of the remaining passenger trips.

We envision a future where everyone can easily choose the mode of transportation that works best for the unique needs of each of their trip. The person who cycles to visit a friend on Saturday can easily take a shared vehicle to the mountains on Sunday. Meanwhile, their partner uses a wheelchair-equipped family car to visit a friend outside the region, takes transit for everyday trips, and joins work remotely from the comfort of home.

For many people, short trips can often be most quickly and conveniently served by walking, biking, or rolling. For longer trips along busy corridors, transit is often the most convenient and economical choice. For longer, more indirect trips, especially to less dense parts of the region or when carrying heavy cargo, cars are often the most convenient choice. Each of these options has a time and a place.



To ensure that everyone can make the most convenient choice for each trip, we need to make sure that people have access to a variety of different options where they are and where they need to go. These options need to be both physically accessible for everyone and physically available throughout Metro Vancouver, including in on-reserve communities.

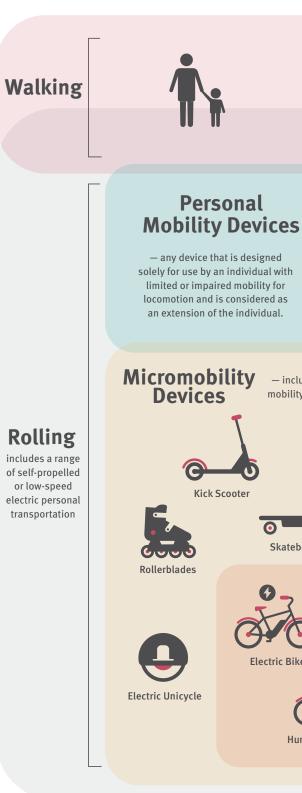
The first two strategies in this section describe what it will take to increase the convenience of active and shared transportation for everyone such that, by 2050, walking, biking, rolling, and transit account for at least half of all passenger trips, with taxi, ride-hail, and carshare accounting for most of the remaining passenger trips.

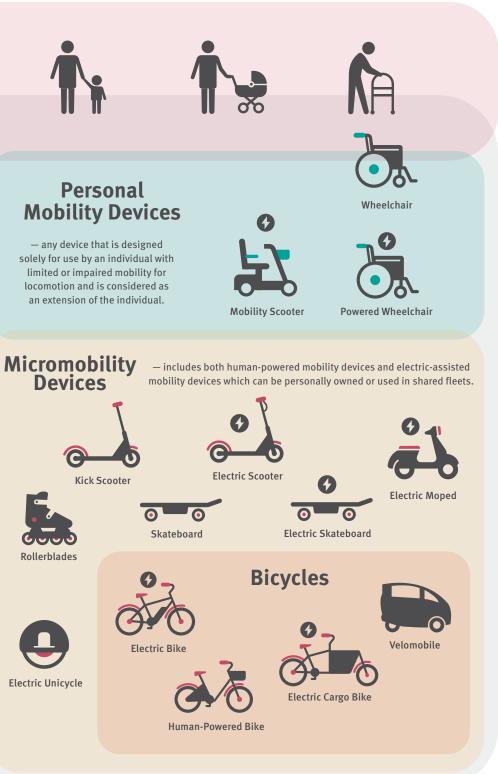
# Figure 4: Typology of Active Transportation Modes

This section also describes how walking, biking, rolling, and transit aren't viable options for many trips. For these cases, this strategy aims to ensure that people have access to the convenience of a car but without needing to own one. And when avoiding a trip altogether is the best choice, for example by connecting online instead of in person, this option should also be convenient and accessible to everyone.

The following pages describe what it will take to create a future where **we all have** universally accessible choices that allow us to conveniently connect to opportunities without needing to rely on a car.

- For walking, biking, and rolling to be the convenient choice for shorter trips, key destinations need to be physically close, with compact, **complete communities** connected by fine-grained networks of high-quality walkways, bikeways, and low-speed streets. These conditions allow active transport trips to be shorter and more direct than the comparable motor vehicle route and also make the trip feel welcoming, safe, and attractive.
- For **transit** to be the convenient choice for longer trips, most homes, jobs, and major destinations will need to be located along or quickly connected to major transit corridors that feature fast, frequent, reliable, and high-capacity service that is universally accessible and barrier-free. This requires tight coordination between land use and transportation planning – directing nearly all future growth to Urban Centres and major transit corridors — and removing barriers to ensure transit is accessible and inclusive for everyone.
- For the occasional use of a vehicle without needing to own one, we'll need to incentivize carpooling; substantially expand universally accessible fleets of carsharing, ride-hailing, and taxis; and leverage automated vehicle technology.
- Integrating all of these choices together in the same location makes them even more convenient. Mobility hubs that feature active transportation infrastructure and shared-mobility options at transit stops and stations, along with Mobilityas-a-Service (MaaS) apps that allow multimodal trip planning, booking, and payment can make it easier to connect between modes. Sometimes, the most convenient choice is to avoid making a trip altogether and to get what we need by going online, where the internet can enable access to work, school, health services, and shopping — all from our smartphone or computer.







# **On Resilience & Convenient Choices**

With more transportation choices available, we'll all have more alternatives in the event that our first choice of transportation faces disruption. For example, great bikeways and the abundant availability of shared electric bikes (e-bikes) will mean that more people have an option in the event of a car or bus breakdown. If you were hoping to use a shared vehicle to visit a friend but find that one isn't available, hopping on the bus is always an option.

If we design our communities to support more and better active and shared transportation options, we'll all have greater choice and individual resilience. Expanding the transit network so there are multiple routes to get to many destinations increases network resilience in the event of delays bring, Metro Vancouver and TransLink partnered in one part of the system.

The strategies to achieve convenient choices in this section could also introduce new vulnerabilities that we'll need to actively manage. For example:

- If the costs of housing continue to rise, people may need to relocate to areas with lower-cost housing that are more car-dependent, which would lead to increased transport costs and fewer transport choices for those households, and increased traffic for everyone.
- A greater reliance on digital access for more services may increase the digital divide between those who have ready access to the internet and smartphones and those who do not.
- A greater reliance on digital access also increases our vulnerability to cyberattacks, with real-world impacts on the transport system.

To better understand what tomorrow might to develop the *Regional Long-Range Growth* and Transportation Scenarios report. This report examines four plausible futures for Metro Vancouver, which can help us identify measures to ensure that both transportation and the region are more resilient.



Public bike sharing arrived in the region in 2016, with the launch of Mobi by Shaw Go in Vancouver, leading the arrival of other new systems

**Strategies and Actions** 

# Strategy 1.1: Make active transportation the most convenient choice for shorter trips.

Active transportation includes all human-powered forms of travel. Walking and cycling are the most common, but using a wheelchair or other mobility aid, running, scootering, skateboarding, or inline skating are all forms of active transportation. Electric bicycles, electric kick scooters, and other similar forms of personal micromobility devices that can travel up to 32 kilometres per hour are also considered alongside these purely humanpowered forms of travel, since they often operate in the same space, such as on off-street pathways and bikeways. These electric micromobility options may allow more people to travel greater distances and "flatten" steep roadways that might otherwise be too challenging. Motorized two-wheelers that can exceed 32 km/hr are not considered active transportation, since vehicles travelling that fast are meant to be operating on roadways alongside cars and trucks.

Active transportation is low-cost, zero- or low-carbon, healthy, and efficient. Walking, biking, and rolling can be used on their own for shorter (and increasingly longer) trips; they are also important ways for people connect to transit, holding the potential to greatly expand transit's reach. A substantial and rapid expansion of the region's active transportation networks (paths, walkways, bikeways) is one of the most cost-effective ways to reach all five Transport 2050 goals.

Many of us report wanting to use active transportation more frequently, and many of us need to rely on active transport for accessibility or affordability reasons. However, for many trips, active transportation is not convenient, for example, where distances are too great, where there is a lack of safe infrastructure, or where there is nowhere to store equipment at our final destination. The following actions aim to address each of these deficiencies.

The other major barrier to more walking, biking, and rolling is the very real safety risk and the associated fear and anxiety — of being next to high-speed traffic, whether those are cars and trucks on the roadway, or electric bicycles and scooters on a multi-use pathway. Actions to address these safety and comfort concerns are outlined in Goal 4.

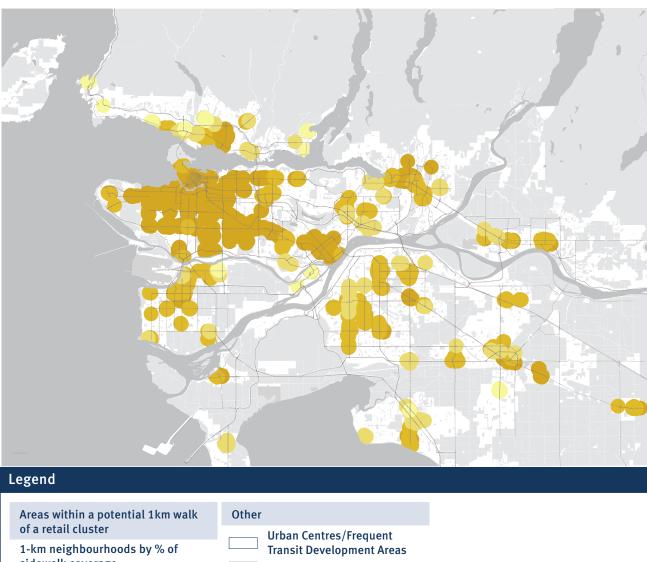
Image courtesy of City of Vancouver

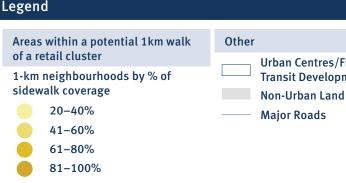


# Map 6: Neighbourhoods within 1 km of a Retail Cluster

### Actions

- Support the development of walkable and **complete communities** as outlined in 1.1.1. Metro 2050, so that nearly everyone in the urban parts of the region<sup>5</sup> can find all of the services or goods they are likely to need more than once a week within a convenient one-kilometre walk, bike, or roll.
  - a. Encourage local land use planning authorities to concentrate street-oriented shops and community amenities at the heart of each neighbourhood, including schools and childcare, healthcare and pharmacies, groceries, parks, and a selection of restaurants and shops.
  - b. Support local shops and services who are facing increasing online competition and rising rents - on commercial main streets by ensuring that people can conveniently walk to them.
  - c. Encourage local economic development initiatives to enhance the attractiveness and competitiveness of commercial main streets at the heart of each neighbourhood with programmatic funding for making them more attractive and welcoming for everyone.
- 1.1.2. Design walkable neighbourhood street networks that are discontinuous for cutthrough motor-vehicle traffic but that are seamlessly well-connected with a dense network of pathways, walkways, bikeways, and green spaces, to make walking, biking, or rolling the most convenient choice for most short trips (see People-First Streets on page 168).

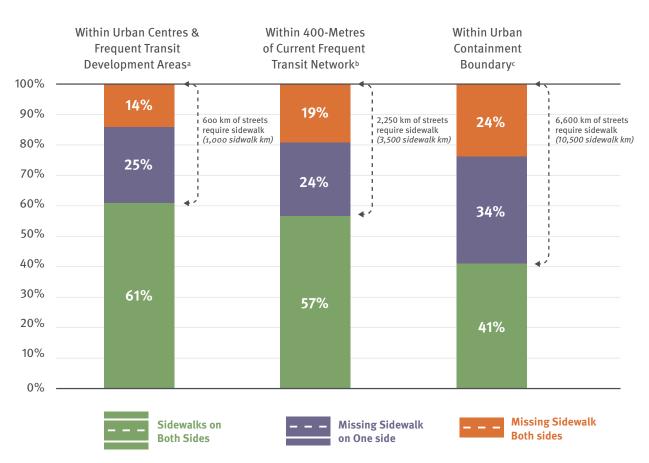




*Circles illustrate neighbourhoods where residents are within 1 kilometre of a retail cluster of* at least 25 adjacent shops. These residents have the greatest ability to access the goods and services they are likely to need more than once a week within a short walk, bike or roll. Lightercoloured circles indicate areas where many streets lack sidewalks, hindering residents' ability to walk to nearby local shops.

<sup>5</sup> Urban parts of the region are defined as those lands within the Urban Containment Boundary shown in Map 3. http://www.metrovancouver.org/services/regional-planning/PlanningPublications/DraftMetro2050.pdf.

- 1.1.3. Rapidly complete a **network of walkways** so that walking can be the most direct, and the most convenient, travel option for most short trips (e.g., a distance of less than one kilometre).
  - a. Ensure that safe and comfortable walkways are provided throughout all Urban Centres and Frequent Transit Development Areas to connect people to stations and stops served by frequent transit service; ultimately, ensure that every public-facing business and community facility in the region is connected by the region's walkway network and that they can be reached as directly as possible by walking or rolling.
  - Ensure that every street within the Urban Containment Boundary (with the exception of limited-access highways) has sidewalks on both sides. These sidewalks need to be accessible to people using a wheelchair or pushing a stroller, or otherwise designed for traffic to travel at walking speeds.



# Figure 5: Status of Sidewalk Availability Today on Streets within Different Areas of Metro Vancouver

<sup>a</sup> Refer to Map 11: Major Transit Growth Corridors from Metro 2050 for Urban Centres & Frequent Transit Development Areas <sup>b</sup> Refer to Map 9: Frequent Transit Network Today for the current Frequent Transit Network

<sup>c</sup> Refer to Map 11: Major Transit Growth Corridors from Metro 2050 for the Urban Containment Boundary



Bay

Olympic Village Station

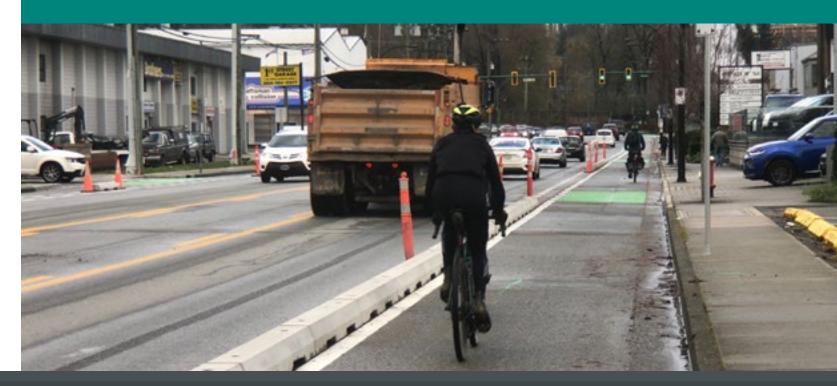
- 1.1.4. Rapidly complete a **network of bikeways, bike parking, and e-charging stations** that make bicycles, scooters, and other electrified or micromobility devices the most direct, and the most convenient, travel option for most trips between 1 and 5 kilometres, as well as longer trips throughout the region.
  - a. Develop the bikeway network per the Regional Cycling Strategy, with a focus on making safe and comfortable bikeways widely available in all Urban Centres and areas of high cycling potential across the region.
  - b. Advance implementation of a Regional Cycling Network consistent with Map 7, comprised of a Major Bikeway Network that connects Urban Centres across the region and a Regional Greenways Network that connects to parks, open spaces, natural areas, and scenic pathways.
  - c. Provide a sufficient level of secure parking (including racks, lockers, and parkades) and charging stations for bicycles and electrified micromobility devices across the bikeway network, especially in Urban Centres and Frequent Transit Development Areas, at transit stations and exchanges, and at civic locations such as schools, libraries, parks, and greenways.
  - d. Require provision of appropriate end-of-trip facilities, such as showers, lockers, and basic bike maintenance tools at workplaces and other major non-residential trip-generating uses.
  - e. Program traffic signals on major bikeways and bicycle-priority streets to facilitate "green waves", allowing people travelling at average bicycle speeds to travel continuously without being stopped by a red light.



# **Figure 6: Rapid Bikeway Network Expansion**

Transport 2050 aspires to rapidly complete a well-connected and continuous network of protected bikeways that separates people on bicycles, scooters, and other micromobility devices from fastermoving cars and trucks. Our region can do this most quickly by using quick-build and lower cost materials such as curbs and planter boxes (see images, above and below). In approximately six months in 2021, the City of Surrey substantially completed a network of protected bikeways, using the quick-build method, along five corridors within their city centre linking up several other existing bikeways. Using more traditional, higher-cost materials, this bikeway network would have taken much longer to complete.

Images courtesy of Roy Symons









Horseshoe Bay Ferry Terminal 📌 To Lions Bay

Metro Vancouver Regional Greenways Network Urban Centres/Frequent

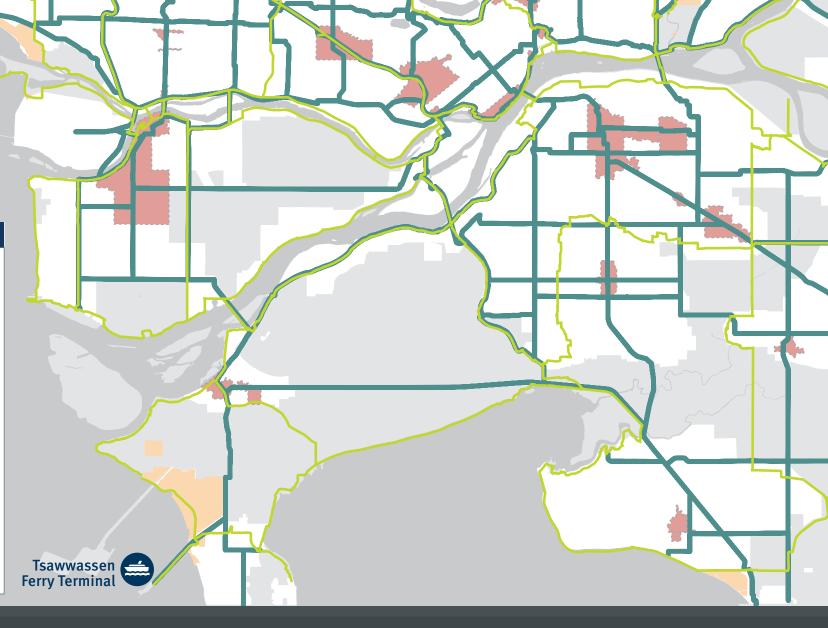
Transit Development Areas First Nation Reserves and Tsawwassen Treaty Lands

Urban Areas (within the Urban Containment Boundary)

Non-Urban Land

Corridors identified on the map represent desire lines and further work is needed to confirm actual streets that would be used to deliver those corridors. Once implemented, Major Bikeway Network corridors would feature bikeways that are comfortable for most people to use.

The Regional Greenways Network is the region's network of trails from Metro Vancouver's Regional Greenways 2050 plan, primarily for recreational trips for walking, cycling and horseback riding.



# Map 7: Regional Cycling Network



To Fraser Valley

- 1.1.5. Improve access to **shared micromobility** by enabling convenient, safe, accessible, and interoperable services that are well distributed throughout the urban parts of the region, such that they can support short local trips within Urban Centres as well as longer trips between Urban Centres.
  - a. Develop region-wide shared micromobility standards for safety, data collection and management, space and curbside allocation, fleet and operational requirements, and supporting infrastructure that makes it easy to support and scale these services and ensure they are interoperable.
  - b. Support access to shared micromobility services for Indigenous Peoples living on reserve and treaty lands, where desired by the community.
  - c. Ensure shared micromobility devices are equitably accessible and affordable across the region, including by communities with a high proportion of disadvantaged residents.
  - Regulate end-of-trip procedures to ensure that devices are not blocking sidewalks, entrances, or rights-of-way so that pedestrians especially people with disabilities are unobstructed.

# **Figure 7: Key Characteristics of Different Transit Layers**

	<b>Convenient</b> & Universally Accessible	<b>Reliable</b> & Congestion-Free Travel Time	<b>Fast</b> & Competitive with Car Travel Time	<b>Frequent</b> Departures, at Least Every 15 minutes or Better	<b>High Capacity</b> Accommodating More Than 1,000 People Per Hour
Local Transit	Always	Sometimes	-	-	-
Frequent Transit	Always	Sometimes	Sometimes	Always	-
Express Transit	Always	Always	Always	Sometimes	Sometimes
Major Transit	Always	Always	Always	Always	Always

# The multiple layers of our transit network

- **Local transit** provides extensive coverage and ensures that all development areas in the urban part of the region, as well as some areas of development beyond the Urban Containment Boundary, have convenient access to transit. This may be provided by fixed-route local bus service or, in some limited cases, through demand-responsive transit, particularly in times and places with insufficient demand to warrant fixed-route service. Demandresponsive transit can also play a supportive role to meet the needs of those people who can't safely navigate the conventional transit system without assistance, whether that's for local trips or longer ones. With short walks to stops, local transit — both fixed-route and demand-responsive — is used for trips within each community or to connect to higher-order transit services.
- **Frequent transit** supports spontaneous trips, without needing to refer to a schedule. Currently, we consider 15-minute or better frequencies to provide a high degree of convenience for customers. Over the next three decades, we envision that nearly all local transit routes within the urban area will eventually operate at very high frequencies, and that we will work to improve on this minimum expectation for frequency to make transit even more attractive. In the future, transit vehicles along frequent transit routes could be expected, at a minimum, every 12, 10, or even 5 minutes. This would be implemented as land use and demand grow, with the deployment of automated transit vehicles potentially being able to support this high level of frequency.

- **Express transit** provides reliable and fast service over longer distances both within and across regional boundaries. Travel times that are as fast or faster than driving are achieved by routing that is direct and largely separated from traffic.
- The Major Transit Network (MTN) is the highest order of transit — with services that are high-capacity, high-frequency, fast, and reliable, travelling in dedicated rights-of-way all day, every day, and in both directions. The MTN is expected to be delivered primarily through bus-based services, but will include a range of technologies, each with different capacities and infrastructure needs. Reallocating road space will be the most cost-effective way of expanding the MTN; however, there will be situations where widening of roads or construction of gradeseparated rapid transit facilities are required. These situations may arise from changes in adjacent urban form, a lack of available road space, or through transit demand along a corridor exceeding the capacity of conventional service. Together, the Express and MTN layers create a grid network of reliable and fast transit services, providing convenient connections and improving access to high-quality transit throughout the region (see Map 10: Reliable & Fast Transit Network (Today and 2050 Concept)).

# Strategy 1.2: Make transit the most convenient choice for longer trips.

For trips not suited for walking, rolling, or cycling, transit should be a convenient option - especially when it is tightly integrated with the regional growth management goals and strategies of Metro 2050 such that most homes, jobs, and major destinations are near frequent stops and stations.

In addition to focusing growth near major transit stops and stations, expanding the reach, speed, and frequency of the transit system is a key to providing convenient travel alternatives to driving.

The transit network is comprised of several different service layers, each with their own set of service characteristics (span of service, frequency, route design) and unique role. These different layers work together to provide transit to most residents of the region, and to serve a wide range of different customer markets, origins, and destinations. As service expansion continues, it will be a priority to equitably reflect the unique needs of geographic and demographic communities in the region; for example, this might include special services in areas with a high population of seniors, or different schedules that target communities where many residents are shift workers.



### **Actions**

- 1.2.1. Support the **transit-oriented regional growth** framework outlined in Metro 2050, in order to make transit more convenient for more people and for more trips.
  - a. Continue to plan for a compact urban form within the Urban Containment Boundary when developing and implementing transportation plans, strategies, and investments. (M2050 1.1)
  - b. Discourage the provision of infrastructure that would facilitate the dispersal of housing and employment growth outside the Urban Containment Boundary when preparing and implementing transportation plans, strategies, and investments. (M2050 1.1)
  - c. Locate all major developments according to the following location-efficiency framework, consistent with the goals and strategies of Metro 2050.

Location Type	Develo
Locations with <b>excellent transit</b> and poor	Suitab
car/truck accessibility	and hig
	visitors
	cultura
	institut
Locations with <b>good</b> transit and <b>good</b>	Suitab
car/truck accessibility	employ
	densiti
	partly
	reason
Locations with poor transit and <b>excellent</b>	Suitab
car/truck accessibility	densiti
	that ge
	truck tr
	and otl

Table 1 – Location-efficiency framework for siting major trip-generating developments

d. Secure commitments from all local, regional, provincial, and federal public sector agencies to lead by example by locating their offices and other significant trip-generating activities in locations with excellent transit accessibility — in Urban Centres, Frequent Transit Development Areas, or near stops and stations in the Major Transit Network.

## opment Type

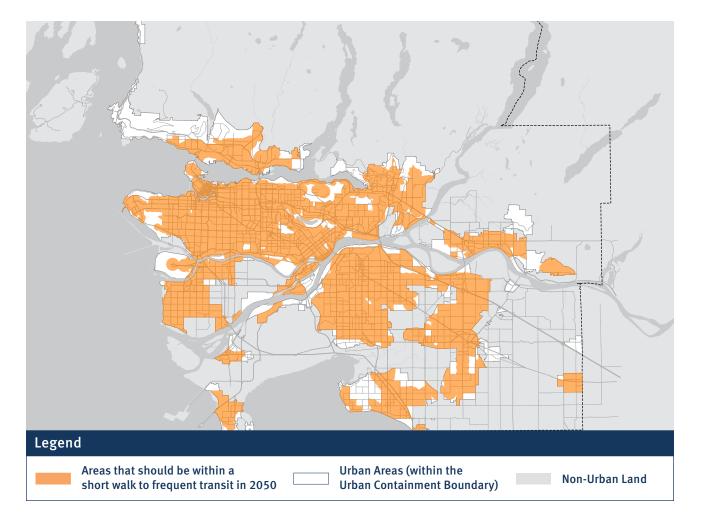
le for uses with a large number igh density of employees and many s, such as offices and community, al, educational, and health tions.

le for uses with a large number of yees or visitors, but at moderate ties and/or for those who depend on car journeys for professional

le for uses with the lowest ies of employees or visitors, but enerate significant numbers of rips like logistics, warehousing, her industry.

- e. Implement recommendations made in TransLink's Transit-Oriented Communities Design Guidelines to ensure that transit investments support the development of highly walkable, climate-resilient, and inclusive transit-oriented communities.
- f. Ensure supportive land use and community design for major transit investments through agreements early on in project development that build on existing Supportive Policy Agreements. Agreements can provide confidence to municipalities to implement supportive land use ahead of transit investments, and increased certainty that major investments will be supported by transit-oriented land use planning, design, and demand management policies at corridor, neighbourhood, and site scales.
- g. Work with Indigenous communities to develop context-sensitive land use plans that help support transit service provision in their communities.

# Map 8: Areas That Should Be within a Short Walk to Frequent Transit in 2050



- 1.2.2. Provide a transit system that is accessible and barrier-free for everyone across the region.
  - a. Prioritize investment in transit service that improves access (1) for people living on Indigenous Nation reserves and for urban Indigenous Peoples; (2) for areas with high proportions of people who are low-income, without access to a car, disabled, visible minorities, or seniors; (3) to parks, beaches, and natural areas; and (4) to emerging transit-oriented areas with plans for higher densities and mixes of land uses.
  - b. Work with Indigenous Nations to determine community-specific transit service priorities. 🌈
  - c. Make the built environment surrounding rapid transit stations, exchanges, bus stops, wayfinding, and other connection points universally accessible and supportive of a range of unique customer needs.
  - d. Ensure that all transit vehicles and passenger facilities are universally accessible and barrier-free.
  - e. Meet the needs of customers with disabilities by providing customized service when they are unable to independently use the conventional system. The customer experience should be high-quality, i.e., easy to book and use, and suited to a wide range of unique customer needs. This may require an accessible vehicle, a specially trained attendant, door-to-door service, or person-to-person transfer.
  - f. Continue to maximize the combination of accessible conventional services, custom transit services, and travel training support to provide a seamless experience using a family of services approach.
  - g. Provide a basic level of transit access at low-demand times (including throughout the night) and to low-demand locations (including areas outside the Urban Containment Boundary) using either local fixed-route service or on-demand microtransit where it can provide better service than fixed-route transit for the same cost or less.
  - h. Provide Park and Ride facilities to allow travellers from lower population density areas (where walking, biking, or local transit connections are not viable) to connect into the transit system, consistent with the approach outlined in TransLink's Park and Ride Guidelines.
  - i. Consider additional passenger ferry services to connect locations where water-based transit offers greater accessibility, convenience, travel times, and reliability compared to land-based transit alternatives.

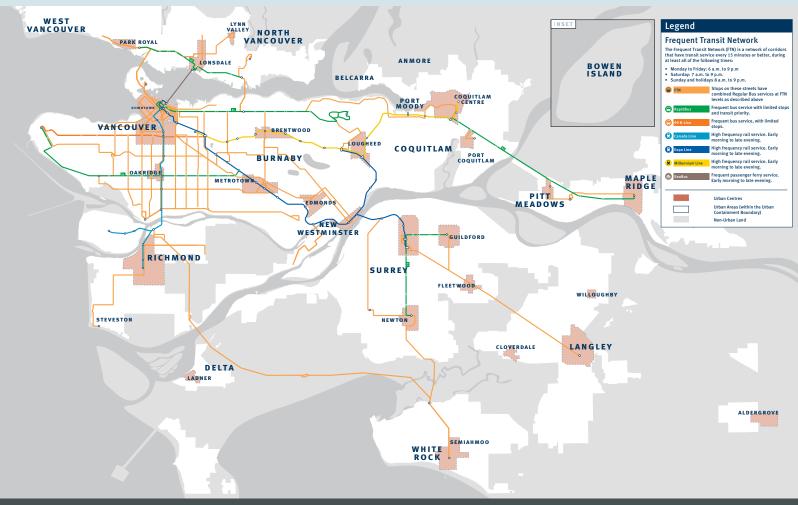
- 1.2.3. Expand **frequent local fixed-route transit service** so that nearly all residents within the urban area are within a five-minute walk of frequent, all-day, everyday service.
  - a. Prioritize investment in frequent local transit to (1) minimize chronic overcrowding and pass-ups on the existing transit network; (2) provide convenient frequencies, particularly in areas with all-day demand; (3) extend span of service throughout the region, particularly in areas with all-day demand or specific needs for early morning and/or late-night service; and (4) improve network connectivity, facilitating transfers and improving customer convenience.
  - b. Take advantage of the arrival of Level 4 vehicle automation<sup>6</sup> to operate smaller transit vehicles (right-sized to demand) and accelerate the provision of significantly increased frequency levels.
- 1.2.4. Expand fast, frequent, reliable, and high-capacity transit along the Major Transit **Network** to support regional connectivity and regionally significant urban growth, including by investing in:
  - a. Existing rapid transit lines and facilities, monitoring demand to determine when capacity relief measures may be required - in particular, study of the Expo and Canada Lines.
  - b. Limited-stop services on corridors where regular local routes are experiencing high ridership volumes, in support of building ridership for potential future rapid transit.
  - c. At-grade rapid transit, running in separated rights-of-way, to provide fast, reliable, and high-capacity service when conventional transit is unable to meet demand and when supported by local land use patterns.
  - d. Grade-separated rapid transit when forecasted demand indicates that at-grade technology will not provide sufficient capacity to meet demand.

# **Frequent Transit Network**

TransLink and Metro Vancouver have used the concept of a Frequent Transit Network (FTN) to help make transit a highly convenient option for people to choose for their daily travel. Along the FTN, transit vehicles (buses or trains) arrive at stops and stations every 15 minutes or more frequently throughout the day, from morning to evening, every day of the week. This gives customers the convenience of being able to step out of their door and walk up to a transit stop without needing to consult a schedule because they know they will never have long to wait. This also provides a high-quality transit service, which local governments and developers can plan around to help shape communities.

Between today and 2050, it is anticipated that service of FTN quality will expand to most urban areas of the region [see Action 1.2.3.] to be within walking distance of nearly all residents of Metro Vancouver. While this is great news for the travelling public, as this occurs, it means that the value of the FTN as an organizing framework for shaping land use becomes somewhat less significant. Therefore, within Transport 2050, greater emphasis is being placed on the newly introduced Major Transit Network (MTN) as the key organizing framework for regional coordination of transportation and land use. Likewise, Metro 2050 has introduced the concept of Major Transit Growth Corridors to help direct that portion of future growth and development occurring outside of Urban Centres [see Action 1.2.4.].





<sup>6</sup> See "What Are Automated Vehicles (AVs)?" on page 64.

# Map 9: Frequent Transit Network Today

### Fixed-route frequent transit will be the backbone of our transportation system, even in an automated

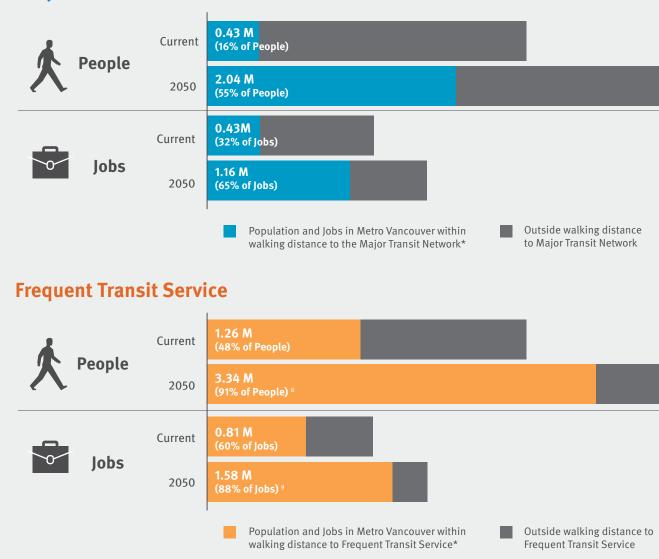
future. While advances in digital connectivity and automation are creating new opportunities for demand-responsive services, fixed-route transit will continue to be the backbone of our future public transportation system. As shown in Figure 8, for the same wait time, fixed-route transit (automated or not) can serve a given city of any size with far fewer vehicles than demand-responsive services. While on-demand microtransit may play a role by providing affordable options in low-demand times and places, and robo-taxis will play a role by providing more expensive demand-responsive service — as cities grow, dense networks of frequent fixed-route transit delivers the same customer experience much more cost-effectively, making it more affordable for most people. Taking advantage of automation to deliver this service even more frequently will further enhance this advantage.<sup>7</sup>

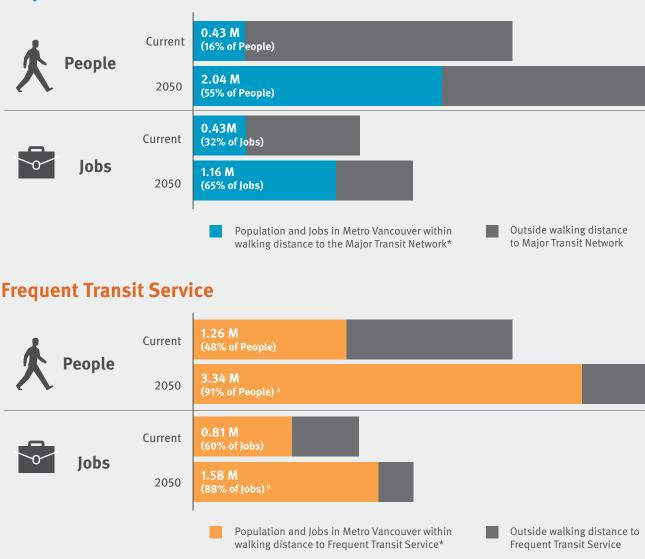
# Figure 8: Number of Vehicles Required to Serve Any Trip within Different-Sized Cities, with a Maximum 10-Minute Wait Time



<sup>7</sup> Matt Taylor, Nicolas Moss, Bunt & Associates, "Transportation Network Efficiency with Demand Responsive Services", CITE 2021 Conference Presentation.

# **Major Transit Network**





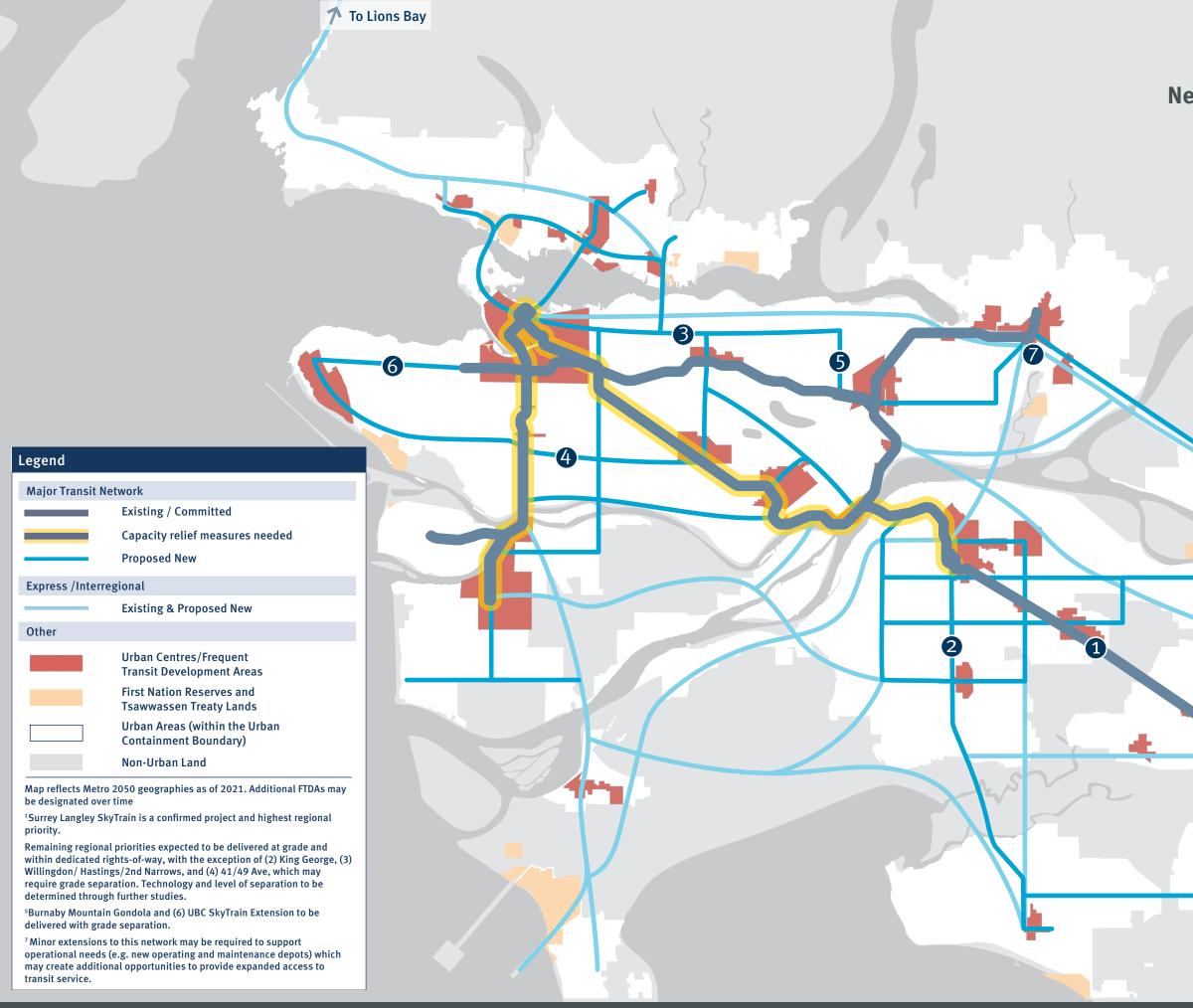
Walking distance is considered as an 800-metre distance from the Major Transit Network (MTN). For current Frequent Transit, walking distance is considered as a 400-metre distance from the existing Frequent Transit Network (FTN) plus 800 metres from current MTN. Walking catchments for future Frequent Transit include areas with population and employment density of  $\geq$  30 per hectare in 2050, and areas accessible to the current FTN and future MTN within the regional Urban Containment Boundary.

By 2050, with significant expansion to transit across the region, nearly 55% of people and 65% of jobs would be within a 10-minute (or 800-metre) walk of the Major Transit Network, and nearly 90% of people and jobs would be within a 5-minute (or 400-metre) walk of frequent transit service.

<sup>8</sup> This represents 94% of Urban Population.

# Figure 9: Residents and Jobs within Walking Distance from Different Transit Networks

<sup>9</sup> This represents 92% of Urban Population.



# Map 10: Reliable & Fast Transit Network (Today and 2050 Concept)

# From Metro 2050 (see: Draft Metro 2050)

# **Urban Containment Boundary**

The Urban Containment Boundary is a stable, long-term, regionally defined area for urban development that protects agricultural, conservation, recreation, and rural lands from developments requiring utility infrastructure, and from auto-oriented, dispersed development patterns. Locating housing, regional transportation, and other infrastructure investments within the Urban Containment Boundary supports land development patterns that can protect food-producing land, reduce energy demand, reduce greenhouse gas emissions from commuter traffic, and secure land that stores carbon and helps communities adapt to climate change. Residential and employment infill development is encouraged within the Urban Containment Boundary.

# **Urban Centres**

Urban Centres are intended to be the region's primary focal points for concentrated growth and transit service. They are intended as priority locations for employment and services; higherdensity forms; mixed residential tenures; affordable housing options; and commercial, cultural, entertainment, institutional, and mixed uses. Urban Centres are intended to emphasize place-making and an enriched public realm, and to promote transit-oriented communities where transit, cycling, and walking are the preferred modes of transportation. Urban Centres are priority locations for services and amenities that support a growing population.

## **Major Transit Growth Corridors**

Major Transit Growth Corridors are areas along TransLink's Major Transit Network where member jurisdictions, in consultation with Metro Vancouver and TransLink, may identify new Frequent Transit Development Areas (FTDAs). These corridors are intended to extend approximately one kilometre from the roadway centreline in both directions. The intent of these corridors is to provide an overall structure for the region in an effort to support the regional planning principle of directing portions of growth towards Urban Centres and areas around transit. Further local planning will be needed along these corridors to ensure that human settlement patterns support complete communities in an appropriate local context. The Major Transit Growth Corridors have been identified as good potential locations for regionally significant levels of transit-oriented growth based on a consideration of the following principles:

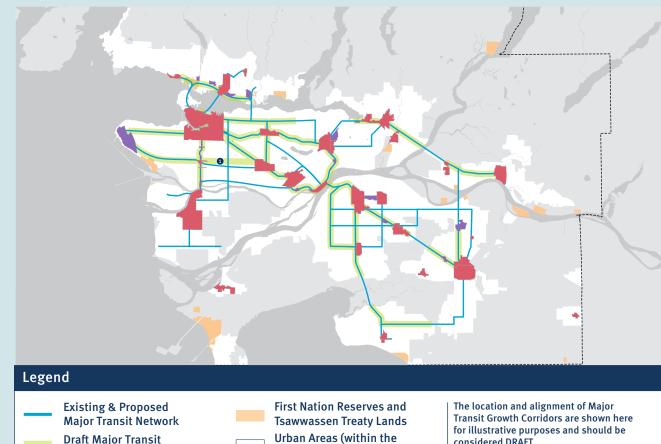
- Anchored by Urban Centres or FTDAs
- Connected by the Major Transit Network
- Generally resilient to natural hazards
- Accessible to jobs and services
- Walkable

Major Transit Growth Corridors are not an overlay; rather, they are an organizing principle to support the identification of FTDAs. The Major Transit Growth Corridors are also a growth monitoring tool to assess performance on transit-oriented development objectives.

## **Frequent Transit Development Areas**

Frequent Transit Development Areas (FTDAs) are intended to be additional priority locations to accommodate concentrated growth in higher-density forms of development. They are identified by Metro Vancouver member jurisdictions and located at appropriate locations within the Major Transit Growth Corridors. FTDAs complement the network of Urban Centres, and are characterized by higher-density forms of residential, commercial, and mixed uses, and may contain community, cultural, and institutional uses. Urban design for these areas promotes transit-oriented communities where transit, cycling, and walking are the preferred modes of transportation. Identifying FTDAs within the Major Transit Growth Corridors 1) provides greater certainty and integration between local, regional, and transit plans, and 2) supports transit-oriented development planning across jurisdictional boundaries.

# Map 11: Major Transit Growth Corridors from Metro 2050





**Growth Corridors** 

Urban Centres

**Frequent Transit** 

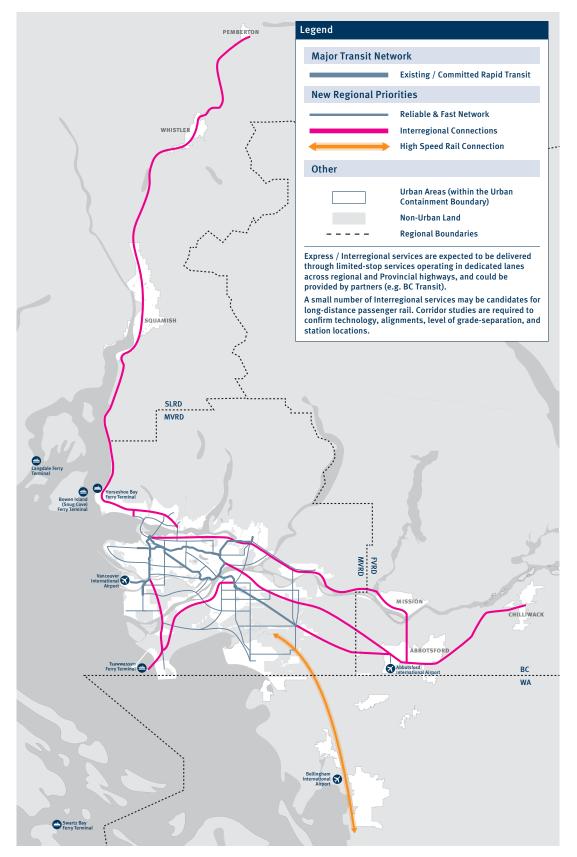
**Development Areas** 

Urban Areas (within the **Urban Containment Boundary)**  considered DRAFT.

<sup>1</sup>The Growth Corridor currently shown on 41 Ave east of Cambie reflects an earlier version of the Major Transit Network that included the entirety of 41 Ave. It is expected that reconcilling this difference. as well as changes in location and or alignment of other Major Growth Corridors will be determined through the Metro 2050 Regional Growth Strategy update process.

# Map 12: Interregional Transit Connections (2050 Concept)

- 1.2.5. Expand the network of **express transit** connections that are direct, make limited stops, and are fast, in order to provide convenient and competitive travel times compared to driving over longer distances.
  - a. Develop a network of dedicated Express routes throughout Metro Vancouver, including on regional or provincial highways. Express and interregional services (delivered primarily by buses, including automated buses eventually) travelling in dedicated lanes — and supported by other transit priority measures — will be faster and more competitive with private vehicles.
  - Provide transit connections between Metro Vancouver and the Fraser Valley, Sea to Sky corridor, Sunshine Coast, Vancouver Island, and Washington state that are seamlessly integrated, accessible, and convenient.
  - c. Maintain and enhance existing heavy passenger rail service by supporting investments that could increase freight and passenger rail reliability, including additional capacity and span of service along existing and potential future passenger rail corridors.
  - d. Protect future opportunities to expand interregional heavy passenger rail service by protecting or securing access rights to existing and future rail corridors, while protecting capacity for existing and future freight rail service needs.
  - e. Support planning for a potential high-speed passenger rail service between British Columbia, Washington, and Oregon; ensuring that stations are located in Urban Centres and fully integrated with the region's Major Transit Network; and that any investments in rights-of-way and infrastructure also help to advance regional rapid transit and passenger rail objectives.
  - f. Encourage and enable passenger-only ferry services that provide more direct access and connectivity between high-demand locations within the region and destinations beyond Metro Vancouver.
  - g. Work with the emerging urban air transit sector to ensure that the operation of any urban air transit services within Metro Vancouver are contingent on the industry demonstrating acceptable solutions to this region's key concerns relating to equitable and affordable access, noise, emissions, energy consumption, safety, and livability.



# Strategy 1.3: Make it convenient for all households to make the occasional car trip without needing to own a car.

The ambitious land use planning and transportation actions set out in Metro 2050 and Transport 2050 will enable significant strides in making transit the preferred choice for most longer trips, and walking, rolling, or cycling the preferred choice for most shorter trips. However, there will always be trips that can't conveniently be made by active transport or transit.

For some people, automobiles play an occasional role rather than a daily role — carrying groceries, the airport trip with lots of luggage, or the trip to buy new furniture or to visit a trail. Faced with the occasional need for an automobile, nearly 25% of households in Metro Vancouver in this situation still choose to own a car.<sup>10</sup> For this, they need to incur the hassle and expense of car depreciation, parking, maintenance, and insurance, simply for occasional use. Supporting the expansion of shared-use autos (carsharing, taxis, ride-hailing, rental agencies) helps provide more ways for people to conveniently make the occasional car trip without needing to own a car.

### **Actions**

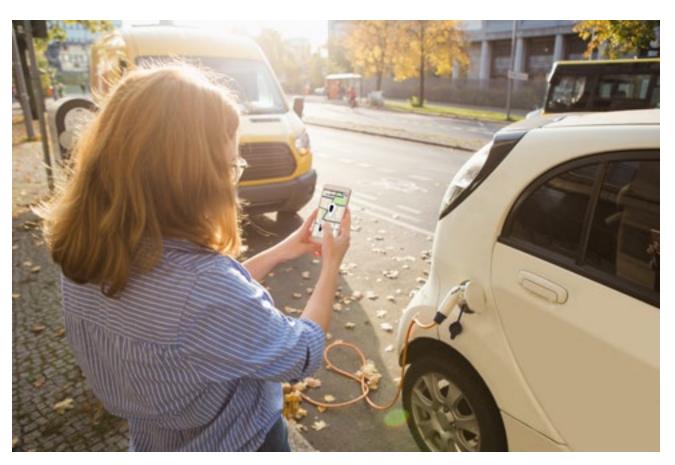
- 1.3.1. Take an integrated and consistent approach to **managing taxis and ride-hailing** services within the South Coast region, ensuring a sufficient supply of passengerdirected vehicles to accommodate growing demand.
- 1.3.2. Use regulations, incentives, and direct public sector investment to support the rapid scaling and growth of **one-way and two-way carsharing services** in all parts of the urban area within Metro Vancouver.
- 1.3.3. Provide a sufficient supply of **dedicated parking and charging infrastructure for** shared vehicles at dynamically managed curbsides in Urban Centres and Frequent Transit Development Areas; at transit stops and stations; in new and existing civic and community facilities, multi-family residential buildings, and commercial buildings; and at key destinations for accessing nature.
- 1.3.4. Use regulations and public investment to prioritize a rapid and near-term transition to zero-emission carshare vehicles, taxis, and ride-hail vehicles, all of which are driven more kilometres per year than the average personally owned vehicle.

<sup>10</sup> "2017 Trip Diary", TransLink, December 21, 2021, https://public.tableau.com/app/profile/translink/viz/ Trip\_Diary\_2017/TripDiary2017.

### 1.3.5. Use pricing, regulations, and public investment to:

- a. Encourage the rollout of automated vehicles in this region primarily as shared or publicly accessible vehicles, rather than primarily as personally owned vehicles, in order to increase access to this technology for people of all incomes. 🚺
- b. Decrease the incidences of deadheading (empty vehicles travelling to pick up next fares).
- c. Increase efficient pooled rides (carpooling) in shared modes.
- d. Support a rapid transition to universally accessible carshare vehicles, taxis, ride-hail vehicles, and eventually robo-taxis (or automated vehicle taxis) so that they are widely available for people with specific disabilities who require them. 🚺

The region is home to many pioneering carsharing and ride-hailing providers; as these vehicles are heavily used, transitioning them to zero emissions is a priority



# Strategy 1.4: Seamlessly connect different transport services both physically and digitally.

Physically locating different transportation choices right next to each other makes all of them more convenient. For example, having a taxi, carshare, or bikeshare waiting for you right where you step off the bus takes some of the stress and friction out of making connections between modes and lets us take advantage of the best that each mode has to offer.

In addition to reducing the need for unnecessary travel, digital tools can enable more seamless travel across modes and services and reduce "pain points" in the transportation experience, both for people and for businesses — especially for trips involving different modes and accessing shared vehicles. This strategy envisions a future where trip planning, booking, and payment for any transport mode or service is seamless — from a single app or phone call. This open, interoperable ecosystem of mobility on-demand services is referred to as Mobility-as-a-Service (MaaS).

Finally, as we become more dependent on digital services for our daily needs, including for transportation, we need to consider that not everyone has access to this technology; we'll need to pay careful attention to policies that promote digital access so that they don't create unforeseen or negative consequences for disadvantaged groups, especially lower-income households.

### Actions

- 1.4.1. Transform all transit stops and stations from neighbourhood bus stops to major terminals — into multimodal **mobility hubs** that enable seamless transfers between different transportation options. Update design guidance for these mobility hubs to specify (based on the surrounding environment and transportation demand) the appropriate mix, scale, and spatial priority for each transportation option, including:
  - a. Walkway connections and public realm amenities, in recognition that good transit access requires a high-quality, supportive pedestrian environment and public realm.
  - b. Bikeway connections.
  - c. Secure and convenient storage facilities that accommodate a variety of micromobility devices.
  - d. Docking stations, hubs, and charging for personal and shared micromobility services.

- e. Priority parking and charging for carshare vehicles.
- f. Pickup and drop-off spots for taxis, ride-hailing, and "kiss and ride".
- g. Parcel lockers to allow convenient pickup of deliveries while transitioning between modes.
- 1.4.2. Support industry and municipalities in the development of **neighbourhood** logistics hubs, where appropriate, to better enable the consolidation of parcels in central locations for pickup by customers or the use of smaller, lighter, emissionsfree freight vehicles for final mile deliveries in low-speed and pedestrianized zones, per Action 5.1.3.
- 1.4.3. Enable the development of integrated **smartphone applications** that allow for trip planning, booking, payment, and customer rewards for all mobility services from a single interface.
  - a. Advance development of an urban data exchange platform, receiving data related to trip planning from transport service providers, and making it available to app providers (see 2.3.4).
  - b. To give customers the best range of choices and services, support an open, interoperable, and competitive Mobility-as-a-Service ecosystem where all mobility service providers are required to make their essential real-time tripplanning, payment, and booking functions available to the urban data trust.
  - c. Provide appropriate user training and ensure low-tech trip planning, booking, and payment options that do not require a smartphone or a credit card remain available, to ensure equitable and resilient access.
- 1.4.4. Work with **digital connectivity** service providers and authorities regulating communications service providers to:
  - a. Enable Wi-Fi and cellular connectivity throughout the service area for ubiquitous internet access and communication services.
  - b. Ensure oversight of digital assets in the region, including establishing costsharing agreements, ownership, and maintenance contracts to ensure longterm viability.

# Map 13: Key "Access to Nature" Destinations

# Access to Nature

What we heard: Through Transport 2050 engagement, we heard that residents of Metro Vancouver highly value this region's natural areas, such as parks and forests.

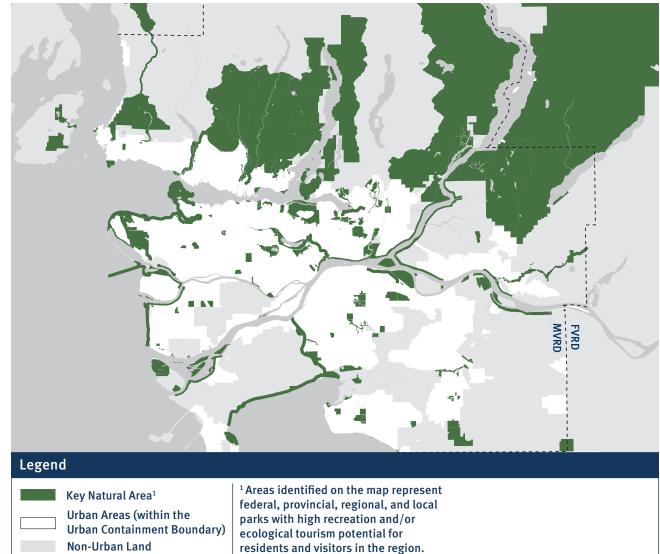
Access today: Currently, just 11 of 22 of Metro Vancouver's Regional Parks are accessible by transit, making them largely out of reach for most people without a personal vehicle. We also know that parking at some key regional and provincial parks is challenging, due to high demand. Ultimately, this is an equity issue, as not being able to access a car shouldn't be a barrier to taking advantage of the spectacular parks and natural areas that are a key attraction of living in Metro Vancouver.

What we are planning: Transport 2050 includes actions that make it easier for everyone to get to our beautiful parks and forests, including the following:

• **Cycling & Micromobility:** Coordinate the implementation of a Regional Cycling Network to provide safe and convenient cycling connections that link up Urban Centres with regionally significant parks and natural areas [Action 1.1.4.b], as well as the provision of secure bike parking and electric charging stations for bicycles and micromobility devices for when people reach their destination [Action 1.1.4.c].

- **Transit:** Make investments and network decisions to support more convenient travel by specifically including parks and natural areas [Action 1.2.2.a]. Recognizing that there are attractive natural areas outside Metro Vancouver, we will work with partners to expand the network of seamless and convenient interregional transit connections to destinations outside our region [Action 1.2.5.].
- **Driving:** Ensure everyone has convenient access to the occasional car trip without needing to own a car, including by providing dedicated parking and electric charging for shared vehicles at key destinations to support accessing nature [Action 1.3.3.].

Where we are planning for: Map 13 (right) highlights these key "access to nature" destinations within the region, from the spectacular North Shore Mountains to the beautiful beaches overlooking the Salish Sea.



Key Natural Area <sup>1</sup> Urban Areas (within the   Urban Containment Boundary)   Non-Urban Land	<sup>1</sup> Areas identified federal, provinci parks with high ecological touris residents and vis
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A key priority of this strategy is to make it easy to access nature with sustainable transportation