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Part 1 of BCFED's Climate Justice and Jobs Plan for BC



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ABOUT THE AUTHOR

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This project is part of the BC Federation of Labour's (BCFED) Climate Justice and Jobs Plan for BC, currently in development with unions and workers throughout BC. The BCFED represents more than 500,000 members of affiliated unions, from more than 1,100 locals, working in every aspect of the BC economy. The BCFED is recognized by the government as a significant advocate for workers in BC, and is committed to ensuring that workers' rights are maintained and strengthened through the necessary economic transitions to a low carbon future. The BCFED is developing and building solutions for climate action and aims to bring the collective strength of the labour movement to this challenge. BCFED's work on climate justice and jobs is guided by three foundational principles: labour-led and worker-centred, evidence-based, and grounded in equity, as the impacts of climate change are not fair, and Indigenous, Black and racialized workers, women and gender-diverse workers, workers with accessibility barriers and other marginalized workers and their communities bear much of the weight of climate impacts.

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EXECUTIVE SUMMARY



British Columbians deserve to be able to get to where they need to go quickly, conveniently and affordably, no matter where in the province they live. And meeting our climate goals demands modern, sustainable, zero-carbon transit — with great service that can offer a compelling alternative to personal cars.

But after years of neglect and privatization, today's transit system is plagued with overcrowding, delays and big gaps in service.

Our current provincial government has made important new transit investments. Now it's time for the next step: a new province-wide vision, uniting local and regional transit into an integrated whole.

Connecting BC is a 10-year public transit investment plan for our province that will:

- Recognize First Nations title and rights
- Make transit affordable, accessible and inclusive
- Move BC toward sustainable, zero-carbon transit
- Eliminate privatization for better wages/benefits for workers and better services for users
- Make riding on transit a great experience
- Use new transit infrastructure and services to shape BC's growth
- Ensure the provincial leadership needed to get it right

The result? Stronger, more vibrant communities. Thousands of well-paying jobs and healthier local economies. And a big step forward toward the goal of a clean BC.

The Plan



1. Connect BC communities everywhere through a new province-wide express bus service. With Greyhound pulling out of BC in 2018, getting around BC by transit can range from impossible to wildly inconvenient, with multiple fares spanning different public and private operators. A province-wide public transit network will improve mobility for people in small towns, rural areas and remote First Nations communities — making it easier to get health care and other services, visit family or go on vacation. And stronger transit connections across BC would have a big impact on tourism.



2. Double the number of buses in BC Transit local services within five years and triple it within ten, for more frequent, reliable local transit services in communities throughout BC. With more regular, extensive services that people know they can rely on, ridership will grow over time as people shift their habits. Targeted, customized services including community shuttle services, on-demand rides, car sharing and bike sharing can supplement fixed routes for the "first/last mile" challenges.



3. Expand HandyDART service province-wide with an upgraded electric fleet. Stop contracting with private companies for services and using taxis instead of buses. Instead, expanding HandyDART — including in small towns, rural and First Nations communities — will bring new minibuses, cars and vans, and new public facilities and maintenance centres to communities across BC.



- **4.** Develop new regional rail connections across the South Coast and Vancouver Island along historic rail corridors, in partnership with First Nations communities along the rail lines. A major investment in regional rail will transform development and travel patterns, and facilitate better connections between regions. These investments include:
 - Building on the proven success of the West Coast Express, expanding it from weekday commuter service to regular daily service, and extending the service area to Abbotsford
 - Repurposing the historic Interurban corridor from Langley to Chilliwack via Abbotsford. Over time, this will reshape development patterns and transportation patterns regionwide, adding denser housing, shops, services and amenities around new transit hubs.
 - Restoring rail service to Prince George via Squamish and Whistler, re-establishing a
 historical connection into the heart of BC's Interior and boosting Prince George as a
 transit hub.
 - Restoring the Vancouver Island Rail Corridor for both passenger and freight services.
- **5.** Add new passenger ferry options between Vancouver, the Gulf Islands, Sunshine Coast and Vancouver Island. Just as roads can't infinitely be expanded to accommodate more cars, BC's ferries have been hamstrung by seeing them almost exclusively as car transportation. New passenger ferries will dramatically increase capacity for BC Ferries at much lower cost, while providing a superior passenger experience.
- **6. Accelerate TransLink's 10-year Access for Everyone plan for Metro Vancouver.** With more than half of BC's population, Metro Vancouver is a critical hub for economic activity, post-secondary education, research and development, tourism and culture in BC. Rolling out most investments in TransLink's plan over the next five years instead of 10 will help clear congestion and begin shifting housing and other development. And it will set the stage for implementing next-level rapid transit options across the region, such as Burrard Inlet Rapid Transit, LRT in Surrey, and new routes along Hastings Street and 41st/49th Avenues in Vancouver.
- **7. Expand existing free transit programs to youth aged 13 to 18.** This will help young British Columbians develop the habit of using transit, a crucial cultural change in shifting transportation patterns. Free transit programs should also expand to cover people on social assistance who are not already included in the BC Bus Pass program.
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- **8.** Integrate all these transit pieces into a seamless, coordinated and coherent transit experience with one-ticket access and synchronized service and information infrastructure, so riders can make connections efficiently and reliably across systems and get the updates they need for their whole trip quickly and easily.

Building a cleaner, brighter future for BC communities



Great jobs:

The investments in this plan will have a major impact on jobs, creating:

- An average of 16,800 jobs per year in construction of public transit infrastructure projects, such as a new rapid transit bridge across Burrard Inlet, electric bus charging terminals, and multiple bus, rail and ferry terminals and stations
- An average of 23,700 jobs per year in operations, including drivers, supervisors, mechanics, maintenance crews, security and more.

Pathways into these jobs will be prioritied for those traditionally under-represented in the trades, including Indigenous and racialized workers, and women and gender diverse people. And because the plan will bring thousands of workers who are currently contracted out or working for private transportation companies back under the public umbrella, it will upgrade those jobs with higher wages and better benefits and working conditions.



Stronger, healthier communities:

Those effects will ripple through the economy, raising GDP and employment. And there will be wideranging social, economic and environmental benefits. By making transit more available in more communities, this plan will help increase affordability. It will reduce travel times for all — including freight and private vehicles — while lowering health care costs and improving air quality.



Smarter growth:

BC's expanded transit network will reshape development patterns, orienting them toward transit and increasing density. It will spur the transition of suburban areas into more complete communities and help revitalize town centres.



A cleaner province:

These investments are central to dramatically reducing the one-third of BC's greenhouse gas emissions that come from transportation.

THE INVESTMENT

This plan requires:

- \$15.4 billion over 10 years to improve the frequency, speed and reliability of existing transit and introduce new services to build a province-wide network, and
- An accelerated \$6.8 billion in funding already promised by the BC government for transit projects in Metro Vancouver.

By comparison, the BC government spends more than \$4 billion per year on transportation capital spending (including roads and transit) alone. There is \$9 billion in highway projects (spanning multiple years) on the BC Budget docket, plus about \$650 million per year for other maintenance and operation of roads and bridges.

Non-transit spending — highways, bridges and tunnels — is fully funded by the BC government. As this plan's transit investment will relieve pressure on that infrastructure, a large portion of the plan could be funded by repurposing some of that budget.

Finally, our plan calls on the BC government to increase its annual subsidy to all transit services in BC from \$350 million today to \$1.5 billion at the end of the plan's 10-year scope.

British Columbia can accomplish a full transformation of public transit and transportation province-wide within one decade. And with it will come greater access to education, health care and employment, stronger public sector jobs, lower carbon emissions and healthier British Columbians.

Let's not keep BC riders waiting. It's time to invest in the transit British Columbians deserve.

TIME FOR A NEW PUBLIC TRANSIT PLAN



This report envisions a major upgrade of the public transit experience in BC towards a new integrated, accessible, affordable transit system that connects people within and between communities throughout the province. Imagine being able to get from almost anywhere in BC to anywhere else on public transit, as one might in Europe or Asia. Or visitors landing at Vancouver airport and being able to get seamlessly around the province without the need to rent a car.

BC needs a province-wide vision for zero-carbon transportation that thinks beyond personal automobiles as the preferred means of getting around. Many people cannot drive, including youth, some seniors and people with disabilities or ill health, or cannot afford or choose not to drive. For a large share of the population, the mobility provided by public transit is a lifeline. Public transit is thus central to transportation justice by connecting people with jobs, school, health care, recreation, shops and other amenities and activities.

The last Provincial Transit Plan, published in 2008, was remarkably short on detailed content but nonetheless promised \$14 billion by 2020 for new rapid transit.¹ The plan aimed to double transit ridership and increase transit use compared to other forms of transportation (transit mode share), and was linked to new climate action initiatives to cut greenhouse gas emissions. Much of that plan has since been implemented, although some pieces are only now under construction, and others incomplete (Skytrain to UBC, for example). BC now needs a new plan.

Many of BC's growth and settlement patterns have occurred in the era of the automobile, with many cities and communities designed around having a car. As a result, driving has major advantages of speed, comfort and convenience in many parts of BC relative to any other available option. In Metro Vancouver and larger urban centres, congestion is now a serious challenge. In other parts of BC, basic mobility can be extremely challenging if not impossible without a private vehicle. The pull-out of Greyhound bus services in 2018 is still being felt with major gaps in inter-community coverage across BC (notwithstanding a new but limited BC Bus North service).

A new investment plan should significantly increase local transit services across the province and connect those parts together into a more integrated whole. To facilitate a major shift in trips to transit, the public transit experience must be accessible, convenient, reliable and affordable relative to a trip by car. Investments in high-quality public transit will induce new demand enabling residents to go car-free or at least own fewer vehicles, saving between \$6,000 and \$10,000 in costs per vehicle annually.² While transit cannot replace the advantage cars have for some trips, it is possible, with improved service, to make transit a viable option for most people, most of the time.

This report proposes to build a province-wide network via a ten-year, \$15.4 billion expansion plan to improve the frequency, speed and reliability of existing transit, and introduce new services where options are very limited or none currently exist. In addition, the plan accelerates

Investments in high-quality public transit will enable residents to go car-free or at least own fewer vehicles, saving between \$6,000 and \$10,000 in costs per vehicle annually.

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The employment impact of this investment is substantial: creating an average of 16,800 jobs per year in construction and 23,700 jobs per year in operations.

\$6.8 billion in already-promised funding from the BC government to TransLink for a total capital investment plan of \$22.2 billion over the decade.

The employment impact of this investment is substantial: creating an average of 16,800 jobs per year in construction of new rapid transit, electric bus charging terminals, and multiple bus, rail and ferry terminals and stations; and 23,700 jobs per year in operations, including drivers, supervisors, mechanics, maintenance crews, security and more. Moreover, the plan would achieve better wages and benefits for workers currently contracted out by BC Transit and other agencies, or who work for private transportation companies. There is also an opportunity to link these public investments to secure pathways into these jobs for groups who are traditionally underrepresented in the skilled trades sector, such as Indigenous and racialized workers, and women and gender diverse people.

First, this report details the key principles guiding our public transit plan. Then the proposal outlines the major pieces, starting with building and strengthening transit between and within BC communities, moving to connections across the South Coast and Vancouver Island, and then to Metro Vancouver. Total capital and operating costs of the investment plan are then compared to other transportation investments, and we consider the economic, employment and other benefits associated with the plan.

TRANSIT SYSTEM PRINCIPLES =



Public transit investments have many positive social effects, including increased convenience, speed and comfort for transit users as well as societal benefits, such as improved road safety, reduced pollution, better public health, and land use and economic development opportunities.³ A number of principles shape our vision of public transit and the resulting investment plan so that transit can be a viable alternative to the car for most people most of the time, including those in remote communities. Central to all of this is strong leadership from the BC government to oversee the expansion of new services and infrastructure, and coordination across the key transportation players in BC: TransLink in Metro Vancouver, BC Transit in the rest of BC, and BC Ferries.

Recognizing First Nations title and rights

BC was forged out of transportation investments in rail that neglected the title and rights of First Nations. This includes the Canadian Pacific Railway connecting the province to the rest of Canada in the late 1800s, the Vancouver Island and BC Rail lines we discuss below, and many other rail lines that have since been discontinued. All of these were implemented in a time without consideration or consent of Indigenous peoples, leading to loss of land, economic insecurity and other significant adverse impacts of colonization. Further, many of BC's existing transportation networks follow historic First Nations trails without benefit to those communities as they were displaced away from hubs to remote reserves.

Transit investment and development must thus be founded on the recognition of First Nations' inherent title and rights, and guided by First Nations government's sovereignty and self-determination where their lands may be affected by developments. Under the BC Declaration on the Rights of Indigenous Peoples Act, First Nations should have opportunities for leadership and shared decision-making with the BC government in building out this expanded public transit system. This includes but is not limited to ensuring free, prior and informed consent for BC First Nations.

The lack of adequate transit options is a significant safety issue for rural, remote and First Nations communities. Calls for adequate and affordable transportation for safety and cultural connection have come from many Indigenous groups and reports, such as the National Inquiry into Missing and Murdered Indigenous Women and Girls Calls for Justice,⁴ Highway of Tears Symposium Recommendations,⁵ Native Women's Association of Canada Poverty Reduction Strategy⁶ and the Union of BC Indian Chiefs (UBCIC).⁷ The benefits of improved public transit include reduced exposure to violence while hitchhiking, as well as reduced injuries and deaths from crashes.

BC First Nations have already started this important work, and this proposal amplifies these First Nations-led initiatives. The First Nations Leadership Council endorsed the BC First Nations Climate Strategy and Action Plan⁸ in 2022, and this plan includes targeted actions to achieve clean transportation with First Nations. Under that mandate, the BC Assembly of First Nations has launched a Low-Carbon Transportation Project, which aims to assess "gaps and opportunities that restrict and assist First Nations in BC to access equitable, safe,

Transit investment and development must be founded on the recognition of First Nations' inherent title and rights, and guided by First Nation government's sovereignty and selfdetermination.



reliable, and affordable low-carbon transportation and transportation services," partly through pilot projects in diverse First Nations communities in BC, and to provide recommendations to advance these goals. New investments must implement these recommendations and improve the mobility options of Indigenous people and communities.

Ensure transit is affordable, accessible and inclusive

The core ridership for transit includes many people who do not have the option of driving or would prefer not to drive, including students and youth, migrant workers, some seniors and low-income workers. According to transportation researcher Nate Wallace, "racialized Canadians account for just over one-quarter (26.5 per cent) of all employed workers, but account for 56.3 per cent of all commuters who get to work by public transit." Public transit investments are thus central to transportation and racial justice as well as being an economic driver.

Public transit must thus be affordable, accessible and inclusive for everyone, including different ages, genders, (dis) abilities, racial and cultural backgrounds, languages, and religions.

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BC's population is ageing, and accessible options will be needed even more in the future. This includes the on-board accessibility in conventional transit vehicles, as well as infrastructure at stops and stations to improve comfort year-round (averting exposure to extreme cold and heat, and providing washrooms). BC seniors are more reliant on public transit to attend health appointments, go to classes, shop and participate in community activities, but seniors rarely travel during peak transportation hours.

different ages, genders, (dis) abilities, racial and cultural backgrounds, languages, and religions. This also includes accessibility within custom services (HandyDART) that are under-resourced relative to demand, making it unreliable for riders. The benefits of public investment can be seen in BC Transit and TransLink accessibility criteria for transit vehicles and stations/stops as part of planning processes, something that is not generally available for private bus, shuttle and taxi services.

Push towards sustainable, zero-carbon transit

One-sixth of greenhouse gas (GHG) emissions in BC come from passenger transportation (not counting freight transport) so transit investments are central to dramatically reducing our GHG emissions. BC climate policy to date has largely supported the electrification of transportation through gradually introducing low- and zero-emission private vehicles. New federal and provincial funding is likewise aiding the conversion of bus fleets to low- or zero-emission. There is also a general GHG improvement from increasing shared rides on transit, even if fossil-fuel-powered, compared to the same trip in a private vehicle.

A forthcoming BC Clean Transportation Action Plan needs to go beyond electric vehicles towards new public transit investments to induce major shifts to less GHG-intensive modes. This would help the BC government reach its target of reducing light-duty vehicle kilometres traveled (VKT) by 25% by 2030 and increasing the share of trips by walking, cycling and transit by 30%. A co-benefit is making BC more secure relative to external shocks, in particular spikes in oil prices and gouging behaviour from oil and gas companies.¹¹



Picture: Double-articulated electric bus. Austria

Much of the heavy lifting can come at much less cost through the expansion of low-emission buses, if given priority on roads and highways, along with other supportive physical and information infrastructure (bus shelters with real-time info on next buses, rapid boarding through multiple doors, etc.) to improve the quality of the transit experience. Well planned reallocation of road space to transit lanes results in "traffic evaporation" (reduced VKT regionwide) often without any significant increase in automobile travel time.¹² Over time, these routes can be substituted with higher-capacity (and more expensive) rail rapid transit.

TransLink's fleet has long included trolley buses running on overhead wires, a technology that could be more widely deployed in upgraded fashion around the province. As transportation researcher Eric Doherty comments: "Transit agencies around the world are now using existing trolleybus wires and installing new wire for electric buses that also have battery capacity to operate for substantial distances off-wire." In addition, modern double-articulated buses (three segments, see figure) close the capacity gap relative to Light Rail Transit (LRT) systems, allowing faster multiple-door boarding, but without the limitations posed by fixed rails.

Eliminate privatization for better wages/benefits for workers and better services for users

Transit investments in BC can achieve justice for workers by eliminating privatization in the public system. In Metro Vancouver, TransLink operates a highly-unionized conventional transit system and, in Victoria, BC Transit operates the transit system. In a few places, transit service is operated by the local government (Nanaimo, Nelson, Sunshine Coast Regional District). Elsewhere, BC Transit contracts out to private sector operators where workers receive lower

pay and few benefits. In addition, both BC Transit and TransLink contract out for HandyDART services, and these contractors have been using private taxis to meet some of the growing demand for HandyDART.¹⁴

This inevitably means reduced wages and benefits for workers in order to boost company profits. In the past few years, several transit strikes have highlighted the challenges for workers in contracted-out positions who are negotiating with a multinational company but whose settlements will ultimately be paid by BC Transit. A 2022 strike by workers in the Sea-to-Sky region seeking to close a \$4-5 per-hour pay gap with comparable workers at TransLink's Coast Mountain Bus Company lasted 136 days and had disruptive impacts for workers and those using transit in Squamish and Whistler. A strike in Kelowna with the same private operator disrupted services in 2022, with the union seeking to return transit service to BC Transit. And in 2023, a long transit strike in the Fraser Valley affected the communities of Abbotsford, Mission, Agassiz-Harrison, Chilliwack and Hope.

A better-funded public system can bring these jobs fully into the public sector to achieve better wages and working conditions for workers by cutting out the profits going to multinational companies. In addition, bringing work back within the public sector will make it easier to improve and revise services and electrify the fleet without depending on a private contractor to implement the changes. A more coherent public system with greater efficiencies and economies of scale will also address problems with attracting and retaining workers. This must apply to existing and new routes proposed in this plan, whether it's bus, rail or ferry routes.

For inter-community travel, private services are currently an unreliable patchwork. On Vancouver Island, private services launched to take up the slack from the Greyhound departure in 2018 have failed to provide adequate service. Between January and May 2023, Wilson's Transportation suspended service of the Tofino bus (connecting to Victoria via other cities along the route) and the Vancouver Island Connector (between Nanaimo and Campbell River). These private decisions based on profitability have public consequences and are not compatible with the public policy objective to provide consistent mobility options for those who cannot drive.

The expansion of a BC-wide public transit system is thus an excellent opportunity to eliminate privatization. There is also a further opportunity to link public investment to public benefits through project labour agreements on infrastructure construction. As noted by the BC Building Trades, "local infrastructure projects should provide a greater benefit to local communities than just the project on the blueprint. Through Project Labour Agreements (PLAs), these taxpayer-funded projects can secure work, skills training and fair wages to qualified local residents and groups who are traditionally underrepresented in the skilled trades sector, such as apprentices, Indigenous workers and women in trades." ¹⁹

Make transit a high-quality experience

In most urban areas of BC, transit service is available but requires upgrades in service to be reliable for many trips. Ultimately, people will use transit over cars if it can get them where

A betterfunded public system can bring jobs fully into the public sector to achieve better wages and working conditions for workers by cutting out the profits going to multinational companies.

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and when they need to go, if they can count on it being there, and if it makes good use of time and money. A high-quality public transit experience should be reliable and frequent to reduce the convenience gap with private cars, and be safe, secure and comfortable (not excessively crammed, but also including Wi-Fi connections, for example).

Transportation economist Todd Litman argues that there is considerable latent demand for high-quality transit: "Although few motorists want to give up driving altogether, surveys indicate that many people would prefer to drive less, rely more on active and public transport, and live in more walkable and transit-oriented communities, provided that they are convenient, comfortable and affordable." To get there requires upfront investment in new infrastructure and services in order to expand capacity and frequency of service, so that people do not have long to wait for the next ride.

In addition to new capacity, reallocation of public road space towards transit is needed in busy areas so that transit can move quickly on exclusive rights of way by not competing with cars for road space. Major improvements in transit service quality could be made at relatively low cost through more dedicated lanes for transit so that trip times are better than cars. Other investments can contribute to a better transit experience, such as online information systems for routes and schedules, and dedicated transit stops with shelters and real-time "next bus" displays. Major transit hubs as well as long-distance coaches should have inclusive washroom facilities accessible to the public.

Use new transit infrastructure and services to shape growth

Transit investments can reshape development patterns across the province, transitioning suburban areas into more complete communities, and revitalizing town centres. It is well-known that transit investments increase land values and promote greater efficiency and productivity and can lead to urban development that is much more inherently low-carbon by eliminating the dependence on car ownership.

Transit investments go hand-in-hand with new provincial housing targets at the local level, creating a context for shaping population growth, allowing seniors to age in place, and families to have more diverse housing options around the province. The BC government passed legislation in 2023 to permit higher-density housing and remove parking minimum requirements for 104 designated transit-oriented development (TOD) areas around the province. Ensuring that housing options near transit hubs are accessible and affordable for diverse income groups through dedicated non-market rental options will be needed as these TOD areas develop.

The BC government can reinforce these patterns through strategic public investments and services, including health care, seniors' residential care, education and so forth. The Ministry of Transportation and Infrastructure (MOTI) owns property/land that could be used to support integrated housing and transit projects, and MOTI has capacity to acquire land for transit-oriented development. In Metro Vancouver, TransLink has also started to explore real estate development adjacent to transit stations or hubs. ²²

Provide necessary BC government leadership

The BC government needs to bottom-line transit investments and take the lead in negotiating with private railways, local, regional and First Nations governments. Only the BC government can address the legal and regulatory challenges posed by some new transit services and investments, particularly when trips/services cross jurisdictional boundaries. In many communities, lack of transit reflects the auto-oriented biases of its local government partners and planning for meaningful expansion needs a strong push from the BC government. The BC government can also promote dedicated bus lanes and infrastructure at the local level if needed.

Planning for meaningful expansion needs a strong push from the BC government.

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Advanced planning work through BC Transit includes a series of Future Transit Action Plans, looking forward 25 years, which were initially developed towards the 2008 Provincial Transit Plan, and many have been updated in recent years. Developed between BC Transit and local governments, these plans include baseline ridership statistics and estimates of additional service hours, new buses and future ridership, and are grounded in engineering studies and public and local government participation.

Unfortunately, BC Transit's current 2020-2025 Strategic Plan is only a high-level descriptive document that does not provide any targets and timelines for service expansion (ridership, service hours, or mode share).²³ Nor does BC Transit's 2023/24 three-year service plan seem to be planning for any growth of transit services (more emphasis is on converting its fleet to low-carbon buses).²⁴ With clear direction and multi-year funding commitments from the BC government, BC Transit's role in delivering on much-needed investments to expand and improve transit services across the province can be leveraged.

While this paper does not get into these issues, there is a role for the BC government in reviewing Translink's, BC Transit's, and BC Ferries' governance structures to maximize responsive and efficient decision making, and support a fully integrated system across the province.

TRANSIT INVESTMENT PLAN=



This section outlines key investments needed over the next decade in order to build out the transit network in BC. In the next section we consider costs and benefits associated with the plan.

Plan summary:



1. Implement a new BC-wide, inter-community express bus service to connect communities throughout the province.



2. Double the number of buses in BC Transit local services within five years, and triple them within the full ten-year timeframe, to provide frequent and reliable services within communities throughout BC.



3. Expand HandyDART service province-wide with an upgraded electric fleet to meet new provincial standards.



4. Develop new regional rail connections across the South Coast and Vancouver Island, including restoring service on rail lines in the Fraser Valley, Vancouver to Prince George via Squamish, and from Victoria to Comox.



Add new passenger ferry options from Vancouver to the Gulf Islands, Sunshine Coast and Vancouver Island.



6. In Metro Vancouver, accelerate provincial investments for TransLink's 10-year Access for Everyone plan, with most investments rolling out in the next five years. Then implement next-level rapid transit options across the region.



7. Expand existing free transit programs to youth 13-18, to provide an early boost for the cultural shift to increased transit use, as well as those on social assistance not already included in the BC Bus Pass program.



8. Connect all these transit pieces into a coordinated and coherent transit experience with one-ticket access, synchronized services and associated information infrastructure.

One notable connection we do not include in our plan is Vancouver connecting to Seattle, Portland and California via high-speed rail, despite the announcement in December 2023 that the US government is funding planning efforts.²⁵ While we would endorse such a

project, this development is likely beyond the decade of investments we propose and it would undoubtedly substantially involve the federal government. Leaving high-speed rail to the US off the table allows us to think more about the transit system we want within BC.

1. BC-wide, inter-community transit

Getting around BC by transit is, at best, limited and inconvenient, and can entail multiple trips/fares spanning different private operators. In addition to private bus services, VIA Rail continues to run service to Vancouver via Prince George two to three times per week, and between Prince Rupert to Jasper via Prince George, stopping at many smaller centres, three days per week. Also, although not technically public transit, Health Connections buses in the Interior and North provide access for health care appointments.

Public transit solutions would improve mobility for people in small towns, rural areas, and remote First Nations communities to get health and other services.

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Public transit solutions would improve mobility for people in small towns, rural areas and remote First Nations communities to get health and other services, while also linking urban residents for visits to smaller communities to visit family or go on vacation. Stronger transit connections across BC would also have a big impact on tourism and economic development would be boosted by such investments, as noted by a 2023 study of transportation in the north: "Lack of service impedes economic development and access to jobs, schools and local/regional economies. Many ground-transportation services collapsed during the COVID-19 pandemic and these transportation-related jobs are yet to be revived despite increasing demand, often related to lack of licensed drivers." ²⁶

While BC Transit has some regional routes already, for the most part, inter-regional or intercommunity transit is conducted through a patchwork of private bus services. BC Transit's role in express, inter-regional/inter-community coaches and buses could be greatly expanded towards a more coherent province-wide network.²⁷ This requires change to its governance model to span across the various local governments, regional districts and First Nations governments affected. This is also an opportunity for new public sector jobs and to ensure decent work within the public transit system. A province-wide network can build on recent efforts. With the pull out of Greyhound in 2018, the BC government set up BC Bus North, which is coordinated by the Northern Development Initiative Trust. It is a relatively small, privately-operated service with four routes providing one-to-two round-trips per week and serving 5,622 passengers in 2019 (pre-COVID-19, only 3,889 in 2021).²⁸ A 2021 grant from the federal and BC governments to Northern Development for \$7.9 million is intended to sustain and enhance transportation services from April 2022 through to March 2025,²⁹ but much more is needed.

A public transit solution with dedicated regional and inter-community buses starting with at least three-to-five round trips per day could service key corridors, including filling transit gaps in the North (Prince George to Prince Rupert, Prince George to Fort St John, the Stewart-Cassiar highway, Williams Lake to Bella Coola), the Kootenays, Sunshine Coast and Vancouver Island, as well as express connections to Kelowna, Kamloops and Prince George from Metro Vancouver. For these longer trips, coaches would include amenities such as washrooms, Wi-Fi, reclining seats and other comfort measures.

Cost: Fleet of 300 vehicles plus transit stops/shelters and charging infrastructure, \$1.5 billion. Annual operating subsidy \$100 million including amounts towards better wages and benefits for previously-outsourced workers.

2. Double (then triple) buses in BC Transit local/regional services

Transit Future Action Plans at the local level, developed in partnership with BC Transit, provide the blueprints for new routes and additional buses to boost ridership, service hours and transit mode share. These plans, as well as First Nations low-carbon transportation plans, are a good starting point for a more aggressive transit vision with an emphasis on providing more frequent and reliable service that is interconnected with the region and province. Accelerating these plans means getting out ahead with new buses and more regular dedicated services, allowing ridership to grow over time as people change their habits and feel they can rely on new services for their needs.

VISION OF INTER-REGIONAL AND REGIONAL/LOCAL CONNECTIONS IN SOUTHERN INTERIOR TO PRINCE GEORGE, WILLIAMS LAKE. 100 MILE HOUSE **BLUE RIVER** CLEARWATER REVELSTOKE **SUN PEAKS GOLDEN** EAGLE BAY **DALLAS** SALMON ARM AMLOOPS ENDERRY **ARGENTA INVERMERE NAKUSP** VERNON

EDGEWOOD

CASTLEGAR

CANAL ELKFORD

CRANBROOK

TO CALGARY

KASLO

NELSON

KIMBERLEY

CRESTON

Source: BC Southern Interior Regional Ground Transportation Study

MERRITT

HOPE

 ${\it Maps \ are \ for \ illustrative \ purposes \ only, \ not \ intended \ to \ identify \ specific \ routes \ and \ destinations.}$

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Conventional transit forms can also be supplemented by targeted, more customized services rather than fixed routes for the "first/last mile" challenges, including community shuttle services, on-demand rides, car sharing and bike sharing. Leading public examples of this are Kansas City's RideKC Freedom On-Demand service and Seattle's Metro Flex, both of which are app-based, ride-hailing services with connections to transit stops. Seattle's model also provides corner-to-corner (as opposed to door-to-door) with its service area using minivans and includes wheelchair accessible vehicles.³⁰ Kansas City's model is linked to taxis and was rooted in services for people with disabilities but has since expanded it to everyone.³¹ Translink is exploring options like this, in part, to support workers on night shifts or in industrial areas poorly served by traditional transit.

-66 *Improved* public transport options in rural areas would also have significant safety benefits by providing a safer option to hitchhiking and, in the face of extreme weather threats like wildfires, a means of evacuation.

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Some BC success stories could be replicated in other parts of BC. Supplementary services on the Sunshine Coast, for example, include Coastal Rides ride hailing and Coast Car Co-op car sharing. In the City of Vancouver, bike sharing and car sharing options also show the potential of complementary services. Better integration of all these services within a public framework and from a passenger perspective (apps, information systems, ticketing and connections) would greatly enhance the transit experience.

Outside the major centres, transit services are under-developed. The recent Southern Interior Regional Ground Transportation Study flagged the infrequency and inaccessibility of services as a major barrier, as people will not use services that do not meet their needs (medical appointments are a key area). The report also notes significant opportunities for inter-regional transit linked to improved local and regional connections, as well as improving transit connections to airports. In the Okanagan and Kootenays where there are many small, dispersed communities, regional/local services could significantly improve mobility options. The northern half of BC is particularly poorly served by transit options due to its relatively small population base stretched over a very large area. Northern Development runs 17 community shuttles and a major service connecting people with health needs is the Northern Health Bus. While the Northern Health Bus is a vital linkage for people who have medical needs, it is widely seen as not reliable for making a trip to an appointment and back. A 2023 transportation study for the Northern Development Initiative Trust found that service is inadequate:

In many instances, frequency is poor, and scheduling is disjointed, resulting in challenges meeting appointments or returning home. Often, people are forced to stay overnight in hotels while waiting for the next service which has significant financial implications. In some instances, people are unable to access medical services at all due to a lack of transportation options in their community, therefore they remain untreated for significant periods of time.³²

This is clearly a situation that would benefit from a more coherent public transit solution that could maintain regular service. Smaller communities, including many First Nations communities, need accessible and inclusive regional transit options to connect people to jobs, school, medical appointments and family visits. Improved public transport options in rural areas would also have significant safety benefits by providing a safer option to hitchhiking and,

in the face of extreme weather threats like wildfires, a means of evacuation. Linking transit plans and local, including First Nations, land use and transportation plans can include other supportive infrastructure such as new or improved transit exchanges, as well as passenger shelters and amenities at transit stops.

These investments are central to justice and safety. BC's Highway 16 became notoriously known as the "highway of tears" after numerous Indigenous women and girls were murdered or missing.³³ The first recommendation of the Highway of Tears Symposium Recommendation Report was to establish an affordable bus service so low-income people would not have to hitchhike to travel. In response, the BC government expanded BC Transit services on four routes in 2017, and provided funding to 12 community transportation services.³⁴ While improved, these fall short of the Highway of Tears Symposium recommendation that a "shuttle bus transportation system be established between each town and city located along the entire length of Highway 16" with seven buses and a "focus on the pickup and drop off of young female passengers at all First Nation communities, towns and cities located along the entire length of the highway between Prince George and Prince Rupert."³⁵

The Northern Development study recommends that BC Transit expand its partnership model with local governments to include First Nations governments and Indigenous communities to co-sponsor needed local and regional transportation services.³⁶ Northern BC features many smaller communities where it may not make sense to have a dedicated bus service, but where expanding the capacity and reach of community shuttles could provide more accessible and affordable transportation options for residents.

Capital costs: Total capital costs of \$3.8 billion to introduce 2,000 new vehicles of various sizes (from buses to community shuttles and vans), plus charging upgrades and upgraded transit stops and hubs.³⁷ Operating costs will require an additional provincial operating subsidy to BC Transit (see next section).

3. Expand HandyDART services

HandyDART is an accessible door-to-door transit service using vans or small buses to transport people with disabilities or senior passengers who face barriers in accessing the regular transit system. This service is available from both TransLink in Metro Vancouver and through BC Transit in 20 other communities.³⁸

Private contracts are used for the operations of HandyDART, with almost one-quarter of trips (23%) in 2023 being met by taxis instead of HandyDART vehicles.³⁹ Increased taxi use negatively impacts HandyDART users and caregivers; and while rider injury rates from taxi use are not reported by TransLink, riders have long complained about serious safety problems with the use of taxis over trained, experienced HandyDART drivers. Private operators have also had challenges in attracting and retaining workers, which translates publicly into lost opportunities to improve services through workers' knowledge and experience.⁴⁰ As transportation researcher Eric Doherty comments in an analysis of HandyDART in Metro Vancouver:

Over the last few years, TransLink's HandyDART operations have been in the hands of four different corporations. TransLink terminated their contract [with] US based MV Transportation group (MVT Canadian Bus) and entered into a contract with UK-based FirstGroup in 2017. This transfer was controlled by TransLink, but nevertheless caused considerable disruption. However, in 2021, EQT AB of Sweden bought out FirstGroup's North American operations and subsequently separated the transit and school bus operations. In 2022 EQT sold the division that operates HandyDART for TransLink to Transdev, which is headquartered in France. ... Every time a new contractor takes over, years of efficiency gains are lost as new management implements new procedures. Employee morale suffers along with efficiency, quality of service, and workplace health & safety. 41

Expansion of HandyDART across BC including in small towns, rural and First Nations communities would include new minibuses, cars and vans, new public facilities and maintenance centres, and require ongoing provincial operating funding support. As a future initiative, BC should explore better coordination of purchasing and other operations, standardization of quality training and service and bulk purchasing of vehicles. In addition, concession fares and the BC Bus Pass should apply to HandyDART services as paying regular, adult fare is a significant barrier for low-income seniors and those on disability assistance.

Costs: Capital expenditures for 400 new vehicles would be about \$200 million. Operating costs are estimated in the next section as part of the broader purchase of new buses and vehicles. Additional amounts would support better wages and benefits for workers who are currently contracted out.

4. Regional rail in the South Coast and Vancouver Island

Both the Fraser Valley and Southern Vancouver Island are extremely auto-dependent and in need of significant transit upgrades to better connect people on a regional basis (not just in a commuting context to Vancouver or Victoria). For the South Coast as a whole, there is no coherent planning across BC Transit, TransLink and BC Ferries for more integrated services from a passenger perspective, e.g., through-ticketing from Port Moody to Sechelt.

Regional rail services, like those offered in other large cities, such as GO Transit in Toronto and BART in the San Francisco Bay Area, could be further developed quickly and affordably by reclaiming the public right-of-way for passenger rail on historic railway corridors. Metro Vancouver is already highly integrated with the rest of the South Coast and Vancouver Island but currently, transit connections run up against jurisdictional issues, as TransLink's service area borders the Fraser Valley Regional District (RD), the Squamish-Lillooet RD and the Sunshine Coast RD, each of which is serviced by BC Transit but are considered separate systems for planning purposes.

Regional rail investments would reshape regional development and travel patterns, and facilitate better regional connections. Each is feasible in the second half of a ten-year plan, but

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Regional rail services, like those offered in other large cities, could be further developed quickly and affordably by reclaiming the public right-of-way for passenger rail on historic railway corridors.

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also pose their own unique challenges with private rail companies, local governments and First Nations so each connection must be considered in meaningful partnerships.

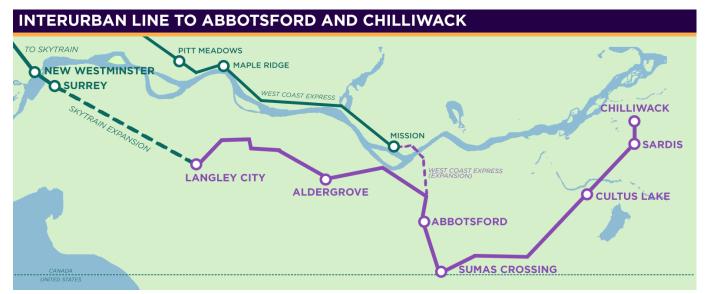
Expanded express bus service, along with dedicated highway lanes where possible, should be launched in the short-term while rail projects are being considered in detail. However, if the BC government made delivering on these lines a priority, new services could be brought online within our decade-long timeframe (additional planning and engineering work would need to be expedited and completed).

West Coast Express expansion

The West Coast Express (WCE) commuter rail service runs five trains per day travelling westbound to Downtown Vancouver on weekday mornings. Trains sit idle downtown until their return journeys eastbound back to Mission in the afternoon/evening. Expanding WCE to multiple return trips during weekdays and service on weekends would require little additional capital resources. During the Olympics, WCE substantially expanded service with six additional weekday trips, nine trips on Saturdays and seven on Sundays, thus showing the potential of service expansion.42

The major challenge in expanding WCE is the need for negotiations with Canadian Pacific Railway. However, if the provincial government made this a top priority, a solution could be found. This may require some additional capital expenditure such as double-tracking in a few key locations to facilitate the movement of both freight and passengers.

In addition, the existing commuter-only WCE could be extended from Mission to Abbotsford, as originally planned. This would provide another commuter option that would remove cars from Highway 1 and improve transit connectivity in the Fraser Valley.



Source: https://southfrasercommunityrail.ca/wp-content/uploads/2019/02/Interurban-Map.pdf. Maps are for illustrative purposes only, not intended to identify specific routes and destinations.

Expanded express bus service, along with dedicated highway lanes where possible, should be launched in the short-term.

Cost: No capital cost for using same trains but we allocate \$500 million that could be used to double-track where needed in light of competition from freight traffic. Additional operating costs would be required (see next section).

South Fraser rail

With 350,000 people now living in the Fraser Valley, a strong case can be made for regional rail from Langley Skytrain station to Abbotsford and Chilliwack. The Surrey Langley Skytrain extension (opening 2028) will have an impact on the Fraser Valley as a new connection point linked right to downtown Vancouver. Currently, BC Transit's Fraser Valley Express also provides connection to Lougheed Station in Metro Vancouver, a trip of one-and-a-half hours, with service up to every half hour at peak times. However, congestion on Highway 1 affects travel times.

Congestion for buses will be improved by an expensive process of highway expansion currently underway. A 10-kilometer expansion of Highway 1 in Langley at a cost of \$345 million is in progress and the BC government has approved expansion to Mount Lehman Road in Abbotsford at an additional cost of \$2.3 billion.⁴³ Further planned stages to Chilliwack will also cost several billion dollars, all of which would be fully funded by the BC government. Yet, as past experience shows, adding lanes is at best a short-term fix as new auto-dependent sprawl will fill up those lanes with congestion within a few years' time.

As an alternative concept, a proposed South Fraser Community Rail project would repurpose the historic Interurban Corridor to Chilliwack via Abbotsford. This was originally conceived as a connection to Scott Road Station in Surrey, running passenger trains along 99 kilometres to connect 16 cities and communities, eight First Nations communities, Abbotsford International Airport, 14 post-secondary institutions and industrial parks along the way. The project is estimated to take about three years at an estimated cost of \$1.38 billion.⁴⁴ Public opinion polling in the region in 2021 was highly favourable.⁴⁵

New passenger rail services would have a major transformative impact that would allow more people to choose transit options in line with new transit-oriented housing development and connected to public transit upgrades locally. Some modest annual operating subsidy would likely be required in the early years and because the rail line is not necessarily close to Highway 1, it may not necessarily relieve existing traffic congestion upon opening. However, over time it would reshape development patterns and transportation patterns region-wide, including adding more dense housing, shops, services and amenities around new transit hubs, although this must be considered in relation to the importance of existing local agricultural land.

Cost: Start with expanded express bus service. \$1.5 billion in capital costs to rebuild the line, purchase train cars and construct new stations/stops. Some operating subsidies in the early years would likely be required.

BC rail to Prince George via Squamish and Whistler

Restoring rail service from Vancouver to Squamish and Whistler has been contemplated at various times, most recently in 2017 by the previous Liberal government. Squamish is a growing population centre and a commuting option to Vancouver in light of shifting patterns of work, while Whistler is a key destination for locals and visitors alike that is increasingly challenged by parking and congestion issues.

Many in the Interior will recall train service to Prince George from Vancouver, which ended in 2002. Revitalizing this route would re-establish a historical connection into the heart of BC's Interior, and boost Prince George as a transit hub. In 2003, the BC government sold the railway's assets to Canadian National Railway but retained a public right-of-way for passenger transport. The track is still used by Rocky Mountaineer, albeit for pricey tourist getaways up through Pemberton Valley going onward to Quesnel and Jasper. After a first stage to Whistler, restoring service to Prince George and beyond to Alberta would be on the table.

In the meantime, expanded express bus service should be launched. Current planning emphasizes expanding express bus services from Metro Vancouver to Squamish and Whistler in line with a 2017 Sea-to-Sky Corridor study calling for expanded services from Metro Vancouver to Squamish, Whistler and Pemberton.⁴⁶

Cost: Start with expanded express bus service. Capital cost is \$1 billion for purchases of modern rail cars, track upgrades and constructing new stations/stops.

Vancouver Island Rail Corridor

Restoring the Vancouver Island Rail Corridor (formerly known as the Esquimalt and Nanaimo or E&N rail corridor) for both passenger and freight services holds great potential. This includes new commuter service from Langford to Victoria, and new inter-community service to other centres that would represent an important alternative route to Highway 1 and the Malahat connecting Victoria and Duncan. Last used for VIA Rail passenger transportation in 2011, the track from Victoria to Courtenay with a spur to Port Alberni, is currently in poor condition and in need of significant repairs and upgrades

The railway is also mired in historical injustices for local First Nations, as the original land grants from 1884 to 1910 took lands from First Nations along the route with no compensation or recognition of impacts on traditional territories. To unlock potentially large transportation and other related economic benefits, the historical injustices must be addressed with both federal and provincial governments allocating resources towards fair reparations with local First Nations. In March, land bisecting the Snaw-Naw-As reserve was reverted to the First Nation as a first step. While both federal and BC governments emphasize the importance of the corridor, First Nations have raised concerns about the impact on their communities and continue to call for shared decision-making.⁴⁷ In March 2023, the BC government committed \$18 million towards joint planning with First Nations on the corridor.⁴⁸



Source: Island Rail Corridor Condition Assessment (March, 2020)

Maps are for illustrative purposes only, not intended to identify specific routes and destinations.

The corridor is owned by the Island Corridor Foundation (ICF), a non-profit with members including 14 First Nations and five regional districts. The Ministry of Transportation and Infrastructure (MOTI) has provided funding to these regional districts and First Nations for planning and there appears to be widespread (but not unanimous) support among these impacted groups. A 2022 business case released by the Island Corridor Foundation estimated construction costs for the project to be \$381 million plus \$50 million for the acquisition of rail equipment for a total cost of \$431 million.⁴⁹ This business case built on a 2020 Island Rail Corridor Condition Assessment, a detailed engineering study of requirements to bring the corridor back, and is updated to 2023 dollars.⁵⁰

The ICF business case finds that the service would be in at least a break-even position (in its most conservative case) upon start-up. The report concludes Vancouver Island rail would "contribute to the immediate and long-term transportation needs of the Island, is economically viable, and will contribute to a robust and environmentally sustainable inter-regional transportation network." A renewal of this corridor would be an excellent opportunity to integrate land use, housing and economic development with transit investment, while achieving meaningful reconciliation.

In the interim, stronger rapid bus linkages for regional and inter-community transit should be

established, and deeper links with local BC Transit operations. Travel volumes between Victoria and Nanaimo may be high enough to justify hourly service. Buses could then be redeployed elsewhere upon the completion of the rail corridor. Future extensions to Campbell River and Tofino should also be considered.

Cost: Start with expanded express bus service. Approximately \$1.5 billion for higher end of Vancouver Island corridor service, including inflation and economic benefits for First Nations. Some operating subsidies may be required in early years.

5. Passenger ferries

Although foot passengers comprise a large share of BC Ferries trips going to the Sunshine Coast and Vancouver Island, there appears to be little consideration to date of adding passenger ferry services that could better serve coastal routes. Just as roads cannot infinitely be expanded to accommodate more cars, ferries are also limited if viewed only as car transportation. Passenger ferries could address capacity challenges facing BC



Maps are for illustrative purposes only, not intended to identify specific routes and destinations.

Ferries at much lower cost while providing a superior, end-to-end passenger experience. In the short term, connections from Vancouver to Sunshine Coast and Vancouver Island could be facilitated by increased capacity and coordination at ferry terminals with transit services. Poorly-developed transportation connections to major ferry terminals and smaller terminals are a detriment to vehicle-less travel aboard BC Ferries. For example, Duke Point on Vancouver Island does not have public transit connections to Nanaimo, public transportation on the Sunshine Coast does not extend past Sechelt, most Gulf Island terminals have limited or no transit options, while northern locations are devoid of interconnected transportation linkages. There is little coordination across BC Transit, TransLink and BC Ferries to provide a more streamlined and effective transit experience for passengers. Linkages to car-sharing options at ferry terminals would also make sense in many places (Vancouver's Modo car sharing already has a few cars at Langdale and Departure Bay, for example).

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New passenger ferries have the potential to alleviate congestion issues at ferry terminals as opposed to much greater capital investments for vehicle ferries. New passenger ferries could start with downtown Vancouver to Victoria, Nanaimo, Gibsons/Sechelt and the Gulf Islands. An expanded Waterfront Station and SeaBus terminal in Vancouver, for example, could serve these routes while also expanding new passenger marine services in Burrard Inlet. A 2018 review of coastal ferry services also floated the idea of using Sea Island (link to Vancouver International Airport) as a hub for passenger ferries.⁵²

Direct passenger ferries to connect Vancouver to Sunshine Coast and Vancouver Island could cut travel times. Hullo Ferries, a new private passenger service between downtown Vancouver and Nanaimo, launched in August 2023. At a cost of \$40 one way for a 75-minute trip, it compares favourably to \$23 on existing transit (\$18.50 BC Ferries, \$4.55 TransLink), especially given convenience and reduction in 2.5 to 3-hour travel time by BC Ferries. Hullo Ferries is planning to expand to include a Vancouver to Victoria ferry.⁵³

Passenger ferry connections further up the coast between Vancouver Island and the Mainland, including the North Coast, could also be developed. Many private water taxi companies operate along the coast for passenger services, and these could be brought into the public system. Additional provincial support and coordination includes better linkages to public transit at ferry docks/terminals.

Cost: Total \$1 billion capital cost, based on \$15 million per ferry times 30 ferries (based on Westshore ferry cost estimate for BC Ferries), plus terminal facilities in Vancouver, Victoria, Nanaimo, Gibsons, Gulf Islands. Ongoing operating subsidies may be needed for more remote routes.

6. Access for everyone in Metro Vancouver

Metro Vancouver got a peek of a transit-oriented future during the 2010 Winter Olympics. To keep downtown Vancouver and the many Olympics venues from being overwhelmed by gridlock, on-street parking was removed in much of downtown Vancouver and several major arteries into the downtown core were closed down completely. The region got a

massive increase in transit service, dedicated bus lanes, and free transit with an event ticket. Spectators going to events in Whistler had to book a \$25 round-trip bus ride, with only residents permitted on the Sea-to-Sky Highway.

The Olympics was a unique and high-profile event of limited duration, but the experience shows that car-dominated travel need not be our default mode of getting around, and that major shifts in travel behaviour can happen with minimal disturbance and public outcry. Even as the number of people on the move surged, the total number of car trips dropped by 16%, while transit ridership jumped 88% relative to the pre-games period. Public transit ridership was propelled by new capacity that came on-line in the form of the Canada Line, 48 Skytrain cars, 180 diesel-hybrid buses and another SeaBus.⁵⁴

More than a decade later, and with more than half of BC's population, the region's congested roads point to a state of "peak car" capacity. Every new car on the road makes matters worse. Public transit works in the opposite direction. Further population growth must be accommodated by improvements in public transit capacity and service levels.

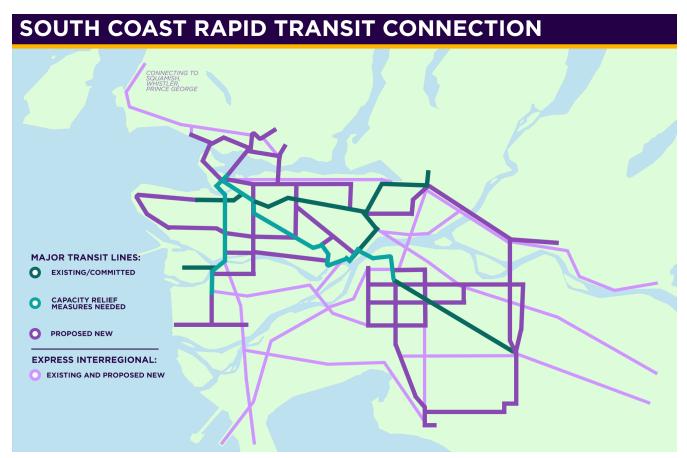
Accelerate TransLink's ten-year plan

TransLink's current \$21-billion ten-year capital plan, dubbed Access for Everyone, includes about \$17 billion to double bus service levels, implement up to nine Bus Rapid Transit (BRT) routes, rapid transit to UBC, a gondola to Simon Fraser University on Burnaby Mountain and other passenger facilities/infrastructure. This is on top of the large capital investments underway: the \$2.9 billion Broadway Subway due to open in 2026 and the \$4 billion Surrey Langley Skytrain extension by 2028. TransLink's climate action strategy is for a zero-emission bus fleet by 2040, use of renewable natural gas in the interim, and a new all-electric transit centre in Marpole.

In November 2023, TransLink announced it is proceeding with the first three BRT corridors (North Shore to Metrotown, Surrey to White Rock and Langley to Maple Ride). With dedicated lanes and other bus priority measures, BRT represents an intermediate step between existing express bus (formerly B-Line) services and Skytrain transit.

BRT is a relatively low-cost investment per kilometre of service, estimated by TransLink at about \$250-300 million for each of the three newly-approved corridors.⁵⁷ This investment can be justified by savings in operating costs from reduced delays. TransLink estimates that system-wide delays cost \$80 million per year (equivalent to about 15% of bus operating costs). Moreover, those are just the costs to the public system, not adding in costs of recovery time at terminals, nor the private costs of delays to passengers.⁵⁸

The BC government has committed to fund 40% of new transit investments in the current tenyear Mayors' plan. However, these contributions are doled out incrementally as part of each year's BC budget and fiscal plan. A change in government could lead to cancellation or delay of provincial support. Providing BC's commitment up front can accelerate the pace of change in the region.



Source: TransLink and Mayors' Council, Ten-year priorities. Maps are for illustrative purposes only, not intended to identify specific routes and destinations.

Another 40% would still need to be confirmed from the federal government and the final 20% from TransLink. The federal government's new Permanent Transit Fund will provide stable and predictable funding in this area, although not until 2026/27.⁵⁹ This would amount to about \$200 million per year going to Metro Vancouver based on population share (about the same to the rest of the province). However, it is not clear if major new investment funds beyond this – that would cost-share the bigger projects we discuss next – are on the horizon.

Costs: The BC government should make its already-promised 40% contribution to the tenyear plan - \$6.8 billion - available as needed over the next five years to support accelerated implementation of the plan. TransLink must still come up with its 20% regional share and must also cover operating costs once built.

Advance new rapid transit

Some larger new investments are needed to fill in the rapid transit network within Metro Vancouver. Three newly-approved (with more to come) Bus Rapid Transit routes will add substantial capacity and are currently envisaged to be opening in 2027. However, in areas like the North Shore and Surrey, we anticipate a medium-term need to upgrade these new lines to higher-capacity rail.⁶⁰

Increased capacity via rapid transit lines, bus or rail, are needed to support future growth across the region. Burrard Inlet Rapid Transit (BIRT) is an emerging priority with scoping work already completed on engineering options for routes crossing the inlet by bridge or tunnel. With serious congestion issues and higher-density development on the North Shore, this project has broad support from local governments and First Nations. Although the technology and route are still to be determined, a dedicated transit bridge crossing the Ironworkers Memorial (Second Narrows) Bridge will be needed as there will not be dedicated lanes for this part of the BRT corridor. High demand for Surrey's BRT along King George Highway could be sufficient that upgrades to light-rail (LRT) would be within our ten-year investment window.

Vancouver City Council recently weighed in with a preference for new rapid transit planning along Hastings Street. Another key corridor is from Metrotown along 49th Avenue (via Langara College) and 41st Avenue to UBC. These all make sense for new rapid transit as they are among the region's most-used bus corridors experiencing delays – in particular, South Vancouver residents, who are more likely to be low income and racialized, rely heavily on public transit.⁶²

Finally, upgrades will be needed for the Canada Line, which is haunted by cost-cutting measures made during construction, which limited the number of stations, station platform lengths and total system capacity.⁶³ Capacity from the Canada Line to Tsawwassen ferry terminal for connections to Vancouver Island also need to be improved in light of large numbers of passengers arriving at the same time, and linkages between the ferry and buses need to be coordinated rather than strictly scheduled so that passengers are not stranded.

In light of the need to rapidly build out transit infrastructure, and the delays associated with existing tripartite funding processes, we propose that these new investments be 100% supported by the BC government. The 40% share is arbitrary in any event – in the past, the BC government funded 100% of the Millennium Line, and does for various road and bridge projects (like the new Port Mann Bridge or current Patullo Bridge replacement).

Cost: \$4 billion towards 100% of costs for priority rapid transit projects in the second half of the ten-year plan.

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SUMMARY OF CAPITAL AND OPERATING COSTS =



The transit investment plan would transform transportation in BC in a decade through an intercommunity, express bus service to knit the province together, significantly expanded local bus services across the province, new rail and passenger ferry options to deepen connections in the South Coast and Vancouver Island, completion of a comprehensive rapid transit network in Metro Vancouver, and provide a seamless, integrated transit experience.

The combined investment plan has a capital cost of almost \$15.4 billion over ten years, and \$22.2 billion if we count the already-promised 40% provincial commitment to TransLink's current ten-year plan. This breaks down as follows, showing the prioritization (in addition to existing Translink commitments) of express inter-community bus service and increased local/regional bus service starting in year two, rail options starting in year three (except the WCE, which can start earlier) and passenger ferries starting in year four:

Table 1: Summary of Capital Costs

SUMMARY OF CAPITAL COSTS (\$million 2023 dollars)											
	10 yr total	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Accelerated TransLink ten-year plan (BRT, UBC line, SFU gondola)	6,800	1,360	1,360	1,360	1,360	1,360					
Rapid transit expansion in Metro Vancouver	4,000						800	800	800	800	800
Regional rail											
West Coast Express	500		100	200	200						
Fraser Valley rail	1,500			200	500	500	300				
BC rail line to Prince George	1,000			300	300	200	200				
Vancouver Island rail	1,500				200	300	300	300	300	100	
Passenger ferries	1,000				200	200	200	200	200		
BC Transit local/regional bus services (including HandyDART)	4,000		200	200	400	400	400	600	600	600	600
Inter-regional/inter-city express bus	1,500	-	200	200	300	300	100	100	100	100	100
Information infrastructure	400		100	100	100	100					
Total capital costs	22,200	1,360	1,960	2,560	3,560	3,360	2,300	2,000	2,000	1,600	1,500
New funding (net of TransLink ten-year plan)	15,400	-	600	1,200	2,200	2,000	2,300	2,000	2,000	1,600	1,500

Notes: Amounts in 2023 dollars. The \$6.8 billion for TransLink's ten-year plan is an accelerated provincial contribution that has already been promised so not really new money. Cost of transit vehicles ranges from \$250K for smaller vehicles to \$1.5 million for high-capacity bus. Associated charging infrastructure and physical infrastructure at transit stops additional. Rapid transit costs based on \$2.9 billion Broadway Subway, \$4 billion Surrey Langley Skytrain extension, previously estimated \$1.7 billion for Surrey LRT, Evergreen Line \$1.4 billion. Regional rail: WCE amount is for double-tracking along the line to accommodate freight and scheduling; Squamish/Whistler is new rail cars and additional transit stop infrastructure; Vancouver Island rail based on Island Corridor Foundation business case. Passenger ferries: 30 ferries at \$15 million per ferry based on pre-feasibility study for BC Ferries on potential Westshore ferry. Amounts have been adjusted upwards to reflect recent inflation.

While fiscally significant, the proposed capital expenditures are not out of line with the more than \$4 billion per year currently spent on transportation capital projects (including roads and transit). Looking ahead, there are \$9 billion highway projects (spanning multiple years) on the BC Budget docket, including more than \$4 billion for a second George Massey Tunnel under the Fraser River. The operating budget also contains about \$650 million per year for other maintenance and operation of BC's roads and bridges. A large portion of the plan could be financed by repurposing some of the huge public expenditures planned for freeway expansions and bridges/tunnels for cars and freight.

Households also spend significantly on automobiles. In 2022 alone, British Columbians spent almost \$10 billion buying new private vehicles. At a household level, drivers who can get rid of a vehicle would save anywhere from \$6,000-10,000 per year. But while every new car on the road adds to congestion and other negative impacts, expanding transit ridership does the opposite.

In the context of the potential for economic development and transformation of mobility in BC, these capital costs are quite small. New developments will add to economic activity and pay taxes that recoup the upfront costs, including future property taxes on real estate value that does not currently exist. This is because new transit-oriented developments create value out of thin air due to the new housing and commercial spaces created by higher-density developments. Others have also contemplated land value capture as an increased property tax in the vicinity of new transit investments. This would reclaim for the public sector a significant share of that "land lift" on real estate and repay the upfront transit investment over time.⁶⁷

In Metro Vancouver, TransLink already has legislative authority to create a Benefitting Area Tax for established zones, and "adopt different tax rates for land and improvements in different zones based on the benefit ... as a result of proximity to a transportation station, or to another transportation facility." This model has not been used by TransLink to date, but the same idea could be applied to new investments outside of Metro Vancouver. A similar mechanism could be created for BC Transit towards supporting infrastructure in existing and new transit-oriented areas. Setting out values for a Benefitting Area Tax well in advance of development would also guard against excessive land speculation in the vicinity of new transit stations and exchanges.

Boosting provincial operating funding

New infrastructure increases operating expenses, in particular, for the more labour-intensive buses and coaches in the transit plan. TransLink estimates a 50-60% increase in operating costs for a doubling of the bus fleet.⁶⁹ The additional operating subsidy needed to support the fully-constructed network is approximately \$525 million per year by the final year of our plan.

That said, we note that transit agencies are already facing strains under existing revenue models, despite BC's transit agencies being better supported by the provincial government relative to other provinces during the COVID-19 pandemic and its aftermath. One-time provincial operating grants have continued to be a factor in 2023, including an additional \$479 million to TransLink to maintain service levels and avoid capital project deferrals, and \$500 million to BC Ferries to keep a lid on fare increases.

In terms of regular operating supports, the BC government provides about \$350 million in subsidies to BC Transit (\$150 million in 2023/24) and BC Ferries (\$200 million), plus a smaller amount to BC Transit and TransLink in support of a policy of free transit fares for children under 12, as of September 1, 2021.

To accelerate these multi-year plans, an updated fiscal framework is needed for local governments to be able to make service commitments. Outside of Metro Vancouver, local

governments rely on property taxes and passenger fares to fund their share of transit costs.⁷⁰ This puts transit expansion at the whim of local governments who may not see the need for transit or may be reluctant to increase property taxes to do so, leaving higher fares as the only revenue option, one that undermines ridership goals.

The Sunshine Coast Transit Future Plan comments on budgeting: "BC Transit's budgets are confirmed on a year-by-year basis making it difficult to plan for future growth. Local-share funding is also confirmed annually and is heavily dependent on property tax. A limitation on future funding is the ability to continuously raise taxes to help fund the cost of transit projects and operations."⁷¹

In Metro Vancouver, TransLink does not receive any ongoing operating funding from senior governments and has formally asked the federal government for \$250 million in operating funding support in the 2024 federal budget. TransLink is different than BC Transit in that it has access to a variety of revenue sources, but largely relies on passenger fares, fuel taxes and property taxes. In addition, there are a regional parking sales tax and a levy on BC Hydro bills, which collectively raised almost \$1 billion in taxes in 2023, plus transit fares of \$645 million. TransLink's regional fuel tax (18.5 cents per litre) is being inevitably affected by the shift to zero emission vehicles (ZEVs), improvements in fuel efficiency, and will need a longer-term replacement.

In November 2023, TransLink revealed updated projections of a cumulative deficit of \$4.7 billion for the years 2026 to 2033 (an annual deficit in 2033 reaching \$700 million). This is based on both higher expenditures and debt service costs, lower ridership relative to pre-COVID-19 baselines and the decline in fuel tax revenues. Planning for both expansion and conversion to a zero-emissions fleet is also posing challenges, in particular, depots to accommodate overnight electric charging and infrastructure along routes.

A new funding model is clearly needed in light of existing challenges and the need for new operating supports for the expansion of services and infrastructure we imagine in this report. A suitable replacement for fuel taxes, given the transition to ZEVs, could be a vehicle levy or a per-kilometre mobility charge. These are analogous to the fares paid by transit passengers for using that infrastructure and reinforce carbon pricing. However, additional increases in the Climate Action Tax Credit would be needed to offset regressive impacts at the bottom of the distribution, so that low income households would not face an increased burden.

Alternatively, direct provincial operating subsidies could be increased in general or for specific areas that reach certain ridership or mode-share targets. The CCPA's Alternative Federal Budget has recommended such a framework for federal operating supports for transit. Increased operating funding is also important for First Nations to meaningfully engage in leadership and shared decision-making in our transit future.

Based on the above, the BC government should seek to increase its transit subsidy from \$350 million per year to \$1.5 billion per year at the end of our ten-year plan. This would also allow for some strategic fare reductions to improve transit access for youth under age 18 and people

A new funding model is clearly needed in light of existing challenges and the need for new operating supports for the expansion of services and infrastructure we imagine in this report.

, **33**— on income assistance. The latter includes expanding the BC Bus Pass program for low-income seniors (over age 60) and people on Disability Assistance to include people on Temporary Assistance, a cost of approximately \$50-60 million.⁷³

The Centre for Family Equity, part of the expanded free transit for children #AllOnBoard campaign, is now advocating for expanding free transit to youth, age 18 and under. A benefit of providing free transit to youth would be to get them to be regular transit users, something that will influence their lives forever, reinforcing a pattern of lesser car-ownership among young adults. Based on costs to the BC government of free transit for six- to twelve-year-olds, this would cost approximately \$24 million per year.⁷⁴

Economic and employment impacts

This ten-year capital investment boosts provincial GDP by an average of \$1.9 billion per year, based on standard input-output multipliers.⁷⁵ This is equivalent to 0.5% of BC's \$400 billion GDP in 2023. The Canada-wide impact would be somewhat higher due to BC sourcing from supplier industries in other provinces.

Employment impacts include both operating and capital expenditures. For capital expenditures, transit investments support direct jobs in construction, other related infrastructure investments, such as adding new bus shelters/stations, sidewalk and other access features, and indirect jobs in supplier industries. For larger projects involving rail rapid transit there will be a bigger temporary employment impact during construction but much less in operations (driverless vehicles). For example, the business case for the Broadway Subway estimates it will create 13,450 new jobs,⁷⁶ while the business case for the Surrey Langley Skytrain extension estimated about 3,000 jobs.⁷⁷ The Evergreen extension of the Millennium Line created an estimated 8,000 direct and indirect jobs building the line, plus 7,000 jobs in local residential/commercial construction.⁷⁸

Community
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Table 2: Jobs Impact of Transit Investment Plan

JOBS IMPACT OF TRANSIT INVESTMENT PLAN											
	Transit Investment plan	Direct multiplier	Indirect multiplier	Induced multiplier	Total multiplier	Direct jobs	Indirect jobs	Induced jobs	Total jobs		
Capital expenditures (ten-year total)	\$million	Jobs	s per million	dollars of o	utput	Total estimated jobs					
Non-residential building construction	5,000	4.157	2.284	1.605	8.046	20,785	11,420	8,025	40,230		
Engineering construction	12,200	3.042	1.798	1.492	6.332	37,112	21,936	18,202	77,250		
Repair construction	5,000	6.608	1.830	1.721	10.160	33,040	9,150	8,605	50,800		
Operating expenditures (annual in 2033/34)											
Transportation and warehousing	3,000	4.013	2.315	1.578	7.907	12,039	6,945	4,734	23,721		

Notes: Industries are from NAICS and were chosen as approximate categories for transportation capital and operating expenditures. Multipliers are for BC, impacts within BC only, based on 2019 data (last data year). Source: Author's calculations based on Statistics Canada, Input-output multipliers, provincial and territorial, summary level, Table: 36-10-0113-01.

These jobs may be very important in the second half of the 2020s as the province's megaprojects for LNG Canada, the Coastal Gas Link pipeline, Trans Mountain Pipeline Expansion, and the Site C dam all come to closure. A lot of skilled labour will be available and new transportation engineering projects would arrive at just the right time. As with the Broadway Subway, community benefits agreements can ensure large infrastructure projects are more inclusive and benefits more widely shared.⁷⁹

In terms of operations, new infrastructure supports jobs for drivers, supervisors, mechanics, maintenance and other operations. By tripling bus services for BC Transit (currently 1,050 workers in Victoria under BC Transit and 1,680 in the rest of BC who contracted out workers), our investment plan would create 5,600 direct jobs. TransLink employed 8,225 workers across its five operating companies at the end of 2022 (of which 7,153 are unionized jobs, spanning four unions and six bargaining units).80

Table 2 estimates the total employment impact across BC for the full \$22.2 billion capital plan.81 The investment plan would support an average of 9,094 direct and 4,251 indirect jobs per year (figures in the table are 10-year totals) during construction of new infrastructure, although more of the impact would be in the second half of our plan due to the timing of investments. Including induced jobs, the total employment impact is an average of 16,828 jobs per year in construction.

This would include multiple skilled trades involved in the building out of this public transit vision: operating engineers, pile drivers, labourers, carpenters, cement masons, ironworkers, millwrights, electricians, plumbers, pipefitters and steamfitters, refrigeration workers, insulators, sheet metal workers, glaziers, tile-setters, wall and ceiling installers, and painters. This requires an additional investment in skilled trades training to ensure the numbers of skilled tradespeople needed as this plan rolls out.

Operations for the expanded public transit system would represent an additional \$3 billion per year in transit services. Based on standard multipliers, this would support 12,039 direct jobs for drivers, supervisors, mechanics, maintenance crews and security, and another 6,945 indirect jobs in supplier industries. If we include induced jobs from the expenditures of workers in the local economy, the total employment impact is 23,721.

Thus, the employment impact of our plan is substantial for both capital and operating expenditures. Moreover, the plan would achieve better wages and benefits for workers currently contracted out by BC Transit and other agencies, or who work for private transportation companies. This job quality impact does not show up in the table but is an important employment aspect of our plan.

To really boost the economic benefits, the BC government could seek out a private sector electric bus manufacturer to establish a plant in BC for production and later servicing demand in Western Canada and beyond. Under status quo conditions, BC would be importing some 2,000 new low-emission buses, which could be a tall order even with a decade ahead. These potential jobs and industrial strategy benefits are not included in the table. In Fall 2023, Solaris

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tested out its electric trolley buses on Vancouver roads, and the company is looking to enter North American markets. This leveraging of investments was previously done in BC with Bombardier for construction of Millennium Line Skytrain cars.

Similarly, building a fleet of passenger ferries in BC would have additional employment and GDP benefits for the local ship-building industry and ensure reliability of repairs. These manufacturing initiatives would provide further employment opportunities through the use of local goods and materials, such as the existing lower-emitting steel production in BC.

CONCLUSION: LET'S GET MOVING

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Now is the time to expand public transit services across BC. In the face of increasing population growth, urbanization, reconciliation and a climate emergency, BC needs a visionary and comprehensive public transit investment plan that not only meets the mobility needs of its residents but also significantly reduces greenhouse gas (GHG) emissions.

This paper has outlined a decade of transformative transit investments to build new services and infrastructure, improve accessibility and foster sustainable urban development across BC. A wide range of economic benefits flowing from this investment plan have been described. These include higher GDP and employment as discussed in the previous section but also farreaching social, economic and environmental benefits:



Benefits to public transit passengers. Transit investments benefit the 20-40% of the population who cannot drive and those who would prefer not to, while also reducing the traffic and congestion faced by motorists, and other associated costs of driving (chauffeuring, crashes, pollution, noise). This can dramatically lower household costs for people who are able to become car-free or reduce a household vehicle.



Reductions in greenhouse gas emissions are hard to tally but transit investments are clearly complementary to the overall electrification of transportation (zero-emission cars, buses and other vehicles) and can support deep reductions in transportation emissions from both mode shifting (from cars to transit) and changes in land use patterns where owning a car is not needed. This investment framework does much of the heavy lifting towards BC's plan to reduce light duty vehicle kilometres traveled by 25% by 2030 and increase the share of trips by walking, cycling and transit by 30%. It would also form a cornerstone of a new Clean Transportation Action Plan and achieving the targeted 27-32% reduction in 2030 transportation emissions relative to 2007 levels.



Faster travel times for all through reduced congestion. The value of time savings were estimated at more than \$2 billion for the Surrey Langley Skytrain extension. Delays associated with vehicles stuck in traffic are also private costs to transit users and to the public transit system overall. For example, TransLink's 2023 Bus Speed and Reliability Report notes that 15% of service hours represent delays (excess time spent travelling between stops), which amounts to \$80 million per year.



Reduced health care costs. More people taking public transit means fewer vehicle collisions and reduced injuries and fatalities. Reduced air pollution can result in decreased rates of respiratory illnesses such as asthma and bronchitis and a lower risk of cardiovascular problems. Cleaner air benefits everyone, but especially vulnerable populations like children and the elderly. In rural areas, health care improvements include people currently not getting access to care due to transportation gaps, who may end up needing more expensive care later. Further, driving to work has been associated with stress and poorer mental health, so switching to public transit for commuting is beneficial.



New opportunities for housing and more efficient land use, as well as higher property values adjacent to transit and from redevelopment. Transit investments also connect people to jobs and employers to workers. Called agglomeration benefits, these are hard to pin down definitively but generally refer to economies of scale and improved worker productivity from a broader and more diverse labour market.

Within a decade, a full transformation of public transit and transportation province-wide can be accomplished, bringing with it greater access to education, health care and employment, stronger public sector jobs, better health outcomes and lower carbon emissions. By building on existing transit systems and transforming the patchwork of public and private services that exists across the province into a more coherent and interconnected whole, a network of transit services competitive with owning a car is possible. Transformative change can happen if we make it easy for residents and visitors to replace cars with a high-quality, affordable, accessible and reliable transit experience.

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- BIRT is unique in its benefits for First Nations communities. A rapid transit connection to the North Shore will serve to fill gaps in regional access as it connects Capilano IR No. 5, Mission IR No. 1, Seymour Creek IR No. 2 and Burrard Inlet IR No. 3 for Squamish and Tsleil-Waututh First Nations. An investment in BIRT will establish improved connections for these communities to jobs and affordable housing in the region and generate socio- economic benefits through increased access to job opportunities. BIRT can be expected to establish a platform for sustainable economic growth through land development and partnership opportunities for First Nations on the North Shore, as well as tourism expansion opportunities.
- 62. M Holden, C Firth and F Fassihi, South Vancouver & Marpole Neighbourhood Equity Report, 2021, https://www.southvan.org/wp-content/uploads/sites/7/2023/05/South-Vancouver-Neighbourhood-Equity-Report-2021-new-cover-image.pdf
- 63. N Jang, "We need to rethink, reimagine, and rebuild SkyTrain Canada Line" in Daily Hive, September 29, 2023, https://dailyhive.com/vancouver/skytrain-canada-line-rebuilding.
- 64. BC Budget 2023.
- 65. BC Budget 2023, Capital Expenditure Projects Greater Than \$50 million, Table 1.8, https://www.bcbudget.gov.bc.ca/2023/sp/pdf/ministry/tran.pdf.
- 66. Statistics Canada, Table 20-10-0001-01.
- 67. Our colleagues at the BC Government and Service Employees' Union have long advocated such a land value capture approach. See Paul Finch, "Fund transit by taxing land speculators" in The Vancouver Sun, June 15, 2015, https://vancouversun.com/opinion/op-ed/opinion-fund-transit-by-taxing-land-speculators.
- 68. South Coast British Columbia Transportation Authority Act, S.B.C. 1998, c. 30, s. 25(7)(b)
- 69. Interview with Mike Buda, Mayors' Council.
- 70.In 2023/24, passenger fares and advertising revenue is anticipated to be almost \$77 million, with the BC government contributing \$150 million and local governments \$146 million on a total budget of \$422 million.
- 71. BC Transit. Sunshine Coast Transit Future Plan, January 2014, https://www.bctransit.com/documents/1507213420925.
- 72. TransLink, More Affordable Housing Through Strategic Investments in Urban Transit: Mayors' Council Submission to the Government of Canada in Advance of the 2024-25 Budget, November 23, 2023, https://www.translink.ca/-/media/translink/documents/about-translink/governance-and-board/council-minutes-and-reports/2023/november/61--public-meeting--federal-budget-submission--nov-23-2023.pdf.
- 73. Caseload for temporary assistance in September 2023 was over 57,260 people. At \$104 per person per month, the cost of a one-zone pass, the value of those passes is \$71 million. However, based on current usage, if those people only took 20 rides per month, at full \$3.15 adult fare, the lost fare revenue is \$43 million. BC Ministry of Social Development and Poverty Reduction, Cases by Program and Family Type- November 2023,
- https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/organizational-structure/ministries-organizations/social-development-poverty-reduction/bcea-caseload.pdf
- 74. For its commitment to free transit for 7- to 12-year-olds, the BC government is reimbursing TransLink \$21 million over three years and BC Transit \$8 million over three, so approximately \$12 million for the current fiscal year for both. The share of population, 13- to 18-year-olds, is about the same as the share 7- to 12-year-olds, so the costs of a program for the former should be similar to the latter, but we assume ridership doubles in the estimate.
- 75. Total GDP impact is \$19.4 billion over ten years, of which more than half, \$10.3 billion, is a direct impact, plus indirect impacts on supplier industries of \$4.4 billion and induced impacts from workers spending money in the local economy of \$4.7 billion. Author's estimates using capital expenditures in NAICS categories non-residential building construction (\$5 billion), engineering construction (\$12.2 billion) and repair construction (\$5 billion), and multipliers via Statistics Canada, Input-output multipliers, provincial and territorial, summary level, Table: 36-10-0113-01.

- 76. TransLink, Surrey Langley SkyTrain Business Case Summary, January 2020, https://www2.gov.bc.ca/assets/gov/transportation-infrastructure-projects/surrey-langley-skytrain/translink-assets/2020-01-surrey-langley-skytrain-business-case-summary.pdf.
- 77. BC Ministry of Transportation and Infrastructure, Millennium Line Broadway Extension (MLBE) Project Business Case, March 2018, https://www.broadwaysubway.ca/app/uploads/sites/626/2020/08/Business-Case-FINAL-March-2018.pdf.
- 78. Government of British Columbia, Project Report: Evergreen Line Rapid Transit Project, March 2013, https://www.infrastructurebc.com/files-4/documents/PBCEvergreen.pdf.
- 79. A Community Benefits Agreement between BC Infrastructure Benefits Inc and Allied Infrastructure and Related Construction Council of British Columbia, July 2018, https://www.broadwaysubway.ca/app/uploads/sites/626/2020/09/July-2018-Community-Benefits-Agreement.pdf.
- 80. Unifor Locals 111 and 2200 (CMBC), the Canadian Union of Public Employees (CUPE) Locals 4500 and 7000 (BCRTC and CMBC), MoveUP (CMBC and TransLink), and the Transit Police Professional Association (TPPA). See https://www.translink.ca/-/media/translink/documents/about-translink/corporate-reports/accountability_reports/2022/accountability_report_2022.pdf.
- 81. Only impacts within BC are cited but there would be benefits for bus manufacturers in Manitoba, for example.