



Current & Best Practices for Public Transit Use by Seniors

A Review of Practices in Metro Vancouver

Prepared for Better Environmentally
Sound Transportation (BEST)

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Introduction

As cities within Metro Vancouver continue to expand their transit network, it becomes essential to consider the integration of passengers across all ages and abilities into these existing networks. Moreover, along with this expansion, Canada has seen an increase in the elderly population to the extent where the share of seniors (ages 65 and over) has outnumbered the share of children (ages 0-14) (Grenier, 2017). Therefore, this population trend signifies a fundamental need to consider the practices, policies, and infrastructure that promote the use of public transit by seniors to maintain physically and socially active within and beyond their immediate communities. The purpose of this report is to provide a scan of current practices and policies implemented by local municipal agencies and transportation agencies that specifically address seniors and public transportation. Once certain program and policy gaps were identified, best practices were researched on both the domestic and international scale to provide recommendations that help enhance public transit use by seniors in Metro Vancouver. .

“By 2031, about 23 per cent of Canadians could be seniors, similar to Japan, the world’s oldest country.

By 2061, there could be 12 million seniors to just eight million children in Canada.” (Grenier, 2017)

Section 1: Current Practices

*“Our goal is to improve facilities and services for seniors from fully independent older adults and seniors to those who are more vulnerable and need additional support.”
(COV, 2013, p. 3)*

City of Vancouver

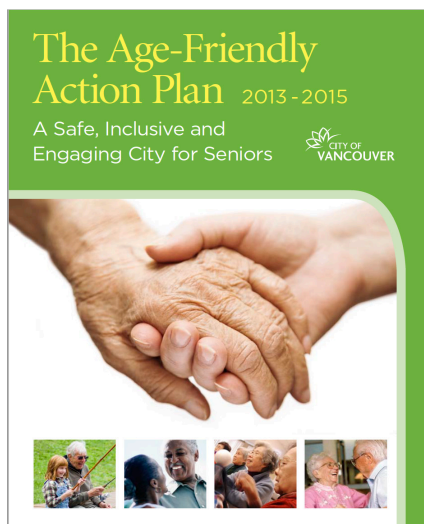
The City of Vancouver has exemplified various strategies from different lenses and plans to promote senior transportation. These plans include their *Age Friendly Action Plan* that was created in 2013 and the *Transportation Plan 2040*, published in 2012.

The Age Friendly Action Plan

The Age Friendly Action Plan aims to transform the City of Vancouver into an inclusive community for seniors. These actions were devised through consultations with seniors, caregivers, and relevant senior organizations.

The relevant actions are listed under the category, *Physical Built Environment*, which further separates the actions into implemented actions, recently started actions, and upcoming actions related to making streets and sidewalks more accessible for seniors. Actions that are relevant to encouraging seniors use public transit are listed on page five.

Although there are several actions already underway, the listed completed action refers only to improving housing and accessibility for seniors as the City has successfully been able to pass an updated Building Bylaw which includes additional accessibility requirements to encourage aging in place. Thus, the current available information and documents do not signify any completed actions for seniors using public transit that are available for evaluation. However, the City provides progress in some areas to ensure the measurability of their listed actions. One example is for the number of traffic signals with countdown timers which has totaled to approximately 34% of all signals (City of Vancouver, n.d.). While the number of signals that accommodate slower walk speeds has totaled to 13% (City of Vancouver, n.d.).



*The Age Friendly Action Plan
(City of Vancouver, 2013)*

Implemented actions already underway

1. Maintain and improve streets and sidewalks to increase accessibility, with no-lip curbs and curb cuts.
2. Install countdown timers at key intersections and adjust crosswalk times to accommodate people with slower walk speeds.

Recently started actions

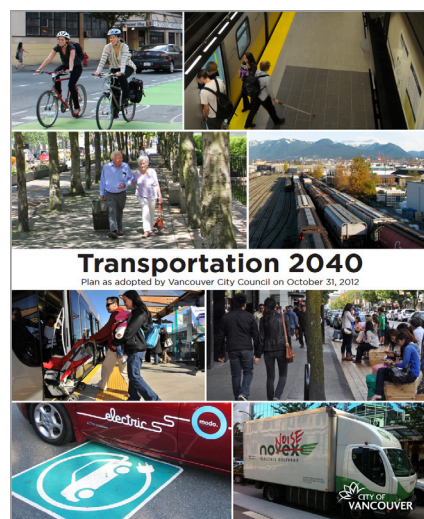
3. Review transportation infrastructure in areas where seniors live or congregate (such as the presence of curb ramps, crosswalks, traffic signals, lighting).

Upcoming actions

4. Identify key locations for bus shelters for seniors, in partnership with Planning staff during upcoming planning processes. Prioritize providing bus shelters in these locations.
5. Inventory benches in public spaces, in partnership with Planning staff during upcoming planning processes. Focus new bench placement on addressing gaps.
6. Encourage donor opportunities for benches in areas with high populations of seniors.
7. Give consideration to age-friendly amenities in future community planning.

(Source: The Age Friendly Action Plan City of Vancouver)

Transportation 2040 Plan



Transportation 2040 (City of Vancouver, 2012)

The City's Transportation Plan provides a comprehensive list of goals and supporting policies that help increase mobility through a walkable, safer, and accessible built environment. The Plan ultimately aims to reduce the City's carbon footprint by encouraging greater number of trips on foot, bike and transit. The relevant sections for senior mobility can be divided into two broad separate sections of policies for *Walking* and *Transit*.

Under the *Walking* section in the Plan, the City recognizes the aging trend of the population as they state, "the number of people aged 60 or older is expected to more than double by 2040" (COV, 2013, p. 21). Thus, one of the main goals is to make streets accessible for all people, which entails several accessibility improvements such as curb ramps, resting places, and appropriate pedestrian signals. Meanwhile, the *Transit* section focuses on making transit navigable, enhancing connectivity through the

transit network, and accommodating for people of all ages and abilities through better access. Thus, the relevant actions proposed under these goals are listed below:

Walking

W 1.3. Make streets accessible for all people

- W 1.3.1. Continue to install or replace missing or deficient curb ramps; develop criteria for prioritizing implementation.
- W 1.3.2. Continue to install accessible pedestrian signals citywide through ongoing replacement programs, at locations prioritized in consultation with representatives of the visually-impaired community.
- W 1.3.3. Continue to maintain and rehabilitate sidewalks and pathways so they are free of trip hazards and debris; use smooth materials and designs that are comfortable for users of strollers, wheelchairs, or other mobility aids.
- W 1.3.5. Provide accessible public restrooms in high-demand locations, through measures including:
 - encouraging TransLink to provide public restrooms at all transit stations;
 - working with private partners to make their restrooms available for public use; and
 - identifying restroom locations through wayfinding maps and online tools.

Transit

T 2.1. Support a transit system that is easy to navigate

- T 2.1.1. Continue to work with TransLink to deliver consistent and legible wayfinding at and around all rapid transit stations and major transit interchanges.

T 2.2. Provide easy connections and comfortable waiting areas throughout the network

- T 2.2.1. Ensure transit interchanges are designed to facilitate easy and legible connections for people of all ages and abilities, including those with bicycles or mobility aids.
- T 2.2.3. Provide safe and comfortable waiting areas at all bus stops where sufficient sidewalk and boulevard space exists. In locations where sidewalk space is too limited for a full shelter, pursue opportunities to locate amenities on private property.

T 4.1. Support a universally accessible transit system with a goal of equal transit outcomes for people of all incomes, ages, and abilities

- T 4.1.1. Provide accessible waiting and boarding areas at all transit stops, prioritizing improvements at high-demand locations and stops with higher

usage by persons with disabilities.

- T 4.1.2. Ensure transit stations are designed to facilitate movement for persons with bicycles and mobility aids, for example through clear signage, stairway runnels, accessible fare gates, and large elevators with direct, simple, and quick paths to platforms and parking.
- T 4.1.3. Support alternative delivery mechanisms for paratransit services—including potential increased use of taxis—to lower per-ride costs, improve reliability, and reduce booking times.
- T 4.1.4. Require taxi driver education, training, and testing to ensure safe and sensitive service for customers with disabilities.

(Source: *Transportation 2040*, City of Vancouver)

City of New Westminster

The City of New Westminster has proposed three separate plans that touches upon senior mobility. These plans include the *New Westminster Official Community Plan*, *New Westminster Master Transportation Plan*, and the *City of New Westminster Dementia Friendly Community Action Plan*. The most relevant plan in regards to ensuring safe and accessible transit for seniors is the *Master Transportation Plan (MTP)* that was published in 2015.

City of New Westminster Master Transportation Plan

This plan includes general policies to enhance pedestrian safety and accessibility which are listed below:



New Westminster Master Transportation Plan (City of New Westminster, 2015)

Policy 1A - Enhance the Pedestrian Network

- 1A.2: Prioritize sidewalk improvements, including both new sidewalks and enhancements to existing sidewalks, in areas with high concentrations of vulnerable road users (children, youth and seniors) including areas around schools, parks, community centres and seniors' facilities.

Policy 1C - Improve Pedestrian Safety and Accessibility

- Considerations include curb letdowns, narrower crossings, tactile pavers, accessible (and audible) pedestrian signals, enhanced crossings, unique and distinct pavement markings, and pedestrian countdown

Although the above are important policies, the City proposes specific policies that are dedicated to seniors. These initiatives are outlined below:

Accessible Transit Stop Program

This program aims to make all the bus stops in the City accessible in order to ensure residents with different abilities, ages, and familiarity to the transit systems can use public transit with ease and comfort. The Plan reveals that 39 bus stops out of the 50 that are currently categorized as non-accessible were upgraded to become accessible by 2016 (City of New Westminster, 2015). Although the remaining eleven bus stops are deemed unchangeable due to the steep grades, the Plan ensures additional accessibility measures are being planned in partnership with TransLink (City of New Westminster, 2015).

Best Routes for Seniors

Best Routes for Seniors is a program that is based on the City's Best Routes to School, which developed safe walking and cycling routes to school for children. Additionally, this program provided bicycle skills training and infrastructure recommendations centered around safer travel routes for children. Thus, an extension for seniors is proposed in this plan which will help identify challenges in the pedestrian network that seniors may face in the City to develop appropriate design solutions. As a collaborative program, the City recognizes that devising these routes will require a partnership with senior advisory groups, community partners, and public health agencies. In conjunction with this program, the Plan also proposes a Best Routes for Transit program which focuses on improving the connections between different public transit systems such as bus stops and SkyTrain stations. This program will also propose infrastructure improvements related to transit use such as bicycle parking facilities, wayfinding, and walking/bicycling routes. Thus, a collaboration of the Best Routes program for seniors and transit can provide the best routes for seniors to access public transit.

“The Best routes for seniors is an initiative first pioneered in New York City, that seeks to improve the pedestrian environment for seniors by identifying obstacles to walking and developing design solutions to address these barriers.” (City of New Westminster, 2015, p. 179)



Dementia-Friendly Community Action Plan (City of New Westminster, 2016)

Dementia-Friendly Community Action Plan 2016

In relation to the *Master Transportation Plan*, the City of New Westminster also published a *Dementia-Friendly Community Action Plan* in February 2016 which focuses on creating a city that is inclusive of people with dementia. In order to reduce the stigma and raise awareness surrounding dementia, the Plan proposes several actions related to providing education regarding this topic. However, the Plan also extends beyond awareness by including policies that revolve around making civic facilities, transit, and wayfinding more dementia-friendly. The relevant policies to mobility and accessibility are listed below:-

Mobility and Accessibility

Proposed Actions

- Continue to implement the Master Transportation Plan (MTP, October 2014), with particular reference to Policy 1C (Improve Pedestrian Safety and Accessibility) and Actions 1C.1 to 1C.15 and Policy 3F (Improve Safety and Accessibility of Transit) and Actions 3F.1 to 3F.4. Engineering and TransLink
- Provide a safe and accessible pedestrian system which offers a quality walking experience. (As part of the MTP, action 1C.14 states: “Continue to maintain and rehabilitate sidewalks and pathways so they are free of trip hazards, debris and clutter (e.g., sandwich boards); use smooth materials; and are designed to be comfortable for users of strollers, wheelchairs and other mobility aids.”) Engineering
- Ensure a universally accessible transit system to enable all transit users, including those with cognitive challenges, to access the entire transit network. (As part of the MTP, action 3F.1 states: “Retrofit all remaining inaccessible bus stops in the city, where feasible, to provide 100% accessible transit stops by 2016.”) Engineering and TransLink

(Source; Dementia-Friendly Community Action Plan, City of New Westminster)

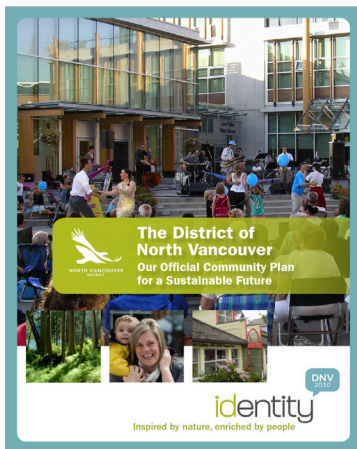
The City of New Westminster presents a prime example of effective coordination among different plans to help push the agenda for transit use by seniors. Moreover, this Plan cogently lists the responsibility and jurisdiction of each action which will be useful in ensuring the implementation of each action.

Other Municipalities

Other municipalities within Metro Vancouver include practices that surround making public and active transportation an attractive option for seniors and individuals with mobility restrictions in similar transportation and official community plans. However, as many of these strategies enlist policies rather than specific programs, the policies for each municipality that consider seniors and their mobility options are outlined below.

District of North Vancouver

Official Community Plan



Official Community Plan, Bylaw 7900 (District of North Vancouver, 2011)

6.3 Community Services, Programs, and Facilities

- Facilitate the provision of accessible services, programs, and facilities that encourage seniors and people with disabilities to function independently

(Source: Official Community Plan Bylaw 7900, District of North Vancouver)

City of North Vancouver

Official Community Plan

Goal 2.1 Prioritize walking, cycling, transit and goods movement over single-occupancy vehicles.

- 2.1.1 Invest in cycling and pedestrian networks and facilities to make these more attractive, safer, and convenient transportation choices for all ages and abilities with an aim to increase these ways of travelling over single-occupant vehicle use;

Goal 2.3 Support a safe, accessible, resilient, and affordable transportation system.

- 2.3.2 Accommodate the transportation needs of all users, including those with limited mobility and disabilities;
- 2.3.3 Provide universally accessible bus stops, bus shelters at all bus stops and appropriately located curb cuts for people using mobility aids;

Goal 3.5: Support the independence and well-being of



2014 Official Community Plan (City of North Vancouver, 2014)

older City residents.

- 3.5.3 Recognize and address the transportation and mobility issues that are unique to older residents

(Source; 2014 Official Community Plan, City of North Vancouver)

West Vancouver

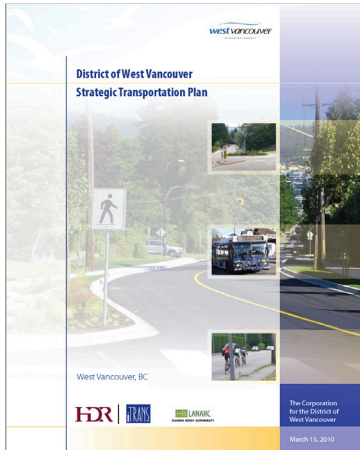
Strategic Transportation Plan

The District of West Vancouver's *Strategic Transportation Plan* outlines their vision for 2025 which is inclusive of seniors and their mobility. As such, they include in their vision that "[s]eniors and persons with disabilities will have transportation options - accessible transit service throughout the day and the active transportation network will allow them to live car-free, with no need to depend on a car for transportation" (District of West Vancouver, 2010, p. 15). In addition, a relevant policy for active transportation by seniors is listed under the *Alternative Technologies* section.

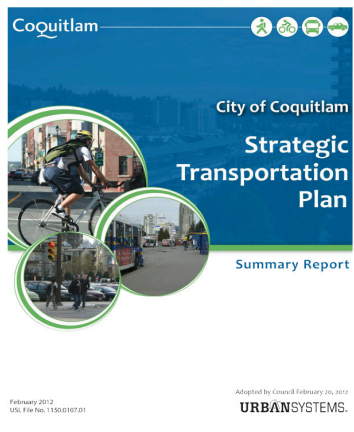
8.2.6 Alternative Technologies

- 8.2.6.1 Provide education for workers and seniors, and provide online tools to plan trips and highlight the impacts of GHG.

(Source; *Strategic Transportation Plan, District of West Vancouver*)



*Strategic Transportation Plan
(District of West Vancouver,
2010)*



*Strategic Transportation Plan
(City of Coquitlam, 2012)*

City of Coquitlam

Strategic Transportation Plan

In the *Strategic Transportation Plan*, the City clearly prioritizes the location of new sidewalks in areas of high demand and vulnerable pedestrians as stated under their *Ideas & Opportunities* section (pg. 11). The City's plan to expand sidewalk coverage is intended to help make locations accessible for people across all ages and abilities. Thus, as part of their *Improvement Concepts*, the Plan lists increasing local area frequency and coverage as one of their goals. Under this goal, one objective is to improve city centre mobility which entails increasing mobility support for the growing senior population in the city through new designs.

4.3 Improvement Concepts

Increased Local Area Frequency and Coverage

d. Improve City Centre Mobility. With significant planned residential and employment growth in the City Centre, as well as an increasing proportion of seniors and people with mobility challenges living in the City Centre, there will be increasing need to support mobility within the City Centre area. In that regard, the Transit Strategy recommends that the City consider possible solutions to improve mobility in the City Centre such as a new circulator service or strategic design of existing services to connect key destinations through the City Centre including rapid transit stations and the transit exchange.

(Source: Strategic Transportation Plan, City of Coquitlam)

City of Port Coquitlam

Master Transportation Plan

The City of Port Coquitlam takes an alternative approach in ensuring senior mobility in comparison to other municipalities as they include senior accessibility as part of their evaluation of transportation infrastructure as shown below:

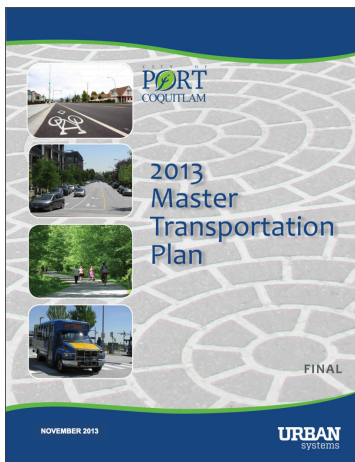
Walking

The criteria used to rank sidewalk projects focus on improvements in areas of high pedestrian demand, including schools, commercial areas, and destinations, and are:

- Pedestrian volumes
- Traffic volumes
- Proximity to school
- Proximity to commercial developments
- Proximity to seniors facility

Source: Master Transportation Plan, City of Port Coquitlam

Although the proximity to seniors' facility is an important factor in sidewalk projects, there is potential for the criteria to be expanded further to incorporate related factors such as universal accessibility and visible wayfinding. Moreover,



Master Transportation Plan (City of Port Coquitlam, 2013)

it is worth considering a similar evaluation criteria for public transit projects in order to ensure new expansions of the transit network are cognizant of senior mobility needs.

City of Port Moody

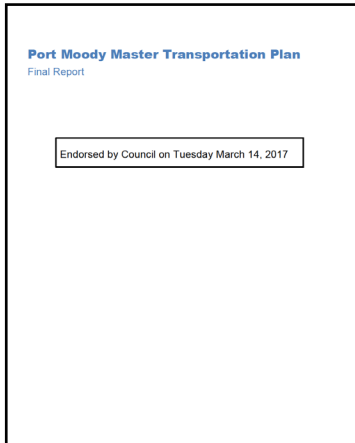
Port Moody Master Transportation Plan

The *Port Moody Master Transportation Plan* addresses the importance of pedestrian safety and accessibility. Although policies specific to connecting seniors to public transit are not mentioned, the actions listed under *Safety and Accessibility* provide efforts that will aide seniors in achieving active transportation and utilizing public transit.

Improve Safety and Accessibility

- Action C.1 Develop new pedestrian and cycling overpasses
- Action C.2 Identify and implement pedestrian safety improvements at signalized intersections
- Action C.3 Install new traffic signals

(Source: Port Moody Master Transportation Plan, City of Port Moody)



Master Transportation Plan (City of Port Moody, 2017)

TransLink

10 Year Vision for Metro Vancouver Transportation

Although the 10 Year Vision for Metro Vancouver Transportation does not specifically address senior transportation or actions to promote active transport among the elderly population, many of the listed visions in the document will aide those with mobility restrictions or of elderly age in using public transit. The following actions have the potential to promote public transit use by seniors and are listed under the *Invest: Transit* section:



10 Year Vision for Metro Vancouver Transit and Transportation (Mayors' Council on Regional Transportation, n.d.)

1. Improve and expand all-day frequent transit service (Frequent Transit Network)

Providing an all-day frequent service will allow those who use transit in low demand times to rely on a frequent

“To ensure that we are getting the most value out of our investments, we need to better manage what we have — by using everything from information and incentives programs to mobility pricing to encourage drivers and transit users to choose the route, time and mode that works best for them and is most efficient for the system.” (Mayors’ Council on Regional Transportation, n.d.)

service. This is intended to promote transit use for individuals that may currently find transit as an unreliable and infrequent mode of transport, especially during off-peak hours. This is especially relevant for seniors who may find the most use in transit for non-commuting trips and trips during off-peak hours.

2. Expand coverage network

Expanding the coverage network of transit lines encompass reaching low density neighborhoods that may not have frequent service in close proximity. Thus, the supporting action for this goal is to “add 60,000 annual coverage service hours in lower-density areas” (Mayor’s Council on Regional Transportation, n.d., p. 11) Additionally, these hours are intended to be catered to areas that currently lack basic service coverage and meet minimum service guidelines. This will help provide those with mobility restrictions as well as seniors who may live in remote neighborhoods to access and utilize public transit and reduce reliance on automobiles.

3. Increase custom transit service and resources

Custom Transit service refers to “the region’s door-to-door shared ride service for people who are unable to use public transit without assistance” (Mayor’s Council on Regional Transportation, n.d., p. 11), commonly known as HandyDART. The stated action under this goal is increase service hours by 30%, which amounts to 190,000 annual service hours (Mayor’s Council on Regional Transportation, n.d., p. 11). Similar to the previous vision, increasing Custom Transit has the benefit of enhancing accessibility to on-demand transit to those who may need assistance with trips to health care services, social events, or shopping centers.

4. Upgrade capacity and customer amenities at key transit facilities

This vision focuses on the supporting infrastructure of transit which may provide better wayfinding, weather protection, and lighting. The description specifically states that the upgrades are intended to “meet capacity

needs, improve accessibility and enhance comfort” (p.11). Although details of the specific upgrade infrastructure are omitted, improvements in the form of bus shelters, benches, and bathrooms may be beneficial to the elderly population as it supports their movement while giving ample opportunities to rest and foster social connection with other transit users.

In addition to the above, in regards to travel management, the 10-year Vision states expanding personal travel planning and incentives program as a goal. This is relevant as it refers to the TravelSmart program which provides “in-person travel planning consultations at the workplace, school and neighbourhood levels, and will develop technology-based solution” (Mayor’s Council on Regional Transportation, n.d., p. 18-19). This in turn will help provide autonomy for seniors to plan their own travel with relative ease.

TravelSmart

TravelSmart is a tool provided by TransLink as part of their Transportation Demand Management (TDM) Program. The goal is to provide customers that may benefit from additional assistance for utilizing public transit in the region with outreach tools and resources. These customer groups often entail sustainability oriented businesses, newcomers, schools, and seniors. TravelSmart for seniors include training programs which involve seniors training other seniors on how to utilize public transit and the associated technological systems such as ticket vending machines and the TransLink Trip Planner. Moreover, there are community outing sessions available which allows seniors to have a hands-on experience in getting familiar with public transit with the help from TransLink staff. These sessions were developed with the help of Voices of Burnaby Seniors and prove to be beneficial in expanding the capabilities of seniors to utilize public transit to further distances within the region.

Section 2: Best Practices

Transportation Services

Customer Mobility Travel Tools (Edmonton)

The City of Edmonton exemplifies services specifically designed for seniors to use public transit. There are three prominent mobility travel tools that are outlined below:

1. Bus Hailer Kit



Bus Hailer Kit
(Source: City of Edmonton)

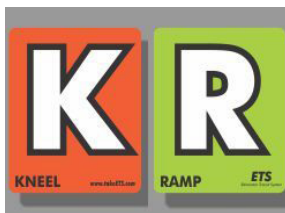
The *Bus Hailer Kit* is intended for customers with visual or cognitive disabilities (City of Edmonton, n.d.). The Kit is composed of three numbers which transit passengers can hold up to communicate their desired route number to the operator. These kits are provided free of charge from the Edmonton Transit Service (ETS).

2. Customer Communication Cards

Customer Communication Cards are tools that help passengers that may have difficulty communicating their specific travel needs due to physical and/or cognitive disabilities (City of Edmonton, n.d.). A variety of cards are available, each expressing the passengers request and needs for travel. ETS recognizes such tool as a way for persons with disabilities to communicate their disability in a discreet manner to the operator (City of Edmonton, n.d.).

3. Mobility Card

The *Mobility Card* is similar to the tools above as it assists those with mobility limitations to inform the operator to either kneel the bus or lower the ramp. Thus, the 'K' card stands for kneel, while the 'R' card informs the driver to lower the ramp. Passengers can simply hold and show this card while in line for the bus so the operator can respond with the appropriate actions.



Mobility Cards
(Source: City of Edmonton)

4. Potential Service - Seniors Smart Card

A recent news article with Edmonton City Councillor,

Michael Walters, shared potential ideas to make public transit use easier for seniors. One idea is to produce a Seniors Smart Card which works as a payment card that can be used on a variety of transportation services from public transit, taxis, and senior transportation. Walters believes a simplified payment system will incentivize seniors to continue using transit services for their last mile until they reach their homes (Stolte, 2017).

Fares

Current BC Transit Fares for Seniors

Currently in BC, reduced cost passes are available for seniors that meet a certain requirement in areas where BC Transit or TransLink are operated. These reduced cost passes are mainly intended for low income seniors that require income assistance from the province. There is an annual administrative fee for the passes of \$45. In regards to TransLink, seniors 65 years and older, and individuals between 5 to 18 years old are eligible for concession fare prices.

Horizon 65+ (Laval)

In Laval, where the public transit system is operated by Société de transport de Laval, free public transit for seniors over the age of 65 have been implemented since 2014. This initiative, known as *Horizon 65+*, coincides with the city's *Senior Friendly City* that aims to achieve equality across all individuals of all ages. The result has been widely successful with 19,000 Laval seniors using free transit as of 2016 (Societe de transport de Laval, 2015). It is important to note that STL is currently the only Canadian transportation agency to provide free transit for seniors. Such initiative recognizes the financial constraints seniors may face due to the lack of income and the importance of promoting active transportation for better health benefits.

Seniors Public Transit Tax Credit (Ontario)

Another initiative from the market side that aims to support the elderly population to use public transit is Ontario's *Seniors Public Transit Tax Credit*. This

programmatic initiative allows seniors to “claim up to \$3,000 in eligible public transit expenses and receive up to \$450 each year” (Government of Ontario, 2017). This program is intended to help seniors maintain an active lifestyle through the available public transit. Moreover, similar to *Horizon 65+*, reduced fare fees allow seniors to participate to their communities with less financial burden.

Infrastructure

Age-Friendly Winnipeg Action Plan – May 2014

In regards to infrastructure, the *Age-Friendly Winnipeg Action Plan* published in 2014 is a rare example of a senior strategy that focuses on public transit use through the built environment and infrastructure. The relevant actions are the following:

Pedestrian Countdown Signals

Municipality

This initiative was expanded from the positive feedback from one intersection. Although such measure is not directly related to increasing transit use, it provides greater incentive to utilize sidewalks safely that may be vital in accessing transit or for transfers between different modes of transport.

Transit System Improvements

Transportation Agency + Municipality

Transit system improvements refer to initiatives that improve the reliability and performance of transit operations. However, the Action Plan also enlists infrastructural improvements for bus stops such as “heated shelters, improved signage, real-time arrival displays and posting of route and schedule information” (City of Winnipeg, 2014, p. 8).

Accessible Transit Buses Winnipeg

Transportation Agency

In Winnipeg, the overarching goal in regards to bus services for seniors is to provide low floor buses. This will not only help elderly riders but also ensure accessibility for those that require mobility aid. It should be noted that charter services for seniors are already equipped with low-floor designs, however, the City recognizes the importance of translating the same standards to all buses to ensure equality in accessing public transit.

Singapore's Land Transport Authority

A prominent example of a transportation agency focused on providing easier public transit use for the elderly population is the Land Transport Authority (LTA) in Singapore. Their plan proposes different strategies for walking, bus services, and MRT stations. These plans were part of the *Action Plan for Successful Ageing* that was applied on a national scale. The ongoing initiative has aimed to improve safety, ensure better accessibility, promote greater comfort and create easier wayfinding (Yeo, 2015). The relevant initiatives are listed below:

Walking

Silver Zones

Silver zones are implemented as part of the road and sidewalk infrastructure intended to enhance road safety for seniors. These zones include rumble strips, reduced speed limits, island crossings and other traffic calming technology such as reduced width of road lanes. The intention is to provide a sense of safety for seniors when crossing roads and help make pursuing active transport easier.

Railings and Rest Stops

There are specific initiatives that have been listed which aim at sheltered walkways between transit stations and destinations frequented by seniors such as hospitals and senior centers. The LTA proposed installing railings throughout such walkways to provide physical assistance until these destinations. In addition, to accommodate the need for seniors to rest between destinations, the LTA proposed building rest stops with seats at 50 meter intervals.

Green Man +

Green Man+ Scheme is an innovative approach to road safety for seniors through extending the time for pedestrian crossings. This is specifically done through installing a system in which those with concession cards (i.e. seniors or individuals with disabilities), can tap to a reader on a traffic light pole to extend the time in which they can cross during the green light. Such technology

has the additional benefit of providing data regarding the frequency of its use.

Lengthening Green Man Timings

After the success of the Green Man +, certain pedestrian crossings have been evaluated to implement a longer time extension. These extensions will help provide greater comfort and safety for seniors in high traffic areas.



*Green Man +
(Source: Land Transport Authority
of Singapore)*

Bus Service

Expansion of the Priority Queue Initiative

The priority queue initiative includes creating a dedicated waiting and seating area for seniors, expectant mothers, and people with disabilities. This area is also strategically located so individuals can access priority boarding to the buses. To enhance the visibility and priority of these areas, the area is outlined by a different color with large signage to identify the seats as reserved seating.

MRT

Improved Signage

To improve wayfinding at MRT stations, the LTA has modified the signage to include sharp color contrasts and large font sizes for seniors to be able to find and read the directions in and around the MRT station along with any boarding and scheduling information.

Slower MRT doors

To accommodate seniors and to enhance the quality of safety and comfort, the LTA included an action to extend the stop time of trains. However, to ensure that this did not affect commuting trips and targeted senior travelers, longer stop times are only planned for off-peak hours.

Trial Initiatives

LED screens

More recently, the LTA has installed LED screens that contain passenger information displays (PID) on buses on a trial basis. These screens show information such as the upcoming stops and the current stop. The LTA found that the feedback from seniors regarding this technology was

generally positive and individuals found that having both visual and audio technology would help those who are unfamiliar with using public transit or are new to the area to travel with ease.

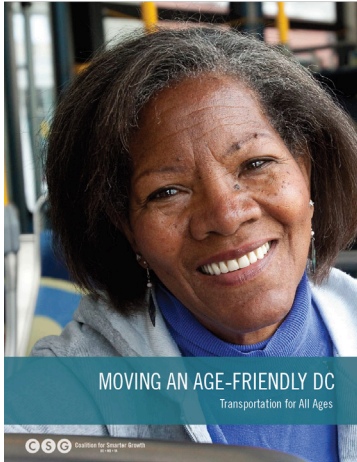
Section 3: Recommendations

Recommendation 1: Create a Seniors' Advisory Committee

The first recommendation proposes the formation of a seniors' advisory committee per municipality. Having such committee will help unify the varying needs, voices, and desires of seniors in all aspects of city life, including transportation. This strategy has already been implemented by some municipalities such as the City of Vancouver. Having a presence within the municipality will help foster direct and productive communication with the city's transportation and planning professionals. Therefore, in regards to seniors and transportation, the advisory committee can work collaboratively with transportation planners and engineers to produce a report to council about their specific transportation needs and feasible improvements. This action is especially recommended for municipalities that has seen an increase in the senior population.

Recommendation 2: Create Senior Friendly Action Plans

The second recommendation is listed as a subsequent action to the first recommendation as the advisory committee will be an invaluable asset in formulating a Senior Friendly Action Plan. Such plan will focus on making cities a livable environment for seniors as done in Winnipeg's Senior Friendly Action Plan which began after the City joined the Manitoba Age-Friendly Initiative. Having a specific plan that focuses on the different aspects of life for the elderly will ensure the inclusion of actions and policies regarding mobility considerations which are often lost in broader Official Community Plans or Transportation plans. This is exemplified by the two main examples covered in this report by the City of Vancouver and the City of New Westminster. By having a plan dedicated to making the city more senior-friendly, both municipalities succeed in being inclusive of the growing elderly community. Moreover, these plans will allow desining intiatives in finer detail as done in the Winnipeg Plan and could



Moving An Age-Friendly DC
(Coalition for Smarter Growth, 2014)

include compatible infrastructural and programmatic solutions to enhance public transit use. Lastly, having a separate plan for seniors will allow the capacity to build a robust evaluation framework that can be formulated and monitored by the seniors’ advisory committee with the support of municipal staff.

Recommendation 3: Have a BC-wide Framework for Senior Transportation

This recommendation is rooted in *Moving an Age-Friendly DC: Transportation for All Ages*, prepared by the Coalition for Smarter Growth which focuses solely on promoting active forms of transportation for the elderly population in Washington DC. In addition to having a plan specifically for seniors and transportation, the plan succeeds in formulating a coherent framework to aide the development of a senior-friendly transit network. This is communicated as the “The 5 A’s of Senior-Friendly Transit”, which include availability, accessibility, acceptability, affordability, and adaptability. The details of what each of these factors entail are provided below:

The 5 “A”s of Senior-Friendly Transit

Availability	Transit exists and is available when needed.
Accessibility	Transit can be reached and used (buses have low-floor boarding, bus seats are high enough, bus stop is readable, van comes to the door).
Acceptability	Standards relate to conditions such as cleanliness (bus is not dirty), safety (bus stops are located in safe areas), and user-friendliness (transit operators are courteous and helpful).
Affordability	Fees are affordable, comparable to, or less than driving a car, and vouchers or coupons help defray out-of-pocket expenses.
Adaptability	Transit service can be modified or adjusted to meet special needs (wheelchair can be accommodated, trip chaining is possible).

Adapted from Beverly Foundation’s Giving Up The Keys Fact Sheet, 2008.

Source: Coalition for Smarter Growth, 2014, p. 31

Having a framework will act as a checklist for new transit developments and upgrades to ensure that transit systems remain considerate of seniors’ needs and that the designs fulfill all aspects of the senior friendly framework. For Metro Vancouver, an additional component can be added within this framework which clearly outlines the jurisdiction of TransLink and the municipality in regards to transportation infrastructure (i.e. station bathrooms,

benches, and shelters).

This recommendation is especially relevant as the *Regional Transportation Strategy (RTS)* requires an update every five years, with the forthcoming update planned for 2018. The RTS is a strategic plan with visions, goals, and principles and supporting initiatives that act as a guiding framework for transportation decisions for TransLink and municipalities within Metro Vancouver. The process behind the RTS is based on consultations with key stakeholders and the public to design a shared vision for the future of transportation in the region. Including a senior-friendly transportation framework in the RTS will solidify the commitment towards making public transit a senior friendly mobility option as TransLink and municipalities within Metro Vancouver will utilize the RTS to guide their new plans and developments.

Section 4: Conclusion

This report has aimed to provide a background in the current efforts by municipalities in Metro Vancouver to encourage the use of public transportation by seniors, elaborate on the best practices found within and outside of Canada, and provide recommendations accordingly to the evident gaps between the current and best practices. In terms of the current practices found in this region, there seems to be promising policies and programs, especially in the City of Vancouver and the City of New Westminster. However, it is essential to maintain consistent progress reports on the existing plans and ensure they are implemented successfully and are improving the quality of life of resident elderly populations. In regards to the other surrounding municipalities, there seems to be extensive plans and policies around improving public transportation and enhancing accessibility for transit use. However, the focus on seniors remain to be lacking and requires a shift in the transportation lens to focus on a specific set of needs. Based on this evident gap, a large portion of the resulting recommendations has focused on the creation of a senior-friendly action plan with a seniors advisory committee. As the sector of seniors in the Metro Vancouver population continues to increase, it is imperative to support their autonomy through the provision of accessible and safe public transit systems. It is also important to consider the accessibility of networks that connect to transit systems such as sidewalks and traffic lights as exemplified in the best practices case studies to foster connectivity.

References

- Coalition for Smarter Growth. (2014, September). Moving and Age-Friendly DC: Transportation for All Ages. Retrieved from <https://www.aarp.org/content/dam/aarp/livable-communities/documents-2014/Moving-an-Age-Friendly-DC.2014.9.10.pdf>
- City of Edmonton. (n.d.). Customer Mobility Travel Tools. Retrieved from <https://www.edmonton.ca/ets/customer-mobility-travel-tools.aspx>
- City of Vancouver (COV). (2012, October 31st). Transportation 2040. Retrieved from: http://vancouver.ca/files/cov/Transportation_2040_Plan_as_adopted_by_Council.pdf
- City of Vancouver (COV). (2013). The Age Friendly Action Plan: A Safe, Inclusive, and Engaging City for Seniors. Retrieved from: <http://vancouver.ca/files/cov/age-friendly-action-plan.pdf>
- City of Vancouver (COV). (n.d.). Physical Built Environment. Retrieved from: <http://vancouver.ca/people-programs/physical-and-built-environment.aspx>
- City of New Westminister. (2015, May). New Westminister Master Transportation Plan. Retrieved from: https://www.newwestcity.ca/database/files/library/New_West_MTP.pdf
- City of New Westminister. (2016, February). Dementia-Friendly Community Action Plan Retrieved from: https://www.newwestcity.ca/database/files/library/City_of_New_West_Dementia_Friendly_Community_Action_Plan_Report_2016_8_2.pdf
- City of North Vancouver. (2014). 2014 Official Community Plan. Retrieved from <http://www.cnv.org/your-government/official-community-plan>
- City of Coquitlam. (2012, February). Strategic Transportation Plan. Retrieved from https://www.coquitlam.ca/docs/default-source/transportation-planning-documents/Strategic_Transportation_Plan_Update_-_Summary_Report.pdf?sfvrsn=0
- City of Port Coquitlam. (2013, November). Master Transportation Plan. Retrieved from <https://www.portcoquitlam.ca/wp-content/uploads/2017/09/2013MasterTransportationPlan.pdf>
- District of North Vancouver (2011). Official Community Plan Bylaw 7900. Retrieved from <https://www.dnv.org/sites/default/files/bylaws/Bylaw%207900.pdf>
- District of West Vancouver. (2010, March 15th). Strategic Transportation Plan. Retrieved from <https://westvancouver.ca/sites/default/files/20100305%20DWV%20STP%20Report%20FINAL.pdf>

Government of Ontario. (2017, July 7). Ontario Seniors' Public Transit Tax. Retrieved from <https://www.ontario.ca/page/ontario-seniors-public-transit-tax-credit>

Mayors' Council on Regional Transportation. (n.d.). Regional Transportation Investments: a Vision for Metro Vancouver. Retrieved from: <https://10yearvision.translink.ca/downloads/10%20Year%20Vision%20for%20Metro%20Vancouver%20Transit%20and%20Transportation.pdf>

Stolte, E. (2017, February 26). City wants to prevent transit changes from isolating seniors. Edmonton Journal. Retrieved from <http://edmontonjournal.com/news/local-news/how-to-prevent-public-transit-from-isolating-edmonton-seniors>

Societe de transport de Laval. (2015, December 11). The 2016 STL Budget: Staying the course and developing public transportation in Laval. Cision. Retrieved from <http://www.newswire.ca/news-releases/the-2016-stl-budget-staying-the-course-and-developing-public-transportation-in-laval-561593301.html>

City of Winnipeg. (2014, May). Age-Friendly Winnipeg. Retrieved from <http://winnipeg.ca/interhom/Mayor/pdfs/AgeFriendlyWinnipegActionPlan-May2014.pdf>

Yeo, M. (2015, August 20) Senior-friendly enhancements to public transport system in the works. Today Online. Retrieved from <http://www.todayonline.com/singapore/senior-friendly-enhancements-public-transport-system-works>

Grenier, E. (2017, May 03) Canadian seniors now outnumber children for the 1st time, 2016 census shows. CBC News. Retrieved from <http://www.cbc.ca/news/politics/2016-census-age-gender-1.4095360>