Broadway Subway Project

Environmental and Socio-economic Review
Executive Summary

December 27, 2019
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Project Overview

The BC Ministry of Transportation and Infrastructure (MOTI) is delivering an extension of SkyTrain’s Millennium Line from VCC-Clark Station to a new terminus at Broadway and Arbutus Street, in Vancouver, British Columbia (BC). The 5.7-kilometre Broadway Subway (the “Project”) will include 700 metres of elevated track through False Creek Flats in Vancouver with the remaining Project Alignment (the Alignment) being underground. The Project will add one new underground station at Great Northern Way, and five new underground stations along Broadway at Main, Cambie, Oak, Granville, and Arbutus streets to serve the important and growing Broadway Corridor.

The Broadway Corridor is BC’s second largest employment centre. It is home to Western Canada’s largest hospital, an emerging innovation hub, and hundreds of businesses and residences. As the busiest bus route in Canada and the United States, the existing 99 B-Line service can no longer meet current and anticipated demand. The Project will replace the 99 B-Line bus service between Commercial Drive and Arbutus Street with the 99 B-Line bus service continuing from Arbutus Street to the University of British Columbia.

When operational, the Project will provide a number of important benefits, including:

- Providing significant benefits to transit riders in the form of increased capacity, travel time savings, greater reliability, and improved customer experience
- Improving transportation options and economic development potential
- Filling a critical gap in the regional transit network, thereby easing congestion at other transfer points
- Utilizing a grade-separated (mostly underground) right of way to improve reliability and eliminate conflicts with other vehicle traffic, bicycles, and pedestrians
- Reducing greenhouse gas emissions by reducing automotive vehicle kilometres travelled (VKT) and replacing diesel bus B-Line service with electric SkyTrain service and
- Improving affordability by enabling greater mobility at reduced cost for residents across the region and encouraging transit-oriented urban development and housing availability

The $2.83-billion Project is largely funded by the Government of British Columbia, with contributions from the Government of Canada and City of Vancouver. The Project is part of the rapid transit program in the Metro Vancouver’s Mayors’ Council 10-Year Investment Plan Phase 2.
Construction of the Project, for which funding was announced on September 4, 2018, is expected to commence in 2020 with the new subway opening in 2025. Project components and activities include:

- 700-metre elevated guideway that will extend from VCC-Clark Station to a tunnel portal adjacent to Emily Carr University of Art + Design
- Five-kilometre tunnel from Emily Carr University of Art + Design, mainly under Broadway, to Arbutus Street
- Six underground SkyTrain stations
- Bus loop integrated with the Arbutus station
- Landscaping
- Acquisition of private, City, and TransLink properties for Project construction and operation
- Site preparation, and utility relocation and improvements
- Power, control, and communication systems
- Testing and commissioning

Construction of the Project will be by a Design-Build-Finance Contractor, which will be responsible for designing, building, and financing the construction of the Project. During Project construction, MOTI will audit Project construction to verify that the Contractor adheres to regulatory and contractual requirements.

Once operational, the Broadway Subway will be seamlessly integrated with Metro Vancouver’s transit network and operated and maintained by TransLink.

**Environmental and Socio-Economic Review Process**

During Project planning, engagement with the Canadian Environmental Assessment Agency and the BC Environmental Assessment Office confirmed that the Project does not exceed regulatory thresholds that would require an environmental assessment under federal or provincial environmental legislation.

An Environmental and Socio-Economic Review (ESR) process was instead undertaken to provide a clear and transparent approach for involving Indigenous groups, the public, stakeholders, and government agencies in identifying potential Project-related effects, and approaches to avoiding or mitigating such effects.

The development of the ESR process was supported by consultation and engagement on the scope of issues to be considered as well as the methods for assessing potential effects on environmental and socio-economic values during Project construction and operation.
The key objectives of the ESR are to:

- Demonstrate the Project’s commitment to protecting environmental and socio-economic values
- Identify potential Project-related effects on environmental and socio-economic values and approaches for avoiding or mitigating effects to protect such values
- Provide opportunities for Indigenous groups, government agencies, stakeholders and the public to participate in the identification and review of environmental and socio-economic values and mitigation measures during the Project

The findings of the ESR will be used to support development of environmental protection measures and requirements intended to protect environmental and socio-economic values during construction and operation of the Project.

The ESR was supported by engagement with the public, business and community groups, health care service providers, cycling groups, educational institutions, and nearby businesses and residents, as well as government agencies and elected officials. Engagement activities included workshops with stakeholders and residents adjacent to station locations to discuss neighbourhood specific interests.

**Indigenous Consultation**

The Project is located within the asserted traditional territories of Musqueam Indian Band, Squamish Nation and Tsleil-Waututh Nation. The Sto:Lo Nation, Sto:Lo Tribal Council, and Hul’qumi’num Treaty Group have also asserted their interests within or near the Project.

Indigenous consultation with Musqueam Indian Band, Squamish Nation and Tsleil-Waututh Nation began in summer 2017. Consultation with Indigenous groups has focused on sharing of Project-related information, determining specific preferences and details with respect to consultation activities, identifying Project-related concerns, interests and issues, and providing information and obtaining input on Project-related benefits such as cultural recognition and Project participation. It has also included obtaining input from Indigenous groups regarding the potential for the Project to affect their Aboriginal Interests and identifying potential measures to avoid or mitigate any potential effects on those Interests.

Indigenous consultation activities have included meetings, letters and emails and the sharing of information on the Project and the content, and conclusions, of the ESR. Information obtained through Indigenous consultation activities was used to inform Project planning including approaches to mitigating potential Project-related effects. In addition, Indigenous consultation activities have supported important dialogue regarding the Project’s location, in the traditional territories of Indigenous groups, and opportunities for cultural recognition during future stages of the Project.

Additionally, Indigenous groups have participated in environmental and archaeological field work.
Public Engagement

Public and stakeholder engagement has been underway since December 2016. Public engagement activities have included engagement with the City of Vancouver, provincial and federal government officials, interested groups and organizations, residents, businesses and other key partners, to raise awareness about the Project, gather input from interested parties, and respond to Project-related inquiries.

In 2016–2017, through two phases of engagement and ongoing communication and outreach, public and stakeholder engagement focused on sharing Project-related information, identifying initial concerns, interests, and issues around design and construction, and obtaining input on future engagement activities. The Project also engaged the public and stakeholders on design elements inside and outside stations, as well as construction-related concerns and potential mitigations.

The Project has engaged with these key audiences in a diverse range of ways including meetings, workshops, presentations, open houses, the Project website, social media, and written communications.

A high level of support for the Project resulted from the engagement activities. Key issues raised by the public included:

- Construction-related effects on traffic
- Access to businesses during construction
- Station design
- Noise and vibration
- Air quality
- Management of contaminated sites
- Location of the stations and subsequent impact on neighbourhood character, housing, and business viability
- Location of the Arbutus bus loop
- Access considerations for persons with disabilities

ESR Scope and Methods

The following environmental and socio-economic values (Review Elements) are addressed in the ESR:

- Transportation and Access
- Housing and Property
- Archaeological and Heritage Resources
- Noise
- Vibration
• Air Quality and Greenhouse Gases (GHGs)
• Contaminated Sites and Excavated Materials
• Electric and Magnetic Fields (EMF)
• Aquatic Resources
• Vegetation and Wildlife Resources

The general methodology for the evaluation of potential effects on the Review Elements included:

• Describing existing conditions for each Review Element, supported by the collection of baseline data
• Identifying potential effects to each Review Element, within specified boundaries, as a result of interaction between Review Elements and Project activities and physical works
• Identifying measures to avoid or limit potential effects on Review Elements during construction and operation

Key Findings of the Environmental and Socio-Economic Review

Existing environmental and socio-economic conditions in the Review Area are consistent with the highly developed and urban setting in which the Project is located and include:

• Limited natural habitat values (i.e., wildlife and fish habitat)
• Physical conditions (i.e., noise, water quality, air quality, site contamination) within generally acceptable limits but reflective of the high levels of development and human activity that occur in the Review Area
• Socio-economic conditions that reflect the importance of the Review Area in supporting employment, housing, transportation infrastructure, and access to community services and amenities, including healthcare for local and regional residents

As activities that will be undertaken to construct the Project are similar to those used for typical development projects, well-established best management practices can be effectively applied to avoid or limit potential effects on the Review Elements.

The following sections summarize ESR findings for each Review Element including:

• Existing conditions
• Potential effects of the Project
• How potential effects will be mitigated during construction and operation
Traffic and Transportation

The Broadway Corridor is a major urban transportation corridor for transit, trucks and general-purpose traffic with high volumes of pedestrians. The Project will reduce future travel times, make transit travel more reliable, and increase transit capacity along the Broadway Corridor by three times on opening day with the capacity for more riders in future. The Project will also support planned growth and economic development in the area.

Construction of the Project has the potential to result in changes to transportation and access. Substantial steps are being taken during Project planning to maintain mobility and access and keep people and commerce moving during construction, including:

- Relocating some bus routes to alternative routes; Route 9 and 99 will be prioritized on Broadway to maintain service levels
- Maintaining four lanes of traffic throughout most of the corridor
- Working closely with health care facilities, businesses, institutions, and other stakeholders, to maintain access during construction and allow ongoing client access
- Working closely with emergency service providers to prioritize critical emergency vehicles and limit restrictions on available routes
- Developing and implementing traffic management plans that will include active and ongoing engagement and communication with local businesses and residents
- Advancing a Business Relations Program to inform, engage, and involve businesses in effectively addressing construction-related disruptions

These measures are anticipated to reduce Project-related effects on transportation and access during construction; however, there will continue to be construction-phase effects including longer travel times, changes in existing pedestrian and cycling routes, and a reduction in on-street parking. Limiting these effects will require extensive and ongoing collaboration between the Project, City of Vancouver, TransLink, emergency services, and key stakeholders.

Housing

The Review Area is already substantially developed for high density residential and office uses. The Project is expected to increase market interest in new multi-family and office development along the Corridor, and could result in some shifting of investment from other parts of the City. This is anticipated to increase total housing stock and the supply of employment space along the Corridor. While the Project may result in some shifting of development from other parts of Vancouver, it is anticipated that the overall pace of development across the City and Metro Vancouver will not be affected.
Building on lessons learned from past transit developments in Metro Vancouver, the City has initiated a Broadway land use planning process, the Broadway Plan. The 30-year Plan will focus on opportunities to integrate new housing, jobs, and amenities around the Broadway Subway and will address the need for:

- Increased job space
- Deepening housing affordability
- Limiting displacement of existing tenants
- New or improved connections
- Improved parks and public spaces
- New and renewed public amenities

The City is also taking additional steps to address housing availability and affordability in the Broadway Corridor including:

- Initiatives focused on increasing rental housing stock
- Implementation of the Development Contribution Expectation\(^1\) to limit speculation
- The Making Room housing program which provides increased diversity of housing options in low-density areas
- The False Creek South Neighbourhood Planning Program which includes objectives related to increase housing capacity and choice

**Archaeological and Heritage Resources**

The Review Area contains some areas with high archaeological potential, including those associated with historic stream locations and the historic shoreline of False Creek. In addition, the Review Area includes properties identified by the City of Vancouver as heritage buildings. Project construction has the potential to affect archaeological resources (during excavation or tunnelling) and heritage buildings (with minor cracking of drywall or the exterior building envelope due to construction-related ground vibration). Potential Project effects will be avoided or limited as follows:

- Requiring development and implementation of an Archaeological and Heritage Management Plan to avoid or mitigate construction-related effects on archaeological or heritage resources. The Plan will include working with Indigenous groups to:
  - Conduct field studies to identify archaeological sites that may exist
  - Avoid or mitigate effects to archaeological or heritage sites in accordance with the *Heritage Conservation Act* and provincial guidance

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\(^1\) The Development Contribution Expectation (DCE) Policy is a City of Vancouver policy that was developed to limit land value speculation in areas undergoing community planning (i.e., the Broadway Plan planning area) by adding clarity to land acquisition decisions and allowing purchasers to factor in the costs of required amenities when rezoning or density bonusing occurs.
Develop and implement protocols for addressing archaeological and heritage resources that may be unexpectedly encountered during Project construction.

- Requiring development and implementation of a Noise and Vibration Management Plan to avoid or limit construction-related vibration effects on buildings, including heritage buildings, adjacent to the Project.

During the operational phase of the Project, no effects on Archaeological and Heritage Resources are expected. With the implementation of the proposed mitigation measures, Project effects on Archaeological and Heritage Resources are expected to be effectively mitigated.

### Noise

The Review Area has ambient noise levels typical of a busy urban environment, with the dominant noise source being road traffic. Construction of the Project, including station construction and construction-related traffic, is anticipated to contribute additional sources of noise. Sources of noise associated with the operational phase of the Project will include train operation (primarily underground) as well as station infrastructure such as ventilation and communications systems. Potential Project noise effects (e.g., change in noise levels) will be mitigated as follows:

- Requiring development and implementation of a Noise and Vibration Management Plan to mitigate Project-related noise on adjacent areas. The Plan will include best management practices such as:
  - Providing advance notice to residents regarding Project-related noise and proposed mitigation
  - Enhanced mitigation measures for nighttime work
  - Selecting construction equipment with noise control features
  - Noise monitoring to evaluate the effectiveness of mitigation

During the construction phase, elevated noise levels are predicted in areas adjacent to construction sites though noise levels are predicted to be below the noise thresholds of the City of Vancouver noise bylaw. Elevated noise levels anticipated during the operation phase will be limited to above-ground sections of the Alignment and can be reduced through mitigation integrated into the design of the Project. During operations, monitoring of noise and addressing noise concerns will be undertaken in accordance with the British Columbia Rapid Transit Company (BCRTC) Operations Environmental Management Plan (BCRTC 2019).
Vibration

Existing vibration levels near the Alignment are typical of a busy urban environment, with sources of vibration coming primarily from road traffic and construction activities. Construction activities including tunnelling, and station and guideway construction could result in vibration effects on adjacent areas, including affecting the operation of sensitive equipment, disturbing activities in adjacent buildings (e.g., shaking, rattling), and causing damage to adjacent structures. Operation of the Project has the potential to generate vibration associated with train operation.

Potential vibration-related Project effects will be mitigated as follows:

- Requiring development and implementation of a Noise and Vibration Management Plan to limit the effects of Project-related vibrations during construction on the local community and sensitive receptors such as medical services facilities. The Plan will include best management practices such as:
  - Modelling anticipated vibration based on the final design and construction methods
  - Developing site-specific vibration mitigation measures based with input from potentially-affected property owners and residents
  - Using construction methods and equipment that limit vibration levels
  - Conducting pre- and post-construction building assessments, and monitoring vibrations during construction
  - Identifying windows of time to avoid construction activities that cause substantial vibration
  - Incorporating vibration-reducing features into the design of train tracks

During construction, vibration levels may temporarily exceed existing vibration levels in localized areas (e.g., station construction areas); however, with appropriate mitigation measures, and monitoring, such potential effects are expected to be effectively mitigated.

During the operational phase of the Project, potential effects from vibrations will be mitigated by applying relevant vibration-related procedures from BCRTC’s Operational Environmental Management Plan. With the implementation of the proposed mitigation measures, Project effects on Vibration are expected to be effectively mitigated.
Air Quality and Greenhouse Gases

Air quality in the Review Area and in the Lower Fraser Valley airshed is generally good and has improved in recent decades, though air emissions from the transportation sector continue to be a significant component of overall air emissions in the region. By encouraging a shift towards more sustainable modes of transportation, the Project will help to maintain air quality in a growing region and reduce GHG emissions. During construction, equipment and vehicles will generate emissions of fugitive dust, air contaminants, and greenhouse gases (GHGs). These potential Project-related effects will be mitigated as follows:

- Requiring development and implementation of an Air Quality and Greenhouse Gas Management Plan to manage air emissions from construction activities. The Plan will include best management practices such as:
  - Using water spray to keep dust down at excavations and on construction routes
  - Using construction fleet vehicles that meet engine emission bylaws, and regularly maintaining the vehicles
  - Using low-sulphur fuel and implementing a no-idling policy

Operation of the Project, which is supported by electrical power, will generate negligible emissions of air contaminants. Emissions of air contaminants generated by the operation of vehicles and equipment required to support operations, can be avoided or mitigated through the application of procedures described in BCRTC’s Operational Environmental Management Plan.

With implementation of the proposed mitigation measures, construction-related Project effects on Air Quality and Greenhouse Gases are expected to be effectively mitigated, with negligible changes in air quality and GHGs. When operational, the Project will result in a net reduction in local and regional emissions of air contaminants and GHGs by reducing the number of vehicle kilometres driven by transit buses and passenger vehicles in the Broadway corridor.

Contaminated Sites and Excavated Materials

The Review Area includes some areas with site contamination, associated with historic development and land use, that may be encountered during station construction and tunnelling. The Project has the potential to result in the release of contaminants from contaminated soils or groundwater encountered during construction. Excavation and tunnelling will also generate large quantities of uncontaminated soil and rock that will need to be transported outside the Alignment for beneficial reuse or disposal. In addition, construction of the Project will require the demolition of some existing structures and will generate construction and demolition waste, some of which may include hazardous materials such as asbestos which may be present in older buildings.
Potential Project effects related to contaminated sites and excavated materials will be mitigated as follows:

- Requiring development and implementation of a Contaminated Sites and Excavated Materials Management Plan to maintain compliance with BC’s Contaminated Sites Regulation. The Plan will include best management practices such as:
  - Sampling soil and groundwater in areas of planned excavation to determine disposal requirements
  - Describing contingency procedures to follow if a contaminated site is encountered or an accidental release occurs during construction
  - Managing and disposing of uncontaminated and contaminated soil, rock, and groundwater in accordance with provincial laws and regulations
- Requiring development and implementation of a Construction and Demolition Waste Management Plan to manage non-hazardous construction and demolition waste and a Hazardous Materials Management Plan to manage hazardous waste (e.g., asbestos or PCBs from demolished buildings).
- Excavated soil and bedrock will be taken off-site and relocated in accordance with provincial soil relocation requirements, going to beneficial reuse where such reuse can be identified and is cost-effective
- During the operational phase, the minor risk of site contamination will be effectively addressed by applying procedures (e.g., spill response procedures) described in BCRTC’s Operational Environmental Management Plan

With implementation of the proposed mitigation measures, Project effects related to Contaminated Sites and Excavated Materials are expected to be effectively mitigated.

**Electric and Magnetic Fields (EMFs)**

Electric and Magnetic Fields (EMFs) are physical fields produced by electrically charged objects, such as power lines. Elevated levels of EMF can affect the operation of electronic devices, including personal electronics and medical devices such as pacemakers.

Many sources of EMF, typical of urban environments, currently exist along the Alignment and include household electronics, electrical power lines, vehicles, and cellphone towers. Project-related sources of EMFs will include equipment used during construction as well as the electrified track, trains, and systems used to support operations.
Project-related EMFs will be limited by selecting and locating equipment in ways that reduce EMFs at the source and create adequate distance between EMF sources and receptors (e.g., sensitive electronic equipment). As a result of measures to address EMF considerations during Project design:

- Project-related EMFs will meet applicable regulations and guidelines and be similar to those from existing SkyTrain lines
- Project-related EMFs are not expected to cause electromagnetic interference with personal electronics, wheelchairs, personal medical devices such as pacemakers, or other electronics
- Sensitive medical devices in hospitals and medical facilities along the Alignment will not be affected by Project-related EMFs
- Project-related equipment (e.g., communications equipment) will meet Industry Canada standards for electromagnetic compatibility and is not expected to interfere with AM/FM communications or other electronic systems and devices

With the implementation of the proposed mitigation measures, effects from Project-related EMFs are expected to be effectively mitigated.

**Aquatic Resources**

The Project has limited potential to impact aquatic resources as the Alignment does not directly cross any surface watercourses, although it does cross several culverted historic watercourses. The closest waterbody is False Creek, which receives roadway runoff from the Review Area via the storm water and combined sewer systems. Project construction activities have the potential to affect water quality and aquatic resources by releasing contaminants or sediment into storm drains and thus into False Creek. These potential Project effects will be mitigated as follows:

- Requiring the development and implementation of a Surface Erosion Prevention and Sediment Control Plan and a Water and Sediment Quality Management Plan, with best management practices such as:
  - Implementing measures to control erosion and sedimentation such as covering stockpiles and locating them away from storm drains and using settling tanks to reduce sediment load consistent with environmental bylaws and regulations, before discharging construction water to storm sewers
  - Monitoring water quality for key parameters such as turbidity, total suspended solids, pH, temperature, and hydrocarbons
  - Testing water before allowing its discharge to the sewer system
• Requiring the development and implementation of a Spill Prevention and Emergency Response Plan to respond to accidental spills with best management practices such as:
  − Having spill response materials on the Project site to quickly respond to accidental spills
  − Training Project personnel in spill response procedures
  − Establishing spill reporting requirements
• Applying BCRTC’s Operational Environmental Management Plan (e.g., storage of hazardous materials, spill response, liquid waste management)

With the implementation of the proposed mitigation measures, potential Project effects on Aquatic Resources are expected to be effectively mitigated.

**Vegetation and Wildlife Resources**

The Project area has limited wildlife habitat and no identified species of concern. Vegetation along the Alignment consists of sparse bushes and street trees, which provide marginal wildlife habitat. Project construction activities, such as clearing and grubbing of undeveloped sites, have the potential to impact existing habitat and wildlife. These potential Project effects will be mitigated as follows:

• Requiring development and implementation of a Vegetation and Wildlife Management Plan to reduce or avoid impacts on wildlife and wildlife habitat, including best management practices such as:
  − Retaining street trees where possible and replacing them where they must be removed
  − Avoiding effects on migratory birds by clearing trees and bushes outside their breeding period or protecting active nests
  − Controlling invasive species using best management practices from the Invasive Species Council of BC
  − Using City of Vancouver design guidelines for bird-friendly structures and for the use of native plant species in landscaping

During the operational phase of the Project, physical barriers will prevent wildlife from accessing Project infrastructure, so effects on wildlife are expected to be negligible. With the implementation of the proposed mitigation measures, Project effects on Vegetation and Wildlife Resources are expected to be effectively mitigated.
**Accidents and Malfunctions**

SkyTrain has been operating in Metro Vancouver for over 30 years, and TransLink’s SkyTrain operator has established procedures to avoid and respond to accidents and malfunctions (e.g., fires, spills, seismic activity, extreme weather) as part of its SkyTrain Control Centre Operations Manual. The operator will conduct regular maintenance of its equipment and infrastructure to reduce the likelihood of potential accidents and malfunctions.

The likelihood, consequence and risk of accidents or malfunction associated with the existing infrastructure continues to be low and the Project will be designed and constructed with features to limit the likelihood and consequence of events. Examples of design measures that will be integrated into the Project to reduce health and safety risks include:

- Station exits and movement corridors to facilitate emergency evacuations
- Drainage infrastructure to prevent flooding of the tracks
- Infrastructure constructed to design standards for fire suppression and response
- Backup systems to allow for the operation of ventilation, lighting, and communications systems during emergencies

**Environmental Management Plans**

During construction of the Project, a Construction Environmental Management Plan (CEMP) will be in place to mitigate the potential effects of construction activities on Review Elements. The CEMP will be designed and implemented by the Contractor and will be required to comply with applicable environmental laws, regulations, licences, permits, and approvals. The CEMP will comprise the following component plans:

- Air Quality and Greenhouse Gas Management Plan
- Archaeological and Heritage Management Plan
- Construction and Demolition Waste Management Plan
- Contaminated Sites and Excavated Materials Management Plan
- Hazardous Materials Management Plan
- Noise and Vibration Management Plan
- Spill Prevention and Emergency Response Plan
- Surface Erosion Prevention and Sediment Control Plan
- Vegetation and Wildlife Management Plan

During Project construction, MOTI will audit the Contractor’s implementation of the CEMP. Auditing of the delivery of the CEMP will be supported by weekly, monthly, and annual environmental reports developed by the Contractor and submitted to MOTI.
During the operational phase of the Project, BCRTC will be responsible for operating the Project and managing environmental issues associated with operation as guided by BCRTC’s Operational Environmental Management Plan.

**Conclusion**

When operational, the Project will provide a number of important benefits including:

- Providing significant benefits to transit riders in the form of increased capacity, travel time savings, greater reliability, and improved customer experience
- Improving transportation options and economic development potential
- Filling a critical gap in the regional transit network, thereby easing congestion at other transfer points
- Utilizing a grade-separated (mostly underground) right of way to improve reliability and eliminate conflicts with other vehicle traffic, bicycles, and pedestrians
- Reducing greenhouse gas emissions by reducing automotive vehicle kilometres travelled (VKT) and replacing diesel bus B-Line service with electric SkyTrain service and
- Improving affordability by enabling greater mobility at reduced cost for residents across the region and encouraging transit-oriented urban development and housing availability

While Project construction activities have the potential to impact environmental and socio-economic conditions in the Broadway Corridor, the ESR process has identified measures that will be taken to avoid or limit temporary construction-phase effects on values such as noise, air quality, contaminated sites, fish and wildlife habitat, and water quality.

While Project construction will result in temporary increases in congestion in some areas, a broad suite of actions will be undertaken to maintain continued, efficient movement of transit, commercial and commuter traffic, cyclists and pedestrians through the Corridor during construction. In addition, the Project will engage with businesses to proactively address potential construction-related disruption.

As a result of careful planning, that draws on past experience in building and operating transit infrastructure, potential effects on environmental and community values during construction will be effectively mitigated.

Once operational, the Project will result in reduced bus and passenger-vehicle traffic on Broadway and facilitate a shift towards more sustainable modes of transportation. Existing transportation infrastructure, including roadways, and other transit services, will continue to operate as they do currently.

During operation, Project infrastructure will be operated by TransLink and guided by existing systems that are in place on the existing Millennium Line to proactively address potential effects on environmental and socio-economic values that could occur. Existing TransLink systems are also in place to avoid and respond to accidents that could occur during operation.