



transportation
investment
corporation

Monthly Status Report

Reporting Period: September 2021

1. Introduction

1.1 Project Overview

The Broadway Subway Project (“BSP” or “the Project”) is a 5.7-kilometre Advanced Light Rapid Transit (ALRT or SkyTrain) extension to the existing Millennium Line SkyTrain system from its current terminus at VCC-Clark Station to a new western terminus station at Arbutus Street and West Broadway. The Project scope includes:

- 700 m of elevated guideway extending west from the existing VCC-Clark Station
- 5 km of underground tunnel
- 6 new underground stations:
 - Great Northern Way – Emily Carr Station;
 - Mount Pleasant Station;
 - Broadway – City Hall Station – designed to integrate with the Canada Line Broadway-City Hall Station;
 - Oak – VGH Station;
 - South Granville Station;
 - Arbutus Station – designed to allow for a future phase of investment to connect rapid transit to UBC.

The Broadway Subway is scheduled to open in 2025.

Additional information and updates about the Project can be found on the Project’s website at <https://www.broadwaysubway.ca/>.

1.2 Project Delivery

Transportation Investment Corporation, a provincial Crown corporation, is delivering and overseeing this \$2.827 billion Project. The Project is being delivered under B.C.’s Community Benefits Agreement and the skilled trades workforce will be provided by B.C. Infrastructure Benefits Inc.

Broadway Subway Project Corporation (BSPC) has been selected as the design-build contractor.

The Broadway Subway Project is a key part of the rapid transit program in Metro Vancouver’s Mayors’ Council 10-Year Vision. The Vision is funded by the governments of B.C. and Canada, TransLink, and City of Vancouver. Once constructed, the Broadway Subway will be integrated with the regional transit network and operated and maintained by TransLink.

1.3 Project Goals

Based on the mandate and results of consultation, seven primary goals have been identified for the Project:

- **Transportation:** Fast, reliable, and efficient service that meets current and future capacity needs and integrates with the regional transit network and other modes of transportation.
- **Financial:** Affordable and cost-effective.
- **Environment:** Attracts new riders and reduces vehicle kilometres travelled.
- **Urban Development:** Supports current and future land use development along the Broadway Corridor and integrates with the surrounding neighbourhoods through high-quality urban design.
- **Economic Development:** Creates jobs and facilitates the efficient movement of goods and services during operation.
- **Social and Community:** Safe, secure, and accessible service that improves access to rapid transit for all, while managing impacts on heritage and archaeology.
- **Deliverability:** Constructible and operable.

2. Project Dashboard

		Objectives	Project Status	Comments
Project Delivery	Scope	Project delivered within the approved scope.		<ul style="list-style-type: none"> The Project includes the delivery of a primarily tunneled extension to the existing Millennium Line SkyTrain system from VCC-Clark Station to a new station at Arbutus Street and is on track.
	Schedule	Project delivered within the approved schedule.		<ul style="list-style-type: none"> The start of piling activities are delayed at some construction locations. A recovery plan is being implemented by BSPC.
	Budget	Project delivered within the approved budget of \$2.827 billion.		<ul style="list-style-type: none"> Project spending for the month of September 2021 was \$18.8 million. Total Project spending to date is \$549.3 million and the Project is forecast to be delivered within budget.
	Safety	Take every reasonable step to ensure that work is performed safely and in compliance with all applicable safety regulations, and in accordance with government policy.		<ul style="list-style-type: none"> A project specific health and safety plan has been developed and is being implemented. Regular project site visits are being performed to oversee health and safety performance. A communicable disease plan has been developed and is being implemented. There has been one lost time injury and three medical treatment injuries for the Project.
	Quality	Implement and maintain an effective Quality Management System.		<ul style="list-style-type: none"> The Province continues to review BSPC's quality documentation submittals. Quality system auditing of select work activities and processes by BSPC and the Province continues.
	Environmental	Ensure work is performed in an environmentally responsible manner.		<ul style="list-style-type: none"> Site specific environmental workplans complete. Second environmental monitor personnel added to BSPC team. Weekly environmental monitoring reports being submitted. On-site quantitative noise monitoring initiated. Updated contaminated sites management plans for GNW and MP, and BCH submitted.
	Design and Construction	Provide design and technical oversight, coordinate and manage activities on site, and conduct compliance reviews.		<ul style="list-style-type: none"> Excavation is continuing at Great Northern Way. Excavation and soil nail installation has commenced on the north side of the street at Mt. Pleasant. Waterline installation has begun on the North side of Broadway. Piling is continuing on the North side of Broadway at BCH and Oak- VGH. Utility work is continuing and piling has commenced on the South side of Broadway at Granville. Waterline trenching has commenced on the North side of Broadway at Arbutus.
	Community Benefits	Work collaboratively with BC Infrastructure Benefits Inc. (BCIB) to successfully implement the Community Benefits Agreement (CBA).		<ul style="list-style-type: none"> Ongoing coordination with BCIB. Province/BSPC/BCIB in ongoing discussions for permitting and future BCIB resource requirements.

Partners / Stakeholders	Indigenous Groups	Continue to build and maintain a positive collaborative working relationship.	●	<ul style="list-style-type: none"> • The Province continues to engage with the Indigenous Groups in relation to the Project and cultural recognition. • Continued Project-specific agreement discussions with Indigenous Groups.
	Third Parties	Continue to build and maintain positive relationships with Project Partners and other third parties.	●	<ul style="list-style-type: none"> • Engage third parties to ensure successful implementation of executed agreements.
	Public and Stakeholder Engagement	Continue to build and maintain positive relationships with the community and other stakeholders.	●	<ul style="list-style-type: none"> • Ongoing engagement with local businesses, stakeholders, residents, and the public continued.

Status	Description
●	Managing critical issues, negotiating resolution; action required immediately
●	Managing some issues, negotiating resolution; action required in the near term
●	On track; no action required

3. Project Documents and Achievements to Date

Project Delivery	Project Planning and Development	<ul style="list-style-type: none"> • Business Case released (2018). • Cost Report released (2018). • Project Overview released (2018). • Risk Report released (2018). • Strategic Options Whitepaper released (2018).
	Environmental	<ul style="list-style-type: none"> • Environmental technical studies complete (2017-2018). • Environmental Socio-Economic Report complete (2020). • BSPC Construction Environmental Management Plan finalized (2021). • Site specific Environmental Workplans developed to support construction (2021). • Site specific contaminated site management plans completed for 3 stations. • City of Vancouver ground water permit received for Great Northern Way station.
	Design and Construction	<ul style="list-style-type: none"> • Geotechnical studies complete (2016-2017). • Reference concept design complete (2018). • Traffic modelling complete (2017-2019). • Geotechnical Subsurface Baseline Report complete (2019). • Geotechnical investigations commenced (2020). • Building abatement complete (2021). • Building demolitions at station sites complete (2021). • Bulk excavation commenced at Great Northern Way – Emily Carr (2021). • Piling complete at Mount Pleasant Station (2021). • Piling continuing at Bradway City Hall (Sep 2021).
	Province/Other Works	<ul style="list-style-type: none"> • Tunnel Boring Machine power – BC Hydro (2019). • Propulsion Power Substations including upgrade to dedicated power at VCC-Clark Station – BC Hydro (2019). • Utility relocate at Main Street – TELUS (2019).

		<ul style="list-style-type: none"> • Utility relocates at Great Northern Way – TELUS/FortisBC/BC Hydro (2019). • Civil construction and utility relocate at Arbutus and Cambie – TELUS (2020). • Trolley overhead relocations of bus routes 14, 16, and 17 – Coast Mountain Bus Company (2020). • Trolley overhead removals of trolley infrastructure on Broadway – Coast Mountain Bus Company (2020). • Utility relocate at Cambie – FortisBC (2020). • Electrical duct utility relocate at South Granville and Arbutus – City of Vancouver (2021).
	Community Benefits	<ul style="list-style-type: none"> • Received BCIB Contractor and BCIB Subcontractor Agreements from BCIB for inclusion in the RFP (2019). • Received BSP appendix to CBA (2019/2020). • Execution of the BCIB Contractor Agreement (2020). • Granted subcontractor permits (2020-2021). • BCIB labour supply ongoing for the Project (2021).
Partners/ Stakeholders	Third Parties	<ul style="list-style-type: none"> • Memorandum of Understanding – City of Vancouver (2017). • Memorandum of Understanding – TransLink (2018). • Canada Line Amending Agreement – InTransit BC Phase 1 (2019). • South Granville Station Integration Agreement – PCI (2019). • Vancouver Municipal Agreement – City of Vancouver (2020). • Metro Vancouver Accommodation Agreement (2020). • Broadway Subway Project Support Agreement – TransLink (2020). • Canada Line Amending Agreement – InTransit BC Phase 2 (2020). • Integration Agreement – TransLink (2020). • Great Northern Way Station Integration Agreement – PCI (2020).

	<p>Indigenous Groups</p>	<ul style="list-style-type: none"> • Capacity Agreement for the Environmental and Socio-Economic Review (2018). • Contracting and employment requirements finalized (2020).
	<p>Public and Stakeholder Engagement</p>	<ul style="list-style-type: none"> • Phase 1 and 2 engagement (led by TransLink and City of Vancouver) <ul style="list-style-type: none"> ○ Phase 1 engagement (December 2016 – February 2017). ○ Phase 2 engagement (May 2017 – July 2017). • Broadway Subway Project Engagement (Province-led) <ul style="list-style-type: none"> ○ Local business survey (July 2019 – December 2019). ○ Community engagement (October 2019 – December 2019). ○ Opened Community Office (Fall 2019). ○ Established 24/7 construction information line (December 2019). • Station Design Advisory Process (BSPC-led) <ul style="list-style-type: none"> ○ First engagement occurred (November-December 2020). ○ First engagement summary report released (2021). ○ Second engagement (April 29-May 12, 2021).

4. September Highlights and Three Month Lookahead

4.1 Safety

Scope:	<ul style="list-style-type: none"> • Manage relevant Project health and safety management systems. • Oversee Project goals, objectives, and performance metrics. • Ensure health and safety roles and responsibilities are clearly defined. • Plan each Project activity to ensure the safety of workers and the public. • Coordinate health and safety activities with all relevant stakeholders. • Measure health and safety performance. • Ensure compliance with WorkSafeBC, municipalities, and government agencies. • Monitor management systems for continual improvements.
Monthly Highlights:	<ul style="list-style-type: none"> • The Province reviewed BSPC health and safety plans. • The Province performed weekly Project site visits to observe compliance and areas of improvement. • There has been one lost time injury and three medical treatment injuries for the project.
Three Month Lookahead:	<ul style="list-style-type: none"> • Continue the review of BSPC health and safety plans. • Monitor changes to COVID-19 requirements and revise associated plans. • Provide health and safety support to involved parties. • Perform regular Project site health and safety inspections.

4.2 Quality

Scope:	<ul style="list-style-type: none"> • Establish quality management Project objectives and performance measures. • Manage Project quality management activities. • Monitor relevant quality management performance metrics. • Outline relevant quality management processes and activities.
Monthly Highlights:	<ul style="list-style-type: none"> • BSPC quality audits focussed on processes of their subcontractors and general processes related to Construction Management, Systems Engineering and Integration, Environmental Management, Traffic Management, and Design Management. • Province quality audits on BSPC's Construction Quality Management and Traffic Management processes including several quality system procedures. • No material or major quality issues have been identified and the performance of BSPC's Quality Management System is consistent with the requirements of the Project Agreement.
Three Month Lookahead:	<ul style="list-style-type: none"> • Continue periodic review of quality documentation submissions by BSPC. • Continue BSPC and Province quality system audits and surveillances.

4.3 Environmental

<p>Scope:</p>	<ul style="list-style-type: none"> Oversee delivery of measures to manage risk identified in the Environmental and Socio-Economic Review (ESR). Review environmental submissions including the Construction Environmental Management Plan (CEMP) and Environmental Work Plans (EWPs). Monitor CEMP implementation through review of weekly environmental monitoring reports. Support engagement with Indigenous Groups on CEMP implementation.
<p>Monthly Highlights:</p>	<ul style="list-style-type: none"> Province review of environmental reports and submittals. Province received contaminated site management plans for Great Northern Way, Mt. Pleasant and Broadway City Hall. Weekly meetings between the Province and BSPC environmental team. CEMP implementation and weekly/monthly reporting. Archeology monitoring/ site specific archaeology impact assessment ongoing. BSPC advancing permitting to support water management activities and disposal of residual soil. Province has completed orientation for Province-led auditing of BSPC environmental program. BSPC has begun collected site-specific noise monitoring data to assess effectiveness of noise mitigation measures.
<p>Three Month Lookahead:</p>	<ul style="list-style-type: none"> Ongoing Provincial review of environmental submissions. Province-led on-site environmental surveillance during construction (October 2021). Province-led environmental quality audit with a focus on contaminated site management being planned for October/November 2021. Submissions for water management permits (ground water declarations) for remaining station locations planned for fall 2021. Ongoing focus on monitoring volumes of contaminated soils from station locations requiring disposal. BSPC developing EWP to support Tunnel Boring Machine installation and operation. Anticipated to be complete in November 2021. Increase level of effort in conducting quantitative noise monitoring.

4.4 Design and Construction

<p>Scope:</p>	<ul style="list-style-type: none"> Provide technical input to the procurement processes. Develop a design concept, technical requirements/specifications, and related technical studies for the Project. Conduct Project related traffic operations modelling, data collection, and other related engineering services.
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	<ul style="list-style-type: none"> • Conduct compliance reviews of work by BSPC. • BSPC Design and Construction Activities include: <ul style="list-style-type: none"> ○ Non-Systems Design ○ Systems Design ○ Enabling Works including site preparation, building demolitions and utility relocations ○ Construction of 6 Stations ○ Elevated Guideway Construction ○ Underground Guideway Construction by tunnel boring machine ○ Systems Installation ○ Testing and Commissioning
<p>Monthly Highlights:</p>	<ul style="list-style-type: none"> • The Province continued review of BSPC technical submittals. • BSPC continued Non-Systems and Systems Design. • Numerous traffic diversions are being implemented throughout the corridor • Piling is complete at Mt. Pleasant continuing at Oak-VGH, and starting at South Granville. • Utility work is continuing throughout the corridor. • Excavation at Great Northern Way and Mt. Pleasant.
<p>Three Month Lookahead:</p>	<ul style="list-style-type: none"> • Continue to review of BSPC technical submittals. • BSPC will continue Non-Systems Design. • BSPC will continue Systems Design. <p><u>Elevated Guideway</u></p> <ul style="list-style-type: none"> • Install foundations for guideway columns and bents. • Modify QLT parking lot to be able to construct guideway foundations and columns within the footprint of the parking lot. • Utility relocations will begin. <p><u>Great Northern Way – Emily Carr:</u></p> <ul style="list-style-type: none"> • Continue excavation and piling for Tunnel Boring Machine laydown area and station construction at Great Northern Way. • Suspend various utilities within the excavation. <p><u>Mt. Pleasant:</u></p> <ul style="list-style-type: none"> • Shallow excavation, girder, and decking install. • Bulk excavation. <p><u>Broadway - City Hall:</u></p> <ul style="list-style-type: none"> • Shallow excavation, girder, and decking install. • Bulk excavation. <p><u>Oak – VGH:</u></p> <ul style="list-style-type: none"> • Continue piling program. • Utility relocation from south side to north side of Broadway. • Shallow excavation, girder, and decking install. <p><u>Granville:</u></p> <ul style="list-style-type: none"> • Installation of temporary utilities on South side of Broadway. • Continue piling program. • Shallow excavation, girder, and decking install.

	<p><u>Arbutus:</u></p> <ul style="list-style-type: none"> • Utility works. • Start piling program. • Shallow excavation, girder, and decking install.
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4.5 Indigenous Groups

Scope:	<ul style="list-style-type: none"> • Consultation and engagement with Indigenous Groups on the Environmental and Socioeconomic Review and other Project materials as well as cultural recognition at stations.
Monthly Highlights:	<ul style="list-style-type: none"> • Province continued to share Project updates and materials with Indigenous Groups, , including environmental management plans. • Province continued discussions with Indigenous Groups on art and cultural recognition. • BSPC has worked with BCIB to reduce barriers to Indigenous candidate registration.
Three Month Lookahead:	<ul style="list-style-type: none"> • Ongoing information sharing, issues identification and resolution, and identification of Project-related opportunities for Indigenous Groups. • Engagement with Indigenous Groups related to art and cultural recognition at stations. • BSPC will work with Indigenous Groups to identify training programs that support Project employment and update labour forecasting.

4.6 Third Parties

Scope:	<ul style="list-style-type: none"> • Engage with TransLink, the City of Vancouver, PCI, InTransit BC, and other third parties during the Project implementation phase. • TransLink Agreement. <ul style="list-style-type: none"> ○ Broadway Subway Project Support Agreement. • Municipal Agreement. <ul style="list-style-type: none"> ○ Vancouver Municipal Agreement with the City of Vancouver. • Agreements with InTransit BC and TransLink for technical integration of the new Millennium Line Broadway-City Hall Station with the existing Canada Line Broadway-City Hall Station. <ul style="list-style-type: none"> ○ Canada Line Amending Agreement – InTransit BC Phase 1 (between TransLink and InTransit BC). ○ Canada Line Amending Agreement - InTransit BC Phase 2 (between TransLink and InTransit BC). ○ Integration Agreement with TransLink. • PCI Agreements. <ul style="list-style-type: none"> ○ South Granville Station Integration Agreement with PCI. ○ Great Northern Way Station Integration Agreement with PCI. • Accommodation Agreement with Metro Vancouver.
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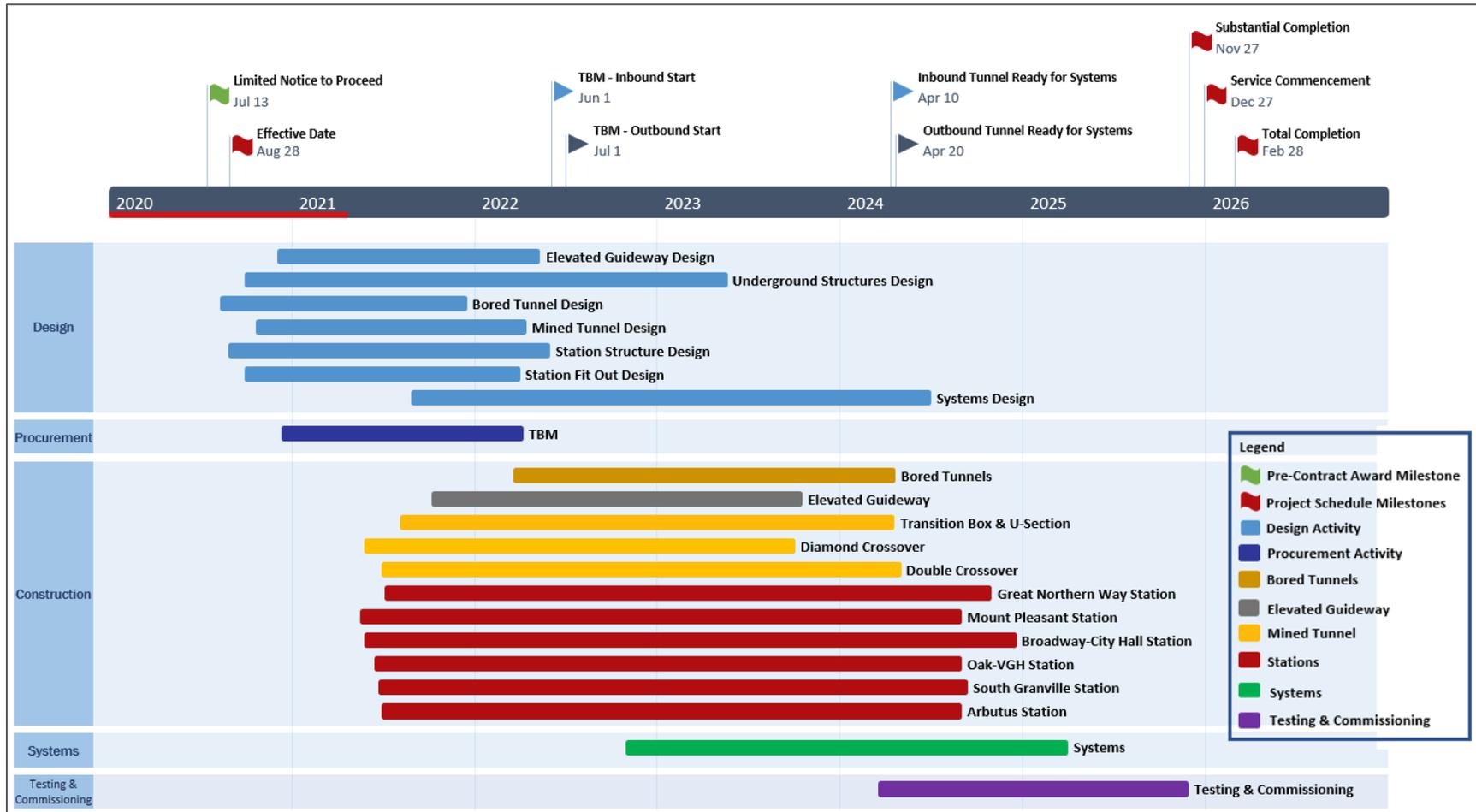
Monthly Highlights:	<ul style="list-style-type: none"> Continued to engage third parties to ensure successful implementation of executed agreements.
Three Month Lookahead:	<ul style="list-style-type: none"> Meetings, planning, and coordination activities to ensure implementation of signed agreements. Oversight of integration. Coordination of interface between BSPC and third parties.

4.7 Public and Stakeholder Engagement

Scope:	<ul style="list-style-type: none"> Manage ongoing public and stakeholder communications and community and business relations.
Monthly Highlights:	<ul style="list-style-type: none"> Distributed construction notifications, responded to public and stakeholder enquiries, and met with businesses and stakeholders – all materials available on website. Responded to 62 public inquiries.
Three Month Lookahead:	<ul style="list-style-type: none"> Provide progress updates on traffic deck construction and utility relocations. Celebrate start of construction of the elevated guideway and completion of the first traffic deck. Hold initial meeting of the traffic advisory group, and regular meetings with the Arbutus Schools Traffic Liaison Group; establish Health Precinct advisory group. Ongoing meetings and correspondence with local businesses, residents, and key stakeholders, construction notifications, and responses to public enquiries.

5. Schedule

The following schedule depicts the estimated deliverables, milestones, and timelines from the design to commissioning phase of the Project.



6. Project Photos

Great Northern Way-Emily Carr Station: Progressing with excavating the transition to the face of the portal tunnel



Mount Pleasant Station: Progressing with shallow excavation for decking install



Broadway City Hall Station: Progressing with the installation of piles for traffic decking



Oak VGH Station: Progressing with the installation of piles for traffic decking



South Granville Station: Progressing with the relocation of utilities and the installation of piles for traffic decking



Arbutus Station: Progressing with the relocation of utilities and installation of a temporary water pipe

