



PRESIDENT & GENERAL MANAGER 2021 Q3 REPORT December 2021 TRANSLINK BOARD MEETING

In Q3 2021, the Rail company continued to deliver our maintenance, capital and operational responsibilities ensuring we provide a safe, reliable and resilient rail service for our customers that rely on transit on a daily basis. This quarter, we put emphasis on developing the initiatives for our 2022 business plan, performing critical guideway maintenance activities, and developing accountable leaders by providing supervisor and managers with leadership training sessions.

TransLink Strategic Priority: Rebuild customer ridership

Expo and Millennium SkyTrain Service

Service Delivery

In Q3, BCRTC delivered 99.6% of scheduled services, which is just under BCRTC's target of 99.7%. The monthly service delivery percentages are as follows: July 99.6%, August 99.6% and September 99.7%.

On-time performance

Q3 OTP was 96.2% which is slightly below BCRTC's target of 96.5%. Over the first three quarters, our OTP has been above target for seven out of the nine months. This quarter, monthly OTP numbers were – July 95.4%, August 96.9%, and September 96.7%.

The lower OTP in July can be attributed to extreme heat condition which also affected June OTP. Mitigation factors such as reduced train speeds to reduce overheating of running rail beds and systems caused on-time performance to dip for the heat dome event during the first and last week in July. While some extended travel time for customers was incurred, this had positive results for equipment reliability and will be added to our standard operating procedures.

Year to date, SkyTrain's OTP of 96.9% remains better than target which is a testament to the reliability and resiliency of the essential service we provide to the residents of this region.

SkyTrain service delays

- For the first three quarters of 2021, major delay incidents continue to be lower when compared to 2020. YTD there have been 72 major delay incidents compared to 86 in 2020. For the first three quarters of 2021, we are right on track (72) with the number of delays we targeted for the year (72).
- For Q3, delays with a duration of 16-30-minutes were slightly better than target but above target for delays with a duration over 30 minutes. The most serious incidents were related to medical emergencies, police incidents, trespasses, train and switch issues, and flooding in one of our tunnel sections.
 - There were 15 incidents in the 16-30-minute delay category in Q3, which is better than target of 16 delays. The Q3 delays for this category are similar to the number experienced in Q1 but above the seven events that occurred in Q2.
 - In Q3, there were 13 major delay incidents over 30 mins. This is seven more than the six experienced in Q2 but similar to the number of delays experienced for the same time period in 2020.

Customer experience

- SkyTrain Customer Survey overall score for Q3 was 8.5, which was above the target of 8.3. Having courteous staff, providing on-time, reliable, and frequent service, and feeling safe onboard SkyTrain continue to be our strongest performance categories.
- For WCE, the Customer Survey overall score was 8.8, which is better than the target of 8.6. WCE's best scores were in the categories of providing on-time and reliable service, safety on trains and in stations, and courteous, competent and helpful staff.
- In collaboration with our enterprise partners, BCRTC assisted on several customer service initiatives in Q3 to improve safety and the customer experience in stations and onboard trains:

- Supported TransLink's initiative to install free WIFI onboard trains. Initially beginning with three trains (302, 304, 306) and at Edmonds SkyTrain Station, this program will expand to the entire fleet and other transit hubs.
- Implemented a policy to allow passengers to bring their foldable, electric kick scooter on board SkyTrain and West Coast Express to reflect the growing popularity of this new transportation mode.
- Re-implemented mandatory mask policy in stations and onboard trains.
- Launched Phase 2 of TransLink's copper pilot project. With Phase 2, copper products will be installed on four SkyTrain cars for a one-year period. Over the course of the next year, researchers will swab the copper products to test the product's effectiveness against bacteria and viruses, and how durable the product will be over time. BCRTC is pleased to be a part of this industry-leading research study and to test new ways of keeping our vehicles clean and safe for customers.
- Supported the new provincial program that provided free transit services for customers 12 years old and under on all TransLink transportation modes.
- Delivered Rail's first initiative of Customer Experience Plan 2.0 to identify and address customer issues with an improved process for reporting elevator outages to customers.

Implementation of McNeil recommendations

In Q3, testing and commissioning (T&C) of the OMC 1 power system upgrade project continued after substantial completion of construction and after installation was achieved in Q2. T&C activities include integration testing of the new electrical room and the new diesel generator set. This project reduces the risk of service disruptions by upgrading aging OMC 1 power equipment, while also improving resiliency and system continuity redundancies for critical system elements. This was a key recommendation within the McNeil report.

Passenger Injuries

Passenger injuries this quarter saw a decrease compared to the previous quarter. As a result, BCRTC's passenger injury rate per million boarded passengers (pmbp) was 0.94 for the quarter, which was better than our corporate target of 1.0 pmbp, and 22% lower compared to Q2.

In Q3 2021, there were 14 passenger injuries reported with slips, trips, and falls on escalators, stairs, and platforms representing half of all injuries.

TransLink Strategic Priority: Foster a safe, skilled and resilient workforce

Zero Harm

Safety

Employee safety on our system and in our workplace continues to be our top priority. Just Culture and Zero Harm continue to be a focus. Just Culture is a values-supportive system of learning from incidents and accepting it is human nature to make mistakes, yet it also holds people accountable for producing an outcome, following process and not doing harm. Safety-related activities this quarter include:

- Incident Cause Analysis Method (ICAM) – the Safety department has completed ICAM lead investigator training. A consistent formalized investigation methodology will ensure quality investigations are completed to prevent reoccurrence. It will also make sure recommendations are communicated effectively. Next step is to incorporate ICAM training into our internal investigation training for managers, supervisors and JHSC members.
- Global Risk Assessment (GRA) – The Safety department has finalized the GRA that captures all department risk assessments to give an overall organizational risk. The components evaluated in the GRA will be used to prioritize future safety initiatives and priorities.
- SafeStart – The Safety department has started the roll out of SafeStart. The focus of this program is on human behaviors, specifically "states" such as rushing, frustration, fatigue and complacency that result in an error such as eyes not on task, mind not on task, balance/traction/grip. SafeStart complements our Just Culture program as it helps reduce the chance of human error and the possible impact on others.

Lost Time Incidents (LTI)

This LTI frequency rate continues the quarterly trend of being better than target. In Q3, there were six LTI claims accepted by WorkSafeBC, including two mental health claims and four physical injury claims. The number of LTIs dropped this quarter compared to the 10 incidents recorded in Q2. BCRTC's Q3 (2.8) LTI frequency rate continues to be better than target (4.5) for this category. This quarter's LTI rate is the lowest recorded over the past five years.

Environment

- In Q3, BCRTC recorded no reportable spills, permit exceedances, or regulatory incidents.
- July's employee safety theme delivered to all BCRTC employees was about Environmental Management with a specific emphasis on spill management.

Emergency Management

- Due to air quality concerns from the wildfires, the Emergency Management department created and implemented an Air Quality/Wildfire Smoke response matrix to respond to conditions as they worsened during the summer.
- Conducted annual fire drills at our three OMC buildings.
- Established and facilitated a post incident review group for medical emergencies to enhance the company's response on an ongoing basis.
- An orientation session was held with Port Moody and Coquitlam Fire departments in the Evergreen tunnel. Smoke release / tunnel ventilation system tested. In Q4, the team will schedule three more sessions with the remaining fire stations.
- Completed a draft of Corporate Emergency Response Plan, which will be implemented following the training/tabletop exercise scheduled for Q4.

Corporate Services

Our corporate service division covers a diverse portfolio, which includes finance, payroll, purchasing/stores, training, occupational health and employee communications. This division provides most of the COVID-19 support for staff as well as critical training to ensure employees and contractors remain safe in-and-around our system.

- Updated and refreshed our corporate Respectful Workplace policy, including elements of just culture and encouraging more conversations to occur. The policy was rolled out to all staff through a safety meeting and poster campaign.
- Hired new Director, BCRTC Human Resources (HR) Services in Q3. This new role is responsible for HR, Training, and Occupational Health and Wellness.

Training

- Rolled out leadership training to all managers and supervisors in Q3 with focus on giving and receiving feedback. In total, this training was delivered to 142 leaders across all departments and divisions.
- Just Culture training was delivered to 83 managers and supervisors in Q3.
- SkyTrain Attendant refresher training in Q3 focused on managing and communicating during system disruptions, and MKIII training.

Corporate Wellness

- Provided mental health support training to managers and all staff in form of webinars/courses (Burnout, Resilience, Bullying in the Workplace, Mental Health in the Workplace) in Q3. This initiative will be ongoing through to Q4.

TransLink Strategic Priority: Deliver a reliable transportation system in a state of good repair

Maintenance

- Running rail work this quarter included the replacement of 1500 metres of rail and 2840 rail pads as part of the Running Rail and Pad replacement projects along the Expo Line.
- In Q3, the work to replace track switches 63, 64, 65, 77 and 83 at OMC1 began. These switches located on the north ladder of our yard is critical to the safe movement of trains for maintenance and launching for revenue service. For the past several years we have been replacing decades-old switches to ensure the reliability and resiliency of our service. This project began in September and is anticipated to take six weeks to complete.
- While BCRTC continued its annual rail grinding maintenance program in Q3, we momentarily paused the program for a period of four weeks in July due to the increased fire risk due to sparks created during grinding activities in the guideway.

In total, the Guideway team was able to grind 13 km of running rail in Q3 and remains on track to complete the 120 km contained in the rail grinding maintenance program by year's end, the majority of which was done during the spring. Particular attention this quarter was paid to the areas between Commercial and Stadium stations in Vancouver, and 22nd Street and New Westminster stations in New Westminster.

BCRTC continues to respond to customer and resident track-related noise complaints by investigating the situation immediately and taking remedial action if required.

- The Rolling Stock team took delivery of two new Rolling Stock & Refurbishment train movers (shunters). These new and much safer shunters arrived in early September and will improve how we move trains in and out of maintenance bays. Environmentally friendly, the shunters are electric, and the remote-controlled functionality will allow the shunter operator to couple and uncouple remotely from the train.

SkyBridge Joint Replacement project

In Q3, major maintenance activities were performed on the SkyBridge, which led to a track shutdown that was unprecedented in our system maintenance history but reflects the importance and complexity of the work and took advantage of the lower ridership numbers due to COVID-19. This two-week project involved a large collaborative effort with several BCRTC departments to plan and organize the work. Aside from the significant scope of work, the impact to the customer was significant as the work required the closure of one track of the SkyBridge for a 24-hour window of maintenance over the two-week period.

To ensure our customers were kept up-to-date, TransLink conducted a social media campaign. SkyTrain Attendants were on platforms directing passenger flow and assisting with inquiries. Our Operations Scheduling team scheduled back-to-back trains across the bridge to ensure capacity and frequency was met for our customers.

SkyBridge work completed included:

- Both horizontal joint rails removed from track, deck prepped and cleaned, and new sliding joints installed
- Both vertical joint pillow rails removed from track, deck prepped and cleaned, new pillow rails installed
- 100 of 100 cores completed, 8 of 8 block outs removed and prepped +6 additional cores

Capital & Major Business Projects

Elevating devices

The Expo Line Escalator Replacement program has progressed successfully. When finished this project will replace 37 escalators at 13 Expo Line stations by the end of 2023. Replacing escalators on the Expo Line is a critical maintenance project to accommodate the four-fold increase in ridership since these devices were installed over 30 years ago. These new, heavier-

duty escalators will be able to accommodate higher passenger volumes and improve their safety and reliability. This critical investment in the system will enhance the customer experience well into the future.

In Q3, the project completed escalator #1 at Waterfront Station. Current stations with devices being replaced include:

- Surrey Central - Escalator 2 and 3
- Scott Road - Escalator 2
- Waterfront West Coast Express - Escalator 2 and 3
- 22nd Street - One “up” escalator

Expansion

- OMC4 detailed drawing design continued in Q3, with anticipated completion of 60% design package complete by November 30. Demolition of the buildings on the OMC4 site continues through Q3 and Q4.
- OMC1 facility upgrades continued in Q3, with more work on constructing forms and concrete pours for foundation and pit work. Structural steel for Vehicle Maintenance Shop 3 is expected to start installation in Q4. When completed, the new infield buildings will include two maintenance bays for rail borne equipment, two storage lanes for rail borne equipment, two rolling stock maintenance bays, and warehousing and office spaces. The new rolling stock maintenance bays are specifically designed to allow maintenance of the longer five-car MK5 train fleet.
- Retaining wall construction continued in Q3 for our new Operations Control Centre next to OMC2 (OCC2). This part of the projection is anticipated to be completed Q1 2022. The building permit review is still in progress with the City of Burnaby. Automatic Train Control design and implementation engagement has commenced with stakeholders.
- Conceptual design reviews have been successfully completed for the new Alstom Movia™ metro cars. In Q4, a mockup of the train interior will be delivered to OMC1 to give staff a chance to provide feedback on the train’s interior.

West Coast Express

- Near the end of Q3, a contract was signed with Progressive Rail to refurbish West Coast Express (WCE) locomotives and design work has begun on the locomotive refurbishment project.
- On September 7, WCE brought back Train 4 into service to reflect the increase in ridership. WCE is now operating Trains 1, 3, 4 and 5 with fewer cars for each train.

Key Performance Indicators – as of September 30, 2021	SkyTrain (excluding Canada Line)						West Coast Express					
	Q3 Target	Q3 Actual	Q3 Last Year	Sept. YTD Target	Sept. YTD Actual	Sept. YTD Last Year	Q3 Target	Q3 Actual	Q3 Last Year	Sept. YTD Target	Sept. YTD Actual	Sept. YTD Last Year
Customer Experience							Customer Experience					
Customer Service Performance Survey – SkyTrain Service Overall ¹	8.3	8.5	8.5	8.3	8.5	8.4	8.6	8.8	8.9	8.6	8.9	8.9
Boarded Passengers (in thousands) ^{2 **}	14,560	14,912	11,983	41,649	38,391	43,223	210	140	104	602	348	697
Customer Complaints (per million boarded passengers)	24.1	16.3	67.8	24.1	10.7	50.3	342.0	93.0	530.4	342.0	166.9	361.4
Safety							Safety					
Major Passenger Injuries (per million boarded passengers) _a	1.00	0.94	0.67	1.00	1.07	0.86	0.4	7.15	0	0.4	2.88	0
Employee Lost Time Frequency (per 200,000 hours worked) _a	4.5	2.8	5.7	4.5	3.5	4.4	0	0	0	0	0	0
Physical Assaults (per 200,000 hours worked)	2.0	N/A*	0.0	2.0	N/A*	1.4	0	0	0	0	0	0
Total Recordable Incident Frequency	-	23.2	42.9	-	24.9	30.2	-	-	-	-	-	-
WSBC Inspections / Orders _a	-	1/0	4/3***	-	6/2	5/7***	-	-	-	-	-	-
Operations							Operations					
On-Time Performance (OTP) ^{6 **}	96.5%	96.2%	96.6%	96.5%	96.8%	95.2%	97.8%	97.7%	97.6%	97.8%	96.7%	92.5%
Percentage of Scheduled Service Delivered ^{6 **}	99.7%	99.7%	99.7%	99.7%	99.6%	99.0%	99.9%	99.3%	100.0%	99.9%	99.6%	97.8%
Incidents with duration 16 – 30 Minutes ⁶	16	15	10	48	37	50	-	-	-	-	-	-
Incidents with duration over 30 Minutes ⁶	8	13	13	24	35	36	-	-	-	-	-	-
Finance							Finance					
Operating Cost per Vehicle km _a	\$3.97	\$3.72	\$3.51	\$4.09	\$3.76	\$3.68	\$15.10	\$29.82	\$39.94	\$16.03	\$31.12	\$23.12
Operating Cost per Capacity km _a	\$0.044	\$0.043	\$0.040	\$0.045	\$0.043	\$0.043	\$0.102	\$0.202	\$0.214	\$0.109	\$0.211	\$0.157

* Due to the recent TransLink IT security incident, yellow-shaded business areas' applications and systems are not yet recovered as of the report preparation date.

** TransLink was not able to capture full complaints data from January 1 to August 18, 2021. YTD 2021 actual reflects 2021 complaints data that are primarily collected from telephone calls to Customer Information Services as well as online complaints commencing August 19, 2021 when the online feedback form was restored.

*** 2020 WSBC orders and inspection statistics are restated.

"1 The TransLink Customer Service Performance survey is completed quarterly for Expo/Millennium Lines and bi-annually (March and September) for West Coast Express.

The overall CSPS score for EM in Q3 was 8.5, up 0.1 points from Q2 2021. Most attributes were either on par or slightly above Q2 2021 results. The most noticeable improvement from Q2 to Q3 was the Delays Announced attribute. It was 0.9 points higher than Q2, from 5.9 to 6.8. Feeling Safe from Crime at Stations increased by 0.3 points from 7.9 in Q2 to 8.2 in Q3.

For WCE, the Customer Survey overall score was 8.8, which is better than the target of 8.6. WCE's best scores were in the categories of providing on-time and reliable service, safety on trains and in stations, and courteous, competent and helpful staff. The most significant change was the On-time attribute which was up by 0.5 points from 8.5 in March. The "Frequency of Service" attribute was also up by 0.3 points from 7.5 in March. The improvements in these attributes are likely the result of adding one train back to service in September.

"2 The COVID-19 pandemic continued to impact our ridership. However, throughout Q3, ridership showed increased signs of recovery from the low pandemic numbers, aligning with Step 2 of the BC Restart Plan and lifting travel restrictions across Metro Vancouver.

At the end of Q3 2021, Expo/Millennium ridership was up by 24% relative to Q3 2020. It was about 54% of the September 2019 ridership (pre-pandemic). YTD ridership was about 8% less than the YTD target as of September 2021.

At the end of Q3 2021, WCE ridership was about 35% more than Q3 2020. It was 25% of the September 2019 ridership (pre-pandemic). YTD ridership was about 42% less than the target for the period. In September 2021, WCE added a fourth train with two cars back to service and continues to track daily ridership to determine if/when to add more cars to accommodate demands.

"3 In Q3 2021, there were 14 passenger injuries reported, with the injury rate of 0.94 per million boarded passengers, which is a 22% reduction compared to last quarter (Q2 2021). Injuries were comprised of seven slips, trips, and falls on escalators, stairs, and platform, four injuries on-board trains, two falls into the guideway and one unintentional train-human contact.

WCE had one passenger injury on an escalator in September. WCE had no passenger injuries from February 2019 until September 2021.

"4 Employee Lost Time Injury Frequency continues to trend lower since 2019. There were six Lost Time Injury (LTI) claims accepted by WSBC during Q3 2021, resulting in an injury rate of 2.79 per 200,000 hours worked and was a 40% reduction compared to Q2. The accepted WSBC claims were comprised of two mental health and four physical injury claims.

There were no Lost Time Incident claims for WCE in Q2 2021, and there have been none since 2017.

"5 A WorkSafeBC occupational safety or hygiene officer may visit worksite to conduct an inspection. An inspection report details findings of a worksite visit by a WorkSafeBC officer. It documents any points of discussion and recommendations. The inspection report may include a compliance order. The order covers any violations found of the Workers Compensation Act or Occupational Health and Safety Regulation and provides a deadline by which the employer must comply.

As of the end of Q3 2021, BCRTC has had six WorkSafe BC inspections and one compliance order from the inspection YTD, compared with five inspections and seven orders over the same period in 2020.

** 2020 WSBC Inspections/Orders data was restated.

"6 In Q3 2021, OTP for EM was lower than the Q3 results last year (by 0.4%), while Service Delivery (SD) remained the same at 99.7%. OTP loss was primarily due to reducing maximum train speed under extreme hot weather, train-human contact incidents and train issues. Service Delivery loss was primarily due to a train-human contact incident in August. Despite challenges from external issues, strong internal collaboration ensured smooth revenue service during SkyBridge expansion joints replacement in August. Two weeks of SkyBridge single tracking service delivered service performance as planned.

WCE Q3 2021 OTP and SD were below target (by 0.1% and 0.6%, respectively). OTP performed better than Q3 2020 (0.1%), while SD performed less (0.7%). The loss in OTP was due to an array of issues, mostly including CP Rail signal and operations issues and medical emergencies (in July and August). WCE OTP calculation is based on the percentage of on-time station arrivals among the actual station arrivals. Therefore, the OTP calculation fluctuates more with a smaller number of scheduled trips.

Incident duration between 16 and 30 minutes were up compared to the preceding Q2 2021 as well as Q3 last year - 5 in Q2 2021, and 15 in Q3 2020. They were below the Q3 target of 16. On the other hand, Delay Incidents longer than 30 minutes were down from 14 in Q2 to 13 but were the same as in Q3 last year. Incident duration measures the time between the incident start time until the system can resume normal operation.

"7 For September YTD, Operating cost per vehicle km for EM was favourable to budget by 7.9%, whereas the Operating cost per Capacity km was favourable by 4.1%. Vehicle kilometres were above budget by 0.1%, whereas capacity kilometres were below budget (-4.0%). These variances were both due to higher than planned use of Mark 1 trains in 2021. EM Operating costs were 7.9% (\$12.5M) favourable to budget due to savings from temporary vacancies and lower overtime, savings and timing of maintenance activities and professional services, lower propulsion power costs, and lower allocated costs related to computer systems, consulting fees and insurance.

As for WCE, Operating cost per vehicle km was unfavourable to budget by 94.1%, and the Operating cost per Capacity km was unfavourable by 94.5% for the first nine months of 2021. Both vehicle and capacity kilometres were below budget, by 57.4%. The WCE 2021 budgeted service plan assumed 4 trips daily with a total of 38 cars operating in each direction, but we are currently running 4 trips with a total of 18 cars in each direction. WCE Operating costs were 17.2% (\$2.6M) favourable to budget mainly driven by service plan reductions resulting in lower maintenance and fuel costs, lower maintenance from timing of initiatives, savings due to avoided locomotive maintenance costs given the capital refurbishment project and favourable CP Rail contract costs.

Operating cost includes Allocated Costs; excludes 3rd Party Revenues and Depreciation.

TransLink Strategic Priority: CUSTOMER EXPERIENCE AND PUBLIC SUPPORT

CUSTOMER EXPERIENCE

Winter Weather Preparedness

- Transit Communications (TComm) has been in frequent communication throughout the year with all Metro Vancouver municipalities to ensure transit routes and all priority corridors are maintained during snowy conditions.
- TComm continues to proactively liaise with municipalities and monitor weather warnings.
- All municipalities, universities, and snow removal contractors have shared their COVID-19 response and readiness plans with TComm.
- Information was gathered from internal and external stakeholders to create a snow removal map to identify areas where snow can be piled to mitigate stacking of buses.
- Testing of the weather stations and contractor call-out system have both been completed.
- Snow socks will be used on buses on some Burnaby Mountain and North Shore routes. In addition, a new "snow shuttle" service will run in Vancouver from Alma Street to UBC.

Free Transit for Children 12 and Under

- As of September 1, children 12 and under may ride CMBC/TransLink services for free. This initiative is part of a two-phased Provincial program aimed at supporting accessible and affordable commutes for families within the Metro Vancouver area.
- In addition, HandyDART rolled out registration for children under 12. Prior to September 1, only applicants 12 years or older were eligible to become HandyDART customers. Children must be accompanied by an adult while travelling on HandyDART.

Foldable, Electric E-Scooters

- As of September 15, foldable, electric kick scooters are allowed on board all vehicles and vessels. Gas-powered and seated motorbike scooters continue to be prohibited on the transit system.

Customer Information Call Centre

- The ongoing pandemic, and its effect on ridership, has meant that Customer Information's monthly call volumes have remained steady, but still lower than pre-pandemic levels. They are seeing higher volumes with the resumption of in-person classes at colleges and universities.
- The number of complaints remains low in comparison to pre-pandemic levels. Similar to historical trends, September complaints have focused primarily on the environment of the bus and interactions with the Transit Operator (e.g. mannerisms, tone of voice), as well as COVID-19-specific concerns, such as mask compliance.
- At Lost Property, between January and September 2021, 31% of items logged have been returned to customers. This is a 5% increase over the 2020 annual number (26%).

Fare Revenue

- As of the end of the second week of October, farebox revenue was approximately 48% of pre-pandemic numbers.

Access Transit Service Delivery (ATSD) Update

- Recently, HandyDART experienced an increase in service. As of September 30, HandyDART delivered 44% of budgeted trips with about 76% of budgeted service hours. Approximately 2% of total trips were delivered by taxi.
- Regarding COVID-19 safety, physical distancing protocols were eliminated in August allowing pre-COVID capacity on board HandyDART vehicles. If possible, due to low ridership, trips are scheduled with the maximum amount of distance between clients.
- Prior to lifting the seating restriction, approximately 95% of trips carried two or fewer clients. As of September, the number is now approximately 80%.

HandyDART Modernization Project

- On October 1, on HandyDART, age-based discounts went into effect and Compass was implemented, including a solution for taxi integration as taxis do not have Compass readers.
- At the end of week two, approximately 15% of HandyDART clients had recorded their Compass number with HandyDART.
- FareSaver sales were eliminated on November 15. An increase in Compass use is expected to occur when clients exhaust their supply of FareSaver tickets.
- CMBC Operator & Technical Training was instrumental in the introduction of Compass. The team developed and delivered a training program for First Transit Instructors and created the driver training program for First Transit Instructors to deliver to their drivers.
- The third component of the HandyDART modernization project consists of registration changes which will include a more comprehensive functional assessment through an in-person consultation and/or a long form written submission. Work on the new registration process will begin in 2022 and is expected to roll out in 2023.

Wheelchair-Accessible Bus Stops

- As of September 31, CMBC is at 81.2% for bus stop wheelchair accessibility with 6,702 accessible stops across the system.

SAFETY

COVID-19 Infection Control Initiatives

- Phase II of the “Copper in Transit” Project officially launched on September 28. This partnership with Toronto Transit Commission (TTC), Teck Resources, Vancouver Coastal Health, and the University of British Columbia will determine the antimicrobial efficacy and durability of copper products in the transit environment. Phase II includes three copper products used on three buses and four SkyTrain cars in Vancouver and buses, and streetcars and subway cars in Toronto for a period of one year.
- The twice weekly disinfection schedule for vehicles, vessels, and CMBC facilities implemented at the start of the pandemic was modified in September and replaced, on the bus fleet, with daily cleaning of high-tough points and more frequent, thorough, and visible deep cleaning.

Responding to the COVID-19 Pandemic: Our Employees

- *Facility COVID-19 Safety Plans* – The plans continue to remain in place with COVID-19 controls adjusted to align with Provincial Health requirements. CMBC reintroduced the face mask requirement at the workplace in response to increased community cases of COVID-19. When the BC Restart Plan Step 4 comes into effect, Safety Plans will transition to Communicable Disease Prevention measures, practices and policies which will remain in place permanently.
- *Employee Vaccination Policy* – Effective November 29, all CMBC employees will be required to be compliant with CMBC’s COVID-19 Safety Employee Vaccination Policy. This policy was adopted to maximize safety for our customers, our employees, and their families.
- *Employee Hotline* – The employee hotline first implemented in Q1 of 2020 continues to respond to employee and manager COVID-19 related inquiries. The hotline only received one inquiry in Q3 (down from 37 in Q1 and 18 in Q2 of 2021). Employees with questions can speak with their manager, call the hotline, use the employee enquiry e-mail address, or contact Occupational Health. The hotline remained operational following CMBC’s mandatory vaccine announcement. The on-going need for the hotline will be reviewed at the end of the year.

COVID-19 Community Vaccinations

- Through the end of September, CMBC continued to work with Fraser Health and TransLink to hold community vaccination mobile clinics onboard CMBC buses in several municipalities. Over the 12 mobile clinics held between July and September, 904 people received a COVID-19 vaccine. The initiative was considered a success by CMBC, TransLink, and Fraser Health.
- CMBC also joined with Fraser Health to provide a transportation program for seniors, vulnerable groups or other individuals who face barriers in transportation in the Fraser Valley region. The Vaccine Shuttle Program offers free shuttles to eligible individuals who require transportation to their vaccine appointment.

Health and Safety Software

- The Health and Safety Software project, intended to modernize safety processes, incident management, Return to Work tracking, corrective actions, and performance reporting is well into the design phase. Enterprise workshops to establish new, more efficient, and effective safety processes continue and will be embedded in the software, with roll-out and training expected to begin in 2022.

Heat Stress Exposure Control Plan

- In response to the “heat dome” experienced during the last week of June that brought temperatures in the 30s and low 40s over several days, CMBC updated its Heat Stress Exposure Control Plan (ECP). New control measures included maximizing the use of air-conditioned buses, supplying Transit Operators with bottled water, and making neck coolers available. CMBC will continue to explore additional control measures as the summer of 2022 approaches.

Emergency Management Updates

- In response to the wildfire smoke that impacted Metro Vancouver during the summer months, a CMBC Wildfire Smoke Response Plan was developed along with TransLink Enterprise partners. The plan identifies triggers and responses based on the public health air quality index and local health authorities. Control measures will mitigate and minimize the impact of wildfire smoke in the workplace during future smoke related incidents.

Employee Workplace Injuries / Accepted Lost Time Claims

- During the first three quarters of 2021, CMBC recorded 262 accepted lost time claims at a rate of 8.0 claims per 200,000 hours worked which is identical to the 262 claims and rate of 8.0 achieved during the same period in 2020.
- For YTD 2021, leading incident types resulting in lost time claims were Motor Vehicle Incidents resulting in 17% of all claims, followed by Overexertion (14%), and Falls on the Same Level (13%), Other Bodily Motion (13%), and Acts of Violence (13%). Over the summer, “Safety Days” resumed with education and resources provided to depots and garages in print. Resources have focused on prevention of these leading incident types. In-person Safety Days are expected to return with the Province’s move to Step 4 of the Restart Plan.
- After a four-year decline, CMBC showed a slight increase in registered claims so far this year, roughly on par with 2019.
- After increasing for five years, Days Lost due to injury has stabilized in 2021 YTD.
- Approximately one-third of days lost are attributed to mental health claims. CMBC has established a cross-departmental working group to focus on new ways to reduce injuries, increase participation in modified duties, and work with WorkSafeBC and external parties to better support injured workers to return them to full health.

Transit Operator Assaults

- During the first three quarters of 2021, CMBC recorded 50 Transit Operator assaults. This included 20 physical assaults, 18 spitting incidents, 10 incidents involving an assault with a weapon/object, and 2 incidents of threatening. 2021 YTD total incidents were down slightly compared to the same period of last year with 52 assaults.
- Rate of assaults per 1 million service hours for 2021 YTD is 12.8, an improvement compared to last year’s rate of 13.4. The rate of assaults per 1 million boardings for 2021 YTD is 0.50, a slight increase compared to 0.48 for the same period last year. This increase can be attributed to a more significant decline in boardings in 2021 as boardings during the first 2.5 months of 2020 were not affected by the COVID-19 pandemic.
- Through various working groups, collaborations, and initiatives with Transit Security and Transit Police, CMBC continues its efforts to protect Transit Operators. The most significant examples include the installation of permanent plexiglass and temporary vinyl barriers on the entire bus fleet, newly launched refresher training for Transit Operators focusing on effective ways to deal with conflict, the work of the Violence in the Workplace Prevention Committee, as well as proactive deployment of Transit Security and Transit Police to areas with higher concentrations of crime across our system.

Electrical Safety Program

- As part of our continued work on the Electrical Safety Program, Fleet Technical Support is delivering four separate technical instruction letters (energy storage units, high voltage disconnect/reconnect, high voltage personal protective equipment, and high voltage vehicle accessory systems) to Fleet Maintenance that will become permanent reference documents. These documents will build the framework for all future work procedures relevant to high voltage work such as Trolley Overhead and electric vehicles.

ENVIRONMENTAL STEWARDSHIP

Corporate Climate Action Plan

- CMBC continues to provide support and input into the development of TransLink's Corporate Climate Action Plan. This document will contain key strategies and high-level actions to mitigate and adapt to climate change. CMBC's involvement in the plan development will help the organization prepare and adapt to changes.

Energy Management Program

- CMBC's robust energy management program focuses on reducing electrical and natural gas consumption (and costs), and overall, decreasing our impact on the environment. These efforts are achieved primarily through energy audits and conservation retrofits.
- Most recently, lighting and mechanical energy audits have been completed at Burnaby Transit Centre - South, partially funded by BC Hydro and FortisBC. A working group is reviewing the audit recommendations and design will take place in 2022, subject to funding approval.
- A Continuous Optimization study to identify low cost (or no cost) measures that can be taken to reduce energy consumption is underway at Hamilton Transit Centre. This project, funded by BC Hydro, is expected to be complete in Q2 2022.

Employee Electric Vehicle Charging Policy

- CMBC is currently in the process of implementing an Employee Electric Vehicle Charging Policy for use of electric vehicle charging infrastructure at CMBC locations.
- Charging infrastructure has been installed at Hamilton Transit Centre for a pilot program in which employees will be able to charge their personal electric vehicles for a fee. The system is expected to be available by the end of this year.

Low Carbon Fleet Program (LCFP)

- CMBC continues to prepare for the 57 battery-electric buses and infrastructure that will be based out of Port Coquitlam Transit Centre. A contract has been awarded for the design of the charging infrastructure and procurement is currently underway for a modelling and procurement support consultant (pre-RFP). The RFP process is expected to start in Q1 2022.
- CMBC continues to work with Nova Bus on the next order of 15 additional battery-electric buses that will fully electrify Route 100 (22nd Street/Marpole Loop) out of Hamilton Transit Centre. The demo bus remains on-target to arrive in January 2022 for cold weather testing of the new platform (propulsion system and battery). The pilot bus is scheduled to arrive in mid-2022. Procurement of the charging infrastructure to support the 15 additional vehicles is underway and CMBC is currently evaluating submitted proposals. This includes additional plug-in charging at the depot and another on-route charger at 22nd Street Station. The remainder of the production buses are scheduled to start arriving in Q2 2023 with completion targeted for Q3 2023.
- Planning for the future Marpole Transit Centre continues to move forward. Due to issues with permitting, the in-service date has been updated to late 2025. An updated fleet replacement plan has been developed to align with the new in-service date.

Environmental Spills

- Buses contain various fluids (e.g., oil, diesel, coolant), which may be released into the environment following accidents or equipment failure.
- Due to the cyber security incident's impact on reporting and email capabilities, data for low-risk/non-priority spills was not available for Q1 or Q2. Q3 priority and non-priority spills were 2.1 spills/Mkm compared to the target of 2.0.

- Four spills occurred in Q3 that required reporting to the provincial government due to volume and/or entry into waterways. No further action was required.

Working Gear Boot Donation

- Thanks to CMBC’s Tradespeople, so far in 2021, over 300 pairs of used work boots have been donated to Working Gear, a non-profit organization that helps people in need enter the workforce.

TransLink Strategic Priority: ENSURE STATE OF GOOD REPAIR

OUR PEOPLE

New Operator and Refresher Training

- Several New Transit Operator Training classes have been canceled due to lack of need. CMBC is in good shape to meet service demands for 2022.
- All group-style training programs continue with reduced class sizes to follow physical distancing requirements. With the postponement of Step 4 of the BC Restart Plan, CMBC continues to maintain stringent COVID-related safety protocols in Training. A return to pre-COVID conditions (i.e., without physical distancing) will take place when Step 4 is initiated.
- Community Shuttle and Conventional ‘1-Day Refresher Training’ programs continue in 2021. With the reduced need for New Transit Operator Training, additional sessions of Refresher Training were added in 2021. As a result, CMBC expects to significantly exceed the target of 20% of Operators receiving the training in 2021. See below for 2021 targets and estimated actual numbers:

	Target	Estimated	Variance
Conventional	700	1,200	500
Community Shuttle	96	98	2
Totals	796	1,298	502

Operator Resourcing & Contracted Services

- With the onset of the fall 2021 schedule, CMBC had an active headcount of 3,354 Conventional Transit Operators, a 1.3% increase over September 2020. In Community Shuttle, there are 442 Operators. In September 2020, CMBC had 476 Community Shuttle Operators equating to a 7% staff reduction primarily due to a lowering of the casual pool.
- Bowen Island’s Community Shuttle service contract is set to expire December 31, 2021. A team comprised of TransLink and CMBC evaluators are currently reviewing bids received through the RFP process. The length of term is expected to be three years with a two-year option.

Community Shuttle move from Surrey to Hamilton Transit Centre

- Effective September 6, all Surrey Community Shuttle Operators, Maintenance employees, and buses were relocated to Hamilton Transit Centre. This move allows CMBC to better reallocate larger and higher capacity buses across our transit centres and free up much-needed space at Surrey Transit Centre. CMBC depots with Community Shuttle now include Hamilton and Port

Coquitlam only.

Apprentice Program

- The Apprentice Program for the Maintenance division currently has 18 individuals enrolled as of Q3 2021. Seven new apprentices are scheduled to start in Q4 2021.

OUR ASSETS

Onboard Technology Assets Program (OTAP)

- The OTAP program included four main projects: replacing radio systems for improved connection and better coverage; replacing onboard computers and touchscreens with a larger screen and better visuals; adding new routers to improve data communication with Transit Communication (TComm); and installing new hardware to improve camera feeds to Security.
- Non-revenue vehicle installations were completed in 2020. Revenue fleet installations continue to make significant progress. Port Coquitlam Transit Centre successfully completed installations at the end of September. Full completion remains on schedule for Q4 2022.
- Replacement of the aging Verint onboard video system is underway. The system is being replaced with TSI. The new system adds reliability, improved image quality, and an improved state of good repair to the on-board systems. Currently, Richmond Transit Centre and Port Coquitlam Centre have successfully completed installations. All depots are expected to be complete by Q3 2022.
- The TComm renovation project at Surrey Transit Centre is expected to be complete in Q3 2022.
- The overall funding for OTAP has come from the Public Transit Infrastructure Stream (PTIS), which is part of the larger Investing in Canada Infrastructure Plan (ICIP). The project is currently on-budget, however, is experiencing some delays to the schedule due to the pandemic and the cyber security incident.

DOMS Replacement Project (Daily Operations Management Systems)

- The DOMS replacement project continues to move forward, however, it has encountered delays due to vendor resource constraints and the cyber security incident. This has resulted in schedule slippage from Q3 2023 to Q1 2024 to the next deployment window.

Financial Results

- For the nine months ended September 30, CMBC costs (including allocated costs and recoveries) were \$33.5M (5.0%) favourable to budget. The favourabilities were driven by areas still seeing the impact of COVID-19 through reduced ridership, service hours, HandyDART trips, and service kilometres.
- Salaries, wages, and benefits were \$9.7M (2.4%). Fuel was \$3.2M (8.1%) favourable due to lower service kilometres delivered versus budget. Maintenance, Materials and Utilities was favourable \$4.6M (7.9%) mainly attributed to lower service KMs and a change in accounting methodology whereby internal recoveries have been reported as net and external recoveries have been reported as gross (budget remains in recoveries). Insurance was \$3.7M (24.3%) favourable due a higher discount rate with ICBC than budgeted. Access Transit was \$8.4M (18.5%) favourable due to reduced service demand.

FLEET

Fleet Procurement (2021-2024)

- Delivery of 25 conventional articulated hybrid buses and 25 double-deckers began this fall.
- The manufacturing of 94 HandyDART vehicles began in late October and delivery began in late November.
- New Community Shuttle buses continue to arrive with the balance of the full order of 63 to arrive by end of 2021.

Farebox Replacement Project

- As of the end of October, out of the total 1,500 TAG fareboxes, 1,355 have been installed on the conventional bus fleet. Installations are expected to be complete by the end of 2021. Installation on the Community Shuttle fleet was completed in 2020.

KEY PERFORMANCE INDICATORS AS OF SEPTEMBER 30, 2021

Information shaded in yellow and marked "n/a" is currently unavailable as of the report preparation date. Where available through CMBC systems, the KPIs are provided below. KPIs for 2021 have been updated in alignment with the 2021 CMBC Business Plan.

Metrics marked "***" are preliminary estimates based on best available data at time of reporting. Once finalized data is available, these preliminary metrics will be restated. We anticipate that differences will be minor in nature.

KEY PERFORMANCE INDICATORS ¹	2021 ANNUAL TARGET	2021 YTD TARGET	2021 YTD ACTUAL	2020 YTD LAST YEAR
TransLink Customer Survey – Bus service overall ²	8.0	8.0	8.3	8.2
Scheduled Service Delivered	97%	97%	n/a	92.9%
Customer complaints per million boarded passengers ³	100	100	71	102
Validated HandyDART complaints per 1000 trips Requests	0.5	0.5	0.7	0.7
On-time Performance				
Bus Regularity – frequent service ⁴	81.0%	81.0%	81.4%	83.3%
Bus Punctuality – infrequent service ⁴	81.0%	81.0%	85.4%	85.9%
On-time Performance – HandyDART	90.0%	90.0%	95.1%	92.4%
Preventable collisions per million Km ⁵	10.3	10.3	8.4	8.6
Operator assaults (CUTA 1-4) per million boarded passengers ^{6**}	0.4	0.4	0.5	0.5
Employee lost time accepted claims per 200,000 hours worked	7.7	7.7	8.0	8.0
Pedestrian incidents per million service hours ^{**}	11.0	11.0	7.2	9.8
Cyclists incidents per million service hours ^{**}	4.6	4.6	3.1	3.9
Injury claims – Passengers per million boarded passengers ^{**}	4.3	4.3	5.0	4.5
Greenhouse Gas Emissions – Carbon Dioxide tonnes per million service km ⁷	1335	1335	1260	1246
CMBC operating cost per service hour ^{8**}	\$127.65	127.45	124.91	120.95
Access Transit operating cost per trip	\$42.22	42.15	76.54	73.32
METRICS				
Access Transit trips provided (thousands)				
HandyDART	1,259	945	455	449
Supplemental taxi service	152	114	23	38
Total Trips ⁹	1,411	1,059	478	487

¹ Performance measures are for CMBC business operations (Conventional Bus, Community Shuttle, and SeaBus) and exclude contracted conventional transit and contracted Community Shuttle.

² The TransLink Customer Satisfaction Survey is conducted every quarter. The YTD Actual represents the average results for Q1 (8.4), Q2 (8.3) and Q3 (8.2).

³ The YTD 2021 data for Complaints per million boarded passengers includes June to September complaints. During June, Customer Information telephone logs were reactivated, and the online feedback application was restored on August 19. Accordingly, complaints reported relating to the months of June, July and August may be unrepresentative as an operational indicator.

⁴ The YTD 2021 data for On-time Performance includes data from May 11 to September 30. The data from January 1 to May 10 is not available.

⁵ The actual data is as of August 31 and is subject to change due to the timing of adjudications.

⁶ CMBC recorded 50 Transit Operator assaults during the first nine months of 2021. This is lower in terms of number of incidents compared to the same period last year (52). The performance of this metric is impacted by the significant drop in ridership due to the COVID-19 pandemic which drives up the ratio. Boarded passenger data is preliminary and subject to change.

⁷ The YTD data is as of March 30, 2021.

⁸ Excludes TransLink allocated costs. Metric is normalized by net service hours which includes estimates for January to September and is subject to change.

⁹ Total Access Transit trips provided in the first nine months of 2021 were lower compared to the same period in 2020 and when compared to budget. The COVID-19 pandemic is continuing to significantly impact service delivery in 2021.



METRO VANCOUVER TRANSIT POLICE REPORT FOR DECEMBER 2021 TRANSLINK BOARD MEETING

TransLink Strategic Priority: Customer First

- **Transit Police - Criminal Intelligence Unit (“CIU”)**

Transit Police has an Offender Management Program. This program’s aim is to improve the safety, security and confidence of the travelling public and transit staff by reducing crime and criminal reoffending. The key focus is to monitor offenders on probation, bail or parole and make them more accountable through compliance checks and enforcement, and provide them awareness of other available community resources.

The CIU will check police databases and determine the top five offenders for the past three months. These offenders will then be assigned to a patrol squad or specialized unit (such as our General Investigation Unit) who will be responsible for follow up on any conditions or curfews in the hopes to deter any reoffending-type behavior. The assigned team will also liaise with Parole or Probation Officers and will attempt to refer the offender to community-based supports if applicable. A summary of the investigative steps will be maintained until the offender no longer needs to be in the program.

- **Transit Police - Crime Suppression Team (“CST”)**

The CST has been fully operational since April 2021 and is composed of one Sergeant and five constables. CST is able to quickly and effectively respond to incidents in real-time or focus on project-based investigations, most of which are conducted with our Jurisdictional Police



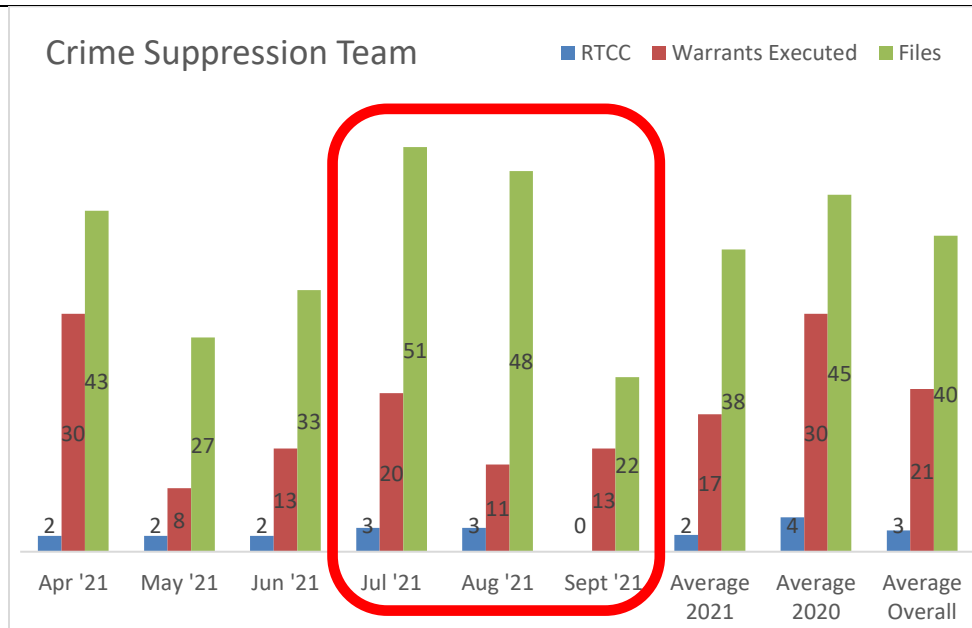
Cst. Darren Chua @CstDChua · 4d ...
A 3 week hiatus didn't stop the momentum of the @TransitPolice Crime Suppression Team. We spent the week seizing weapons, and arresting 10 individuals wanted on varying charges from armed robbery, drug trafficking, to assault causing bodily harm to name a few



Department partners when crime trends or hot spots are identified in or near the transit system. CST maintains contact with a number of other agencies such as the “End Gang Life” initiative run by the BC Combined Forces Special Enforcement Unit and the Canadian Police Youth Network, which is a monthly meeting that brings law enforcement personnel from across Canada together to discuss best practices in programs, tactics and trends related to youth, many of whom are at-risk.

Highlights from the last quarter include joint curfew checks of 16 at-risk youth with VPD Yankee 10 and

Surrey RCMP Yankee 30. Two subjects who are known offenders on the transit system are being monitored on a regular basis by CST and the General Investigations Unit. These males were identified through the Criminal Intelligence Unit at being likely to reoffend. The CST worked with the Surrey RCMP on a “one-day” blitz in a problem area, including a bus stop where prolific offenders were making the area uncomfortable for transit users and lastly, the team worked with the Richmond RCMP to focus on thefts and related offences at the Richmond Centre and along the Canada Line.

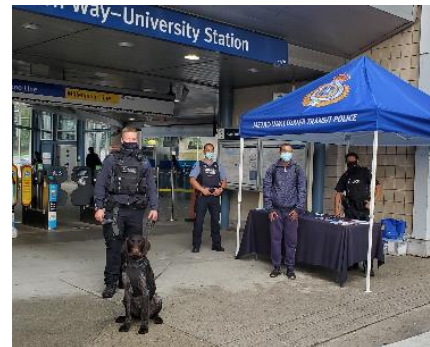


- **Public Engagement**

The Transit Police conducted high visibility patrols and ramped up its community engagement in September to promote transit safety for those returning to school. Transit Police Officers and partners (e.g., Transit Security and Waterfront Community Police Centre volunteers) were part of safety days on campus, held pop-ups at stations,



gave presentations to students and



groups (e.g., Girl Guides), and attended community events (Pakistani and Taiwanese communities). Patrol Officers and special teams supported with HOV and school zone enforcement – keeping students and transit customers safe. Holiday Anti-theft campaign and ICBC High Visibility Reflector campaign will launch in October/November.

In fall 2021, the Transit Police continued its work to strengthen support to Indigenous People:

- Support to those in the Indigenous community suffering from the profound effect of the residential schools and arising intergenerational trauma;
- Transit Police launched the fall program of the Blue Eagle Community Cadet Program for youth ages 12-15 (and is working with Surrey RCMP/partners on launching the same program to Surrey youth in early 2022);
- Transit Police Officers completed e-learning training courses on Trauma Informed Practice and Cultural Awareness and Humility;
- Transit Police staff honored National Indigenous Peoples Day, Orange Shirt Day and new National Truth and Reconciliation Day;

- Transit Police Officers wore new “Every Child Matters” patches;
- A number of consultations were held with Indigenous groups on the new Transit Police strategic plan and other initiatives;
- Approximately 75 staff have now completed e-learning training in the Gender Based Analysis Plus (“GBA+”) tool delivered by the Government of Canada – Status of Women;



- The Transit Police Board completed its Statement on Commitment to Truth and Reconciliation (attached as Appendix “A”); and
- Transit Police’s Indigenous Liaison Officer and Sergeant in charge of the Community Engagement Team collaborate with the TransLink Indigenous Relations Unit on TransLink strategies and initiative underway to support Indigenous Peoples.

TransLink Strategic Priority: State of Good Repair

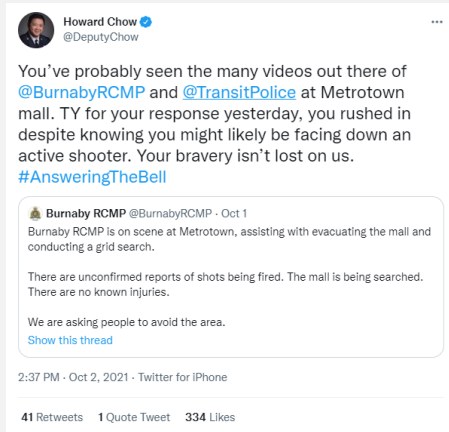
- **Keeping Transit Infrastructure and People Safe**

Transit Police continues to work closely with Jurisdictional Police Departments on incident response, crime prevention/problem oriented policing, managing crowds / disorder / disruptions from public protests, and responding to serious critical incidents. Standardized police officer training and specialized anti-terrorism training is an important component to police agencies working collaboratively in incident response (including threats of active shooters). Some examples follow.



Possible Active Shooter

In the afternoon of October 1, 2021, Transit Police’s public service counter received a call from a male claiming that he had planted a number of pipe bombs in Metrotown Station that were set to explode. The caller also made similar threats towards Metrotown Mall, stating that he planned on killing people and police. Over 45 Transit Police Officers were deployed (including patrol, Community Engagement Team and speciality units) to the incident and Metrotown Station was closed and evacuated. It was subsequently searched/cleared by the Transit Police’s Explosive Detection Team. Transit Police advised Burnaby RCMP and both police agencies responded to evacuate the mall. Other police resources were brought in, including the RCMP Lower Mainland Emergency Response Team, to assist with the lockdown and clearing of the mall.



In addition, during this call, Transit Police was notified of a suspicious package call at CMBC operating management center. Transit Police Officers and Dog Teams attended that location to check it, which turned out to be unfounded. In both incidents, the calls were determined to be false and considered ‘swatting calls’.¹ While the false nature of these calls was a good outcome for the safety of the public and the transit system, it still was a very concerning and a serious situation for the public and police officers at Metrotown Station/Mall, and considerable police resources were dedicated to the response, which takes away from other policing needs. An investigation into the incidents is underway with national and international law enforcement partners.

Richmond “Boost & Bust Project”

On August 14, 2021, Transit Police and Richmond RCMP conducted a large 12-hour joint project to target criminals who may use transit to conduct property crimes. Transit Police assigned Supervisors, Patrol Officers and Members of the Crime Suppression Team to the joint project with the RCMP. This project resulted in 12 arrests, including one for theft of a Transit Police bait bike by a male known to police. Of the 12 individuals arrested, four were Richmond residents and eight were from outside Richmond. Five of the offenders entered Richmond via the Canada Line and one via bus. Two offenders were held in custody and five of the arrests led to charges being forwarded to Crown.

Suspicious Package

At 3:45 pm on August 28, 2021, a report was made to Burnaby RCMP about a suspicious package left unattended on the west side of the Metrotown Station platform. The Station and bus loop were cleared and closed to the public. Transit Police deployed its Explosive Detection Dog Teams, who cleared the package with no indication of any explosive substance. Transit Police also conducted video review. The package was discovered to be an empty rice cooker left on the platform. The Metrotown Station and bus loop resumed services within an hour. The quick availability of the Transit Police dog teams to respond to these events helps reduce delays/stops in transit service and impact to the public.

¹ Swatting refers to making a fake emergency call in order to provoke an emergency response.

- **Performance Measurement Culture**

Transit Police is an intelligence-led and data-driven police agency, and gathers comprehensive statistics in relation to crime and organizational performance. Transit Police shares statistical and performance information with the public, TransLink and stakeholders through a variety of tools. A snapshot of key statistics for 2021 Q1-Q3 as compared to 2020 Q1-Q3 follows.

As a result of the continued pandemic, the number of transit Boarded Passengers was -9% lower than the same period in 2020 (155,645,801 in 2021 Q1-Q3; 171,909,417 in 2020 Q1-Q3). However, when comparing the number of total Transit Police files in same periods in 2021 and 2020, there was only a -4% decrease (15,451 in 2021 Q1-Q3; 16,088 in 2020 Q1-Q3), which is attributed largely to fewer Violation Ticket files. There was a 17% increase in ‘assist’ files to other police agencies in 2021 Q1-Q3, as compared to the same period in 2020.

Metro Vancouver Transit Police Crime and Safety Statistics	2021 Q1-Q3	2020 Q1-Q3	% Change
Crimes Against Persons/100,000 Boarded Passengers <i>(primary and assists)</i>	.660	.653	1%
Crimes Against Property/100,000 Boarded Passengers <i>(primary and assists)</i>	.894	.699	28%
Other Criminal Code Violations/100,000 Boarded Passengers² <i>(primary and assists)</i>	.400	.406	-1%
Provincial Violation Tickets (“VTs”)	3609	4883	-26%
Arrests - Warrants Executed (All)	872	519	68%
Arrests - New Charges³	383	567	-32%
Total S. 28 Mental Health Act Apprehension Files	161	127	27%
Sexual Offences <i>(primary and assists)</i>	92	102	-10%
SCBCTA Fare Infraction Notices	3,379	4,791	-29%

Notwithstanding the drastic impact of the pandemic on ridership level, criminal activity continued on or near the transit system, as shown in the high 2021 Q1-Q3 rate of Crimes Against Persons per 100,000 Boarded Passengers and Crimes Against Property per 100,000 Boarded Passengers. The 2021 Q1-Q3 Crimes Against Persons rate remained level with the same period in 2020; however, in September 2021, the rate was only 0.45 which brings it back in line with pre-COVID-19 levels. The actual number of Crimes Against Persons was 1,027 in 2021 Q1-Q3 as compared to 1,122 in 2020 Q1-Q3, a 8% decrease.

There was a 28% increase in the Crimes Against Property rate for the comparative 2020 to 2021 periods. The rate for Crimes Against Property in September 2021 dropped considerably – to 0.62, which is moving it back down to pre-COVID-19 rate range. The actual number of

² Other Criminal Code Violations: Includes such offences as weapons, disturbing the peace, child pornography, obstruct peace officer, possess break and enter instruments, intimidation and threats, breach/bail violations, indecent acts/exposing, and counterfeiting.

³ Arrest means an actual arrest and all other cases where charges were recommended to Crown Counsel.

Crimes Against Property in 2021 Q1-Q3 was 1,391, as compared to 1,201 for 2020 Q1-Q3; this is a 16% increase. These two YTD crime rates are significant and an anomaly to historical trending prior to 2020.

The number of sexual offence files (primary and assists) for 2021 Q1-Q3 was 10% lower than for the same period in 2020. The monthly averages for sexual offences in 2020 and 2021 are the lowest since 2012. In part, the low numbers may be attributed to the lower ridership during the pandemic and greater visibility for a person if they were to attempt to commit a sexual offence. However, Transit Police continues to be concerned with possible under-reporting of incidents and promotes reporting through a variety of initiatives, including texting 87 77 77. A transit safety tip campaign and presentations occurred in September for post-secondary students returning to school. As well, Transit Police recently conducted training for SkyTrain Station Attendants on sexual offending on transit and the role that they can play in identifying and reporting incidents. Similar training is planned this fall for the Canada Line Attendants.

Criminal Warrant Arrests

Reducing crime and disorder on transit and the surrounding community is a Strategic Objective of the Transit Police Strategic Plan. In 2021 Q1-Q3, Transit Police Officers made 872 arrests for outstanding criminal warrants, which included RCMP, Municipal Police and Transit Police issued warrants from BC and elsewhere. The number of warrant arrests for the 2021 Q1-Q3 was 68% higher than for the same period in 2020. This increase is partly reflective of the targeted work being done by two Transit Police specialty units – the Crime Suppression Team and the Targeted Mobile Enforcement Team. The number of new charge arrests by Transit Police dropped by 32% for the comparative periods.

Many warrant arrests arise from on-view work of Transit Police Officers in their Community Service Areas (assigned patrol area), calls for service, confirming identity incidental to criminal arrest or during enforcement of a provincial statute offence (such as misuse of a fare gates).



However, Transit Police Officers also familiarize themselves with offenders and criminals of concern or offenders wanted through law enforcement intelligence sharing, regional BOLFs (Be on the Look Out For), and the Transit Police Offender Management Program.

On October 22, 2021, Transit Police media officers – Constable Mike Yake and Sergeant Clint Hampton took TransLink CEO Kevin Quinn on a ride-along to help orient him to the type of work that Transit Police Officers do. Proactive/on-view police work was demonstrated, with some examples below.

Weapons Possession (Imitation Firearm)

At Braid SkyTrain Station, Transit Police observed a male coming down the escalators from the SkyTrain platform, who was unable to exit the fare paid zone, as he did not possess a valid fare. The Officer detained the male for the purpose of issuing him a Fare Infraction Notice. The male's identity was confirmed. However, while the Officers were interacting with him, he appeared nervous and kept putting his hand in and out of his pockets. The male's actions made the Officers' uneasy and a search for weapons was conducted. The

search revealed a 'replica style' airsoft gun, which was willingly relinquished to the Officers. The male was allowed to proceed and the airsoft gun placed into exhibits for destruction.

Drug, Warrant and Bear Spray

Early evening at the Surrey Central SkyTrain Station, Transit Police observed a female sitting out front of the station entrance and observed, in plain view, that the female had a piece of tinfoil in her hand, with a rock of heroin placed on top of it. She was informed that she was under arrest for Possession of a Controlled Substance. The Officers also noted that she had a can of bear spray sitting beside her; however, she stated it was not hers. Her identity was confirmed and police record queries revealed outstanding warrants from Surrey RCMP and Vancouver Police. She was arrested; however, as the female was advanced in her pregnancy, she was transported to Surrey Memorial Hospital for assessment by a physician, prior to Officers lodging her in police cells.

Drug and Warrant Arrest

Transit Police observed a male huddled in a parking lot next to Surrey Central SkyTrain Station in the early evening. As Officers approached the male stood up, which caused a canister containing suspected heroin to drop from his jacket pocket. The male was arrested for possession of a controlled substance. Police records checks revealed an outstanding endorsed warrant from Surrey RCMP for Mischief. The male was release on an Appearance Notice with a court date for November 2021.

Misuse of Fare Gates and Provincial Violation Tickets ("VTs")

Issuance of Violation Tickets ("VTs") is associated to Transit Police Officers' active observations and enforcement of the provincial offences, including the misuse of fare gates, which was new legislation in 2017. In comparing 2021 Q1-Q3 to 2020 Q1-Q3, there was a 26% decrease in the number of VTs. This decrease is reflective of the lower ridership and it may be partly attributed to an adjustment to Transit Police operational deployment models and policing practices during the pandemic. Further, some patrol resources were redirected to the Crime Suppression Team.

Of critical importance to the safety of transit customers/staff and public, is how the process of confirming an offender's identity allows Transit Police to learn whether there is a criminal record or conditions of release, and if there are any outstanding warrants to be executed. These warrant arrests contribute positively to the work of our Jurisdictional Police partners and their offender management and community safety/crime reduction efforts.



Metro Vancouver Transit Police Board



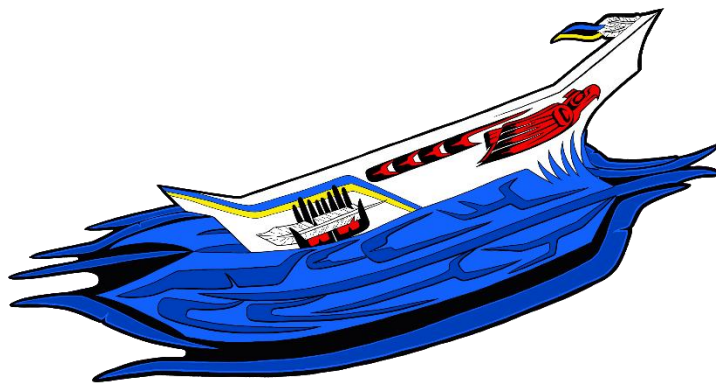
Commitment to Strengthen Support to Indigenous Peoples

The Metro Vancouver Transit Police Board recognizes the United Nations Declaration on the Rights of Indigenous Peoples and the Calls to Action of Canada's Truth and Reconciliation Commission. The Police Board acknowledges that the history of colonialism in Canada and forced assimilation policies of the *Indian Act* have contributed to the continued overrepresentation of Indigenous Peoples within the Canadian criminal justice system. In many Canadian institutions, there exists unconscious bias, systemic racism and discrimination, and this continues to keep First Nations, Métis and Inuit peoples marginalized and in fear of police and government.

The Transit Police Service, with the support of the Police Board, is committed to working towards reconciliation, building trust, and promoting better relationships and engagement between Indigenous communities and the police.

The Police Board recognizes the importance of listening and learning about the effects of intergenerational trauma and the recognition of the past, and the need to protect the human rights of Indigenous Peoples. The Police Board acknowledges the past negative experiences of Indigenous Peoples with authority of the government and police. Therefore, to help reduce overrepresentation in the criminal justice system and create change, it is essential that police officers employ respectful, fair and impartial policing practices.

In collaboration with urban and traditional Indigenous community partners, the Police Board will pursue reconciliation opportunities within its decisions and actions to help improve health and safety outcomes for Indigenous Peoples. The Police Board, in collaboration with the Transit Police Service, will continue to support and develop culturally appropriate and legally informed policies, practices, and initiatives. With the guidance of the Indigenous Liaison Unit, the Police Board and Transit Police staff will seek opportunities to engage with Indigenous communities and groups, with the aim of building open and trusting relationships.



TO: Board of Directors

FROM: Christine Dacre, Chief Financial Officer

DATE: November 8, 2021

SUBJECT: 2022 Business Plan, Operating and Capital Budget

PROPOSED RESOLUTION:

That the TransLink Board of Directors approve the proposed 2022 Business Plan, Operating and Capital Budget as attached to the report dated November 8, 2021 titled “2022 Business Plan, Operating and Capital Budget”.

EXECUTIVE SUMMARY

In 2022, TransLink is positioning itself to support Metro Vancouver’s continuing social and economic recovery by employing a fiscally prudent approach to deliver services that are tailored to the needs of the region while advancing the organization’s strategic priorities.

With the successful vaccine roll-out in 2021 having triggered moderate but sustained ridership recovery in the latter half of the year, in 2022 TransLink will be gearing up to support the region in the post-pandemic era. Anticipating that ridership will reach just over 80 per cent of pre-pandemic levels by Fall of 2022, service levels have been right-sized to both meet next year’s projected demand and to provide a baseline from which the next Investment Plan can pivot and allow services to evolve over the course of the 10-Year horizon.

Despite the recovery, ridership levels are anticipated to remain suppressed relative to the pre-pandemic baseline, and the trajectory of ridership return remains uncertain. Significant revenue losses from COVID-19 have contributed to a structural deficit over the longer term that will be addressed in the development of the next 10-Year Investment Plan, for which the 2022 Budget will form the starting point. Our liquidity levels remain robust – with gross interest cost as a percentage of operating revenue well below the policy maximum level.

The 2022 budget signals a return to TransLink’s established model of financial self-reliance, with no further Senior Government Relief Funding reflected in the financial plan. By identifying and proceeding with only those expenditures which are absolutely necessary to strengthen our contribution to the region, TransLink has freed up capacity to invest in areas which are central to our priorities, including Indigenous Relations, ridership recovery, Equity, Diversity and Inclusion (EDI) and information technology initiatives.

The 2022 Budget allows TransLink to continue providing an essential service while stewarding the region’s public transportation assets and service options for the future.

PURPOSE

The purpose of this report is to request the Board of Directors approve the 2022 Business Plan, Operating and Capital Budget.

BACKGROUND

Within the context of the continuing impact of the COVID-19 pandemic on TransLink's operations and financial position, the budget reflects an outlook of recovery for travel across the region in 2022. This is indicative of an overall economic recovery for the region ahead, and follows the gradual but sustained trajectory which commenced June 2021 alongside high vaccination rates, lower COVID-19 cases and reduced Public Health Order restrictions that re-established the confidence to travel without health and safety concerns.

Accordingly, fuel tax, parking rights tax and development cost charges are all budgeted to be higher than in 2021, as are transit revenues, with ridership projected to reach just over 80 per cent of pre-COVID levels by Fall 2022. Nevertheless, ridership and transit revenues are anticipated to remain below pre-COVID levels. TransLink is budgeting for a deficit of \$46.9 million in 2022. When comparing this deficit to the budget surplus in 2021 of \$8.1 million, one has to keep in mind that the budget 2021 included a portion of the Senior Government Relief Funding. Without this Senior Government Relief Funding, the budgeted deficit in 2021 would have been \$274.5 million.

As we begin to move back towards to our established model of financial self-reliance, TransLink continued to make all efforts to reduce expenditures while maintaining appropriate service levels and positioning the Enterprise to action the forthcoming Investment Plan and support the region's post-pandemic recovery. The 2022 budget was built strictly in alignment with corporate priorities, with savings from reduced headcount, professional service costs and discretionary spending across the Enterprise utilized to fund initiatives considered central to strengthening the platform from which to support the work ahead.

With many elements of the Phase 2 Investment Plan expansion program having already been deferred, and the new Investment Plan being delayed to 2022, the capital program of 2022 is focused on essential state of good repair activities and previously committed to projects.

Throughout 2022, TransLink will continue monitoring the social and economic development, progression of the pandemic and the progress of the economic recovery in the region.

DISCUSSION

The 2022 Business Plan, Operating and Capital Budget continues to support the four corporate priorities established in response to the impact of the COVID-19 pandemic:

- **Rebuild Customer Ridership:** TransLink will rebuild ridership by focusing on restoring public trust and confidence in transit as the economy recovers.
- **Foster a Safe, Skilled and Resilient Workforce:** TransLink will help build resilience among the workforce by focusing on business continuity, transparency and adaptability.

- **Deliver a Reliable Transportation System in a State of Good Repair:** TransLink will proactively manage and maintain all assets in a state of good repair to ensure safety and reliability, optimize lifecycle costs and enhance the customer experience.
- **Achieve Financial Sustainability:** TransLink will actively manage the financial health and work towards the achievement of long-term financial sustainability.

Major initiatives for 2022 within these areas are outlined in the Business Plan.

Total consolidated revenue is budgeted at \$2.0 billion which, excluding Senior Government Relief Funding, represents a \$296.4 million increase from the 2021 Budget. Budget 2022 reflects a positive outlook for travel recovery in the region, translating into higher revenues from transit, fuel tax and parking rights tax relative to 2021. Higher revenues from development cost charges and property taxes are also reflective of a positive outlook for the economic recovery more broadly.

The 2022 service levels have been right-sized to meet next year's projected demand. The significant uncertainties associated with ridership recovery remain. TransLink is continuously monitoring ridership levels and continues to make concerted efforts aimed at rebuilding ridership and supporting the continuation of recovery observed during the latter half of 2021. Budget 2022 includes an overall average fare increase of 2.3 per cent, which is lower from the previously planned rate increase of 3.0 per cent in the Phase Two Investment Plan, and follows the requirement of the BC Safe Restart Agreement, with the aim of supporting affordability of transit fare for our customers impacted by the pandemic.

Expenses from continuing operations are budgeted at \$2.0 billion, a \$60.0 million (3.1 per cent) increase compared to the 2021 Budget, mainly due to contractual and economic labour increase and other committed contractual obligations, higher capital infrastructure contributions for state of good repair maintenance initiatives and higher amortization of capital assets as a result of completed capital projects.

Risks associated with achieving the budgeted results include:

- Continued impact of COVID-19 pandemic, with the risk that the ridership paradigm has permanently changed due to new commuter needs/preferences;
- Cybersecurity risk from current global threat patterns;
- Continued challenges concerning attraction and retention of a skilled and resilient workforce;
- Supply chain shortages, inflation and fuel price escalation;
- BCRTC state of good repair and service; and
- CMBC collective bargaining and possible labour disruptions.

With no Senior Government Relief Funding anticipated for 2022, and the ongoing effects of COVID-19 on TransLink's operations, unrestricted cash and investments are expected to decrease by \$131.7 million compared to 2021. Capital program spending will be matched by bond issuances to maintain TransLink's unrestricted cash and investment balances at healthy levels throughout 2022. These available liquidity reserves are expected to be sufficient to withstand the adverse impacts should the ridership levels continue to be suppressed beyond what is anticipated in the 2022 budget, and uncertainties associated with risks outlined above.



2022 Business Plan

OPERATING AND CAPITAL BUDGET SUMMARY



translink.ca



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Caution Regarding Forward-Looking Statements

From time to time, TransLink makes written and/or oral forward-looking statements, including in this document and in other communications. In addition, representatives of TransLink may make forward-looking statements orally to analysts, investors, the media and others.

Forward-looking statements, by their nature, require TransLink to make assumptions and are subject to inherent risk and uncertainties. In light of uncertainty related to financial, economic and regulatory environments, such risks and uncertainties, many of which are beyond TransLink's control and the effects of which can be difficult to predict, may cause actual results to differ materially from the expectations expressed in the forward-looking statements.

1. Business Plan Summary

The South Coast British Columbia Transportation Authority, TransLink, is Metro Vancouver's regional transportation authority and its service region includes 21 municipalities, one electoral area and one Treaty First Nation. TransLink delivers a wide range of services and programs to plan and provide for the transportation needs of residents, businesses and visitors in the region. This includes Bus, SkyTrain, SeaBus, HandyDART, West Coast Express and Transit Police. TransLink also shares responsibility for the Major Road Network (MRN) and walking and cycling infrastructure with its local government partners.

Throughout the acute phase of the COVID-19 pandemic, TransLink fulfilled its role in providing an essential service while stewarding the region's public transportation assets and service options for the future. In 2022, TransLink is positioning itself to support Metro Vancouver's continuing social and economic recovery by employing a fiscally prudent approach to deliver services that are tailored to the needs of the region while advancing the organization's strategic priorities.

The profound effects of the pandemic on transportation which took effect in March 2020, and required decisive and immediate intervention at that time, are anticipated to continue shaping TransLink's operations and revenues in 2022. Across 2020 and 2021, TransLink partnered with the Province of B.C. and the Government of Canada to bridge the gap between the cost of providing transit service and the significant impacts of diminished ridership on revenues. The level and speed of ridership recovery remain far from certain and the significance of the associated revenue losses have created a structural deficit over the longer term that will be addressed in the development of the next 10-Year Investment Plan. That Investment Plan has itself been deferred from 2021 to 2022 to allow all stakeholders time to better understand and plan for the post-pandemic paradigm.

The deferral of the Investment Plan until 2022, together with the acute financial pressures arising from continued diminished ridership and revenue streams, require a planned level of spending that is financially sustainable yet still provides a robust platform on which to base future recovery. While the budget assumes a substantial increase in ridership relative to the past two years, Transit revenues remain significantly down from pre-COVID levels. TransLink is budgeting for a deficit of \$46.9 million in 2022 as we begin to move towards to our established model of financial self-reliance. Our liquidity levels remain robust – with gross interest cost as a percentage of operating revenue well below the policy maximum level – and central to the development of the next Investment Plan is the advancement of tools to help close the revenue gap.

As we continue to navigate the uncertainty regarding the scope and permanency of the changes brought by COVID-19, the four Corporate priorities TransLink established for 2021 in anticipation of supporting the region's recovery will remain in place for 2022:

- Rebuild Customer Ridership;
- Foster a Safe, Skilled and Resilient Workforce;
- Deliver a Reliable Transportation System in a State of Good Repair; and
- Achieve Financial Sustainability.

Over the course of the past two years, TransLink's principal focus was on achieving cost efficiencies and cost reductions while also delivering the service and commitments to the region and keeping the existing transit system in a state of good repair. That focus remains paramount. With the successful vaccine roll-out in 2021 having triggered moderate but sustained ridership recovery in the latter half of the year, in

2022 TransLink will be gearing up to support the region in the post-pandemic era. Anticipating the ridership to reach just over 80 per cent of pre-pandemic levels by Fall 2022, service levels have been right-sized to both meet next year's projected demand and to provide a baseline from which the next Investment Plan can pivot and allow services to evolve over the course of the ten-year horizon.

By identifying and proceeding with only those expenditures which are absolutely necessary to strengthen our contribution to the region, TransLink has freed up capacity to invest in areas which are central to our priorities. Under our commitment to reconciliation with our region's Indigenous peoples, 2022 will see increased and meaningful engagement alongside the completion of TransLink's Indigenous Relations Framework. Our ridership recovery campaign will continue in 2022, focusing on both attracting former riders back to Transit as well as acquiring new riders through a series of targeted campaigns that encompass individual customers, employers and community events. In the context of current global threat patterns concerning cybersecurity, we are continually enhancing resiliency and augmenting existing business continuity measures within our IT security program. Our continuing focus on Equity, Diversity and Inclusion (EDI) in 2022 will see additional resources dedicated to further program development and sustainment, as well as promoting and ensuring accessibility to all current and prospective employees. Our Major Studies group will be looking ahead as we plan for the adoption of a new Regional Transportation Strategy, New Vision and subsequent Investment Plans.

TransLink's focus on fulfilling our mandate of safely, affordably and reliably moving the people of Metro Vancouver around the region every day is unwavering and that mandate is defined by the needs and priorities of the people we serve. The budget for 2022, built on the principles of self-sufficiency and forming the foundation for fiscal stability over the course of the next ten years, enhances the alignment of Metro Vancouver's transportation network with the unique needs of our region, for today and for the future.

2. 2022 Key Priorities

TransLink’s foremost priority continues to be to manage the financial impacts of COVID-19 on the organization as we look to finalize the next 10-Year Investment Plan and address the structural gap in revenue caused by the pandemic. In tandem, TransLink will in 2022 implement the Indigenous Relations Framework as we continue to advance true and meaningful reconciliation with Metro Vancouver’s Indigenous peoples including engagement on potential transit service to reserve lands.

Our four key corporate priorities ensure continued focus on the customer, our workforce and maintaining our assets in a state of good repair, all within the current financial environment.

Priority One: Rebuild Customer Ridership
TransLink will rebuild ridership by focusing on restoring public trust and confidence in transit as the economy recovers

- Implement the Ridership Recovery Campaign through incentives and rewards that promote transit ridership along Frequent Transit Network corridors and develop partnerships with major employers, tourist attractions and event venues.
- Expand the Tap to Pay program by introducing the acceptance of contactless Interac Debit cards.
- Complete Rapid Transit business cases for SkyTrain extension from Arbutus to UBC and for the Burnaby Mountain Gondola.
- Continue deployment of TransLink WIFI at additional transit sites and on additional vehicles to elevate the customer experience.
- Continue to review and implement recommendations of BCRTC’s Passenger Injury taskforce.
- Develop improved real-time updates and engaging content for customers through multiple communications platforms to improve the customer experience.
- Implement the Community Safety Officer team as a supplement to regular police officers in order to positively impact perceptions of safety on transit and free up regular police officer resources.
- Conduct the 2022 Regional Trip Diary and Screenline survey to determine Metro Vancouver residents’ travel patterns and automobile volume at key locations respectively in order to improve the transit availability to our customers.
- Implement the Targeted Mobile Enforcement Team to provide enhanced enforcement around bus lanes and exchanges in order to reduce assaults against frontline transit employees.
- Introduce a new web booking feature for HandyDART and develop a new Access Transit Service Delivery Model.
- Launch Transit Police 2022-2026 strategic plan which focuses on Cross-Regional Policing, engaged community partners and modern policing culture.
- Maintain and continually enhance the COVID-19 Safe Operating Action Plan and gradually absorb COVID-related safety protocols into ongoing communicable disease prevention plans, in alignment with Provincial health and WorkSafe BC direction.
- Promote public awareness of safety precautions, winter preparedness measures and etiquette for transit ridership through media, social media and public education campaigns.
- Respond to emerging customer needs through the introduction and implementation of a second Customer Experience Action Plan.

- Continue to increase system flexibility by balancing the management of cancellations alongside striving to maintain On-Time Performance within the constraints of post-pandemic recovery.

Priority Two: Foster a Safe, Skilled and Resilient Workforce

TransLink will help build resilience among the workforce by focusing on business continuity, transparency and adaptability

- Strengthen the EDI program to increase the number of women in decision making roles, focus on hiring people with disabilities, and enhance employee awareness and dexterity concerning issues of equity, diversity and inclusion.
- Provision technology equipment and systems to enable the successful transition to new work styles in the Future of Work Program and Return to Workplace initiatives.
- Develop a Mental Health framework and Corporate Wellness programs to promote psychological wellbeing for our employees.
- Implement enterprise safety commitment concepts to guide safety practices across the organization.
- Migrate TransLink Corporate's safety program to a formal Safety Management System to ensure legal compliance and continual improvement of safety performance.
- Continue to develop the Agile delivery practice and adoption across technology teams.
- Maintain focus on developing a company safety culture built on Zero Harm and Just Culture as well as succession planning and leadership development programs at BCRTC.

Priority Three: Deliver a Reliable Transportation System in a State of Good Repair (SoGR)

TransLink will proactively manage and maintain all assets in a SoGR to ensure safety and reliability, optimize lifecycle costs and enhance the customer experience

- Advance priorities in the Regional Goods Movement Strategy, including developing policies and procedures, regional coordination and identifying options to reduce the environmental impact of urban freight.
- Continue to implement BCRTC quality and competency management and Get Well maintenance program and commence SkyTrain fleet overhauls.
- Continue to work in partnership with the City of Surrey and the City of Delta for the anticipated launch of the Rapid Bus route R6 in 2023.
- Identify bus priority opportunities in collaboration with municipal staff to ensure bus speed and reliability through implementation of the bus stop balancing program.
- Implement Cloud strategy to accelerate the move of the systems and services to the Cloud.
- Implement the Enterprise Records and Information Roadmap to consistently manage information and measure compliance across the organization.
- Progress with the Fleet Electrification pilot project through to 2023, expand the battery bus fleet on route 100 and support the commissioning of new bus orders.

- Continued focus on information technology investments, risk management and resilience preparedness.
- Migrate the Enterprise Data Warehouse to the cloud to ensure state of good repair, modernize the platform, and enable future data analytics opportunities in the enterprise.

Priority Four: Achieve Financial Sustainability

TransLink will actively manage the financial health and work towards the achievement of long-term financial sustainability

- Publish the 2022 - 2031 Investment Plan and renew the 10-Year Mayors' Vision.
- Expand the Major Studies department to undertake project development and business casing with the adoption of a new Regional Transportation Strategy (T2050), New Mayors' Vision (2022) and subsequent Investment Plans.
- Green Projects will be selected to form the issuance of Green Bonds. Publishing Green Bond Impact Reporting will ensure transparency to all investors of positive environmental impacts.
- Introduce, modernize and enhance commercial assets to maximize revenue opportunities and customer amenities.
- Restart the Annual Supplier Forum and expand to include Indigenous businesses.
- Continue to manage the Carbon Credit Program to contribute to financial sustainability through the use of Renewable Natural Gas (RNG) fuel and Battery Electric Buses (BEB).
- Continue to lead the development of Climate Action Strategy and detailed Climate Action Plan (CCAP) to enhance system resilience and mitigate climate impacts.

To deliver the priorities set in the **2022 Business Plan, Operating and Capital Budget**, funding will be obtained through various sources. Funding for capital projects includes the Greater Vancouver Regional Fund (GVRF), Public Transit Infrastructure Fund (PTIF) and Investing in Canada Infrastructure Program (ICIP). Main funding sources supporting current operations include transit revenues, property taxes, motor fuel taxes and parking rights tax. The main risks associated with these funding sources resulting from the adverse effects of the COVID-19 pandemic include diminished transit ridership, reduced driving and usage of parking, an overall economic downturn; as well as the capacity to deliver capital projects.

3. 2022 Financial and Operating Summary

CONSOLIDATED REVENUES AND EXPENSES					
Twelve months ending December 31	2020	2021	2022	Change	
(\$ thousands)	ACTUAL	BUDGET	BUDGET	Incr/(Decr)	%
Revenue					
Taxation	849,986	888,774	933,012	44,238	5.0%
Transit	385,934	421,548	619,339	197,791	46.9%
Government transfers					
Senior Government Relief Funding	644,000	282,246	-	(282,246)	(100.0%)
Senior Government funding	87,405	205,360	247,890	42,530	20.7%
Golden Ears Bridge tolling replacement revenue	62,366	64,751	67,231	2,480	3.8%
Development cost charges ¹	19,734	16,889	31,525	14,636	86.7%
Investment income	53,763	46,715	44,996	(1,719)	(3.7%)
Amortization of deferred concessionaire credit	23,337	23,273	23,273	-	-
Miscellaneous	18,394	17,422	13,901	(3,521)	(20.2%)
Sub Total Continuing Operations	2,144,919	1,966,978	1,981,167	14,189	0.7%
Gain/(Loss) on Disposal on tangible capital assets	(10)	-	(200)	(200)	-
Total Revenue	2,144,909	1,966,978	1,980,967	13,989	0.7%
Expenditures					
Bus operations	760,611	844,162	864,215	20,053	2.4%
Rail operations	316,507	360,290	374,648	14,358	4.0%
Transit Police	40,668	44,296	46,073	1,777	4.0%
Corporate operations	100,798	112,479	125,100	12,621	11.2%
Roads and bridges	62,863	142,075	145,248	3,173	2.2%
Amortization of tangible capital assets *	229,450	249,942	258,400	8,458	3.4%
Interest *	189,339	180,469	179,836	(633)	(0.4%)
Sub Total Continuing Operations	1,700,236	1,933,713	1,993,520	59,807	3.1%
Corporate One-time	15,116	25,186	34,344	9,158	36.4%
Total Expenditures	1,715,352	1,958,899	2,027,864	68,965	3.5%
Surplus/(deficit) for the year	429,557	8,079	(46,897)	(54,976)	(680.5%)

* Amortization and Interest are shown separately to facilitate analysis.

¹ Restated 2021 Budget as development cost charges are now separately reported from Taxation.

2022 Budget Highlights

The 2022 Budget results in a \$46.9 million deficit on a Public Sector Accounting Board (PSAB) standards basis. Whilst this deficit is \$55.0 million higher than the 2021 Budget, the prior year plan included \$282.2 million Senior Government Relief Funding (“Relief Funding”), whereas no such funding is available in the 2022 Budget. Excluding relief funding, the result projected under the 2022 Budget is \$227.3 million better than the 2021 Budget, in the context of a partial but substantial recovery in operating revenues combined with a continued focus on achieving cost savings and efficiencies.

Total revenue from continuing operations is budgeted at \$2.0 billion which, excluding Relief Funding, represents a \$296.4 million (17.6 per cent) increase from the 2021 Budget. Budget 2022 reflects a positive outlook for travel recovery in the region, translating into higher revenues from Transit, Fuel tax and Parking Right tax. Higher revenues from development cost charges and property taxes are also reflective of a positive outlook for the economic recovery more broadly.

Total expenditures are budgeted at \$2.0 billion with a \$69.0 million (3.5 per cent) increase from the 2021 Budget mainly due to contractual and economic labour increase and other committed obligations and higher amortization of capital assets as a result of completed capital projects. Other increases relate to higher fuel costs as well as higher administration costs and higher IT support and maintenance costs.

4. Key Performance Indicators and Drivers

Financial Indicators

FINANCIAL INDICATORS					
As at December 31 (\$ thousands)	2020	2021	2022	Change	
	ACTUAL	BUDGET	BUDGET	Incr/(Decr)	%
Unrestricted cash and investments ¹	493,630	614,337	482,611	(131,726)	(21.4%)
Capital assets	5,573,970	6,204,870	6,419,266	214,396	3.5%
Net direct debt ²	(2,645,666)	(2,798,740)	(2,907,027)	108,287	3.9%
Indirect P3 debt ³	(1,480,204)	(1,445,642)	(1,408,867)	(36,775)	(2.5%)
Total net direct debt and indirect P3 debt	(4,125,870)	(4,244,382)	(4,315,894)	71,512	1.7%
Gross interest cost as a % of operating revenue ^{4,5}	14.3%	12.9%	10.9%	(2.0%)	(15.2%)

¹ Accumulated funding resources as calculated under the SCBCTA Act is the amount of resources available to fund future operations

² Includes bonds, debentures, capital leases, short-term debt net of sinking funds and debt reserve deposits

³ Includes Deferred concessionaire credit for Canada Line and Contractor liability for Golden Ears Bridge (GEB)

⁴ Operating revenue includes transit, taxation, operating transfers from Provincial government and miscellaneous income

⁵ Operating revenue restated to exclude development cost charges as at December 31, 2020

TransLink's unrestricted cash and investment balances, reflecting accumulated funding resources available for supporting operations, are budgeted to decrease by \$131.7 million (21.4 per cent) compared to the 2021 Budget. The decrease is due to the continued effects of COVID-19 on TransLink's operations, resulting in an expectation that in 2022 cash outflows will continue outpacing cash inflows and lower budgeted cash balances at the end of 2021 have carried through into 2022. Capital program spending will be matched by bond issuances and funding from Senior Government capital programs to maintain TransLink's unrestricted cash and investment balances at healthy levels to the end of 2022.

Planned capital expenditures during 2022 are expected to result in a net increase of \$214.4 million in capital assets in comparison to the 2021 Budget. Projects forecasting significant spending in 2022 include Expo and Millennium Line upgrades, conventional bus vehicles and equipment, rail fleet expansion and refurbishment, station upgrades and rail infrastructure projects including the Surrey Langley SkyTrain and Operations and Maintenance Centre 4 (OMC 4) storage facility.

Net direct debt is expected to increase by \$108.3 million (3.9 per cent) in comparison to the 2021 Budget due to increased borrowing to finance planned capital spending net of Senior Government funding, partially offset by the maturing of a Municipal Financing Authority (MFA) bond and increases in the self-administered sinking fund.

Indirect P3 debt relating to the Canada Line and Golden Ears contractor liability is expected to decrease by \$36.8 million (2.5 per cent) due to amortization and principal payments.

The gross interest cost as a percentage of operating revenues at 10.9 per cent is 2.0 percentage points lower than the 2021 Budget mainly due to higher revenues in 2022 and is well below the policy maximum level of 20 per cent.

Operating Indicators

OPERATING INDICATORS						
Twelve months ending December 31	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change		
				Incr/(Decr)	%	
Scheduled Transit Service						
Overall Performance Rating (out of 10)	8.2	8.0	8.0	-	-	
Service Hours ¹	6,894,444	7,233,672	7,158,904	(74,768)	(1.0%)	
Operating Cost Recovery ²	58.9%	32.8%	46.4%	13.6%	41.5%	
Operating Cost per Capacity Km ^{3,4}	\$0.097	\$0.119	\$0.105	(\$0.014)	(11.8%)	
Complaints per million Boarded Passengers ⁵	103.3	93.0	93.0	-	-	
Access Transit Service						
Number of Trips	620,143	1,411,000	1,382,000	(29,000)	(2.1%)	
Operating Cost per Trip	\$75.14	\$41.54	\$43.69	\$2.15	5.2%	
Number of Trips Denied	405	2,237	240	(1,997)	(89.3%)	
Operator Complaints as a percentage of trips	0.12%	0.08%	0.08%	-	-	
Service Complaints as a percentage of trips	0.08%	0.09%	0.09%	-	-	
Ridership (thousands)						
Boarded Passengers	218,796	244,772	370,461	125,689	51.3%	
Journeys	128,022	143,777	212,262	68,485	47.6%	
Average Fare per Journey	\$2.82	\$2.76	\$2.76	-	-	

¹ 2020 actual service hours for West Coast Express have been restated to align with the service delivery of Expo and Millennium Lines and Canada Line have been restated to reflect the final service hours figures.

² Includes operating costs of Bus, Rail, Transit Police and Corporate On-going. Excludes amortization and interest expense.

³ Includes operating costs of Bus, Rail and Transit Police. Excludes amortization and interest expense.

⁴ 2020 actual capacity km for Canada Line has been restated to reflect the final capacity figures.

⁵ In December 2020, TransLink was the victim of a cyberattack. Immediate action and protective measures were taken by TransLink including the shut down of multiple network systems. As a result, TransLink was not able to capture full complaints data from November 28 to December 31, 2020. Total complaints, therefore, cover the period January 1 to November 27, 2020, with boarded passengers totals aligned with the same period to normalize this metric.

Scheduled Transit Service

The targeted overall performance rating from our customers is 8.0 in 2022.

Conventional system service hours for both Bus and Rail Operations are budgeted to be lower than the 2021 Budget by 74,768 hours across the region, reflecting post-pandemic service levels being right-sized to expected demand in 2022.

Operating cost recovery of 46.4 per cent budgeted in 2022 is higher than the 2021 budgeted ratio of 32.8 per cent due to the increase in transit revenues resulting from projected increases in ridership.

Operating cost per capacity kilometre is expected to decrease by 11.8 per cent over the 2021 Budget due to increased passenger capacity, resulting from the anticipated recovery in ridership concurrent with the suspension of physical distancing restrictions.

Complaints per million boarded passengers are budgeted to be 93.0, which is consistent with the 2021 Budget.

TransLink is committed to ensuring customer safety, enhancing the experience and remains focused on delivering a reliable transportation system in a state of good repair as one of its key priorities. To enhance customer satisfaction and confidence in the transit system, TransLink will continue to increase system flexibility, to balance the management of cancellations alongside striving to maintain On-Time

Performance, all within the constraints of post-pandemic recovery and to support accessibility initiatives and the commissioning of new bus orders.

Access Transit Service

Access Transit trip demand was significantly impacted by the COVID-19 pandemic; however, we remain committed to ensuring that services are fully available for passengers unable to use conventional public transit without assistance. As such, the 2022 budgeted service level is based on demand from 2019 actual trips delivered, which represents a 2.1 per cent decrease from the 2021 budget.

Access Transit budgeted operating cost per trip for 2022 is expected to increase by 5.2 per cent compared to the 2021 Budget largely due to contractual and committed obligations such as labour rates. The actual cost per trip will be dependent on demand for service.

Ridership

Boardings represent each time a passenger enters a fare paid zone including transfers. Boardings in 2022 are expected to be 51.3 per cent higher than the 2021 Budget, with the trajectory of ridership recovery from the COVID-19 pandemic forecasted to continue its arc from the sustained increases observed commencing Summer 2021.

Journeys represent a complete transit trip regardless of the number of transfers. For 2022, journeys are expected to be 47.6 per cent higher than the 2021 Budget due to the forecasted recovery in transit ridership from the COVID-19 pandemic.

Since the start of June 2021, ridership has been steadily recovering and proved agnostic to the fourth wave of cases arising from the emergence of the Delta variant, likely due to extensive vaccination roll out in the region. This recovery is projected to continue into fall 2021 and throughout 2022 due to the elimination of public health restrictions and Metro Vancouver's high vaccination rates. By Fall 2022, ridership is projected to reach just over 80 per cent of pre-COVID levels and remain at just over 80 per cent for the remainder of the year due to a lasting shift towards remote working and some continuing aversion to being in enclosed, shared public spaces.

The average fare per journey is expected to remain the same as the 2021 Budget at \$2.76. The fare increase effective from July 1, 2022 and an increase in 2-zone and 3-zone trips is expected to increase the average fare. This increase, however, is expected to be offset by increased ridership for program riders (U-Pass BC and BC Bus Pass) which reduces the average fare.

Key Drivers

Ridership

Ridership journeys are used in estimating the fare revenue. Journeys are expected to increase 47.6 per cent relative to the 2021 Budget due to the recovery from the COVID-19 pandemic. Ridership is projected to continue recovering until it reaches just over 80 per cent of pre-COVID in Fall 2022. Ridership is expected to remain at just over 80 per cent of pre-COVID due to a permanent shift towards increased remote work adoption and some lasting aversion to being in enclosed, shared public spaces. The assumptions underlying the 2022 Budget are that the region enters a complete and lasting reopening starting in January 2022 with some commuters returning to the workplace on a full-time or part-time basis and that, in 2022, COVID-19 ceases to be an acute public health emergency.

Households

Household projections are based on estimates from BC Stats. BC Stats provides annual household estimates for the Metro Vancouver region. The number of households in the Metro Vancouver region is expected to grow by 0.8 per cent in 2022 compared to the 2021 Budget. Household growth impacts both transit and taxation revenues.

Interest rates

Interest rates for the budget are based on forecasts from major Canadian chartered banks, the Ministry of Finance and TransLink credit spread and issue costs. Short-term borrowing rates are expected to be at 0.33 per cent which is 0.27 percentage points lower than forecasted 2021 year-end interest rates of 0.6 per cent. Long-term borrowing rates are expected to be at 3.00 per cent which is 0.30 percentage points lower than forecasted 2021 year-end interest rates of 2.7 per cent. Changes and volatility in interest rates remain a risk, due to uncertainty of the future economic recovery.

Inflation

The Consumer Price Index growth assumptions for the 2022 Budget is 2.0 per cent, based on the BC Ministry of Finance.

Taxable fuel consumption

Fuel consumption volumes are used to estimate fuel tax revenue. Fuel volume projections are developed based on an internally developed forecast and vehicle fleet trends which consider the total number of vehicles, average distance driven and fuel economy in the region as well as leakage of fuel tax revenue caused by purchases outside the Metro Vancouver region.

Combined fuel volumes in the 2022 Budget are comprised of 83.9 per cent gasoline and 16.1 per cent diesel. Gasoline and diesel volumes are expected to increase by 3.3 per cent and 0.4 per cent respectively during 2022, resulting in a combined fuel volume increase of 2.8 per cent over the 2021 Budget. Management will continue to monitor fuel trends and leading indicators and will adjust the forecast if necessary.

Hydro cost

BC Hydro sets out electricity rate increases which impact propulsion power for SkyTrain and Trolley Buses along with facility utility costs. In 2022, rate increase is expected to be 2.0 per cent, a decrease by 0.7 percentage points from the 2021 Budget assumption. Rate increases take effect in April of every year.

Gasoline and Diesel prices

Fuel prices affect operating costs for revenue and non-revenue buses as well as West Coast Express trains. Fuel prices are estimated using fuel vendor and U.S. Energy Information Administration forecasts adjusted for Canadian prices, taxes and price differentials. Natural gas rates will be based on the tariffed rate in 2022.

Revenue Vehicle insurance

The bus fleet insurance premium that TransLink pays to ICBC is budgeted to increase by 2.0 per cent in 2022. At the date of this report, ICBC has not signalled that Basic Insurance Rates will increase in 2022 and the budget assumed zero per cent rate increase. The 2.0 per cent increase in premium arises from an expected increase in the number of insured vehicles in 2022 compared to 2021.

Assumptions

The following table summarizes changes in key assumptions used to develop the 2022 Budget:

2022 BUDGET ASSUMPTIONS		RATE / VOLUME	SENSITIVITIES	
			Change	Impact (\$ millions)
Background Assumptions				
Real GDP Growth		3.80%		
Employment rate		2.40%		
Hydro Cost Increase		2.00%		
Population	thousands	2,795		
Households	thousands	1,108		
Operating Assumptions with Sensitivity Analysis				
Revenue				
Regional Fuel Consumption				
Gasoline	millions of litres	1,794.6	1 per cent +/-	3.3
Diesel	millions of litres	344.5	1 per cent +/-	0.6
Ridership	millions of journeys	212.3	1 per cent +/-	5.9
Expense				
Diesel cost	dollars per litre	1.30	\$0.10 +/-	3.4
Operational Diesel Use	millions of litres	34.07	1 per cent +/-	0.4
Gasoline cost	dollars per litre	1.35	\$0.10 +/-	0.5
Operational Gasoline Use	millions of litres	5.27	1 per cent +/-	0.1
Interest rate	Short term	0.33%	0.5 per cent +/-	0.2
	Long term	2.65%	0.5 per cent +/-	3.0
Inflation	General	2.00%	0.5 per cent +/-	0.7
	Materials	2.00%	0.5 per cent +/-	1.0

5. Consolidated Revenues

CONSOLIDATED REVENUES					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Taxation					
Fuel	364,524	384,884	395,745	10,861	2.8%
Property & replacement	416,295	435,720	452,014	16,294	3.7%
Parking rights	47,310	46,033	62,733	16,700	36.3%
Hydro levy	21,857	22,137	22,520	383	1.7%
Transit	385,934	421,548	619,339	197,791	46.9%
Government transfers					
Senior Government Relief Funding	644,000	282,246	-	(282,246)	(100.0%)
Senior Government funding	87,405	205,360	247,890	42,530	20.7%
Golden Ears Bridge tolling replacement revenue	62,366	64,751	67,231	2,480	3.8%
Development cost charges ¹	19,734	16,889	31,525	14,636	86.7%
Investment income	53,763	46,715	44,996	(1,719)	(3.7%)
Amortization of deferred concessionaire credit	23,337	23,273	23,273	-	-
Miscellaneous revenue	18,394	17,422	13,901	(3,521)	(20.2%)
Revenue Before Gain/(Loss) on Disposals	2,144,919	1,966,978	1,981,167	14,189	0.7%
Gain/(Loss) on Disposal on tangible capital assets	(10)	-	(200)	(200)	-
Total Revenue	2,144,909	1,966,978	1,980,967	13,989	0.7%

¹ Development cost charges are now reported separately from Taxation

TransLink receives its revenue mainly through taxation, transit fares and government transfers. Total consolidated revenues for 2022 are budgeted to be \$2.0 billion. The COVID-19 pandemic significantly diminished operating revenues across 2020 and 2021, with shortfalls offset by Senior Government Relief Funding. While the impact of the pandemic is forecast to result in continued diminished ridership in 2022, the budget reflects an outlook for recovery across operating revenues alongside high vaccination rates, lower COVID-19 cases and reduced Public Health Order restrictions that have re-established the confidence to travel without health and safety concerns, indicative of an overall economic recovery in the region.

2022 Budget vs 2021 Budget

Taxation

TAXATION REVENUES					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET ¹	2022 BUDGET	Change	
				Incr/(Decr)	%
Fuel	364,524	384,884	395,745	10,861	2.8%
Property & replacement	416,295	435,720	452,014	16,294	3.7%
Parking rights	47,310	46,033	62,733	16,700	36.3%
Hydro levy	21,857	22,137	22,520	383	1.7%
Total Taxation revenue	849,986	888,774	933,012	44,238	5.0%

¹ Development cost charges are now reported separately from Taxation

Taxation Revenue is comprised of fuel tax, property and replacement tax, parking rights tax and hydro levy.

Fuel tax revenue for 2022 is budgeted at \$395.7 million which is \$10.9 million (2.8 per cent) higher than the 2021 Budget. The increase is attributable to a recovery in driving levels, including non-essential travel, following the successful vaccination program in the region in 2021, partially offset by an increase in fuel leakage when the United States land border reopens for non-essential travel and higher Zero Emission Vehicle (ZEV) registrations leading to fewer vehicles requiring fuel.

Property and replacement tax revenue is budgeted at \$452.0 million, \$16.3 million (3.7 per cent) higher than the 2021 Budget. This includes an annual 3.0 per cent increase in property tax revenue from existing properties as well as property tax revenue from development and construction growth estimated at 1.3 per cent. The replacement tax remains at \$18.0 million.

Parking rights tax revenue is budgeted at \$62.7 million, \$16.7 million (36.3 per cent) higher than the 2021 Budget. The expected increase in 2022 reflects some anticipated return to onsite work for people who were working remotely since the beginning of the pandemic; however, overall revenue levels are expected to remain below the pre-COVID baseline.

Transit

TRANSIT REVENUES					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Fares	265,171	287,475	459,228	171,753	59.7%
Programs	95,570	109,737	127,032	17,295	15.8%
Total fare and programs revenue	360,741	397,212	586,260	189,048	47.6%
Other	25,193	24,336	33,079	8,743	35.9%
Total Transit revenue	385,934	421,548	619,339	197,791	46.9%

Total transit revenue is budgeted at \$619.3 million which is an increase of \$197.8 million (46.9 per cent) compared to the 2021 Budget. This is due to an increase in ridership driven by high vaccination rates, a decreasing trend of COVID-19 cases and minimal Provincial Health Officer Order restrictions in the Metro Vancouver area. These in combination are expected to restore customer confidence to travel and take transit with fewer health and safety concerns, with many employers now anticipated to transition back from the fully remote work models for employees which were instated as a matter of necessity during the acute phase of the pandemic.

Ridership started recovering steadily commencing June 2021 and is expected to reach just over 80 per cent of pre-COVID levels by Fall 2022 and remain at just over 80 per cent for the remainder of the year. As there is an expected permanent shift away from fully on-site work and some continuing aversion to being in enclosed public spaces, the degree and permanency of changes in travel demand arising from the pandemic remains far from certain. A 2.3 per cent overall average fare increase effective from July 1, 2022 also contributes to higher revenue in the 2022 Budget.

Government Transfers

GOVERNMENT TRANSFERS					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Senior Government Relief Funding	644,000	282,246	-	(282,246)	(100.0%)
Senior Government funding	87,405	205,360	247,890	42,530	20.7%
Golden Ears Bridge tolling replacement revenue	62,366	64,751	67,231	2,480	3.8%
Total Government Transfers	793,771	552,357	315,121	(237,236)	(42.9%)

Government transfers include funds received from Greater Vancouver Regional Fund (GVRF), the Public Transit Infrastructure Fund (PTIF), Canada Line funding, Building Canada Fund and other miscellaneous programs. Revenue from Senior Government funding is expected to be \$237.2 million (42.9 per cent) lower than the 2021 budget levels mainly due to COVID-19 relief funding budgeted in 2021. \$644.0 million in relief funding was received in 2020 from the Federal and Provincial governments to help offset operational losses resulting from the COVID-19 pandemic, of which \$282.2 million was budgeted in 2021. No Senior Government Relief Funding is budgeted for 2022. Partially offsetting this is the timing of projects receiving capital funding.

Development Cost Charges

The revenue from development cost charges is \$31.5 million, which is \$14.6 million (86.7 per cent) higher than the 2021 Budget, reflecting an increase in the development activity within Metro Vancouver.

Investment Income

Investment income is budgeted at \$45.0 million. The \$1.7 million (3.7 per cent) decrease is mainly due to lower unrestricted cash balances, partially offset by the increase in self-administered sinking fund balances.

Risks and Challenges

Risks related to transit fare revenue include achieving ridership targets and predicting consumer behaviour for the purchase of various fare products alongside uncertainties caused by the COVID-19 pandemic. Although we are seeing a decline in COVID-19 cases alongside high vaccination rates, there is a risk of variants and rising cases that may result in Provincial Health Office Orders to be imposed on Metro Vancouver residents once again, which will slow the recovery of the economy, leading to lower ridership and fare revenue than budgeted. TransLink continues to closely monitor external factors that may impact ridership.

Fuel tax revenue is challenging to forecast as suppliers have up to 48 months to recover tax paid on exempt volumes of fuel resold outside the transit region. Market changes in the price of crude oil, the increase in usage of ZEVs, the USD/CAD exchange rate and economic growth, as well as consumer tendency to purchase fuel across the US border can also impact the amount of fuel tax collected and remitted to TransLink.

Property tax revenue includes revenue from new development and construction growth; the rate for 2022 is estimated at 1.3 per cent. If the actual rate for 2022 is lower than 1.3 per cent, a lesser amount of incremental property tax revenue will be received.

TransLink has limited influence on the operations of our partners that remit our parking rights tax revenue. An increase in parking rates, change in service, change in COVID-19 restrictions or change in consumer behaviour could negatively impact this revenue stream.

6. Consolidated Expenses by Segment

CONSOLIDATED EXPENSES BY SEGMENT					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Bus operations	760,611	844,162	864,215	20,053	2.4%
Rail operations	316,507	360,290	374,648	14,358	4.0%
Transit Police	40,668	44,296	46,073	1,777	4.0%
Corporate operations	100,798	112,479	125,100	12,621	11.2%
Roads and bridges	62,863	142,075	145,248	3,173	2.2%
Amortization of tangible capital assets *	229,450	249,942	258,400	8,458	3.4%
Interest *	189,339	180,469	179,836	(633)	(0.4%)
Sub Total Continuing Operations	1,700,236	1,933,713	1,993,520	59,807	3.1%
Corporate One-time	15,116	25,186	34,344	9,158	36.4%
Total Expenses by Segment	1,715,352	1,958,899	2,027,864	68,965	3.5%

* Amortization and Interest are shown separately to facilitate analysis

TransLink is responsible for delivering transit services, operating five bridges and providing operating and capital funding for the MRN and cycling in Metro Vancouver. With the operating environment remaining challenging and lower overall ridership anticipated to continue in 2022, TransLink continues to focus on finding efficiencies and reducing non-essential spending in the 2022 Budget to offset the increase in operating costs that are necessary for high-priority initiatives and inflationary cost pressures.

Of the \$59.8 million increases in Continuing Operations for the 2022 Budget, \$36.0 million relates to contractual and economic increases from committed obligations and labour rate increases, as well as amortization of capital assets (\$8.5 million) and capital infrastructure contributions (\$4.1 million) as more capital projects and MRN Operations and Maintenance projects are completed. Additional increases relate to property taxes (\$5.5 million), fuel costs (\$5.5 million), IT support and maintenance costs (\$2.2 million) as well as marketing costs and professional fees to support key initiatives (\$4.5 million). These increases are partially offset by lower insurance costs and interest costs (\$5.7 million) as well as lower maintenance and material costs (\$0.8 million).

Corporate One-time costs are budgeted at \$34.3 million and relate to continued investments in implementing the Phase Two Investment Plan, including feasibility studies, Bus Speed and Reliability, RapidBus expansion as well as costs of capital projects that are not eligible for capitalization.

Bus Operations

Coast Mountain Bus Company (CMBC) oversees the operations of Conventional and Community Shuttle bus service, SeaBus and Access Transit. By the end of 2022, CMBC's fleet will consist of approximately 2,076 Conventional Buses, Community Shuttle and Access Transit (HandyDART) vehicles. This figure includes vehicles owned by TransLink but operated by third-party service providers. Bus operations will span 108.2 million service kilometres, 5.6 million service hours and offer 1.4 million Access Transit trips in 2022.

Initiatives

In 2022, CMBC will undertake a range of strategic activities and initiatives as follows in order to deliver on TransLink's four key Corporate priorities:

Priority One: Rebuild Customer Ridership

- Continue to increase system flexibility, to balance the management of cancellations alongside striving to maintain On-Time Performance, all within the constraints of post-pandemic recovery;
- Pilot Advanced Headway Management on one route;
- Increase customer confidence in the safety of the bus system with pilot programs for bus cleanliness and ventilation;
- Increase customer confidence in the safety of bus system;
- Continue to support accessibility initiatives; and
- Redefine roadmap for HandyDART Trapeze upgrades and new modules and develop communication materials and education packages for customers for the implementation of web booking.

Priority Two: Foster a Safe, Skilled and Resilient Workforce

- Enhance Return to Workplace initiatives;
- Provide increased focus on Mental Health through program development;
- Support the EDI program;
- Support Delivery of Health and Safety Software; and
- Implement training materials to support succession planning for exempt leadership and management development.

Priority Three: Deliver a Reliable Transportation System in a State of Good Repair

- Support commissioning of new bus orders;
- Progress major project for fleet electrification;
- Support Low Carbon Fleet Strategy (LCFS); and
- Support various projects including Onboard Technology Assets Program (OTAP), Daily Operations Management Systems (DOMS), Enterprise Resource Planning (ERP) and Enterprise Asset Management (EAM).

Priority Four: Achieve Financial Sustainability

- Increase focus on Transit Operator resourcing and overtime management; and

- Review and develop Phase Two of the updated Maintenance Trades to Bus ratio matrix.

Risks and Challenges

Coast Mountain Bus Company has identified the following key risks and challenges:

- **Customer & Employee Safety:** A variety of external and internal factors arise as to increase the likelihood of a serious safety-related risk incident affecting our customers and employees. These include the continued COVID-19 pandemic, winter conditions, motor vehicle accidents, assaults, etc. A higher-than-normal increase in incidents affecting employee and customer safety could cause consequences such as injuries, fatalities, negative media attention, direct impacts to customer service, and operating cost impacts.
- **Recruitment Challenges:** There is a risk that required recruitment levels may fall short of ongoing maintenance requirements, particularly for Trades. The risk is caused by a variety of factors affecting the hiring pipeline, such as broad employment market conditions and the continued downstream effect of COVID-19, which have caused delays in Police Information Checks, delays in medical testing, and delays in reference checks. The enterprise-wide mandatory vaccination policy may cause a risk of disruption to bus services in the near future due to losses of operators who refuse to comply. Continued challenges in 2022 may arise out of a need to recruit new operators to offset attrition if CMBC loses a material number of them. An inability to recruit enough trades within the required timeframe may cause negative impacts on overtime, morale, delays, and other operations constraints.
- **Business Resiliency:** Certain aspects of our organizations may be unable to resume operations in a timely manner following a major disruption. A variety of risk factors influence this, including assets not meeting post-disaster seismic standards and continuing to be underdeveloped in vulnerable areas, exposure to climate change impacts, planning for longer-term risks not aligning with short-term financial horizons, and CMBC not being fully aware of the major hazards that can affect its business. If a major event were to occur, it could result in compromises to worker and customer safety and security, lapses in communication during and after an event, delays in service restoration, and reputational impact.
- **Aging IT Infrastructure:** Several areas of our organization continue to operate with IT infrastructure that has reached end-of-life or are obsolete for 2022. Continued operation requires a large amount of upgrade and replacements in an expedited fashion to ensure continuity. Delays in OTAP implementation, DOMS replacement, software upgrades, and facility/depot CCTV systems repair can significantly impact operations.
- **Aging Physical Infrastructure:** There is a risk that operational physical assets are aging and degrading at a rate faster than we can keep up with repairs, replacements, and resources. This is caused by a variety of factors, including limited budgets, operational constraints, and supply chain delays. Consequences include the possibility of fixed assets going offline for unscheduled repairs and service delays.

Labour Relations: Collective bargaining negotiations are due to commence in time for collective agreements expiring in March 2022. There is a risk that if any one of the three collective bargaining processes fails to reach an agreement, resulting in various levels of job action and impacts to service,

infrastructure, or maintenance. Job action in the event of a failure to successfully conclude negotiations can include work stoppages or work interruptions. CMBC constantly monitors these risks through daily operations and maintenance, as well as various steering committees, asset management tools and regular reporting to senior management.

2022 Budget vs 2021 Budget

BUS OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Administration	22,833	26,571	24,247	(2,324)	(8.7%)
Contracted Services	67,799	81,195	83,604	2,409	3.0%
Fuel and Power	41,128	54,050	59,409	5,359	9.9%
Insurance	21,774	23,431	17,551	(5,880)	(25.1%)
Maintenance, Materials and Utilities	74,085	81,728	79,358	(2,370)	(2.9%)
Professional and Legal	1,722	3,849	4,682	833	21.6%
Rentals, Leases and Property Tax	13,951	15,841	19,130	3,289	20.8%
Salaries, Wages and Benefits	517,319	557,497	576,234	18,737	3.4%
Total Expenses by Category	760,611	844,162	864,215	20,053	2.4%

The Bus Operations 2022 operating budget of \$864.2 million is \$20.1 million (2.4 per cent) higher than the 2021 Budget. This consists of increases in costs to operate conventional service, Community Shuttle and SeaBus of \$17.3 million (2.3 per cent), Access Transit of \$1.8 million (2.9 per cent) and other contracted bus services of \$1.0 million (4.1 per cent). The increase is primarily due to contractual obligations related to labour and economic increases.

In comparison to the 2021 budget:

- Salaries, wages and benefits are budgeted to increase by \$18.7 million mainly due to contractual increases and other economic and step progression increases;
- Fuel and power costs are budgeted to increase by \$5.4 million due to higher pricing;
- Rentals, leases and property tax are budgeted to increase by \$3.3 million mainly due to an increase in property taxes and new lease agreements;
- Contracted transit services are budgeted to be \$2.4 million higher than the 2021 Budget mainly due to contractual rate increases;
- Insurance premiums are budgeted to decrease by \$5.9 million mainly due to favourable ICBC discount rates and lower service kilometres, partially offset by an increase in a number of insured vehicles;
- Maintenance, materials and utilities are budgeted to decrease by \$2.4 million mainly due to lower maintenance and material costs in 2022, as a result of lower service kilometres; and
- Contracted transit services are budgeted to be \$2.4 million higher than the 2021 Budget mainly due to contractual rate increases.

Service Assumptions

Within the context of the current COVID-19 pandemic environment, TransLink will be providing services right-sized to the needs of the region. Budget-to-budget conventional transit service hours are expected to decrease by 1.2 per cent and conventional transit service kilometres are expected to decrease 3.2 per

cent. Capacity kilometres however are expected to increase by 45.8 per cent, with bus seating restrictions having been lifted on July 1, 2021 and therefore not included in the 2022 budget. On June 1, 2020, bus seating restrictions were implemented to ensure adequate social distancing during the acute phase of the pandemic, resulting in reduced vehicle capacity approximating two-thirds of a regular passenger load. HandyDART is expected to fulfill demand as needed.

The following table shows the service levels at CMBC operations:

BUS OPERATIONS					
Twelve months ending December 31	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
SERVICE HOURS					
CMBC Operations	5,176,828	5,452,051	5,388,783	(63,268)	(1.2%)
Conventional Bus	4,621,868	4,850,044	4,803,919	(46,125)	(1.0%)
Community Shuttle	544,355	587,837	570,269	(17,568)	(3.0%)
SeaBus	10,605	14,170	14,595	425	3.0%
Contracted Transit Services	234,290	245,948	241,592	(4,356)	(1.8%)
West Vancouver	114,711	117,379	116,225	(1,154)	(1.0%)
Contract Community Shuttle	119,579	128,569	125,367	(3,202)	(2.5%)
Conventional Transit Service Hours	5,411,118	5,697,999	5,630,375	(67,624)	(1.2%)
SERVICE KILOMETRES					
CMBC Operations	100,408,749	106,368,448	103,197,554	(3,170,894)	(3.0%)
Conventional Bus	88,992,674	94,448,012	91,939,085	(2,508,927)	(2.7%)
Community Shuttle	11,272,293	11,728,858	11,061,573	(667,285)	(5.7%)
SeaBus	143,782	191,578	196,896	5,318	2.8%
Contracted Transit Services	4,931,978	5,357,880	4,972,344	(385,536)	(7.2%)
West Vancouver	2,194,030	2,419,180	2,221,823	(197,357)	(8.2%)
Contract Community Shuttle	2,737,948	2,938,700	2,750,521	(188,179)	(6.4%)
Conventional Transit Service Kilometres	105,340,727	111,726,328	108,169,898	(3,556,430)	(3.2%)
CAPACITY KILOMETRES					
CMBC Operations	5,351,778,718	3,849,953,535	5,679,919,081	1,829,965,546	47.5%
Conventional Bus	5,070,293,014	3,613,120,120	5,338,636,369	1,725,516,249	47.8%
Community Shuttle	225,445,764	187,661,728	265,477,752	77,816,024	41.5%
SeaBus	56,039,940	49,171,687	75,804,960	26,633,273	54.2%
Contracted Transit Services	164,440,467	127,658,533	118,069,103	(9,589,430)	(7.5%)
West Vancouver	109,701,507	80,639,333	74,060,767	(6,578,566)	(8.2%)
Contract Community Shuttle	54,738,960	47,019,200	44,008,336	(3,010,864)	(6.4%)
Conventional Transit Capacity Kilometres	5,516,219,185	3,977,612,068	5,797,988,184	1,820,376,116	45.8%

The following table shows the service levels at Access Transit:

ACCESS TRANSIT					
Twelve months ending December 31	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Service Kilometres	7,269,399	10,575,600	10,546,596	(29,004)	(0.3%)
Access Transit Trips					
Trips - HandyDART	579,725	1,259,000	1,230,000	(29,000)	(2.3%)
Trips - Taxi Supplement	40,418	152,000	152,000	-	-
Total Access Transit Trips	620,143	1,411,000	1,382,000	(29,000)	(2.1%)

Rail Operations

British Columbia Rapid Transit Company Ltd. (BCRTC), on behalf of TransLink, maintains and operates two of the three SkyTrain lines in Metro Vancouver, the Expo and Millennium Lines. BCRTC is responsible for managing the contracted service agreement with InTransit BC for the operation and maintenance of the Canada Line. BCRTC also operates and maintains the West Coast Express commuter rail service.

BCRTC is committed to its employees, the ongoing improvement of the customer experience and supporting TransLink's critical role in planning and managing the region's transportation network. The company's focus in 2022 will be to continue to deliver a Zero Harm and Just Culture to our employees, develop engaging and accountable leaders to move us forward and deliver high performance for our customers.

Over the next few years, BCRTC will continue to support both the ongoing investments in existing rail services and the rail-related projects contained in the Mayors' Council 10-Year Vision for Metro Vancouver Transit and Transportation.

BCRTC's 2022 business plan aligns its focus areas and objectives with those of TransLink to support an integrated approach to meet the ever-expanding needs of our customers in the Metro Vancouver region. BCRTC's corporate values center on mutual support and collaboration, with a focus on delivering a safe, resilient and reliable service:

- **Teamwork** - Helping each other succeed
- **Performance** - Deliver a smooth and flawless customer experience

Initiatives

Priority One: Rebuild Customer Ridership

- Support the enterprise Reconnect initiatives;
- Enhance customer experience through improved service quality;
- Maintain on-time performance and service reliability; and
- Continue to review and implement recommendations of BCRTC's Passenger Injury taskforce.

Priority Two: Foster a Safe, Skilled and Resilient Workforce

- Continue to promote accountability of safety in the workplace;
- Build on human factors side of Just Culture;
- Continued focus on employee mental health through our mental health strategy;
- Improve leadership accountability through training and peer-to-peer sessions;
- Strengthen leadership competencies and prepare future leaders with supervisory training; and
- Develop expansion recruiting strategy.

Priority Three: Deliver a Reliable Transportation System in a State of Good Repair

- Continue Get Well maintenance program;
- Continue quality and competency management implementation;
- Start the fleet overhaul program;
- Continue implementation of the EAM program; and
- Build the project delivery capacity and competency.

Priority Four: Achieve Financial Sustainability

- Contribute to the Investment Plan development;
- Optimize resources; and
- Leverage new systems to enhance business processes.

Risks and Challenges

BCRTC has identified the following key risks and challenges:

Risks

- High demand on existing resources may reinforce dependence on solving rather than preventing problems;
- Impact of aging infrastructure on service delivery;
- Outdated business tools/systems;
- Cybersecurity risk to the operating system;
- Retirement of key roles and timely talent acquisition of these positions;
- Possibility that the Investment Plan may not meet future needs, which could lead to service inefficiencies and delivery failures;
- Risk of existing training and competency management programs not being adequate enough to support current and future business demands;
- High demand on existing resources due to the high magnitude of enterprise initiatives and key deliverables (customer service, major projects, Mayors' Vision) may impact SOGR and operations by detracting resources from day-to-day duties;
- Risk of BCRTC leadership team being underdeveloped and not being able to generate sufficient staff buy-in, commitment, and expertise to embark on large business transformation and change management initiatives, due to retirement of key roles and delays in succession plans;
- Possible lack of technical requirement specifications for systems and assets, which leads to inefficient asset lifecycle management;
- Outdated business tools/systems and aging physical and IT infrastructure could create the risk of unknown, possible service impacting events;
- BCRTC may have challenges reacting and implementing strong business continuity command and control in a timely and effective manner in response to unconventional or major business disruptions;
- Risk of inadequate facilities capacity and a lack of space impacting BCRTC's ability to efficiently operate and maintain the system; and
- Risk of BCRTC being unable to attract and retain sufficient and competent talent at all levels and roles in the organization.

Challenges

- Culture improvement and leadership development;
- Manage an extensive portfolio of business priorities and capital projects with limited resources and maintain service reliability; and
- On-time delivery of the EAM system.

2022 Budget vs 2021 Budget

RAIL OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET ¹	2022 BUDGET	Change	
				Incr/(Decr)	%
Administration	5,454	6,230	8,079	1,849	29.7%
Contracted Services	129,538	134,917	135,538	621	0.5%
Fuel and Power	14,778	16,007	16,162	155	1.0%
Insurance	5,955	6,789	7,344	555	8.2%
Maintenance, Materials and Utilities	53,992	57,628	59,569	1,941	3.4%
Professional and Legal	2,518	4,154	4,052	(102)	(2.5%)
Rentals, Leases and Property Tax	1,832	1,298	2,046	748	57.6%
Salaries, Wages and Benefits	102,440	133,267	141,858	8,591	6.4%
Total Expenses by Category	316,507	360,290	374,648	14,358	4.0%

¹ Restated to reflect budget transfers

The Rail Operations 2022 operating budget of \$374.6 million is \$14.4 million (4.0 per cent) higher than the 2021 budget of \$360.3 million.

The 2022 operating budget includes increases primarily due to contractual obligations, economic increases, maintenance activities and resources to support key initiatives. Below are highlights of the 2022 Budget compared to the 2021 Budget:

- Salaries, Wages and Benefits are expected to increase by \$8.6 million (6.4 per cent). This includes contractual and economic labour increases, as well as resources to support the state of good repair initiatives and other key initiatives including quality management, succession planning and information technology programs;
- Maintenance, Materials and Utilities are expected to increase by \$1.9 million (3.4 per cent) to support the state of good repair of our assets, which is important to provide our customers with a safe and reliable service. The increases are partly offset by fewer West Coast Express inspections related to a reduced number of cars in service;
- Administration expenses are expected to increase by \$1.8 million (29.7 per cent) mainly to support an important aspect of our business plan to continue to develop our management to ensure we have accountable and engaged leaders, and to strengthen employee competencies; and
- Contracted Services are expected to increase by \$0.6 million (0.5 per cent) mainly due to contractual increases partly offset by revised contract cost estimates for Canada Line.

Service Assumptions

RAIL OPERATIONS					
Twelve months ending December 31	2020 ACTUAL	2021 BUDGET ¹	2022 BUDGET	Change	
				Incr/(Decr)	%
SERVICE HOURS					
SkyTrain: Expo & Millennium Lines	1,267,418	1,287,481	1,296,941	9,460	0.7%
SkyTrain: Canada Line	197,467	214,145	215,417	1,272	0.6%
West Coast Express	18,441	34,119	16,171	(17,948)	(52.6%)
Rail Operations Service Hours	1,483,326	1,535,745	1,528,529	(7,216)	(0.5%)
SERVICE KILOMETRES					
SkyTrain: Expo & Millennium Lines	51,076,795	51,885,428	52,266,752	381,324	0.7%
SkyTrain: Canada Line	6,343,627	6,879,402	6,920,261	40,859	0.6%
West Coast Express	686,302	1,285,670	609,370	(676,300)	(52.6%)
Rail Operations Service Kilometres	58,106,724	60,050,500	59,796,383	(254,117)	(0.4%)
CAPACITY KILOMETRES					
SkyTrain: Expo & Millennium Lines	4,416,353,877	4,730,207,342	4,706,720,991	(23,486,351)	(0.5%)
SkyTrain: Canada Line	910,310,475	965,471,033	971,205,283	5,734,250	0.6%
West Coast Express	101,101,513	189,764,892	89,942,949	(99,821,943)	(52.6%)
Rail Operations Capacity Kilometres	5,427,765,865	5,885,443,267	5,767,869,223	(117,574,044)	(2.0%)

¹ 2020 actual service hours and service kilometres for West Coast Express have been restated to align with the service delivery reporting of Expo and Millennium Lines.

Service plans have been right-sized to meet expected demand in 2022. The SkyTrain Lines, including the Expo, Millennium and Canada Lines, will operate service plans consistent with those prior to the pandemic. West Coast Express will operate on a reduced service plan.

Expo and Millennium Line service hours and kilometres for 2022 are planned to increase by 0.7 per cent compared to the 2021 service plan and will be consistent with September 2019 service levels. The increased service hours and kilometres are due to higher planned usage of Mark I trains in 2022 compared to the 2021 service plan. At the same time, capacity kilometres are expected to decrease by 0.5 per cent because Mark I trains have lower capacity. Higher use of Mark I trains is required to facilitate SOGR fleet maintenance campaigns for Mark II and Mark III trains.

Canada Line service hours, service kilometres and capacity kilometres will each increase by 0.6 per cent in 2022 compared to the 2021 service plan. This is driven by a change in methodology in service plan estimation, allowing for more accurate estimates.

West Coast Express service kilometres, service hours and capacity kilometres hours will each decrease by 52.6 per cent in 2022 compared to the 2021 service plan. Four trains will continue to operate in 2022, however, the number of cars will be reduced in the 2022 service plan in recognition of decreased demand. The cars will be appropriately distributed among the trains to meet the demand.

Police Operations

Mandated by the Minister of Public Safety and Solicitor General as a Designated Policing Unit, the Metro Vancouver Transit Police (Transit Police) preserves and protects public peace throughout the transit system. Working with local police services, each officer aims to prevent crime and offences against the law, aid in the administration of justice and enforce the laws of British Columbia. The Province established Transit Police in 2005 as the first dedicated transit police service in Canada.

Initiatives

In 2022, Transit Police will launch its new 2022-2026 strategic plan. The plan is centred around three pillars: Cross-Regional Policing, Engaged Community Partners and Modern Policing Culture. The transit system's expansive geography uniquely enables Transit Police to build strong relationships with all cross-regional policing partners in Metro Vancouver to improve public safety. To address local, regional and international threats to the transit system, Transit Police will participate in joint-agency policing opportunities and be embedded in planning for transit growth. As the breadth of people and places served by the transit system expands, Transit Police will seek the expertise of our enterprise and community partners to ensure transit users can access the services they need when they need them, particularly those that are vulnerable and at-risk. Transit Police will work with neighborhood partners to ensure transit hubs are safe spaces within the community, while also improving perceptions of safety on transit for all. To best serve transit users, Transit Police's workforce culture must transition to a distinct and collaborative approach for policing the transit system. This shift will impact governance and human resource management.

In supporting the TransLink priority of enhancing customer service, Transit Police will continue to advance the implementation of a Tiered Policing Pilot Program to enhance policing resources and improve efficiencies. The proposed Community Safety Officer team would supplement regular police officers by taking on a range of proposed duties, including providing enhanced peace officer visibility at the major transit hubs, guarding crime scenes, tagging property, fare enforcement and engaging with passengers. The aim is to positively impact perceptions of safety on transit and free up regular police officer resources to focus on responding to calls for service and conducting investigative follow-up. Engagement on this initiative commenced with the Ministry of Public Safety and Solicitor General (Policing and Security Branch) in 2020. In 2021, the necessary applications were completed and the external consultation took place. The implementation would commence in late 2022, once the provincial review is completed and approval is obtained.

To better engage and serve transit customers, Transit Police will continue the operation of its Waterfront Station Community Policing Office, which was launched in 2021. Transit Police will continue to train volunteers, who are working on a variety of safety projects at Waterfront Station, as well as other transit locations in Vancouver and elsewhere on the system, in order to increase feelings of safety and security. The volunteers promote transit and area safety tips, work on specific initiatives such as the 'See Something Say Something' campaign and observe and report any suspicious activity in and around transit stations.

To support the safety of bus passengers and operators, Transit Police will continue implementing a variety of project-based safety initiatives such as having the Targeted Mobile Enforcement Team provide enhanced enforcement around bus lanes and exchanges. This includes enforcement of provincial statutes, applicable bylaws and the Criminal Code. To reduce assaults against frontline transit employees, training continues to be provided to new bus operators on de-escalation protocols and how to contact Transit Police when operators or passengers feel unsafe. The Crime Suppression Team will continue to conduct

targeted, intelligence-led proactive enforcement and partner with Jurisdictional Police Departments to identify crime suppression opportunities and to accomplish extensive investigations and joint-force operations.

In 2022, the Transit Police will continue to advance its commitment to Truth and Reconciliation and address the overrepresentation of Indigenous People in the justice system. The Indigenous Liaison Officer will continue to review all criminal investigations involving indigenous people who are either a victim, complainant or accused and consider restorative justice options. The new Blue Eagle Community Cadet Program, for youth 12 to 15 years (launched by the Transit Police in March 2021) will continue to be delivered in Vancouver. It helps build positive relationships between Transit Police Officers and urban Indigenous youth. Expansion of the program to another city is being advanced for 2022. Transit Police will develop a work plan to fulfill the new B.C. Provincial Policing Standards on the promotion of unbiased policing. This will include enhanced engagement with Indigenous and vulnerable persons.

Risks and Challenges

With the continuation of the COVID-19 pandemic and unknown date for return to normal, ensuring the health and safety of employees, particularly officers working on the frontlines and our civilians within our Operations Communication Centre, remains a top priority at Transit Police. Officers have been provided with additional personal protective equipment and trained on new safety protocols in order to mitigate the risks associated with COVID-19 transmission. Transit Police continues to monitor and be guided by new/additional safety measures recommended by the BC Centre for Disease Control and Ministry of Health, in order to address the additional risks and challenges posed by the pandemic.

Maintaining sworn officer staffing levels in response to attrition and injury continues to be a challenge. The formation of a new Surrey municipal police department is expected to impact retention in the coming years. In the policing environment, a casual pool of sworn officers does not exist to fill vacancies and/or backfill for injuries. There is a comprehensive process for the hiring of police officers and it can be lengthy, particularly for new recruits. The candidate pool for recruits and experienced officers varies month to month and hiring delays may affect overtime costs. In anticipation of the transit system expanding with the Millennium-Broadway and Surrey-Langley extensions, Transit Police must be proactive in developing and acquiring the necessary civilian and sworn officer resources to support its operations and meet public expectations.

2022 Budget vs 2021 Budget

POLICE OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET ¹	2022 BUDGET	Change	
				Incr/(Decr)	%
Administration	3,111	3,262	3,081	(181)	(5.5%)
Insurance	122	136	146	10	7.4%
Maintenance, Materials and Utilities	1,505	1,310	1,356	46	3.5%
Professional and Legal	322	369	380	11	3.0%
Rentals, Leases and Property Tax	1,953	2,408	2,266	(142)	(5.9%)
Salaries, Wages and Benefits	33,655	36,811	38,844	2,033	5.5%
Total Expenses by Category	40,668	44,296	46,073	1,777	4.0%

¹ Restated to reflect budget transfers

Police operations expenditures are expected to increase by \$1.8 million (4.0 per cent) from 2021. The increase is mainly from higher salaries, wages and benefits which are \$2.0 million (5.5 per cent) higher than 2021. Of this, \$2.0 million in salary costs are recoverable through secondments to other agencies, with recovery recorded in miscellaneous revenue. Increases are due to contractual labour, economic and benefit cost increases and the transfer of Business Technology Services staff from TransLink to Police operations.

Corporate Operations

Corporate Operations' key focus is to address the operating needs of the organization with a focus on achieving enterprise-wide priorities, including achieving financial stability, developing a balanced 2022 10- year Investment Plan, working on developing an updated Mayors' Vision and the Transport 2050 Strategy, as well as focus on the health and safety of our customers and employees.

Corporate operations consist of the following areas: Transportation Planning and Policy, Engineering, Human Resources, Business Technology Services, Strategic Sourcing, Real Estate, Legal, Customer Communications and Public Affairs, Financial Services, Compass Operations and Emergency Planning.

Initiatives

In 2022, Corporate operations will undertake a range of strategic activities and initiatives as follows in order to deliver on TransLink's four key Corporate priorities:

Priority One: Rebuild Customer Ridership

- Introducing the acceptance of contactless Interac Debit cards by expanding the Tap to Pay program;
- Promote transit ridership and develop partnerships with major employers, tourist attractions as well as event venues;
- Implement the Indigenous Relations Framework and continue advancing true and meaningful Reconciliation;
- Continue deployment of TransLink WIFI at additional transit sites and on additional vehicles to elevate the customer experience;
- Complete Rapid Transit business cases for SkyTrain extension from Arbutus to UBC and the Burnaby Mountain Gondola;
- Conduct the 2022 Regional Trip Diary and Screenline;
- Introduce a second Customer Experience Action Plan;
- Speak directly to customers by resuming in-person and on-campus events that promote the safety and reliability of the transit system;
- Develop improved real-time updates and engaging content for customers through multiple communications platforms to improve the customer experience;
- Maintain and continually enhance the COVID-19 Safe Operating Action Plan and gradually absorb COVID-related safety protocols into ongoing communicable disease prevention plans, in alignment with Provincial health and Worksafe BC direction; and
- Promote public awareness of safety precautions, winter preparedness measures and etiquette for transit ridership through media, social media and public education campaigns.

Priority Two: Foster a Safe, Skilled and Resilient Workforce

- Strengthen the EDI program to increase the number of women in decision-making roles, focus on hiring people with disabilities, and enhance employee awareness and dexterity concerning issues of equity, diversity and inclusion.
- Continue to develop the Agile delivery practice and adoption across technology teams;
- Implement enterprise safety commitment concepts to guide safety practices across the organization;

- Continue to improve the safety performance and migrate the TransLink Corporate's safety program to a formal Safety Management System;
- Enable the successful transition to new work styles in the Future of Work Program and Return to Workplace initiatives; and
- Develop a Mental Health framework and Corporate Wellness programs for our employees.

Priority Three: Deliver a Reliable Transportation System in a State of Good Repair

- Advance priorities in the Regional Goods Movement Strategy, including development of policies and procedures, regional coordination and identification of options to reduce the environmental impact of urban freight;
- Implement Cloud strategy to accelerate the move of the systems and services to the Cloud;
- Implement the Enterprise Records and Information Roadmap to consistently manage information and measure compliance across the organization;
- Migrate the Enterprise Data Warehouse to the cloud to ensure state of good repair, modernize the platform and enable future data analytics opportunities in the enterprise;
- Continue to invest in information technology, risk management and resilience preparedness
- Identify bus priority opportunities in collaboration with municipal staff to ensure bus speed and reliability through implementation of bus stop balancing program; and
- Continue to work in partnership with the City of Surrey and the City of Delta for the anticipated launch of the R6 Rapid Bus in 2023.

Priority Four: Achieve Financial Sustainability

- Publish Investment Plan 2022-2031 in 2022 and develop a new 10-Year Mayors' Vision for the region;
- Select Green Projects to form the issuance of Green Bonds and publish Green Bond Impact Reporting to ensure transparency to all investors of positive environmental impacts;
- Introduce, modernize and enhance commercial assets to maximize revenue opportunities and customer amenities;
- Restart the Annual Supplier Forum and expand it to include Indigenous businesses;
- Continue to manage the Carbon Credit Program to contribute to the financial sustainability through the use of RNG fuel and BEB;
- Continue to lead the development of Climate Action Strategy and detailed CCAP to enhance system resilience and mitigate climate impacts; and
- Roll-out Sustainable Procurement Plan and engage EDI team on potential social opportunities.

Risks and Challenges

Corporate operations have identified the following key risks and challenges:

- The level and permanency of changes to the ridership paradigm in the Lower Mainland arising from the COVID-19 pandemic remains uncertain. The changed patterns of transit use compared to pre-pandemic needs and preferences of the customers may have a negative and structural impact on TransLink's financial position.

- The competitive labour market, especially in technology and finance, challenges our ability to attract and retain qualified candidates. This challenge, if not managed, may delay Corporate Operations meeting internal and external customer expectations.
- Cybersecurity risks remain high, with current threat patterns globally indicating a high frequency of ransomware attacks on critical infrastructure and government entities, such as pipelines, hospitals and regulatory authorities. Incidents may result in service disruption, excessive business delays, and additional costs.
- Business resiliency and continuity remain a key challenge to mitigating the risk of operational incidents on our assets, people, infrastructure and operations. Inadequate planning, resources, or funding for business resiliency and continuity may compromise our ability to respond quickly in mitigating incidents, disasters, or emergencies.
- Risks associated with the implementation and delivery of major technology initiatives may result in an inability to fulfil projects scope and a risk that reliance on legacy systems may continue.
- Global supply chain shortages in commodities, manufacturing components and semiconductors continue to affect our ongoing operations and project management capabilities. These shortages are exacerbated by the continued impact of the COVID-19 pandemic on exporting countries overseas and the difficulty faced by global transportation networks ramping up sufficiently in time to meet changes in manufacturing capacity. These shortages are expected to create delays in the deliveries of the above-mentioned items, or price changes, which could impact our ability to maintain and repair infrastructure and systems, obtain vital equipment for staff to perform their duties and adversely impact schedules or costs.

The risks and challenges are continuously monitored through management oversight and project steering committees. TransLink is committed to identifying efficiencies and reducing non-essential spending to deliver planned initiatives amid the financial pressures caused by the pandemic.

2022 Budget vs 2021 Budget

CORPORATE OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Administration	15,249	18,026	22,482	4,456	24.7%
Contracted Services	12,888	15,172	15,898	726	4.8%
Insurance	302	284	490	206	72.5%
Maintenance, Materials and Utilities	1,401	1,833	2,060	227	12.4%
Professional and Legal	9,022	11,094	12,716	1,622	14.6%
Rentals, Leases and Property Tax	11,161	12,493	14,089	1,596	12.8%
Salaries, Wages and Benefits	50,775	53,577	57,365	3,788	7.1%
Total Expenses by Category	100,798	112,479	125,100	12,621	11.2%

Corporate operations are budgeted at \$125.1 million, an increase of \$12.6 million (11.2 per cent) compared to the 2021 Budget. 2021 Budget was set in a context of the significant uncertainties associated with the trajectory of the pandemic. A number of back-office positions and non-discretionary expenses were eliminated, and only strictly mandatory expenditures were allowed for in the 2021 Budget throughout the Enterprise. This was particularly prominent in the Corporate segment, which was lower

compared to 2020 Budget by 4.7 per cent, with inflationary pressures being absorbed and additional savings having been delivered.

2022 Budget marks a first year of the post-pandemic recovery, where TransLink is gearing up for the future and moving forward on the trajectory of the recovery. Accordingly, we are pivoting our focus from managing the impacts of the pandemic back to key organizational priorities, such as ridership recovery, Indigenous Relations, EDI, and information technology investments. The planned expenditures on these key priority programs accounts for \$4.0 million. Another \$5.2 million increase in Corporate costs is due to inflationary and contractual increases.

The increase in administration costs of \$4.5 million (24.7 per cent) includes the support of the Ridership Recovery Campaign, higher credit card fees as well as higher IT security, support and maintenance costs. Additional increases include contractual and economic labour increases, property tax increases, higher professional fees to support IT Security, the Indigenous Relations Framework and the Customer Experience Action Plan as well as higher contractual obligations.

Roads and Bridges

ROADS & BRIDGES OPERATIONS BY CATEGORY					
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET	Change	
				Incr/(Decr)	%
Administration	61	32	44	12	37.5%
Capital infrastructure contributions	36,611	91,305	95,393	4,088	4.5%
Contracted Services	5,187	5,876	5,876	-	0.0%
Insurance	1,174	1,312	1,313	1	0.1%
Maintenance, Materials and Utilities	17,218	40,253	39,455	(798)	(2.0%)
Professional and Legal	1,129	1,529	1,022	(507)	(33.2%)
Rentals, Leases and Property Tax	263	336	383	47	14.0%
Salaries, Wages and Benefits	1,220	1,432	1,762	330	23.0%
Total Expenses by Category	62,863	142,075	145,248	3,173	2.2%

The 2022 Roads and Bridges budget of \$145.2 million is \$3.2 million (2.2 per cent) higher than the 2021 Budget. The increase is mainly due to higher contributions to support municipal capital infrastructures as committed in the Phase Two Investment Plan, partly offset by lower professional and legal fees.

The Roads and Bridges 2022 Budget will support TransLink’s mandate to oversee the Major Road Network, support the Regional Goods Movement Strategy and the Municipal Cost Share Programs portfolios. In addition, this budget provides resources to administer TransLink’s Bike Program and oversees the operations and maintenance of TransLink-owned bridges. This budget is expected to provide the following outcomes:

- Administer the Municipal Cost Share Programs for roads, cycling, seismic upgrades and walking infrastructure projects with the funding identified in the upcoming 2022-2032 Investment Plan;
- Provide the tools to monitor and manage the Major Road Network’s performance;
- Support the development of a Regional Safety Strategy;
- Improve regional coordination between public and private sector partners on challenges across various travel modes;

- Improve regional road network operations including improvement of freight wayfinding and trip planning tools, loading zone operations and incident response;
- Continue to make progress towards implementing a regional permit system for oversize-overweight vehicles;
- Administer and maintain TransLink's Bike Parking Program;
- Develop Bike Program Capital investment roadmap;
- Maintain and perform ongoing operations, inspections and rehabilitation on all TransLink-owned bridges;
- Develop seismic response plans for all TransLink-owned bridges; and
- Manage the Golden Ears Bridge concession agreement and perform annual audits of Concessionaire performance.

Amortization

The 2022 Budget for amortization expense increased \$8.5 million (3.4 per cent) in comparison to the 2021 Budget. Main capital projects that contribute to the increase in amortization expense in 2022 include SkyTrain vehicle refurbishments, bus farebox replacements as well as station upgrades and rail infrastructure projects previously delayed due to COVID-19.

Interest

Interest expense of \$179.8 million is \$0.6 million (0.4 per cent) lower than the 2021 Budget mostly due to higher capitalized interest as a result of increasing capital spending, reduced MFA debt and lower short term debt balances, partially offset by higher interest payments associated higher new debt issuances.

Corporate – One-time

Corporate One-time costs in the 2022 Budget are \$34.3 million, mainly consisting of costs of capital projects that are not eligible for capitalization (\$10.1 million), feasibility studies (\$6.9 million), Bus Speed and Reliability program (\$4.1 million), RapidBus expansion (\$3.2 million), contingency provision (\$3.0 million), Trip Diary study (\$2.0 million), Flexible Service Piloting Program (\$2.0 million), Major Studies (\$1.7 million), Regional Transportation Strategy development (\$1.3 million) and other miscellaneous items.

7. Investment in Capital Assets

Summary of Capital, by Program (\$ thousands)	Total Project Budget			2022 Capital Cash Flow		
	Gross Cost	Less: Funding	TransLink Net Cost	Gross Cost	Less: Funding	TransLink Net Cost
2022 New Capital Program						
Equipment	24,104	-	24,104	2,956	-	2,956
Facilities	404,294	(295,288)	109,006	6,795	(459)	6,336
Infrastructure	210,987	(46,633)	164,354	28,233	(2,971)	25,262
Major Construction	150,000	-	150,000	37,500	-	37,500
Technology	68,549	-	68,549	15,124	-	15,124
Vehicles	65,838	(55,080)	10,758	1,965	(594)	1,371
Contingency	10,000	-	10,000	5,000	-	5,000
2022 New Capital Program Total	933,772	(397,001)	536,771	97,573	(4,024)	93,549
Active/Approved in Principle (AIP) Capital						
Equipment	256,304	(37,237)	219,067	97,778	(7,331)	90,447
Facilities	174,600	(35,173)	139,427	92,837	(24,047)	68,790
Infrastructure	756,645	(345,441)	411,204	223,706	(109,151)	114,555
Major Construction	4,119,466	(1,868,545)	2,250,921	302,267	(164,857)	137,410
Technology	182,058	-	182,058	84,309	-	84,309
Vehicles	404,355	(390,599)	13,756	100,309	(97,651)	2,658
Active/Approved in Principle (AIP) Capital Total	5,893,428	(2,676,995)	3,216,433	901,206	(403,037)	498,169
Total Capital						
Equipment	280,408	(37,237)	243,171	100,734	(7,331)	93,403
Facilities	578,894	(330,461)	248,433	99,632	(24,506)	75,126
Infrastructure	967,632	(392,074)	575,558	251,939	(112,122)	139,817
Major Construction	4,269,466	(1,868,545)	2,400,921	339,767	(164,857)	174,910
Technology	250,607	-	250,607	99,433	-	99,433
Vehicles	470,193	(445,679)	24,514	102,274	(98,245)	4,029
Contingency	10,000	-	10,000	5,000	-	5,000
Total Capital Total	6,827,200	(3,073,996)	3,753,204	998,779	(407,061)	591,718
Capital Infrastructure Contributions						
2022 New Program	86,901	-	86,901	25,444	-	25,444
Active and Approved in Principle	349,663	-	349,663	72,079	-	72,079
Capital Infrastructure Contributions Total	436,564	-	436,564	97,523	-	97,523
All Projects	7,263,764	(3,073,996)	4,189,768	1,096,302	(407,061)	689,241

Overview

TransLink’s capital program is aligned with current priorities of rebuilding customer ridership, ensuring a state of good repair, while continuing to work on implementing prioritized programs of the Mayors’ 10- Year Vision. The current capital program continues to address the emerging state of good repair investments needed to ensure existing assets serve customers and stakeholders safely, effectively and efficiently, while continuing to support the delivery of the Mayors’ 10-Year Vision. Capital projects have been planned and prioritized through an integrated review process across the enterprise that measures the impact on strategy, customer experience, stakeholder value, business effectiveness and other factors.

The table above highlights capital projects grouped into asset categories and includes capital infrastructure contributions as per TransLink’s current mandate of addressing regional MRN needs. The budget for the 2022 Capital Program is \$933.8 million, with additional \$86.9 million for Capital Infrastructure Contributions.

The projected 2022 cash flow for all projects, before Senior Government Funding, is \$1,096.3 million, with \$97.6 million relating to the 2022 Capital Program, \$901.2 million relating to capital programs of previous years and \$97.5 million relating to Capital Infrastructure Contributions. The net cash impact in 2022 after Senior Government funding is \$689.2 million.

2022 Capital Program

The 2022 Capital Program is intended to keep the overall system in a state of good repair, as well as continue the delivery of the Mayors’ Vision. The program is also intended to deliver key milestones for major projects and a reliable transportation system.

Fleet replacement and LCFS-related projects are anticipated to be funded by the Greater Vancouver Regional Fund (GVRF) at approximately 90 percent which includes the Marpole Transit Center – Implementation (Phase Four) project. Several of the large facility projects are anticipated to be funded by the Investing in Canada Infrastructure Program (ICIP), including the Port Coquitlam Transit Center (PTC) Facility Improvements and Burnaby Transit Center (BTC) Facility Improvements for Phase Two expansion. The net capital for the 2022 new capital program is currently forecasted at \$536.8 million.

Table 1: 2022 New Capital Program (\$ thousands)

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
Equipment							
Automatic Train Control (ATC) 2022	Implement upgrades for the ATC system and update the ATC system software to maintain a state of good repair.	9,440	-	9,440	2,236	-	2,236
CMBC Hoist Asset Renewal 2022	Replace a total of 4 hoists at the West Vancouver Transit Centre and Surrey Transit Centre.	1,129	-	1,129	441	-	441

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
Metro Vancouver Transit Police Equipment	Procure additional police equipment (respirators, fit testing machine, alcohol sensing devices and defibrillators) to ensure safety of the public and meet current needs.	82	-	82	82	-	82
Millennium Line Linear Heat Detector Upgrade Project	Upgrade 19 Guideway flame detectors near six Millennium Line stations that are at end of life.	1,020	-	1,020	113	-	113
Rail-borne Equipment Replacement	Replace existing rail-borne maintenance equipment to support guideway maintenance work and ensure rail infrastructure is in a state of good repair.	4,933	-	4,933	53	-	53
Station Ground Switch Replacement	Replace SkyTrain station ground switch infrastructure to address obsolescence, electrical safety issues, ensure a state of good repair and align with industry best practices.	7,500	-	7,500	31	-	31
Equipment Total		24,104	-	24,104	2,956	-	2,956
Facilities							
Burnaby Transit Centre (BTC) Facility Improvements for Phase Two Expansion**	Implement the prior design phase scope of work. This includes the transfer of BTC-Central Complex functions and BTC-S Stores 60 offsite; complete renovations to the central stores' space; demolishing the existing BTC-N central complex and paving the building footprint area and providing additional maintenance capacity at BTC to support the increased fleet parking on site.	45,396	(15,886)	29,510	-	-	-
CMBC Trolley Overhead - Skeena Relocation	TransLink to implement tenant improvements at 3330 Bridgeway Street, Vancouver, to relocate the current CMBC Trolley Overhead facility located at 2625 Skeena Street, before the lease expires in April 2024.	12,504	-	12,504	2,642	-	2,642

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
Marpole Transit Centre – Implementation* *	Implementation of the Marpole Transit Centre. This facility will be designed for the O & M of 350 40' Equivalent (Battery Electric) Buses. TransLink requires this infrastructure to operate, maintain and store an electrified fleet replacing existing diesel buses. This facility will also free up space at existing depots to help facilitate future electrification and future service expansion.	308,171	(268,290)	39,881	-	-	-
Port Coquitlam Transit Center Facility Improvements	Implementation of facility improvements at Port Coquitlam Transit Center to provide capacity expansion to operation, maintenance & service to meet the Mayors' 10-year Vision.	34,236	(11,112)	23,124	1,338	(459)	879
SeaBus facility and seawall - State of Good Repair	Replacement of the ferry exhaust ventilation system and repairs to the concrete floats, terminals, electrical and mechanical components to maintain a state of good repair.	1,900	-	1,900	1,828	-	1,828
Customer Amenities Pilot	Further research and preliminary design to improve customer amenities and implement one pilot project location.	2,087	-	2,087	987	-	987
Facilities Total		404,294	(295,288)	109,006	6,795	(459)	6,336
Infrastructure							
2022 BCRTC Roof Replacement	Detailed design and implementation services for roof replacement at Lougheed Town Centre B, King George A, B, C, Gateway B, Gilmore A, B, C SkyTrain Stations and two optional substations to be determined.	4,359	-	4,359	3,564	-	3,564
2022 Bus Speed & Reliability Infrastructure Program	Provide funding to municipalities to plan, design and build transit priority infrastructure projects to improve bus speed & reliability.	5,260	-	5,260	384	-	384
2022 CMBC Pavement Rehabilitation	Rehabilitate pavement at up to eight locations (Boundary Loop, Kootenay Loop, Maple Meadows Station Park & Ride, Port Coquitlam Station Bus Loop, Scott Road Station Bus Loop, Scott Road Park & Ride, South Surrey Park & Ride and Surrey Central Station).	1,957	-	1,957	1,010	-	1,010
2023 Running Rail Replacement	Replace running rails that have reached the end of service life.	45,960	(20,215)	25,745	3,003	(1,336)	1,667

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
BTC Retaining Walls -Seismic Stabilization	The project is to replace the existing retaining walls at BTC North and South with a Mechanically Stabilized Earth (MSE) block wall.	5,100	-	5,100	5,100	-	5,100
CMBC - Burnaby Transit Centre South (BTCS) Emergency Generator Replacement	Detailed design & implementation of the BTCS emergency generator replacement.	867	-	867	106	-	106
Elevating Devices Asset Renewal Program - Millennium Line Escalators 2022	Supply and installation to replace four current end-of-service life commercial grade escalators with new transit grade escalators on the Millennium and Expo Line: three escalators at Gilmore Station and one escalator at Production Way.	10,102	-	10,102	47	-	47
Expo Line Elevator Replacements - replace seven elevators	Replace seven Expo Line elevators as prioritized in Escalators & Elevators Condition Assessment Report at OMC 1, Royal Oak, Gateway, Surrey Central, King George and Scott Road.	10,664	-	10,664	1,132	-	1,132
Expo Line Tunnel Ventilation Systems (TVS)	Replace end-of-life control systems in the TVS at Columbia and New Westminster stations.	3,000	-	3,000	132	-	132
Gilmore Station Upgrade and Expansion Project	Provide additional vertical circulation, improve customer amenities, increase retail space and bring station, as a whole, up to current standards.	19,774	-	19,774	728	-	728
Haro Rectifier Safety and Security Improvements	The purpose of this project is to implement a long-term solution to improve the safety and security at the Trolley Overhead (TOH) Haro Rectifier Station.	300	-	300	20	-	20
Metro Vancouver Transit Police (MVTP) - Hub Office Card Access Upgrade	To install card and video phone access at five Hub offices	100	-	100	100	-	100
Metro Vancouver Transit Police (MVTP) Bridgeport Deployment Office Upgrade	Expand locker room/washroom space and add a secure car park at the original Bridgeport Deployment Office to allow for the deployment of additional sworn officers for future system growth and address current space concerns.	887	-	887	582	-	582

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
MVTP Metro Vancouver Transit Police Waterfront Hub Office Renovation	Renovation of the Waterfront Hub Office to better utilize the existing space to meet current and future needs.	101	-	101	101	-	101
Noise Mitigation Solution Implementation Phase Two	Install Top of Rail Friction Modification option arising from Sky Train Noise Mitigation Study (Phase One)	4,910	-	4,910	1,768	-	1,768
Operations and Maintenance Center (OMC) 1 Receiving Area and Storage Upgrades	Detailed design and implementation services for upgrading the receiving area and storage capacity at OMC1 stores.	800	-	800	164	-	164
PowerSmart Upgrades - BTCS - Design	Detailed design of Energy Conservation Measures identified in the Energy Audit at BTCS to reduce operating costs and improve the environmental sustainability of CMBC.	312	-	312	291	-	291
RapidBus Upgrade Program**	Develop and deliver bus priority projects to improve the speed and reliability of RapidBus service and improve passenger amenities.	13,590	-	13,590	-	-	-
Remote Reports/Rapid Response Model - Phase A	Improvement to existing stations to support the maintenance of way. This project will improve tool time, standardized workspaces, reduce OMC congestion and reduce incident response time.	2,000	-	2,000	1,663	-	1,663
Richmond Transit Centre (RTC) Roof Replacement-Phase Two	Replacement of the roof membranes at RTC.	3,900	-	3,900	3,900	-	3,900
Seabus Terminal - Passenger Counting System Update	The replacement of the existing end-of-life turnstiles with a new automated Passenger Counting and Control System, which includes a new counting technology and closing gates to the SeaBus. The system will provide live count and data to SeaBus Operations and TransLink while meeting Transport Canada requirements.	4,000	-	4,000	334	-	334
SkyTrain Station Power Capacity - Phase Two	To maintain a state of good repair and meet the growing demand for electricity at the Stadium and Renfrew SkyTrain stations, the project includes the design, procurement and installation of a new transformer, high voltage cabling, UPS and associated equipment.	7,140	-	7,140	204	-	204
Stadium-Chinatown Station Upgrade - Concept Confirmation	Identify preferred concept design following feasibility study. Work to follow feasibility study (2021-22) which will identify key opportunities and constraints of pre-concept designs provided by TransLink.	1,564	-	1,564	288	-	288

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
TransLink Owned Bicycle Infrastructure 2022	Provide state of good repair rehabilitation while simultaneously upgrading TransLink-owned bike facilities; namely, the BC Parkway, bike lockers at transit facilities and bike counters.	6,422	-	6,422	751	-	751
TOH On-Street Infrastructure State of Good Repair 2022	Replacement of TOH assets that are past their useful life: up to 500 Poles; up to 6,142 m underground Cable; up to 50 km running wire & up to 200 switch assemblies; up to 12,500 hangers & ears.	24,827	(11,977)	12,850	2,861	(1,635)	1,226
TOH Rectifier Station, State of Good Repair **	Implementation and decommissions of the rectifier stations in the Group (Blanca, Parkway & Cleveland). This project also includes the detailed design and implementation for Southlands, Bodwell, Sperling and Haro.	33,091	(14,441)	18,650	-	-	-
Infrastructure Total		210,987	(46,633)	164,354	28,233	(2,971)	25,262
Major Construction							
(OMC 5) - Land	Procurement of land parcels required to begin construction of OMC5. OMC5 is proposed to be designed to support operations of the Surrey Langley SkyTrain (SLS) extension and provide long-term train storage and maintenance capacity for the Expo and Millennium Line network.	150,000	-	150,000	37,500	-	37,500
Major Construction Total		150,000	-	150,000	37,500	-	37,500
Technology							
CMBC Employee Scheduling Implementation Project	To implement a solution to manage CMBC employee scheduling needs and mitigate risk to the maintenance of corporate assets.	2,040	-	2,040	1,040	-	1,040
Cyber Security and IT Services Resiliency Program	In conjunction with the IT Infrastructure Refresh Programs, this program will see the implementation of new solutions and services that will consolidate and rationalize IT services, building in automation, migration to Cloud solutions and enhance our cyber posture.	40,000	-	40,000	8,573	-	8,573

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
Enterprise Resource Planning (ERP)/CMBC CloudSuite Enterprise Asset Management (EAM) Design & Implementation	Design, implement and migrate the current CMBC EAM on-premise solution to the ERP Cloud solution for asset management. This aligns with the enterprise direction and addresses upcoming obsolescence of the current on-premise asset management system used by CMBC.	21,000	-	21,000	2,082	-	2,082
Free Transit for Youth 12 & Under - System Upgrades	Update of back-end Compass infrastructure to deliver provincially mandated free transit for Youth 12 years old and under.	3,050	-	3,050	3,050	-	3,050
Rebuild Customer Ridership	This initiative will deliver customer-oriented (technology) solutions to rebuild customer ridership.	500	-	500	110	-	110
TransLink Analytics Program (TAP) 2022	Following TAP 2021, TAP 2022 is focused on migrating the remaining on-premises Enterprise Data Warehouse (EDW) to the Cloud.	1,020	-	1,020	172	-	172
TransLink Intranet Upgrade	State of good repair upgrade to SharePoint Online. A new intranet will also better support TransLink employees as they transition towards the Future of Work.	939	-	939	97	-	97
Technology Total		68,549	-	68,549	15,124	-	15,124
Vehicles							
2022 CMBC Service Support Vehicle Expansion**	Eight additional Service Support Vehicles (SSVs) are required to meet CMBC Security Services and Facilities Maintenance business needs and objectives. New SSVs will be procured, outfitted and commissioned including: <ul style="list-style-type: none"> • Four CMBC Security Services vehicle • Four Facilities Maintenance trades vans 	521	-	521	-	-	-
2023 Community Shuttle Replacements (27 buses)**	Replacement of 27 Community Shuttle buses that will reach the end of their useful service life in 2023.	6,900	(6,085)	815	-	-	-
2023 HandyDART Vehicle Replacement (46 vehicles)**	Replacement of 46 HandyDART vehicles that will reach the end of their useful service life in 2023.	6,961	(6,137)	824	-	-	-
2024 Conventional Bus Replacement (50 compressed	Replace existing 50 40-foot CNG buses which will reach end of their useful service life in 2023.	46,048	(40,554)	5,494	-	-	-

2022 New Capital Program, Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TL Net Cost	Gross Cost	Less: Funding *	TL Net Cost
natural gas buses)**							
Next Generation SeaBus Design	Complete the design process, review design proposals and select the preferred proponent to complete the final design build.	2,653	(2,304)	349	678	(594)	84
Replacement of 11 MVTP Non-Revenue Vehicles	Replacement of 11 end of service life vehicles with updated fuel-efficient Hybrid Ford Explorer Models.	1,055	-	1,055	1,055	-	1,055
Replacement of 2 BCRTC SSVs	Replacement of two BCRTC SSVs which will reach the end of their useful life in 2024.	170	-	170	170	-	170
Replacement of 23 CMBC SSVs	Replacement of 23 SSVs that will reach the end of their useful life in the near future.	1,530	-	1,530	62	-	62
Vehicles Total		65,838	(55,080)	10,758	1,965	(594)	1,371
Contingency							
Capital Program Contingency	Capital Program Contingency	10,000	-	10,000	5,000	-	5,000
Contingency Total		10,000	-	10,000	5,000	-	5,000
Grand Total		933,772	(397,001)	536,771	97,573	(4,024)	93,549

*The funding sources include the Canada Community-Building Fund (CCBF; formerly Federal Gas Tax), ICIP and the City of Vancouver.

**Project cash flows are expected to start in 2023.

Active and Approval in Principle (AIP) Projects Underway

Capital projects already approved and underway have a total budget of \$5.9 billion. Anticipated Senior Government contributions total \$2.7 billion, leaving the net cost budgeted at \$3.2 billion. The spending forecast in 2022 is \$901.2 million, with Senior Government Funding of \$403.0 million and net spending of \$498.2 million.

Most of the spending in 2022 (before Senior Government Funding) is for Major Construction Programs (\$302.3 million), Infrastructure programs (\$223.7 million) and Fleet Replacement and Expansion programs (\$100.3 million) that are related to the Phase Two Investment Plan.

Table 2: Active and Approved in Principle (AIP) Projects Underway (\$ thousands)

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
Equipment							
ATC Existing Equipment Replacement Program	Replace ATC equipment to improve system reliability and maintain a state of good repair.	61,969	-	61,969	13,551	-	13,551
CMBC Facilities Camera Replacement	Replace end-of-life security camera and surveillance systems at CMBC facilities, SeaBus facilities and vessels.	1,600	-	1,600	1,597	-	1,597
CMBC Hoist Asset Renewal Program	Replacement of hoist equipment at the Surrey, Vancouver and Burnaby Transit Centres that have reached the end of asset service life.	1,859	-	1,859	1,537	-	1,537
Compass Vending Machine Spares	Purchase of ten Compass Vending Machines to establish a spare inventory to mitigate the risk of flood, fire and vandalism events.	1,966	-	1,966	1,966	-	1,966
Fare Gates Capacity Increase - Priority Stations	Install nine additional fare gates at four priority stations (Waterfront, Richmond-Brighouse, Surrey Central and King George) to meet an adequate level of service thresholds for existing peak demands.	1,902	-	1,902	649	-	649
Farebox Replacement	Replacement of bus fleet Cubic farebox equipment which is at end of useful service life for approximately 1,700 buses.	16,633	-	16,633	2,317	-	2,317
Mark (MK) III Vehicle Lifting Jacks	Purchase of additional lifting jacks to support the maintenance of MK III SkyTrain vehicles.	2,940	(1,202)	1,738	200	(52)	148
Millennium Line Fire and Life Safety Systems Equipment Replacement	Installation of Fire Safety system on Millennium Line.	9,250	-	9,250	1,881	-	1,881
Onboard Technology Assets Program (OTAP)	Replace end-of-life technology equipment (cameras, radio systems and vehicle logic units) onboard the fleet of vehicles with new technologies to maintain state of good repair.	82,057	(20,612)	61,445	35,783	(2,479)	33,304
Rail-borne Equipment Replacement	Replace five BCRTC rail-borne equipment vehicles nearing end-of-life used heavily for inspections, maintenance and capital project support.	4,980	-	4,980	2,240	-	2,240

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
Rail Switch Machine Test Bench	Purchase of specialized test benches, testing equipment and shop equipment.	727	-	727	481	-	481
Replacement of Hegenscheidt Underfloor Lathe	Replace the Hegenscheidt Wheel Lathe that has reached the end of its service life.	4,710	-	4,710	2,272	-	2,272
Replacement of Rotary Grinder	Replace rail grinding equipment to ensure timely scheduled grinding under the maintenance program.	17,357	-	17,357	13,858	-	13,858
SkyTrain Advanced Radio System Phase 1&2	Conceptual and detailed design work and implementation of 3rd party radio services.	23,122	(8,243)	14,879	9,079	(2,894)	6,185
SkyTrain Customer and Operations Telecommunications Upgrade Phase One - Four	Modernize train communications and complete integration of all SkyTrain Customer and Operations Telecommunications sub-systems to address obsolescence issues and support train expansion.	25,232	(7,180)	18,052	10,367	(1,906)	8,461
Equipment Total		256,304	(37,237)	219,067	97,778	(7,331)	90,447
Facilities							
- OMC 2: Completion Project	Expansion of the OMC to facilitate additional industrial workshop space.	2,870	-	2,870	7	-	7
BCRTC OMC 1 and 2 - Space Optimization and Modernization	Renovation to optimize and modernize BCRTC's workplace and facilities.	8,000	-	8,000	3,007	-	3,007
BTC Facility Improvement for Phase Two Expansion - Design	The design phase for facility improvement to BTC to provide capacity expansion to operation, maintenance & service to meet the Phase One and Two of the 10-year Mayors' Vision.	1,647	-	1,647	1,450	-	1,450
BTC - Fleet Overhaul Maintenance- Lunch room Upgrades	Upgrades to the BTC Fleet Overhaul maintenance lunch room - implementation phase.	2,000	-	2,000	1,105	-	1,105
Bus Facility Customer Amenities Improvement Program	Upgrade and maintenance of customer amenities at TransLink's bus facilities and infrastructure.	6,573	-	6,573	3,896	-	3,896
Canada Line Capstan Station Project	Design, construction, testing and commissioning of the new Richmond Capstan Station on Canada Line.	57,078	(35,173)	21,905	37,931	(24,047)	13,884
Facility Retrofit Projects - BTC Stores	Address hazardous materials abatement and carousel storage system replacement at BTC building.	2,100	-	2,100	2,036	-	2,036
Facility Upgrades to Accommodate Double Decker Buses	The upgrade of Hamilton Transit Centre to allow for repairs after Motor Vehicle Accidents and major maintenance of the double-decker bus fleet.	2,455	-	2,455	2,374	-	2,374
MTC - Design and Early Site Works	Pre-design, engineering design, and early site work for the construction of the new MTC.	67,321	-	67,321	26,975	-	26,975
OMC Perimeter Security Upgrade	Design and development of the perimeter security upgrade at the OMC.	1,990	-	1,990	797	-	797
Port Coquitlam Transit Centre Facility Improvement for	The design phase for facility improvements to provide capacity expansion to operation, maintenance and service to meet the service	1,647	-	1,647	1,157	-	1,157

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
Phase Two Expansion - Design	capacity requirements of Phases One and Two of the 10-year Mayors' Vision.						
PowerSmart Upgrades	Implement PowerSmart Upgrades relating to Energy Conservation Measures for the 307 Columbia St. building and parking area.	159	-	159	154	-	154
PowerSmart Upgrades - SeaBus - Design	Design the Energy Conservation Measures for the SeaBus Terminals to reduce operating costs and improve environmental sustainability.	696	-	696	681	-	681
SeaBus Facility Upgrades - Design	Design work for updating the essential auxiliary spaces and equipment, including the installation of an elevator within SeaBus North Terminal.	2,805	-	2,805	1,329	-	1,329
SeaBus Terminals Interior Refurbishment	Refurbishments to the passenger environment in North and South SeaBus Terminals.	17,259	-	17,259	9,938	-	9,938
Facilities Total		174,600	(35,173)	139,427	92,837	(24,047)	68,790
Infrastructure							
ATC System Recovery and Operation Improvements	Improve ATC system to reduce the occurrence of SkyTrain disruptions and the time needed to recover the disruptions.	5,320	-	5,320	548	-	548
BC Parkway Safety Improvements Patterson to 22nd Street	Safety improvements on the BC Parkway by improving the current conditions from Patterson Station to 22nd Street Station.	919	-	919	347	-	347
Braille and Tactile Information at Bus Stops	Install bus stop identifiers in the form of dual-format braille and tactile signage, to allow customers with vision loss to identify bus stops and related transit information.	7,000	-	7,000	3,263	-	3,263
Brentwood SkyTrain Station Upgrades – Phase One and Two	Upgrade to improve the weather protection, amenities and elevator at Brentwood SkyTrain station's rail and bus facilities.	32,485	(23,515)	8,970	14,667	(14,288)	380
Broadway Station Track Intrusion System Upgrade	Design and implement Track Intrusion System at Broadway Station on Platform 5 to meet safety recommendations.	759	-	759	179	-	179
Burnaby Mountain Gondola Transit	Further design, planning and partner engagement for a potential gondola from the Millennium Line to Simon Fraser University Burnaby campus.	2,200	-	2,200	1,540	-	1,540
Burrard Station Upgrade	Design and upgrade Burrard Station for increased capacity and passenger flow.	80,365	(78,523)	1,842	28,899	(26,950)	1,949
Bus Speed and Reliability	Provide funding to municipalities to improve bus speed and reliability infrastructure.	10,712	-	10,712	3,852	-	3,852
Compass Implementation for HandyDART	Design and implementation of Compass infrastructure on HandyDART vehicles to enable HandyDART customers to pay with Compass fare media and credit cards.	4,417	-	4,417	1,114	-	1,114
Edmonds OMC Capacity Upgrade	Improvements to the SkyTrain OMC at Edmonds.	96,905	(94,058)	2,847	16,873	(14,301)	2,572
Expo Line Elevator Replacement	Upgrade or replace 27 Expo Line elevators, including West Coast Express and OMC yard, as prioritized in the	27,839	(11,220)	16,619	16,921	(9,750)	7,171

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
	Escalators and Elevators Condition Assessment Services.						
Expo Line Escalator Replacement - Accelerated Program	To replace the end of service life Expo Line escalators.	84,463	(14,517)	69,946	15,815	-	15,815
Expo Line Surrey Power Rail Replacement	Replacement of 8.6 km of power rail on the Expo Line from the east of Scott Road station to King George which has reached the end of asset service life.	12,500	-	12,500	6,250	-	6,250
Expo Line Traction Power Equipment Replacement	Replace and recondition traction power equipment to current technology for 15 substations.	20,547	-	20,547	13,495	-	13,495
Expo Line Tunnels Ventilation System Rehabilitation	Condition assessment and design of tunnel ventilation systems requiring repair and upgrade for the Expo Line.	5,383	(451)	4,932	2,042	-	2,042
HandyDART Norland Facility	Implement improvements at a Norland Avenue leased property to accommodate the existing fleet of 66 HandyDART coaches and office trailers for the HandyDART contractor to operate Safety & Training departments and day-to-day operations.	4,749	-	4,749	4,346	-	4,346
Investments in Transit Priority on Priority Rapid Bus Corridors – Phase One and Two	Implement transit priority measures, upgrades to bus stops, terminals and depot improvements to accommodate service for various new and existing Rapid Bus Lines.	69,669	(4,010)	65,659	3,376	-	3,376
Knight Street Bridge - Deck & Sidewalk Rehab - Design and Implementation	Design and Implementation of: <ul style="list-style-type: none"> Rehabilitation of the deck before the onset of corrosion Replace bearings before failure occurs and to support loading of sidewalk upgrades Implement sidewalk upgrades to meet modern standards 	17,500	-	17,500	7,927	-	7,927
New Simon Fraser University Exchange Contribution	Construct a new transit exchange and layover facility at Simon Fraser University to support a mutually agreed-upon vision for the Simon Fraser University Town Centre and integrated transit hub.	3,185	-	3,185	1,166	-	1,166
Next Generation SeaBus Performance Specification	The Burrard Beaver is exceeding its 40-year design life and has been identified for replacement in 2025. This project is to prepare a performance-based specification for the next generation SeaBus.	550	-	550	400	-	400
Noise Mitigation Solution	Installation of customized rail dampers on sections of the Expo and Millennium Lines, to mitigate high noise levels experienced on the railway lines.	3,460	-	3,460	916	-	916
Pattullo Bridge Upgrade	Design for structural seismic upgrade work on the Pattullo Bridge.	27,492	-	27,492	1,551	-	1,551
Phibbs Exchange Upgrade	Upgrade Phibbs bus exchange for safety and customer and vehicle capacity.	6,500	(3,750)	2,750	2,861	(588)	2,273
Port Coquitlam Transit Centre Infrastructure to Support BEBs	Provide the infrastructure to support 57 on-route charged BEBs to be based out of Port Coquitlam Transit Centre that is being purchased as an end-of-	30,604	(27,750)	2,854	12,938	(12,743)	195

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
	life replacement for 57 buses due to be retired in 2023.						
Power Constructability Review and Cutover Planning	Safety improvements on the BC Parkway by improving the current conditions from Patterson Station to 22nd Street station.	2,000	-	2,000	1,310	-	1,310
Replace 3 Escalators	Replace three APTA/Transit grade escalators at Commercial Broadway Station.	10,506	(5,470)	5,036	1,585	(1,360)	225
RTC Roof Replacement	Replacement of roof membranes at RTC garage, depot admin area, fuel building, bus wash building, farebox building and facilities maintenance shed.	1,592	-	1,592	1,487	-	1,487
Running Rail Replacement – 2019 and 2021	Replace running rail that has reached the end of service life.	20,554	-	20,554	5,257	-	5,257
Safety Assurance for Rail Expansion	Safety assurance tasks required to certify the Broadway Subway for revenue service.	1,850	-	1,850	398	-	398
SeaBus Facility and Seawall Rehabilitation Year 1 of 2	Rehabilitation of the North & South SeaBus terminal and Seawall cathodic protection in order to maintain a state of good repair and improve customer experience. This rehabilitation will encompass the Seawall cathodic protection system, elements of the fendering system and the end-of-life mechanical components.	2,300	-	2,300	2,019	-	2,019
SkyTrain Roof Replacement	Detailed design and implementation activities for the replacement of four skylights at Stadium China Town Station; the roof replacement at Production Way, Surrey Central SkyTrain Station and up to three substations.	4,508	-	4,508	743	-	743
Station Access and Safety Project	Upgrades to infrastructure and systems to support the safe introduction of 5-car trains into service.	96,128	(63,160)	32,968	21,049	(20,976)	73
Tenant Improvement Construction for Compass Customer Service Centre	To relocate the Compass Customer Service Centre from Stadium-Chinatown Station to Waterfront Station ground floor and to move the WCE office from Waterfront Station second floor to Waterfront Station ground floor.	3,100	-	3,100	2,971	-	2,971
TransLink Owned Bicycle Infrastructure	Rehabilitate and upgrade regional cycling routes, bike parking at transit facilities and install bike counters across the region.	13,784	-	13,784	7,350	-	7,350
TOH On-Street Infrastructure State of Good Repair Program 2021	Continue the TOH Replacement Program to replace: 90-100 Poles; up to 2,100 m underground cable; 9-10 km running wire & 36-40 switch assemblies; and 1,700-2,500 hangers & ears.	4,607	-	4,607	1,070	-	1,070
TOH Rectifier Station State of Good Repair Program	Detailed design and implementation services for the replacement of Oakridge and the refurbishment of Southlands TOH rectifier stations.	10,007	-	10,007	3,549	-	3,549

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
Waterfront Station Power Systems Upgrade	To upgrade power system core capacity from 400 KVA to 750 KVA.	7,097	-	7,097	5,074	-	5,074
WCE Locomotive Refurbishment	Refurbish and upgrade the five existing locomotives and one additional locomotive.	20,967	(19,017)	1,950	8,250	(8,195)	54
Westham Island Bridge - Howe Truss Replacement	Replace the Timber Howe Truss Span on Westham Island Bridge to address the limited redundancy and functional constraints of the existing bridge.	2,122	-	2,122	308	-	308
Infrastructure Total		756,645	(345,441)	411,204	223,706	(109,151)	114,555
Major Construction							
Broadway Subway Project (BSP)	TransLink and BCRTC support the construction and operation of the Millennium Line Broadway Extension; including final procurement preparation for the design and construction of Millennium Line Broadway Extension. Design for a new fibre optic cable from Lougheed Station to OMC1 (BSP), OMC1 to Lougheed Highway (OMC4 Project) and OMC1 to Columbia (SLS Project).	117,270	(74,656)	42,614	17,326	(17,326)	-
Broadway Subway Project Transit Plan	To build bypass TOH infrastructure for impacted bus routes during construction.	9,590	(9,590)	-	2,136	-	2,136
Expo Millennium Line Upgrades Program (EMUP) - Fleet Acquisition	Procure 205 new cars for the Expo and Millennium Lines as part of the Phase Two Investment Plan. The new SkyTrain cars are required to allow for the retirement of 150 Mark I Vehicles and to support capacity expansion to meet projected passenger demand.	884,265	(733,795)	150,470	85,843	(70,484)	15,3
EMUP - Optical Transportation Network	Improvements to the fibre optic network for SkyTrain communications.	11,228	(3,596)	7,632	1,020	(367)	653
EMUP - Rail Expansion Program Management	The Rail Expansion Program Management (REPM) was initiated to provide Program Management support to EMUP. It will also provide Systems Integration Services and Technical Integration Services.	5,000	(1,723)	3,277	2,752	(917)	1,835
EMUP - Propulsion Power Upgrades Expo and Millennium Lines - Design	Improvements to rectifier substations at several SkyTrain stations and OMC.	86,298	(80,435)	5,863	7,687	(7,547)	140
OMC 4 - Design and Implementation	Design and implementation of new maintenance facilities and associated site development work at OMC 4 in order to accommodate the expanded fleet and the additional rail-borne maintenance equipment for the expanded SkyTrain network.	658,270	(192,868)	465,402	93,131	(24,130)	69,001
SkyTrain Operation Control Centre	The design, construction and commissioning of a new/upgraded Operations Control Centre.	109,858	(54,902)	54,956	46,804	(30,332)	16,472
South of Fraser Rapid Transit	Design and development of the proposed Surrey-Langley LRT project to	38,953	-	38,953	4,903	-	4,903

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
	connect the Surrey Central Station to the Langley City Centre; including bridge upgrade as part of early works for the South of Fraser transit improvements.						
Surrey-Langley SkyTrain (SLS) Project**	Design and development of a 16 km extension of the Expo Line SkyTrain system connecting Surrey Centre with Langley City Centre.	2,189,734	(708,429)	1,481,305	38,617	(11,797)	26,820
VCC 2/4 Border Relocation	VCC 2/4 Border Relocation was one of the six workstreams included in ATC 2020 but subsequently separated into a stand-alone project. Relocation of the VCC 2/4 border will be performed to accommodate operation efficiencies and improve system resiliency for the new OMC 4 entry via VCC 4 instead of VCC 2	9,000	(8,551)	449	2,048	(1,957)	91
Major Construction Total		4,119,466	(1,868,545)	2,250,921	302,267	(164,857)	137,410
Technology							
2018-2021 IT Infrastructure Refresh	Continued investment in technology infrastructure to renew capital leases, replace owned assets, accommodate new headcount and provide for growth.	26,098	-	26,098	14,769	-	14,769
2019 - 2021 Transportation Analytics Program	To provide ridership and congestion information and analytics to support BCRTC to optimize network performance through improved planning and operations.	500	-	500	500	-	500
Access Transit Trapeze PASS - Additional Modules	Implement additional Trapeze PASS modules: Itinerary Planning Assistant, Web Booking (PASS-WEB) and Operational Performance Monitoring/Reporting (ViewPoint).	1,660	-	1,660	1,501	-	1,501
BCRTC Enterprise Asset Management	Implement an Enterprise Asset Management system to enable the effective control of the SkyTrain system and maintenance processes.	58,781	-	58,781	26,923	-	26,923
BCRTC Payroll, Scheduling and Timekeeping	Modernizing BCRTC and WCE payroll systems through transition to the Enterprise Payroll Services.	5,485	-	5,485	1,661	-	1,661
BCRTC Software Application Renewal Program	Migration of enterprise software applications to SQL Server for data resiliency and usability.	1,369	-	1,369	1,369	-	1,369
Bus Daily Operations Management System (DOMS) Product Migration Planning	Migrate the DOMS to the vendor's next-generation software product, Trapeze OPS, to ensure that CMBC can maintain reliable conventional bus service delivery.	25,750	-	25,750	7,494	-	7,494
Claims Management System Replacement	Replace the current Claims Management system before the underlying technology becomes unsupported in October 2021.	812	-	812	64	-	64
CMBC CloudSuite Enterprise Asset Management (EAM) Implementation - Business Definition	As part of the ERP Program, migrate CMBC from their current Enterprise Asset Management platform to a Cloud solution. This project will develop CMBC's vision, strategic direction, future target operating model and	750	-	750	375	-	375

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
	business rules & practices prior to migrating to CloudSuite EAM.						
Compass System Advancements	Ensure the performance, functionality and capacity of the Compass systems will meet those business and customer requirements that are identified to materially impact operational efficiency or customer satisfaction.	124	-	124	62	-	62
Enterprise Content Management	Implementation of standardized information management practices to ensure compliance with regulatory requirements and improve information access and retention.	1,000	-	1,000	1,000	-	1,000
Enterprise Emergency Communication System Implementation	Implement a system to notify and engage impacted stakeholder groups during an emergency event that might risk their safety, limit system use or otherwise cause disruption to services.	500	-	500	500	-	500
Enterprise Health and Safety System	Implementation of an enterprise health and safety system for consistent, automated and accurate reporting of incidents and improved management practices.	4,413	-	4,413	1,419	-	1,419
Enterprise IT Security Endpoint Protection System Implementation	Enterprise IT Security Endpoint Protection System Implementation	1,494	-	1,494	839	-	839
Finance Enterprise Resource Planning (ERP)	Implementation of a Finance and Supply Chain ERP business solution.	42,113	-	42,113	21,293	-	21,293
OMC 1 3rd Floor Server Room Upgrade	Upgrade and expansion to the Video Cassette Recorder room at OMC 1.	1,247	-	1,247	583	-	583
Provincial Digital Evidence Management Solution Implementation	The BC Public Safety & Justice System, under a Ministerial order, will implement a provincial digital evidence management solution across all police agencies, including Transit Police.	500	-	500	449	-	449
Technical Drawings and Library Management System (TDLS)	Implement a solution to manage technical drawings and documents across TransLink Enterprise and to replace the BCRTC Library Management System.	3,100	-	3,100	2,693	-	2,693
TransLink Enterprise Assets Management	Provide a strategic-level investment decision-support tool for enterprise assets.	6,362	-	6,362	815	-	815
Technology Total		182,058	-	182,058	84,309	-	84,309
Vehicles							
2020 Community Shuttle Expansion	Purchase nine Community Shuttle vehicles to expand community service.	2,471	(2,391)	80	2,471	(2,349)	122
2020 Conventional Bus Expansion	Purchase 68 expansion conventional buses required to implement Phase Two service expansion.	100,740	(97,784)	2,956	29,784	(29,253)	531
2020 Conventional Bus Replacement	Replacement of end-of-life Orion V model 2001 Highway buses with 25 ADI Double-decker buses.	32,500	(31,590)	910	13,000	(13,000)	-
2020 HandyDART Expansion	Purchase 10 HandyDART vehicles for service expansion.	1,600	(1,559)	41	1,596	(1,550)	46

Active and Approved in Principle (AIP) Capital Project Details		Total Project Budget			2022 Capital Cash Flow		
Classification and Project Name	Project Description	Gross Cost	Less: Funding *	TransLink Net Cost	Gross Cost	Less: Funding *	TransLink Net Cost
2020 HandyDART Vehicle Replacement	Replacement of 42 end-of-service HandyDART vehicles.	6,300	(6,130)	170	2,301	(2,274)	27
2021 BCRTC SSVs Expansion	Procure and outfit three SSVs (two compact utility vehicles and one forklift) required to provide transportation for staff and equipment used for day-to-day function and emergency responses. This is required due to the recent increase in BCRTC staff levels to maintain the current system.	241	-	241	156	-	156
2021 Community Shuttle Expansion	Purchase nine Community Shuttle vehicles to support the service expansion throughout Metro Vancouver as per Phase Two Investment Plan of the 10-year Mayors' Vision.	2,600	(2,440)	160	867	(867)	-
2021 Community Shuttle Replacement	Procure 53 Community Shuttle buses to replace existing shuttles that will reach the end of their useful service lives in 2021.	14,119	(13,690)	429	3,019	(2,856)	163
2021 Conventional Bus Expansion	Purchase 30 articulated 60' hybrids, 39 40' hybrids and nine 40' electric expansion buses.	111,790	(107,820)	3,970	10,226	(9,782)	444
2021 HandyDART Expansion***	Purchase ten HandyDART vehicles which will allow TransLink to implement service expansion as per the Mayors' Vision.	1,610	(1,560)	50	-	-	-
2021 HandyDART Replacement	Procure and replace 42 HandyDART vehicles that have reached the end of asset service life.	6,500	(6,380)	120	6,362	(6,202)	160
2023 Conventional Bus Replacement - 57 BEBs	Replace existing 57 40-foot buses which will reach the end of their useful service life in 2023 with BEBs.	88,740	(86,090)	2,650	100	(100)	-
Community Shuttle Replacement - 64 Buses	Replace existing 64 Community Shuttle buses which will reach the end of their useful service life in 2022.	15,900	(15,300)	600	15,084	(14,617)	467
COVID-19 IT Equipment Purchase	COVID-19 Equipment Purchase	778	-	778	20	-	20
MK I Skytrain car Refurbishment	Refurbishment of 36 MK I 500-800 series cars in order to allow the continuity of safe, reliable and comfortable SkyTrain services.	10,000	(9,700)	(300)	7,177	(6,848)	329
Replacement of 44 HandyDART Vehicles	Replace existing 44 HandyDART buses which will reach the end of their useful service life in 2022.	6,800	(6,540)	260	6,671	(6,499)	172
Replacement of six BCRTC SSVs	Replace six existing BCRTC SSVs which have reached the end of their useful service life.	411	(390)	21	409	(388)	21
Replacement of 22 CMBC SSVs	Replace existing 22 SSVs that have reached the end of their useful service life.	1,255	(1,235)	20	1,066	(1,066)	-
Vehicles Total		404,355	(390,599)	13,756	100,309	(97,651)	2,658
Grand Total		5,893,428	(2,676,995)	3,216,433	901,206	(403,037)	498,169

* The funding sources include Federal Gas Tax, PTIF, ICIP and the City of Vancouver.

** Surrey-Langley SkyTrain Project is subject to approval by the Mayors' Council through a formal new Investment Plan.

*** Project cash flows are expected to start in 2023.

Capital Infrastructure Contributions

TransLink provides capital infrastructure contributions each year to the Metro Vancouver municipalities to fund rehabilitation and minor capital work on the MRN and bike pathways. TransLink will maintain substantially the same level of contributions to the MRN and bike pathway programs as in prior years. Work related to the program will begin in 2022, with the exception of the MRN Pavement Rehabilitation program. Invoicing will occur approximately one year after completion. TransLink is budgeting new capital contribution funding of \$86.9 million to municipalities for road and bike infrastructure. Projects already approved and underway have a budget of \$349.7 million, which with the 2022 capital infrastructure contributions, total \$436.6 million.

Table 3: Capital Infrastructure Contribution Projects Planned for 2022 (\$ thousands)

Classification and Project name	Project Description	Total Project Budget	2022 Capital Cash Flow
2022 New Program			
Expanding and upgrading the network of municipal designated (Regional) cycling routes (Expansion) (BICCS)	2022 contribution to member municipalities for the expansion of the cycling network in the region.	15,800	-
Major Road Network (MRN) Pavement Rehabilitation	2022 contribution to member municipalities for pavement rehabilitation.	25,701	25,444
Major Road Network (MRN) Structures - Seismic Upgrades (Expansion)	2022 contribution to member municipalities for rehabilitation and seismic upgrade needs of structures.	15,500	-
Major Road Network and Bike (MRNB) Capital Program	2022 contribution to member municipalities for upgrades to the road network and upgrades to the bike path network.	23,900	-
Walking Infrastructure to Transit (WITT)	2022 contribution to member municipalities for the expansion of the walking infrastructure network in the region.	6,000	-
Grand Total		86,901	25,444

Table 4: Capital Infrastructure Contribution Projects Currently Underway (\$ thousands)

Classification and Project name	Description	Total Project Budget	2022 Capital Cash Flow
Active and Approved in Principle			
2015 - 2021 Major Road Network and Bike (MRNB) Capital Program	2015 - 2021 contribution to member municipalities for upgrades to the road network and upgrades to the bike path network.	150,291	36,162
2017 - 2021 Walking Infrastructure to Transit (WITT)	2017 - 2021 contribution to member municipalities for the expansion of the walking infrastructure network in the region.	23,173	5,582
2018 - 2021 Bicycle Infrastructure Capital Cost (BICCS)	2018 - 2021 contribution to member municipalities for the expansion of the cycling network in the region.	64,413	16,644
2018 - 2021 Major Road Network (MRN) Structures - Seismic Upgrades Upgrade Program	2018 - 2021 contribution to member municipalities for rehabilitation and seismic upgrade needs of structures.	62,329	13,452
2019 & 2021 MRN Pavement Rehabilitation Program	2019 & 2021 contribution to member municipalities for pavement rehabilitation.	49,457	239
Grand Total		349,663	72,079

8. Changes in Financial Position

Consolidated Statement of Financial Position			
As at December 31 (\$ thousands)	2021 BUDGET	2022 BUDGET	Change Incr/(Decr)
Cash and cash equivalents	522,504	396,533	(125,971)
Accounts receivable	110,600	144,066	33,466
Loan receivable	64,670	-	(64,670)
Restricted cash and cash equivalents and investments	1,178,559	1,718,644	540,085
Investments	91,833	86,078	(5,755)
Debt reserve deposits	26,285	23,538	(2,747)
Financial Assets	1,994,451	2,368,859	374,408
Accounts payable and accrued liabilities	301,229	435,786	134,557
Debt	3,268,456	3,472,028	203,572
Deferred government transfers	1,226,620	1,593,292	366,672
Golden Ears Bridge contractor liability	1,013,077	999,512	(13,565)
Deferred concessionaire credit	432,565	409,355	(23,210)
Employee future benefits	157,148	143,171	(13,977)
Deferred revenue and deposits	102,046	69,837	(32,209)
Deferred lease inducements	13,772	12,795	(977)
Liabilities	6,514,913	7,135,776	620,863
Net Debt	(4,520,462)	(4,766,917)	(246,455)
Tangible capital assets	6,204,870	6,419,266	214,396
Supplies inventory	98,601	104,731	6,130
Prepaid expenses	26,200	32,889	6,689
Non-Financial Assets	6,329,671	6,556,886	227,215
Accumulated Surplus	1,809,209	1,789,969	(19,240)

Financial Assets

Loan receivable represents outstanding proceeds from the 2016 sale of the Oakridge Transit Centre. The remaining balance is expected to be paid in 2022.

The restricted cash and investments primarily represent unspent government transfers and internally restricted amounts related to self-administered sinking funds, land reserve funds and funds segregated for Transportation Property and Casualty Co. Inc., TransLink's wholly owned captive insurance company. The purpose of the land reserve funds is to allow proceeds from the disposition of real property to be invested back into real property.

Liabilities

Deferred government transfers represent the receipt of capital funding offset by the amortization and revenue recognition for government funding.

The Golden Ears Bridge contractor liability to finance the construction of the Golden Ears Bridge is payable over the term ending June 2041.

Deferred concessionaire credits represent the funding provided by the Canada Line Concessionaire. This balance is amortized to income on a straight-line basis over the operating term of the concessionaire agreement, which will expire in July 2040.

The expected increase in employee future benefits, which represent post-retirement and post-employment benefits, is due to the annual estimated current service cost and related interest. The post-retirement portion of this liability will draw down upon retirement of the employees.

Non-Financial Assets

Planned capital spending during 2022 is expected to result in a net increase of \$214.4 million (3.5 per cent) in capital assets in comparison to the 2021 Budget. Projects forecasting significant spending in 2022 include Expo and Millennium Line upgrades, conventional bus vehicles and equipment, rail fleet expansion and refurbishment, station upgrades and rail infrastructure projects, including the Surrey Langley SkyTrain and OMC 4 storage facility.

9. Liquidity and Capital Resources

Cash Flows and Liquidity

Unrestricted cash and investments are expected to decrease by \$131.7 million compared to the 2021 Budget. The decrease is due to the continuing effects of COVID-19 on TransLink's operations where cash outflows outpace cash inflows. There is no Senior Government Relief Funding expected in 2022. Capital program spending, net of Senior Government Funding, will be matched by bond issuances to maintain TransLink's unrestricted cash and investment balances at healthy levels by the end of 2022.

The following table shows TransLink's unrestricted cash and investments.

UNRESTRICTED CASH AND INVESTMENTS			
As at December 31	2021	2022	Change
(\$ thousands)	BUDGET	BUDGET	Incr/(Decr)
Cash and cash equivalents	522,504	396,533	(125,971)
Investments	91,833	86,078	(5,755)
Total Unrestricted cash and investments	614,337	482,611	(131,726)

Restricted Funds

The unspent government transfers are used to fund qualifying capital expenditures.

RESTRICTED CASH AND INVESTMENTS			
As at December 31	2021	2022	Change
(\$ thousands)	BUDGET	BUDGET	Incr/(Decr)
Unspent government transfers	468,918	856,246	387,328
Green Bonds Proceeds	1,705	-	(1,705)
TPCC's investments	29,997	16,027	(13,970)
Restricted proceeds of real estate sales	234,508	304,908	70,400
Self administered sinking funds	443,431	541,463	98,032
Total Restricted cash and investments	1,178,559	1,718,644	540,085

Net Debt

TransLink currently has three main sources of financing its assets: net direct debt, indirect P3 debt and Senior Government contributions. The latter is represented on the balance sheet as deferred government transfers.

Net direct debt is expected to increase by \$108.3 million due to the issuance of debt, partly offset by sinking fund contributions. The issuance of new debt in 2022 will help finance budgeted capital spending net of Senior Government contributions.

Net direct debt and indirect P3 debt of \$4.3 billion combined is expected to be \$71.5 million higher than the 2021 Budget. This debt is reflective of the capital-intensive nature of the organization and rapid growth to meet the transportation needs of the region. The projected net debt ratio of 262.6 per cent is within the debt to revenue policy maximum limit of 300 per cent for the 2022 Budget.

FINANCING			
As at December 31 (\$ thousands)	2021 BUDGET	2022 BUDGET	Change Incr/(Decr)
Debt	3,268,456	3,472,028	203,572
Less: Self-administered sinking funds	(443,431)	(541,463)	(98,032)
Less: Debt reserve deposits	(26,285)	(23,538)	2,747
Net Direct Debt	2,798,740	2,907,027	108,287
Golden Ears Bridge contractor liability	1,013,077	999,512	(13,565)
Deferred concessionaire credit	432,565	409,355	(23,210)
Indirect P3 Debt	1,445,642	1,408,867	(36,775)
Subtotal Net Direct Debt and Indirect P3 Debt	4,244,382	4,315,894	71,512
Deferred Government Transfers	1,226,620	1,593,292	366,672
Accounts payable and accrued liabilities	301,229	435,786	134,557
Deferred revenue and deposits	102,046	69,837	(32,209)
Employee future benefits	157,148	143,171	(13,977)
Deferred lease inducements	13,772	12,795	(977)
Less: Accounts receivable	(110,600)	(144,066)	(33,466)
Less: Loan receivable	(64,670)	-	64,670
Other Financing	398,925	517,523	118,598
Total Financing	5,869,927	6,426,709	556,782
Less: Other restricted cash and investments	(735,128)	(1,177,181)	(442,053)
Less: Unrestricted cash and investments	(614,337)	(482,611)	131,726
PSAB Net Debt	4,520,462	4,766,917	246,455

Appendix I – Consolidated Financial Statements

The following statements are presented in accordance with Canadian Generally Accepted Accounting Principles for local governments, as recommended by the PSAB of the Chartered Professional Accountants of Canada.

Consolidated Statement of Financial Position

Consolidated Statement of Financial Position			
as at December 31	2020	2021	2022
(\$ thousands)	ACTUAL	BUDGET	BUDGET
Cash and cash equivalents	397,571	522,504	396,533
Accounts receivable	893,870	110,600	144,066
Loan receivable	182,358	64,670	-
Restricted cash and cash equivalents and investments	1,033,354	1,178,559	1,718,644
Investments	96,059	91,833	86,078
Debt reserve deposits	28,565	26,285	23,538
Financial Assets	2,631,777	1,994,451	2,368,859
Accounts payable and accrued liabilities	374,319	301,229	435,786
Debt	3,035,241	3,268,456	3,472,028
Deferred government transfers	1,196,485	1,226,620	1,593,292
Golden Ears Bridge contractor liability	1,024,302	1,013,077	999,512
Deferred concessionaire credit	455,902	432,565	409,355
Employee future benefits	132,335	157,148	143,171
Deferred revenue and deposits	59,895	102,046	69,837
Deferred lease inducements	14,780	13,772	12,795
Liabilities	6,293,259	6,514,913	7,135,776
Net Debt	(3,661,482)	(4,520,462)	(4,766,917)
Tangible capital assets	5,573,970	6,204,870	6,419,266
Supplies inventory	89,233	98,601	104,731
Prepaid expenses	26,826	26,200	32,889
Non-Financial Assets	5,690,029	6,329,671	6,556,886
Accumulated Surplus	2,028,547	1,809,209	1,789,969

Consolidated Statement of Operations

Consolidated Statement of Operations			
Twelve months ending December 31	2020	2021	2022
(\$ thousands)	ACTUAL	BUDGET	BUDGET
Revenue			
Taxation	849,986	888,774	933,012
Transit	385,934	421,548	619,339
Government transfers			
Senior Government Relief Funding	644,000	282,246	-
Senior Government funding	87,405	205,360	247,890
Golden Ears Bridge tolling replacement revenue	62,366	64,751	67,231
Development cost charges ¹	19,734	16,889	31,525
Amortization of deferred concessionaire credit	23,337	23,273	23,273
Investment income	53,763	46,715	44,996
Miscellaneous revenue	18,394	17,422	13,901
Gain/(Loss) on disposal of tangible capital assets	(10)	-	(200)
	<u>2,144,909</u>	<u>1,966,978</u>	<u>1,980,967</u>
Expenses			
Bus operations	760,611	844,162	864,215
Rail operations	316,507	360,290	374,648
Transit Police	40,668	44,296	46,073
Corporate operations	115,914	137,666	159,444
Roads and bridges	62,864	142,074	145,248
Sub-total Expenses, before amortization and interest	<u>1,296,564</u>	<u>1,528,488</u>	<u>1,589,628</u>
Amortization of tangible capital assets	229,450	249,942	258,400
Interest	189,339	180,469	179,836
	<u>1,715,353</u>	<u>1,958,899</u>	<u>2,027,864</u>
Surplus for the year	429,556	8,079	(46,897)
Accumulated surplus, beginning of year	1,598,990	1,801,130	1,836,866
<u>Accumulated surplus, end of year</u>	<u>2,028,546</u>	<u>1,809,209</u>	<u>1,789,969</u>

¹ Development cost charges are now separately reported from Taxation

Consolidated Statement of Changes in Net Debt

Consolidated Statement of Changes in Net Debt			
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET
Surplus for the year	429,557	8,079	(46,897)
Acquisition of tangible capital assets	(422,176)	(654,296)	(798,991)
Amortization of tangible capital assets	229,450	249,942	258,400
Gain on disposal of tangible capital assets	10	-	200
Net proceeds from disposal of tangible capital assets	14	-	-
Write-down of tangible capital asset	-	-	-
	(192,702)	(404,354)	(540,391)
Change in supplies inventory	(4,677)	(7,300)	(9,106)
Change in prepaid expenses	4,084	(1,500)	(2,914)
	(593)	(8,800)	(12,020)
Decrease (increase) in net debt	236,262	(405,075)	(599,308)
Net debt, beginning of year	(3,897,744)	(4,115,387)	(4,167,609)
Net debt, end of year	(3,661,482)	(4,520,462)	(4,766,917)

Consolidated Statement of Cash Flows

Consolidated Statement of Cash Flows			
Twelve months ending December 31 (\$ thousands)	2020 ACTUAL	2021 BUDGET	2022 BUDGET
Surplus for the year	429,557	8,079	(46,897)
Non-cash changes to operations	136,899	40,577	3,745
Net proceeds from disposal of assets held for sale	-	-	-
Changes in non-cash operating working capital	(647,516)	390,427	59,342
Net changes in cash from operating transactions	(81,060)	439,083	16,190
Purchase of tangible capital assets	(421,289)	(654,296)	(798,991)
Net proceeds from disposal of tangible capital assets	14	-	-
Net changes in cash from capital transactions	(421,275)	(654,296)	(798,991)
Decrease (increase) in restricted cash and investments	67,753	(147,200)	(50,861)
Increase in investments	(34,778)	-	-
Decrease (increase) in debt reserve deposits	(576)	2,271	2,736
Net changes in cash from investment transactions	32,399	(144,929)	(48,125)
Debt proceeds	650,000	300,000	600,000
Issue costs on financing	12,435	-	-
Repayments of debt	(364,855)	(64,321)	(62,114)
Repayments of Golden Ears Bridge contractor liability	(9,046)	(11,225)	(13,565)
Government transfers received for tangible capital additions	74,977	243,289	183,410
Lease inducements received	1,936	(1,008)	(983)
Net changes in cash from financing transactions	365,447	466,735	706,748
Increase in cash and cash equivalents	(104,489)	106,593	(124,178)
Cash and cash equivalents, beginning of year	502,060	415,911	520,711
Cash and cash equivalents, end of year	397,571	522,504	396,533

Appendix II – Allocated Costs between Operating Companies

TransLink’s methodology for allocating costs to benefiting business units is equitable and consistent with leading practices. TransLink allocates costs to business units (Bus Operations, Access Transit, SkyTrain, West Coast Express and Transit Police) that directly benefit or consume the services or costs.

100 per cent of a cost may be allocated to a business unit if it is the only unit benefiting from or consuming that cost; or costs can be shared across multiple business units which benefit or consume the cost based on an allocation factor (for example, headcount, square footage). The charges that are allocated to the business units include administration, human resources, insurance, rent, property taxes and information technology.

The main drivers for increased allocated costs compared to the 2021 Budget are an increase in rental and property taxes. In addition, the cost of insurance is higher due to rate increases in 2022 and higher fare media costs as a result of higher ridership.

Allocated Cost Breakdown					
Twelve months ending December 31					
(\$ thousands)	2020	2021	2022	Change	
	ACTUAL	BUDGET ¹	BUDGET	Incr/(Decr)	%
Shared Services					
Bus operations	35,973	43,792	41,202	(2,590)	(5.9%)
Access Transit	119	134	145	11	8.2%
SkyTrain - Expo and Millennium Lines	7,367	7,449	9,917	2,468	33.1%
West Coast Express	106	284	261	(23)	(8.1%)
Transit Police	2,988	2,844	2,063	(781)	(27.5%)
Roads and bridges	8,051	5,843	4,392	(1,451)	(24.8%)
Corporate operations	(54,604)	(60,346)	(57,980)	2,366	3.9%
Total Shared Services allocated	-	-	-	-	-
Costs Administered by TransLink and allocated to operating companies					
Bus operations	15,829	18,558	22,240	3,682	19.8%
SkyTrain - Expo and Millennium Lines	3,901	4,681	5,300	619	13.2%
SkyTrain - Canada Line	2,438	2,839	3,503	664	23.4%
West Coast Express	404	452	777	325	71.9%
Transit Police	1,893	2,311	2,153	(158)	(6.8%)
Total Costs Administered by TransLink allocated	24,465	28,841	33,973	5,132	17.8%
Bus operations	51,802	62,350	63,442	1,092	1.8%
Access Transit	119	134	145	11	8.2%
SkyTrain - Expo and Millennium Lines	11,268	12,130	15,217	3,087	25.4%
SkyTrain - Canada Line	2,438	2,839	3,503	664	23.4%
West Coast Express	510	736	1,038	302	41.0%
Transit Police	4,881	5,155	4,216	(939)	(18.2%)
Total costs allocated to operating companies from TransLink	71,018	83,344	87,561	4,217	5.1%

TO: Board of Directors

FROM: Geoff Cross, Vice-President, Transportation Planning and Policy
Lyle Walker, Lead Planner, Policy Development

DATE: November 24, 2021

SUBJECT: Plans and Studies Framework

EXECUTIVE SUMMARY

This report describes how expansion and upgrade projects on the Major Transit Network corridors identified in T2050 advance through the planning and study phases to potential implementation. The Regional Transportation Strategy (T2050) identifies the potential corridors based upon a high-level assessment of problems and opportunities relative to the goals and objectives for that long-range strategy. The Mayors' Vision, which is not funding constrained, takes a shorter planning horizon (10-15 years) to establish which corridors from the Regional Transportation Strategy are priorities for advancing in the next 10 years based on relative performance and readiness. The 10-Year Investment Plans are TransLink's mechanism for funding Major Transit Projects and other investments. A Major Transit Project's construction and operation will need to be specifically identified, consulted upon and funded through an Investment Plan approval.

TransLink has developed a new Business Case Framework that is intended to ensure that potential projects go through a robust, efficient and transparent process that properly weighs the costs and benefits across a broad range of established regional, provincial and federal policy objectives. There are three sequential types of business cases that can be prepared: Exploratory Business Case, Refined Business Case and Full Business Case depending on the stage in the alternatives development and evaluation process leading to selection and detailing of a preferred alternative. The level of analysis and rigour increases progressively through the process. Based upon the evaluation, a project may not be deemed appropriate to advance, or it may be paused for some time until circumstances change. Policymaker input into a corridor study in this business case lifecycle occurs through the Mayors' Council Regional Planning Committee, with direction at each Stage Gate being provided by the full Mayors' Council. As the Province is a key capital contributor to most major projects, it is important that their perspectives are heard and considered within the finalization of each stage.

The 2022 Investment Plan is proposed to contain an envelope of study funding to advance the individual studies identified in the Vision through the more detailed Business Case steps so that construction and operation of those projects can be considered in future investment plans.

PURPOSE

The purpose of this report is to provide clarity on TransLink's framework for identifying and studying potential major transit projects and to receive any Board feedback. The report is for information purposes.

BACKGROUND

The Mayors' Council and TransLink Board are currently engaged in the identification of a *Fast and Reliable Network*, within Transport 2050, that will lay out the Major Transit Network and Interregional Express corridors for the next 30 years. Furthermore, the process to prioritize corridors from that network into the update to the Mayors' Vision has begun in earnest. This report describes how the corridors identified in T2050 advance through the planning and study phases to potential implementation. A similar staff report was shared with the Mayors' Council's Planning Committee and Mayors' Council in October and was received for information.

DISCUSSION

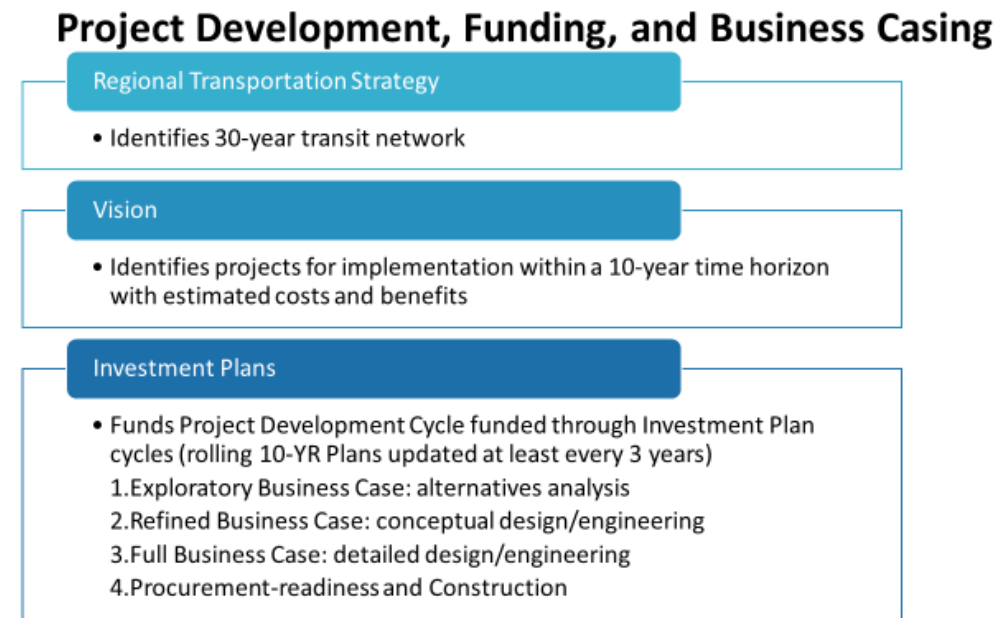
There are two components to the framework:

1. The Plans and Strategies that identify and support; and
2. TransLink's Business Case Framework for studying and evaluating priority corridors.

Plans and Strategies Framework

Figure 1 shows the relationship between TransLink's different strategies and plans and the development of new Major Transit Network corridors.

Figure 1: Plans and Strategies



The Regional Transportation Strategy (RTS) (*Transport 2050*) identifies the potential corridors based upon a high-level assessment of problems and opportunities relative to the goals and objectives for that long-range strategy. The corridors have gone through a high-level ridership demand forecast to confirm they may meet the minimum thresholds to warrant the significant capital investment that would be required for rapid transit. These thresholds anticipate that benefit-cost analysis that the federal and provincial government will consider for capital contributions. The level of analysis undertaken to establish new

corridors in the RTS is not detailed enough to determine the specific rapid transit technology that may be appropriate. That process happens through the subsequent Business Case Framework and process.

The Mayors' Vision takes a shorter planning horizon (10-15 years) to establish which corridors from the Regional Transportation Strategy are priorities for advancing in the next 10 years based on relative performance and readiness. The Vision is not a funded strategy. The update to the 2014 Mayors' Vision began in September and is scheduled for completion by July 2022.

The 10-Year Investment Plans are TransLink's mechanism for funding regional Major Transit Projects and other investments. A major transit project's construction and operation will need to be specifically identified, consulted upon and funded through an Investment Plan approval. TransLink's legislation requires that any major capital initiative of \$50 million or greater be called out in an Investment Plan. An Investment Plan also requires that the capital contributions from senior governments and partners be certain at the time of approval. This requires a Full Business Case to have been approved by Treasury Boards and for any partner contributions to have been secured through a signed Partnership and Contribution Agreement.

The 2022 Investment Plan is proposed to contain an envelope of study funding to advance the individual studies identified in the Vision through the more detailed Business Case steps so that construction and operation of those projects can be considered in future investment plans.

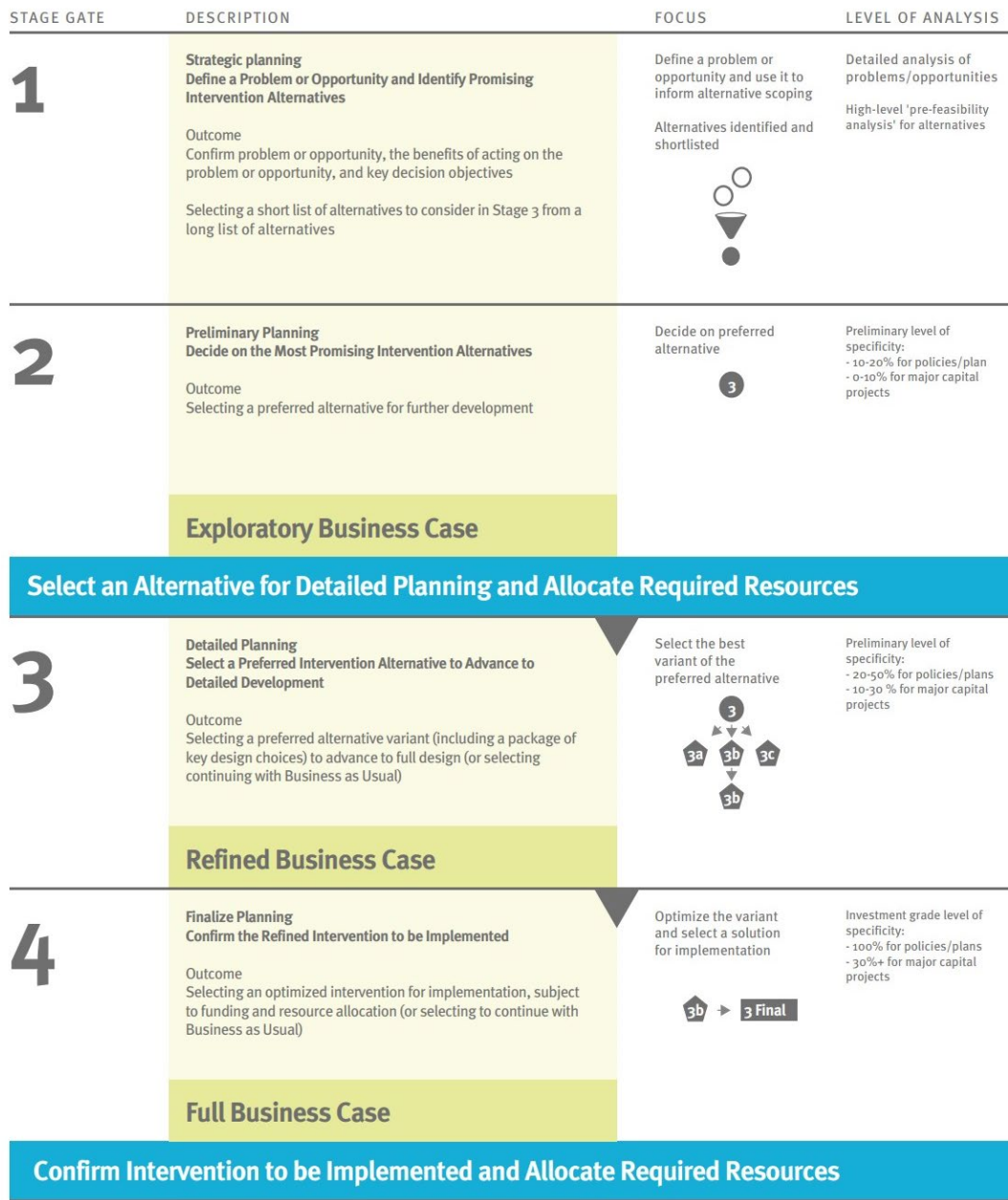
Business Case Framework

TransLink has recently updated our Business Case Framework. An overview of the Framework was provided at the September 2020 Planning and Stakeholder Relations Committee meeting. This update was done to better align with our Structured Decision Support approach, leading industry standards, and respond to the objectives of our policymakers. Previous approaches were not sufficiently standardized or broad enough with a heavy emphasis on financial cost-benefit analysis. The new framework will ensure that potential projects go through a robust, efficient and transparent process that properly weighs the costs and benefits across a broad range of established regional, provincial and federal policy objectives. The development of this framework involved consultation with external partners such as the BC Ministry of Transportation and Infrastructure and a peer review panel. As federal and provincial treasury board approvals are required for any major capital contribution, the process and framework also fulfill their evaluation requirements to secure funding decisions.

There are three sequential types of business cases that can be prepared: Exploratory Business Case, Refined Business Case and Full Business Case depending on the stage in the alternatives development and evaluation process leading to selection and detailing of a preferred alternative. The level of analysis and rigour increases progressively in the process so that ultimately a decision to fund and implement the intervention (or not) can be confidently made.

The graphic below *in Figure 2* is drawn from the Business Case Framework (See Attachment A for a Summary of the Framework). It shows the sequence and the stage gates with policymakers for the three stages of business case development and the precursor step of identifying the potential corridor or project. It is not pre-ordained that a project advance through all steps or that it does so continuously. Based upon more detailed evaluation, a project may not be deemed appropriate to advance, or it may be paused for some time until circumstances change.

Figure 2 - Business Case Lifecycle



Stage Gate 1 takes place in the Regional Transportation Strategy. The Mayors' Vision then determines which projects should proceed to the business case study stages. If a corridor study was already in progress at the time of the Regional Transportation Strategy or an update to the Mayors' Vision, the Vision is the place for receiving direction on whether the project should proceed to the next stage of the Business Case Lifecycle.

Stage Gate 2 Exploratory Business Case is the phase where an identified corridor is further narrowed geographically, and the technology confirmed, e.g. Bus Rapid Transit, Light Rail Transit, SkyTrain or Commuter Rail.

Stage Gate 3 Refined Business Case evaluates the preferred rapid transit technology further, identifying a short list of alignment options (horizontal and vertical), station locations and evaluates that preferred concept against the Business as Usual to inform the decision to advance or not.

Stage Gate 4 Full Business Case optimizes the preferred concept and develops detailed design to gain a high level of confidence on costs and benefits. It also forms the basis of submission to federal and provincial government treasury boards for their funding decisions. A Full Business Case is resource intensive and requires the outputs to be relatively current if the objective is to move to procurement and construction. As such, a Full Business Case is generally only undertaken if there is a viable path for near-term funding.

Under the current Mayors' Council structure, policymaker input into a corridor study in this business case lifecycle occurs through the Mayors' Council Regional Planning Committee, with direction at each Stage Gate provided by the full Mayors' Council and Board. As the Province is a key capital contributor to any major project, it is important that their perspectives are heard and considered within the finalization of each stage. Assuming political concurrence and funding approvals in principle, construction and implementation decisions take place through the approval of a subsequent 10-Year Investment Plan.

ATTACHMENTS

Attachment 1 - TransLink Business Case Framework Summary

Attachment 1



TransLink Business Case Framework Summary



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1. Introduction

BACKGROUND AND PURPOSE

TransLink is responsible for developing, managing, and operating a regional transportation system that meets the evolving needs of the Metro Vancouver region. Central to this role is identifying, planning, and implementing changes in the regional transportation system and making decisions that are informed by evidence and robust analysis.

In line with this role, TransLink developed a Business Case Framework in 2020. The Framework was created to document how each step of the development process for major investments, policies, and other initiatives (collectively referred to here as *interventions*) are conducted.

This document is the Business Case Framework Summary. It provides a concise overview of TransLink's Business Case Framework and is intended for use by decision makers, partners, Indigenous groups, and stakeholders to aid in the interpretation and review of Business Cases. The Business Case Framework includes greater detail and technical guidance for completing TransLink Business Cases and is intended for a technical audience.

DOCUMENT OUTLINE

The remainder of this summary document includes the following sections:

- **2. Business Case Framework Fundamentals** – a review of the core concepts for TransLink Business Cases
- **3. Business Case Lifecycle** – an overview of the Business Case Lifecycle that illustrates how to advance an intervention from problem identification through to delivery
- **4. Business Case Development** – an overview of the recommended process to develop and review Business Cases subject to this Framework
- **5. Conclusion** – a summary of the evolving role Business Cases fill at TransLink

2. Business Case Fundamentals

This section provides an overview of the key concepts and context required to understand when formal Business Cases¹ are needed and why and how these types of Business Cases are used by TransLink.

WHAT IS A BUSINESS CASE?

A Business Case is a concise evidence-based document that defines a problem or opportunity within TransLink’s mandate and evaluates one or more interventions to assess their costs and benefits to the region and its people..

Business Cases are used to support decision makers in making informed, evidence-based, transparent, and accountable decisions. Typically, a Business Case articulates a need and evaluates potential solutions that can address the need. While the general concept of a “Business Case” is applied by many organizations each use is tailored to meet the needs of that organization.

WHAT IS THE TRANSLINK BUSINESS CASE FRAMEWORK?

The Business Case Framework (“Framework”) explains the overall approach and what is required to complete a Business Case for any type of regional transportation intervention. The Framework combines emergent international, Canadian, and provincial best practices with local expertise and experience in conducting evidence-based decision-making.

TransLink may also supplement its analysis with provincial and federal government and partner organization guidelines and frameworks as required or needed. TransLink also has a set of Guidelines for Structured Decision Support that supplements this Framework to support decision making in situations that do not require a full Business Case.

¹Note that the Business Case Framework is only applicable to major projects, policies or initiatives which require approval by either the TransLink Board of Directors and/ or the Mayors’ Council. In this document, these types of business cases are referred to simply as Business Cases or formal Business Cases. Internally, TransLink staff use simpler and less rigorous business cases for annual capital approval processes.

WHY DEVELOP A BUSINESS CASE FRAMEWORK?

TransLink has developed the Business Case Framework as a form of Structured Decision Support. The Framework was developed in order to:

- Foster thoughtful, transparent, evidence-based and well-informed decision-making
- Focus on key strategic, customer/traveller, financial, and operational objectives throughout the development, evaluation, and implementation of interventions
- Maximize the benefits of interventions to the greatest extent possible to ensure good value for public money (across the intervention's lifecycle) and to select the most beneficial interventions for the region, and
- Identify, manage, mitigate, and minimize intervention, project delivery and business risks



WHEN IS USING THIS FRAMEWORK REQUIRED?

TransLink’s Business Case policy directions articulate when a formal Business Case is required as shown in Table 1. TransLink also requires simpler and less rigorous business cases for its annual capital approvals which occurs through a separate process and uses its own set of templates.²

TABLE 1: *Requirements to Develop a Business Case according to the Business Case Policy Directions²*

Use of the Business Case Framework is <i>mandatory</i> for the following interventions that require TransLink Board of Directors and/or Mayors’ Council approval	Use of the Business Case Framework is <i>recommended</i> for the following interventions that are subject to approval by a committee of Executive, the TransLink Board of Directors, or Mayors’ Council
<ul style="list-style-type: none"> • Capital projects where provincial and/or federal contributions are sought AND a Business Case is required for senior government approval processes • Investments, policies, or initiatives for which the Mayors’ Council or TransLink Board of Directors directs a Business Case to be prepared • Significant system-wide policies or initiatives that require TransLink Board of Directors approval of a bylaw or bylaw amendment and are not already identified in an Investment Plan • Permanent deployment of a significant new type of transit service transformative technology to the region • Adoption and implementation of a new standard that has system-wide and major capital and/or operational implications, or • Entering a new business area which requires significant capital investments or risk of a significant financial loss transforming a function that is of strategic significance 	<ul style="list-style-type: none"> • Permanent and widespread deployment of a proven (but non-transformative) technology to TransLink’s fleet, facilities, services, or operations (considering net lifecycle costs, benefits, risks and impact on users) • Permanent and widespread deployment of a new mobility service, or • A project, policy or initiative that has a significant impact locally or to a specific user segment (considering magnitude of impact relative to other locations or other customers respectively)

² *These policy directions will be updated after the pilot period for applying the Business Case Framework is completed.*

3. Business Case Lifecycle

This section provides an overview of the Business Case Lifecycle and its role in supporting evidence-based decision-making.

WHAT IS THE BUSINESS CASE LIFECYCLE?

Interventions are developed through a process called the Business Case Lifecycle as illustrated in Figure 1. This lifecycle includes six stage gates which are key decision points where decision makers must decide whether to advance an intervention to the next stage of development or to pause or discontinue further analysis.

TransLink's Business Case Lifecycle includes three Business Cases that are produced sequentially to support decision makers at these key stage-gates:

- The **Exploratory Business Case** (EBC) focuses on a set of alternative³ approaches to address a problem or act on an opportunity (called alternatives). The purpose of an EBC is to identify a single preferred alternative from the set, or to decide on continuing with the status quo.
- the **Refined Business Case** (RBC) focuses on variations³ of a preferred alternative identified in the EBC (variants of the preferred alternative). The purpose of the RBC is to identify a single preferred variation to the preferred alternative.
- the **Full Business Case** (FBC) will typically focus on a single optimized solution for consideration for implementation. The purpose of the FBC is to become the proposal for the intervention intended to support a decision on whether to allocate resources to implement the intervention.

Both the RBC and FBC produced to support decisions at TransLink may also be used as reference material in submissions to other levels of government as part of their Business Case process.

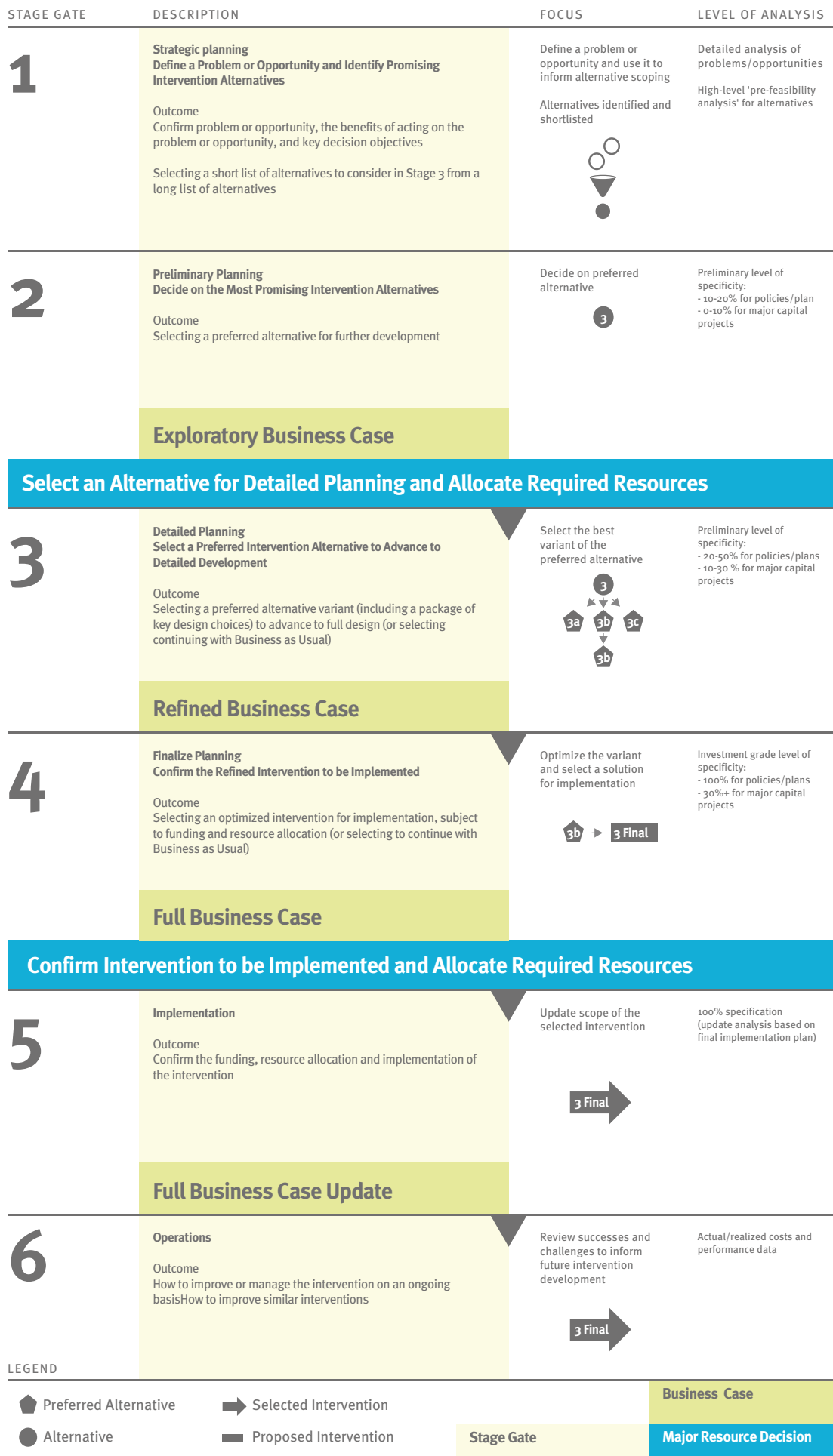
³ Variations are more subtle changes from the preferred alternative. For example, in the case of a potential rapid transit project, alternatives could include different but parallel corridors, while variations would involve the different technologies, or side-running or centre-running on the preferred corridor.



Typically, the level of specification (the extent to which the scope of the intervention has been detailed and confirmed) will increase throughout the lifecycle. The FBC has the highest level of specification as it is used to advance towards implementation, while the RBC has higher specification than the EBC because it is focused on ways to optimize or vary a single preferred alternative identified in the EBC. The EBC has the lowest level of specification as it is used to evaluate a wider range of alternative interventions.

This allows decision makers to focus analytical, design, and planning resources into the highest potential alternatives rather than towards low potential or poor performing alternatives at earlier stages of the lifecycle.

FIGURE 1.0 TransLink Business Case Lifecycle



An example to which the Business Case Lifecycle can be applied is shown below: a hypothetical case of a crowded bus corridor where the most promising intervention alternatives are rapid transit projects.

FIGURE 2.0 Example of the Business Case Lifecycle (Crowded Bus Corridor with Rapid Transit Supply-Side Solution)



HOW DOES TRANSLINK MANAGE THE BENEFITS IDENTIFIED IN BUSINESS CASE EVALUATION?

Benefits management and realization is used throughout the Business Case Lifecycle to ensure that interventions are evaluated, selected, designed, optimized, and managed with the desired outcomes in mind. Benefits management begins at the onset of the Business Case lifecycle; once an intervention is implemented, the benefits continue to be actively monitored and managed. Benefits management and realization seeks to ensure:

- Realistic and deliverable benefits are identified and documented at the onset of the Business Case Lifecycle Stage 1
- TransLink understands how the intervention can be used to realize these benefits and uses this information to scope and optimize alternatives
- Benefits are tracked at each stage of the lifecycle and do not get undermined by project and implementation decisions without due consideration and evaluation
- Benefits are evaluated post-implementation to understand if the intervention is performing as expected and the intervention is optimized or modified as needed, while capturing lessons learned for future interventions

The magnitude and type of benefits may vary between Business Cases depending on the type of intervention under consideration. For example, rapid transit projects do (and major capital projects may) require a Project Partnership Agreement to actively shape and manage the benefits and to increase the overall success of the project through supportive actions (for example: supportive land use and fostering affordable housing and optimizing the transit network to make best use of the new intervention).

4. Business Case Development

This section provides an overview of the structure and types of evaluation included within TransLink Business Cases.

WHAT IS THE STRUCTURE FOR TRANSLINK BUSINESS CASES?

Business Cases are organized into eight chapters as illustrated in Table 2 (with evaluation chapters noted in blue). This structure is recommended for use for each Exploratory, Refined, and Full Business Case completed by TransLink so that Business Cases for a variety of interventions are presented in a consistent format. This format allows comparison between different alternatives within a Business Case and between Business Cases, and even across different types of interventions.

HOW ARE INTERVENTIONS EVALUATED IN A BUSINESS CASE?

Each Business Case evaluates potential interventions by comparing them to a Business as Usual (BAU) scenario, which reflects a future state of TransLink and the regional transportation network without the intervention. Typically, the BAU will include background growth and any other projects or policies which are either being implemented or are funded and have a commitment to be delivered.

As noted in Table 2, there are four evaluation chapters (Chapters 4 – 7) included in

TransLink Business Cases that allow TransLink to comprehensively evaluate each potential intervention. This approach allows decision makers to weigh trade-offs across and within each dimension and to assess the holistic performance of each alternative. These chapters each reflect a different “dimension” of intervention performance:

- **Strategic Dimension (Chapter 4)** –allows decision-makers to compare each alternative based on its contributions to public policy goals (example: regional transportation performance, urban development, quality of life, economic prosperity, and environmental sustainability)
- **Socio-Economic Benefit-Cost Analysis Dimension (Chapter 5)** – which allows decision makers to compare the monetized value of the societal benefits identified in Chapter 4 to the costs required to deliver each intervention
- **Financial Dimension (Chapter 6)** – which assesses the financial viability and impact, and funding and financing strategies for each alternative
- **Implementation Dimension (Chapter 7)** – which assesses the technical and organizational processes required to implement each alternative and key risks that should be mitigated

The level of analysis in each chapter will vary by intervention type and stage of the Business Case Lifecycle. For example, major rapid transit projects may include a complete Benefit-Cost Analysis chapter with fully monetized benefits. Conversely, a Business Case for a new policy may focus on describing the range of benefits, but that which TransLink and project partners are currently unable to monetize.

TABLE 2: TransLink Business Case Document Structure

Chapter	Core Content	Key Question Answered by Chapter
1. Introduction	<ul style="list-style-type: none"> Provides background context on the Business Case and where the Business Case falls in the Business Case Lifecycle 	<ul style="list-style-type: none"> Why has the Business Case process been initiated?
2. The Case for Change	<ul style="list-style-type: none"> Defines a problem or opportunity and demonstrates if there is value in TransLink acting upon it Provides a set of strategic outcomes and decision objectives that clearly communicate the case for acting and the basis for deciding amongst the alternatives 	<ul style="list-style-type: none"> Why should TransLink act on a problem or opportunity? What are the desired benefits and outcomes that will be used to help develop and then evaluate the alternatives?
3. Alternatives	<ul style="list-style-type: none"> Defines a focused list of alternatives, including findings from previous analysis, and describes why they have been proposed 	<ul style="list-style-type: none"> What realistic alternatives can be implemented to address the problem or opportunity and to work towards achieving the decision objectives?
4. Strategic and Policy Evaluation	<ul style="list-style-type: none"> Analyzes the extent to which the intervention (or intervention alternatives) contributes to the strategic outcomes and benefits identified in Chapter 2 Typically, this chapter includes a range of transportation, quality of life, economic development, and environmental sustainability benefits 	<ul style="list-style-type: none"> Will the intervention (or intervention alternatives) make meaningful progress towards TransLink, regional, and relevant partner and stakeholder objectives?
5. Socio-Economic Benefit Cost Evaluation⁴	<ul style="list-style-type: none"> Compares the monetized benefits and resources required to implement the intervention (or intervention alternatives) Monetized benefits typically include traveller benefits and societal benefits (including quality of life and environmental benefits) 	<ul style="list-style-type: none"> What are the monetized benefits of the intervention (or intervention alternatives) and how do they compare to the costs to implement it?
6. Financial Evaluation	<ul style="list-style-type: none"> Assesses the affordability and net financial impact of the intervention (or intervention alternatives) to TransLink, their Return on Investment (ROI) and the strategy used to fund and finance them 	<ul style="list-style-type: none"> What level of funding and financing by TransLink is required to implement the intervention?
7. Implementation Evaluation	<ul style="list-style-type: none"> Reviews the technical requirements to implement the intervention (or intervention alternatives) and assesses their risks 	<ul style="list-style-type: none"> What is required to realize the benefits of the alternatives? What strategies are recommended to be put in place to mitigate risk to customers, TransLink, and the region?
8. Recommendations	<ul style="list-style-type: none"> Synthesizes the outputs from chapters 4 to 7 to define the consequences of pursuing the intervention (or intervention alternatives) and makes recommendations or clarifies trade-offs 	<ul style="list-style-type: none"> What next steps should TransLink consider for the intervention?

⁴ Note – the socio-economic benefit cost evaluation includes all costs and benefits that can be monetized and are incurred by travellers and broader society. Typically, this chapter monetizes benefits identified in Chapter 4.

WHO IS INVOLVED IN BUSINESS CASE DEVELOPMENT?

Depending on the nature of the intervention, Business Case development may require input from across TransLink and its operating companies, partner organizations, Indigenous groups, and key stakeholders in addition to public consultation where appropriate. The Framework defines general roles required to successfully complete a TransLink Business Case and advance an intervention through the Business Case Lifecycle, including:

- **Partners** - project partners, such as the Province, First Nations, or a host municipality, are engaged in the Business Case Lifecycle based on the type of intervention; the jurisdictions in the region it is intended to benefit; and funding, financing, and implementation considerations. Partners are identified in the first stage of the Business Case Lifecycle and may be included at each key decision point. In addition, the range of partners involved in Business Cases may evolve as an intervention progresses through the lifecycle.
- **Decision Makers** – typically the TransLink Board of Directors and/or Mayors’ Council, but this group may also include provincial or federal government decision makers as well. Decision makers are responsible for providing direction and decisions throughout the intervention lifecycle.
- **TransLink Leadership** – TransLink leadership identifies when to engage decision makers to seek input. The leadership team also provides direction on when a Business Case is ready to go to the TransLink Board of Directors and/or Mayors’ Council for a decision at each of the Stage Gates.
- **Business Case Working Groups** – working groups are convened by the project sponsor (typically the project manager) and include representation from relevant TransLink departments, operating companies (or those who would implement the decision), and external stakeholders, Indigenous groups, or project partners as relevant. The working groups may evolve over the course of the Business Cases Lifecycle and are responsible for mobilizing resources to deliver all content required in the Business Case and to develop alternatives.
- **Alternative Development and Analysis Teams** – these teams are represented by working groups and are responsible for conducting the technical work required to research problems or opportunities, develop alternatives, and conduct evaluations.
- **Implementation Team** – the implementation team is accountable for implementing and delivering the agreed upon intervention within the Full Business Case, if it is confirmed and funded for implementation. This team could include members from TransLink and project partners and could in some cases be a different level of government or a public private partnership. These team members should be involved in other working groups and at early stages of the Business Case Lifecycle to ensure seamless progression from planning to implementation.

HOW ARE INDIGENOUS GROUPS ENGAGED DURING THE BUSINESS CASE LIFECYCLE?

Indigenous consultation and engagement on policy, plans, and projects are key to the successful delivery of TransLink activities. Indigenous participation will ensure:

- recognition of the legal and constitutional rights of Indigenous peoples;
- understanding and incorporating Indigenous perspectives where possible into TransLink’s decision-making processes;
- meeting the federal and provincial Indigenous requirements and regulatory and permitting needs; and
- increased participation in procurement opportunities with Indigenous Nations.

Indigenous people can be part of the deliberation process and review recommendations to minimize uncertainty and risks and assist in exploring solutions to challenges. TransLink’s Indigenous Relations (IR) group will determine the required consultation or engagement in an IR Plan which will identify potentially impacted First Nations and outline risks and opportunities.

HOW ARE THE PUBLIC AND STAKEHOLDERS ENGAGED DURING THE BUSINESS CASE LIFECYCLE?

Public and stakeholder consultation is often conducted in parallel to Business Case development and is required by TransLink’s legislation for certain types of plans, projects, and policies. Public and stakeholder consultation is typically conducted alongside intervention development and alternatives evaluations to understand public and stakeholder issues, concerns, views, and preferences. This engagement is then used to refine how interventions are planned, designed, evaluated, and implemented.

5. Conclusion

TransLink developed the Business Case Framework and policy directions to support the continued evolution of evidence-based decision-making for transportation in the region.

These documents will help improve the quality of decisions, project planning, and funding strategies by:

- ensuring good value for public money from transportation interventions through the application of robust analysis, alternatives development and optimization, and evaluation practices;
- enabling decision makers to clearly understand the trade-offs, benefits, costs, and impacts of transportation interventions;
- aligning Business Case documentation, modeling, and analysis with provincial and federal government requirements and guidelines (where senior government contributions are sought) to streamline the approvals process;
- increasing the transparency of regional transportation decisions to increase accountability and strengthen partnerships; and
- managing and realizing the benefits that motivate the implementation of interventions.

TRANSLINK'S COMMITMENT TO CONTINUOUS IMPROVEMENT

In line with the broader evolution of evidence-based decision-making at TransLink, this Framework is a living document that will be updated every few years in order to:

- Incorporate emergent best practice in transportation planning, design, policy development, and economics into the decision-making process;
- leverage lessons learned from developing and using Business Cases at TransLink;
- update key concepts, parameters, and approaches based on emergent policies, strategies, and plans for the region and province; and
- make use of future emergent data and evidence.



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Further information on Business Cases and their use by TransLink is contained in the Business Case Framework – these documents should be reviewed for specific details on the development and evaluation of Business Cases.



TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning and Policy

DATE: November 3, 2021

SUBJECT: Broadway Subway Supportive Policies Agreement – 2020 Annual Report

EXECUTIVE SUMMARY

The second annual Broadway Subway Supportive Policies Agreement (SPA) monitoring report documents that SPA commitments are on track, including ongoing collaboration on key plans and initiatives. SPA performance indicators for employment, housing and cycling in the Broadway corridor show positive growth, suggesting commitments in the SPA are already supporting the success of the Broadway Subway. SPA transit indicators were omitted from this year's report due to the cyberattack experienced by TransLink.

PURPOSE

The purpose of this report is to provide the Board with the Broadway Subway SPA 2020 Annual Report for information, consistent with monitoring and reporting related to progress on the commitments made in the SPA.

BACKGROUND

In 2018, TransLink and the City of Vancouver signed a Supportive Policies Agreements (SPA) for the Broadway Subway Project. SPAs are one part of the Partnership Agreements required for major projects; they include commitments for land use and transportation actions by the host municipality and TransLink, where those actions are outside the direct scope of the Project but have significant influence on the Project's success. SPA monitoring is focused on both (1) the initiatives and (2) the related outcomes, for which performance measures and indicators have been developed. Reporting to decision makers on the progress of the Broadway Subway SPA commitments is itself a SPA commitment.

In September 2020, the Mayors' Council and Board received the 2019 Broadway Subway SPA Annual Report, which was the first annual report produced. The first Annual Report highlighted that SPA commitments were on track with a few minor refinements, which were endorsed by the senior staff SPA Monitoring Committee (chaired by TransLink's VP of Transportation Planning and Policy).

DISCUSSION

2020 was an unprecedented year with many uncertainties. The COVID-19 pandemic resulted in some impacts to select SPA related commitments, and the cyberattack experienced by TransLink caused impacts to the monitoring of SPA indicators surrounding transit. Regardless of these impacts, the effective collaboration between the SPA partners resulted in an action plan that has largely kept the SPA commitments on track. Collaboration between SPA partners remains a key focus of SPA implementation and monitoring moving into 2022.

Overall, the 2020 data presented in this year's Annual Report illustrates a positive upwards trend in terms of employment, housing and cycling, as further discussed below.

Collaborating to implement the SPA

Collaboration between SPA partners remains a key focus of SPA implementation. SPA Partners continue to meet regularly to implement, review and monitor compliance with commitments set out in the SPA. SPA partners include staff from the City of Vancouver, TransLink, Metro Vancouver, and the Province. The senior staff SPA Monitoring Committee, comprised of representatives from those partners agencies, has approved the Broadway Subway 2020 Annual Report, included here as Attachment 1.

SPA commitments are largely on track, with the key change being that the projected 2022 completion for the City's Broadway Plan is one year off the original 2021 timing committed in the SPA. This shift is due to COVID-19 related impacts to the Plan's engagement process but otherwise, the Plan is advancing as expected. The "SPA Initiatives Tracker" as shown on page 9 of Attachment 1, provides detailed information on the SPA commitments.

The purpose of SPA monitoring is to identify if any SPA commitments or outcomes are tracking as expected and if not, alert SPA partners to potential actions might be considered. The 2020 Annual Report indicates that SPA commitments and outcomes are tracking as expected.

SPA Performance Indicators

The first SPA Annual Report confirmed which indicators were important and feasible to monitor to provide a reflection on SPA related outcomes, and identified that the geographic area for measuring those indicators is approximately 800 metres from the subway line (see Figure 2 of Attachment 1 for details on the SPA geography). This helped to set the baseline for consistent monitoring of SPA related outcomes.

Overall, the data for the 2020 SPA indicators demonstrated a positive result on employment, housing and cycling in the corridor.

Population & Employment: increases in approved job space through 2020

There are four SPA indicators under the population and employment performance measures (see page 15 of Attachment 1 for details on indicators). The number of people, number of jobs, and jobs by industry were included in last year's 2019 Annual Report and remain unchanged given they were derived from the most recent (2016) Census data. In terms of job space approved, over 1.6 million square feet of job space was approved in 2020 within the SPA geography. This indicates an approximate 110% increase over the amount of job space approved in 2019 (see Figure 3 of Attachment 1 for details on job space approved).

Housing Supply: near doubling of approved units in 2020

The Housing Supply performance measure includes various SPA indicators to measure the increase in affordable housing supply (see page 15 of Attachment 1 for details on indicators). In 2020, the City approved 948 housing units in the Broadway SPA Geography, nearly doubling the number of units approved in 2019. 87% of these approvals were purpose-built rental (577 units) or social/supportive housing (244 units) enabled under the Broadway Plan Interim Rezoning Policy in response to ongoing

housing affordability challenges. This proportion is a significant increase from 2019, when 30% of housing approvals were purpose-built rental or social/supportive housing (see Table 3 of Attachment 1 for further details on housing approvals by type).

Sustainable Transportation: limited transit data and increase in cycling

The sustainable transportation performance measure includes a host of indicators to measure the increase sustainable transportation modes within the SPA geography. The transit indicators were omitted from this year's report given that the cyberattack experienced by TransLink in December 2020 resulted in the inability to access transit data needed for the SPA transit indicators. The senior staff SPA Monitoring Committee confirmed that this year's report should proceed without the transit data. The SPA partners understand that if needed, TransLink could in the future provide them with the 2020 transit data upon request. The data would be limited to an 8-week period in the fall of 2020 (consistent with the 2020 Transit Service Performance Review approach), and due to COVID-related ridership impacts, would indicate ridership which is an exception from expected longer term trends.

Cycling counts, which are taken from four permanent bike counters (see Appendix C of Attachment 1 for specific locations), saw a positive increase where approximately 3.5 million cycling counts were reported from January 1 through December 31, 2020. This shows a 5% increase compared to 2019 cycling counts. The highest number of cycling counts were observed at the Burrard Street and Cornwall Avenue location and fewest counts observed at the Ontario Street and 11th Avenue location.

Future Monitoring

For future years, reporting to the Mayors' Council and TransLink Board on the progress of SPA related initiatives and the collaboration on those initiatives will continue on an annual basis. In recognition of the longer-term nature of outcomes-related trends, reporting of performance measures indicators will shift to target every 3 years, noting some intervals will be more in the 3-5 years range to align as much as possible with Census updates. And as discussed in the Annual Report, those reports provided in years when updated Census data is available (i.e. every 5 years) will be more comprehensive in terms of addressing that updated data and how SPA related indicators are progressing. The shift in indicators reporting frequency is also intended to recognize that key segments of the SPA data are Census based and not updated annually. Because the 2020 Annual Report (Attachment 1) does include metrics, this revised reporting schedule will be relayed in next year's 2021 Annual Report.

Upon completion and approval of the final Broadway Plan, SPA partners will review the performance metrics to ensure they provide a holistic picture of progress toward Plan objectives and desired outcomes. This review may include adjustments to existing indicators, removal of indicators and/or addition of new indicators, taking into account available data, ability to measure the effectiveness of partner plans and policies and resource implications for partners.

A report will be brought forward again to the Mayors' Council and TransLink Board in Fall 2022 on how SPA commitments are tracking and how collaboration is progressing.

ATTACHMENTS

Attachment 1 – Broadway Subway SPA 2020 Annual Report

Broadway Subway Supportive Policies Agreement

2020 Annual Report

September 28, 2021



Photo courtesy of the City of Vancouver



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Executive Summary

In 2014, the 10-Year Vision for Metro Vancouver Transit and Transportation called for the first time in the region’s history for major projects to have a Partnership Agreement between TransLink and the project’s host municipality. One key component of this agreement was aimed at actions beyond the direct scope of a project yet key to its success - in particular, actions related to land use planning.

In 2018, the City of Vancouver and TransLink executed the Broadway Subway Supportive Policies Agreement (SPA), which committed the City and TransLink to a range of specified actions related to land use, housing, transit, transportation demand management, cycling and walking. A key intent of the SPA was also to ensure collaboration between the City, TransLink, and other relevant agencies, to help achieve the best possible land use/ transportation outcomes related to the project.

This is the second Annual Report for the Broadway Subway SPA and is intended to provide:

- Updates on the progress and status of each of the SPA commitments, including how the SPA partners are working together to collaborate where relevant;
- A comparison on the results for the 2019 and 2020 performance measures indicators, for those indicators that are updated annually; and
- The next steps for SPA implementation and monitoring moving forward.

While the COVID-19 pandemic has had notable impacts on multiple agency work programs, with staff needing to respond nimbly to rapidly changing conditions (e.g. public health measures, remote work, reprioritization of available resources, etc.), the SPA partners found new ways of successfully

working together to advance the various SPA related initiatives. Although the timing of the Broadway Plan was adjusted, following a pause in the public engagement process due to Provincial public health orders related to large gatherings in 2020, the scope for the core commitments as listed in the SPA are being advanced, with the SPA partners continuing to collaborate effectively.

In this one year snapshot, the SPA performance measures are trending positively overall, with increases in the amount of job space approved, number of housing units approved (including the affordable housing share of total approvals), and the number of cycling counts in the SPA Geography (see Table 1). Updated data for the transit performance indicators is not provided in this report as a result of ongoing impacts from the December 2020 cyberattack on TransLink, which impacted TransLink’s access to key data sources and processing resources. As discussed with the SPA Working Group, the 2020 transit data could be made available in the future upon request to any of the SPA partner agencies interested. It is also worth mentioning that the data would be limited to an 8-week period in the fall of 2020 (consistent with the 2020 Transit Service Performance Review approach), and due to COVID-related ridership impacts, the data will indicate ridership which is an exception from expected longer term trends.

Measure	Indicator	Comparison (2020 vs. 2019)
Increase in population	Number of people	N/A (future Census update)
Increase in jobs	Number of jobs	N/A (future Census update)
	Jobs by industry	N/A (future Census update)
	Amount of job space approved	More space approved in 2020
Increase in affordable housing supply*	Number of purpose-built market rental units approved	More units approved in 2020
	Number of social and supportive housing units approved	More units approved in 2020
	Number of condo units approved	Fewer units approved in 2020
	Number of laneway housing units approved	More units approved in 2020
	Number of coach house units approved	Fewer units approved in 2020
	Number of townhouse units approved	No change
Increase in sustainable transportation	Rates of car ownership	N/A (5-year indicator)
	Total annual ridership for Broadway Subway extension	N/A (to be added once in service)
	Average daily boardings and alightings by station	Not available for 2020
	Average daily bus boardings and alightings	Not available for 2020
	Peak load factors by mode	Not available for 2020
	Cycling counts	More counts in 2020
	Pedestrian counts	N/A (2023 Ped Study update)
	Journey to work mode split	N/A (future Census update)
*For purposes of SPA monitoring, “affordable housing” includes purpose-built rental and social/supportive housing; more affordable housing units were approved in 2020, compared to 2019.		

Table 1: Performance Measures Indicators Comparison (2020 vs. 2019)

Background

Developed by the Mayors’ Council in 2014, the 10-Year Vision for Metro Vancouver Transit and Transportation (the **“10-Year Vision”**) identifies, as a regional priority, rapid transit between Commercial Drive and the University of British Columbia (UBC) along the Broadway Corridor. The 10-Year Vision includes delivery of the first phase of this rapid transit connection (Figure 1), an approximately 5.7 kilometre extension of the Millennium Line from its current terminus at VCC-Clark Station to a new western terminus at Arbutus Street (the **“Broadway Subway Project”**).

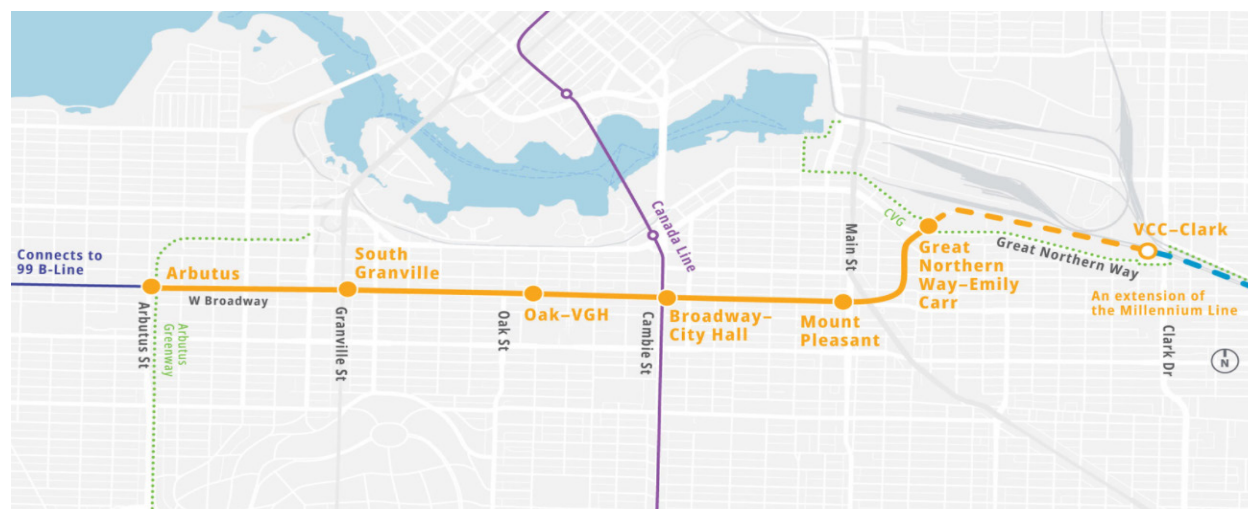


Figure 1: Broadway Subway Project. Retrieved from: <https://broadwaysubwayproject.civilspace.io/en>

The Call for Major Project Agreements

The 10-Year Vision calls on parties to enter into one or more Project Partnership Agreements whenever the region is making a major investment involving significant cost and risk, the success of which depends on higher degrees of coordination, collaboration and mutually supportive actions by multiple partners. Per the Vision, the Project Partnership Agreements are to be signed and held between TransLink and the project host municipality and are required prior to funding approval for major projects¹.

Each Project Partnership Agreement is implemented via multiple project agreements, with a key component being the Supportive Policies Agreement (SPA). The key objective of a SPA is to provide assurance that the host municipality and TransLink will fulfill defined actions which are outside the direct scope of a project but have significant influence on the project's success. SPA commitments are intended to demonstrate that all parties involved consider support for the transportation investment and its shared objectives to be a top priority.

Collaborating to Implement and Report on the Broadway Subway SPA

In June 2018, TransLink and the City of Vancouver executed a SPA for the Broadway Subway Project (the **"Broadway Subway SPA"**). In December 2018, TransLink and the City established a multi-stakeholder committee (the **"Monitoring Committee"**) to: (i) review the performance of land use and transportation outcomes for the Broadway Subway Corridor and (ii) monitor compliance by each party with the commitments and responsibilities set out in the Broadway Subway SPA. The Monitoring Committee consists of senior representatives from TransLink, City of Vancouver, the Province of British Columbia and Metro Vancouver, and is chaired by TransLink's Vice President of Transportation Planning and Policy. A working group comprised of staff from the agencies represented on the Monitoring Committee (the **"Working Group"**) was also established. This Working Group reports to the Monitoring Committee and supports its duties and responsibilities.

Since the execution of the SPA in 2018, partner staff have been working together to advance the SPA commitments and develop an implementation

¹ With the evolution of the SPAs executed since the 10 Year-Vision, these agreements have come to play an increasingly important role in the senior government funding approval process, including most recently forming a condition of the project's business case approval from the Provincial Treasury Board.

and monitoring process, which includes defining a structure for reporting to decision-makers (i.e. Mayors’ Council, TransLink Board, City Council, and senior Provincial officials). Through these discussions and building off the direction in the SPA, it was agreed that the two key reporting deliverables would be the **“Annual Report”** and the **“5-Year Performance Report”**, which are described in Table 2.

<i>SPA Reporting to decision-makers every September, via Annual Report OR 5-Year Performance Report:</i>		
	ANNUAL REPORT	5-YEAR PERFORMANCE REPORT
Timing	Every Sept., except in 5-Year Performance Report years; first Annual Report in 2020	Sept. every five years; first 5-Year Performance Report in 2024 (pre-Subway opening) Timed to align with availability of updated Census data
SPA commitments tracking	Tracks progress on all SPA commitments	Tracks progress on all SPA commitments
SPA outcomes tracking	Provides most current data on all SPA performance measures (outcomes) collected on an annual basis	Provides most current data on all SPA performance measures (outcomes) collected on an annual basis, as well as updated Census data
Level of analysis	Provides base analysis of the outcomes monitored, intended as annual progress ‘snapshot’	Provides comprehensive analysis of the outcomes monitored (based on Census update), and may recommend actions if outcomes not tracking as expected

Table 2: SPA Reporting Deliverables

As noted in the table above, SPA monitoring is focused on both the: (i) SPA commitments and (ii) associated outcomes, for which a performance measures framework has been established (the **“Broadway Subway SPA Performance Measures Framework”**).



Report Purpose & Structure

This is the second Annual Report for the Broadway Subway SPA and is intended to provide:

- Updates on the progress and status of each of the SPA commitments, including how the SPA partners are working together to collaborate where relevant;
- A comparison on the results for the 2019 and 2020 performance measures indicators, for those indicators that are updated annually; and
- The next steps for SPA implementation and monitoring moving forward.

This report is organized into three primary sections, addressing the objectives identified above.

- Monitoring SPA commitments – describes the status of both City-led and TransLink-led initiatives, providing an overview of the work completed to date, upcoming work and summarizing any refinements to scope and timing.

- Monitoring SPA related outcomes – describes the geographic scope of SPA monitoring, the approach to data collection and analysis and how the performance measures are tracking.
- Conclusion and next steps – provides an overview of how SPA commitments are tracking overall, discusses some of the key upcoming initiatives for the next year and describes the approach to future reporting.



Monitoring SPA Commitments

A number of City-led and TransLink-led initiatives were identified in the SPA, most with associated completion dates ranging from 2018 to Broadway Subway 'Opening Day' (currently planned for late 2025). The SPA states that monitoring and reporting on the implementation of SPA commitments and performance measures will continue until 20 years after the Broadway Subway Opening, or 2045, whichever is later. The SPA also speaks to the opportunity to review and assess the overall monitoring process based on the recognition of expected changes over time related to data availability, organizational structures, project planning and implementation, and other factors.

The Initiatives Tracker on the following pages provides an updated summary of the respective City- and TransLink-led initiatives committed to in the SPA. While the COVID-19 pandemic has had notable impacts on multiple work programs, with staff needing to respond nimbly to rapidly changing conditions (e.g. public health measures, remote work, reprioritization of available resources, etc.), the SPA partners have successfully found new ways of working together to advance the various SPA initiatives. While the timing of a limited number of initiatives has been refined, the collaboration between SPA partners and resulting progress that was made in 2020 is noteworthy given the circumstances.



Broadway Subway SPA Initiatives Tracker

On track (per either the SPA or Monitoring Committee endorsed adjustment)

Potential adjustment endorsement needed

City-Led Initiatives	SPA Section	Timing (end of)	Adjustment from SPA	Monitoring Committee	Progress
Prepare and adopt Vancouver Plan	5.1(a)(i)	2022	City committed to prepared City Core 2050 Plan in SPA, which has since been replaced by the Vancouver Plan	ENDORSED – July 14, 2020	In progress and on track per adjusted planning program – Currently in third phase of Plan process Collaboration through Regional Associates Roundtable and Broadway Subway SPA Working Group and Monitoring Committee
Prepare and adopt Broadway Plan	5.1(a)(ii)	2022	SPA referred to this initiative as “Broadway Planning” To be completed by end of 2022, as opposed to by end of 2021	ENDORSED – Dec 12, 2018 ENDORSED – Sep 20, 2021	In progress per adjusted timing – Currently in third phase of Plan process
Complete Vancouver Employment Lands and Economy Review (ELER)	5.1(a)(iii)	2020	SPA referred to this as the “Vancouver Employment Lands Study,” which was to be completed by end of 2019	ENDORSED – July 14, 2020	Completed in 2020 – ELER Phase 2 Report approved by City Council in October 2020
Collaboration between City, TransLink and Province on the development of Land Use Plans	5.1(c)	Per Plan timing			Ongoing – Collaboration through Broadway Subway SPA Working Group, Monitoring Committee, and respective partner agency stakeholder groups
City will monitor the progress of the land use plans through the Regional Context Statement process	5.2	Per Plan timing			Future initiation
Complete analysis of public land holdings (all levels of government and Crown corporations) for land use opportunities, and the estimated compensation required to each level of government for use of such opportunities	5.3	2022	Analysis to be completed as part of Broadway Plan, as opposed to by end of 2018 Analysis to be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – December 12, 2018 ENDORSED – Sep 20, 2021	Completed in 2019 – Inventory of public land holdings compiled In progress and on track per adjusted timing – Analysis to be completed as part of Broadway Plan
Parking Bylaw review and update	9.1	Timing not specified			Parking Bylaw update effective January 1, 2019

Broadway Plan <i>Initiatives to be addressed in the Plan</i>					
Develop forecasts for population, dwelling units and employment for years 2025, 2035, 2040 and 2045	5.1(b)	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Currently in third phase of Plan process
City will collaborate with TransLink and the Province on the development of the Affordable Housing Strategy (as part of Affordable Housing Strategy: purpose-built rental housing program/policy development, non-market housing needs analysis)	6.1(b)	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	Ongoing - Collaboration through SPA Intergovernmental Housing Workshops
Existing Affordable Housing Stock Analysis (Rental Housing Stock ODP review, approaches to preservation/ replacement of existing stock, mitigation of tenant displacement)	6.2	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Subway SPA Working Group & SPA Intergovernmental Housing Workshops
Provide opportunities for retail and entertainment uses at appropriate locations	6.5	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Subway SPA Working Group
Identify opportunities for office, institutional and industrial uses	6.6	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Subway SPA Working Group
Identify opportunities for community services and amenities	6.7	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Subway SPA Working Group
Street Connectivity and Major Road Network (MRN) review and analysis	7.2	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Plan Transportation Workshops Collaboration between City and TransLink on Broadway MRN Capacity Change
Develop a Cycling Strategy	7.3	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Plan Transportation Workshops
Develop a Pedestrian Strategy	7.4	2022	To be completed by end of 2022, per change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	In progress and on track per adjusted timing – Collaboration through Broadway Plan Transportation Workshops
Develop Urban Design Guidelines	8.1	2023	To be completed by end of 2023, given change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	Future initiation
Develop a Public Realm and Streetscape Plan (including Project station areas)	8.2	2023	To be completed by end of 2023, given change to timing for Broadway Plan	ENDORSED – Sep 20, 2021	Future initiation

TransLink-Led Initiatives	SPA Section	Timing (end of)	Adjustment from SPA	Monitoring Committee	Progress
Identify opportunities for washroom access, including at stations, as part of system-wide review of customer washroom facilities	6.7(b)(ii)	2018			Completed in 2018 – Customer Washrooms on Transit Policy adopted Completed in 2019 – Accommodations for customer accessible washrooms to be provided at Broadway – City Hall and Arbutus stations
Identify opportunities to maintain or enhance bus travel times and reliability	7.1(a)	2019	SPA referred to this as a consolidated “Bus Priority and Integration Plan”		Completed in 2019 – Bus Speed and Reliability Report completed, which provides technical findings and resources for bus priority
Prepare a Bus Network Integration Plan	7.1(a)	By Opening Day	SPA referred to this as a consolidated “Bus Priority and Integration Plan”	ENDORSED – July 14, 2020	Future initiation, informed by Area Transport Plan
Provide cost-sharing opportunities for transit priority measures based on approved regional transportation plans and funding	7.1(d)	Timing not specified			Cost-share opportunities provided through Bus Speed and Reliability municipal cost-share funding program
Use TravelSmart to encourage alternate modes during and immediately after Project construction	7.1(e)	During construction and at opening			In progress and on track – TransLink and City collaborating on TDM initiatives during project construction. More initiatives expected closer to opening day.
Update the Vancouver Area Transport Plan	7.1(f)	2023			Expected 2022 initiation
Monitoring and Reporting	SPA Section	Timing (end of)	Adjustment from SPA	Monitoring Committee (Adjustment)	Progress
The City and TransLink will establish a multi-stakeholder committee (the “Monitoring Committee”)	10.1	2018			Completed in 2018 – Inaugural meeting in December 2018
The Monitoring Committee will provide City Council, the Mayors’ Council, TransLink Board and officials from the Province with an annual dashboard outlining the progress of the Performance Measures and the commitments of each Party as set out in this SPA	10.3(e)	Timing not specified	Rename ‘Annual Dashboard’ to ‘Annual Report’	ENDORSED – July 14, 2020	Ongoing – Annual Reports released each fall
The City and TransLink will work jointly and cooperatively to prepare a comprehensive report every three to five year	11.1(a)	Timing not specified	Rename ‘Comprehensive Report’ to ‘5-Year Performance Report’	ENDORSED – July 14, 2020	5-Year Performance Report to be released in fall 2024
Data collection geographies (400m, 800m, Central Broadway, traffic zones)	5.1(b) and 11.3	N/A	Remove Central Broadway and replace traffic zones with block-level data Streamline data collection to 800m (snapped to city blocks)	ENDORSED – December 12, 2018 ENDORSED – July 14, 2020	Ongoing

Monitoring SPA Related Outcomes

Performance Measures Framework

To track the performance of land use and transportation outcomes, in 2019 partner staff developed the Broadway Subway SPA Performance Measures Framework which identifies a number of indicators associated with the four key areas of SPA monitoring interest:

- Population;
- Employment;
- Housing supply; and
- Sustainable transportation.

For each of these four categories, the Performance Measures Framework shown on the following page identifies specific indicators which are being

tracked over time, beginning with last year's 2019 Annual Report². The Performance Measures Framework represents a refinement of what the SPA originally identified as “performance measures” and is the product of partner discussions and consensus by both the SPA Working Group and Monitoring Committee. A key responsibility of the Monitoring Committee is to define and refine, as and when needed, the performance measures. No changes to the performance measures or indicators have been made for this year's report. However, indicators will continue to be reviewed with successive reports, and may be updated or adjusted via the Monitoring Committee to improve relevance in future years.



² 2019 chosen in order to begin reporting in first full data year following Broadway Subway Project funding approval (June 2018).

Broadway Subway SPA Performance Measures Framework

Measure	Indicators	Collection	
		Annually	5 Years
Increase in population	Number of people		•
Increase in jobs	Number of jobs		•
	Jobs by industry (using NAICS definitions)		•
	Amount of non-residential space approved (job space)	•	
Increase in affordable housing supply¹	Number of purpose-built market rental units approved ²	•	
	Number of social and supportive housing units approved	•	
	Number of condo units approved	•	
	Number of laneway housing units approved	•	
	Number of coach house units approved	•	
	Number of townhouse units approved	•	
Increase in sustainable transportation	Rates of car ownership		•
	Total annual ridership for Broadway Subway extension	•	
	Average daily boardings, alightings (and line-to-line transfers) by station	•	
	Average daily bus boardings and alightings	•	
	Peak load factors by mode ³	•	
	Cycling counts	•	
	Pedestrian counts		•
	Journey to work mode split		•

Monitor for potential new metrics to be defined via:

City Parking Bylaw⁴

Broadway Plan's renter protection objectives⁵

Notes:

1. First (2019) Annual Report housing indicators include existing stock, with subsequent reporting to provide new units approved
2. Rental units will be reported by incomes served and outline the number of units secured at below-market rates
3. Modes include: buses and SkyTrain for Broadway Subway extension once operational
4. Changes to the City's Parking Bylaw to be reviewed with any feasible indicators to be added following completion of the Broadway Plan, metrics to be determined for the following (collaboratively developed between City, TransLink and Province): Forecasts for population, dwelling units, and jobs (set years) per 5.1(b) and affordable housing targets per 6.1(a)
5. A key objective of the Broadway Plan is to mitigate displacement impacts and provide tenant protections and assistance to existing renters to supplement protections under the Provincial Residential Tenancy Act. Following completion of the Plan, additional information on renter protections and assistance could be included in future monitoring reports to supplement other housing measures.

Broadway Subway SPA Geography

To consistently track outcomes over time, a defined geography was established in 2019 for data collection and outcomes monitoring on the identified performance measures indicators (the “**Broadway Subway SPA Geography**”). The SPA Geography is delineated by city blocks and constitutes an approximate 800 metre walk, existing walking networks, from the Project stations (see Figure 2).

There are a number of blocks within an 800-metre radius of each station that are not included in the identified buffer such as:

- Blocks that are not within an 800-metre walk from the station due to existing physical barriers (i.e. rail yards in the False Creek Flats area);
- “Superblocks” in Southeast False Creek that have yet to be broken up by an internal street network and with most of the superblock located outside of the 800-metre radius; and
- Granville Island, which is outside the City’s jurisdiction.

Future changes to the walking network could bring additional areas within an 800-metre walk of the stations. When these changes happen, the Monitoring Committee will agree on whether or not to add or modify blocks to be included in the SPA Geography. If additional blocks are added at some point by the Monitoring Committee, the Annual Report or 5-Year Performance Report that followed that change would also contain updated data for the previous Annual or (if applicable) 5-Year Performance Report, based on the revised SPA Geography. This would allow for comparable monitoring over time.



Figure 2: Broadway Subway SPA Geography

Data Collection and Analysis

The City of Vancouver, TransLink and Metro Vancouver provide the data for annual monitoring and reporting. A full list of the data sources can be found in Appendix A. This report provides year over year comparisons for those performance measures indicators that pull from annually updated data, as defined in the Performance Measures Framework (p. 15), with the exception of the transit data which was not available at the customized SPA geography level due to ongoing impacts from the December 2020 cyberattack on TransLink, which

impacted TransLink’s access to key data sources and processing resources. As discussed with the SPA Working Group, the 2020 transit data could be made available in the future upon request to any of the SPA partner agencies interested. It is worth noting that the data would be limited to an 8-week period in the fall of 2020 (consistent with the 2020 Transit Service Performance Review approach), and due to COVID-related ridership impacts, the data will indicate ridership which is an exception from expected longer term trends.

Performance Measures 1 & 2: Population & Employment

There are four indicators monitored under the population and employment categories:

- Number of people;
- Number of jobs;
- Jobs by industry; and
- Job space approved.

The number of people, number of jobs and jobs by industry were included in last year’s Annual Report and remain unchanged, as they were derived from the most recent (2016) Census for which data is available. Through the Broadway Plan process, the City commits to preparing population and employment forecasts for set years³ which will be added to SPA monitoring once available.



Figure 3 illustrates the year-over-year change (2019-2020) in the amount of job space approved⁴, by station area. Station areas are defined as an approximate 800-metre walk, using existing walking networks, from the various Broadway Subway stations.

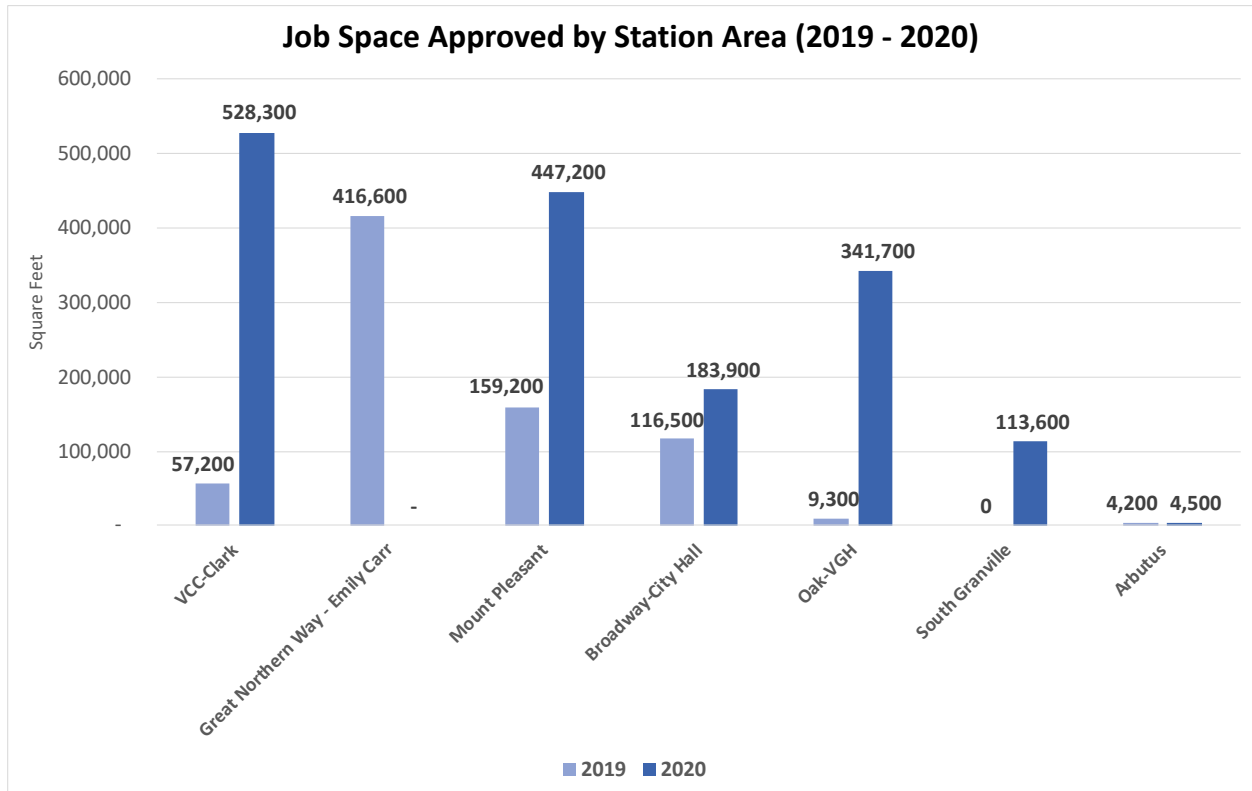


Figure 3: Job Space Approved by Station Area (2019-2020)

Over 1.6 million square feet of job space was approved in 2020 in the SPA Geography, compared to 763,000 in 2019.⁵ This represents an approximate 110% increase in the amount of job space approved. This creation of increased employment space not only supports economic

growth and vitality in this regionally significant corridor but will also support the focus of employment growth along this frequent transit corridor.

⁴ For projects enabled under a rezoning process 'approved' refers to when the project is approved at public hearing, and for projects enabled under a development permit process 'approved' refers to when the project has been issued a development permit.

⁵ Values for this station area are proportionally lower, so bars do not show up on graph



Photo courtesy of the City of Vancouver

Performance Measure 3: Housing Supply

Key housing related objectives of the SPA include both residential densities appropriate for SkyTrain as well as housing affordability, recognizing that reductions to a household's transportation costs lower that household's overall housing and transportation cost burden.⁶ Matching affordable housing supply with demand, particularly in transit-oriented locations such as the Broadway corridor, is an important component of the transit and affordable housing connection.

The housing supply category consists of six indicators that include both affordable and ownership tenures (see Appendix B for definitions of the various housing types):

- Purpose-built market rental units approved;
- Social and supportive housing units approved;
- Condo units approved;

- Laneway housing units approved;
- Coach house units approved; and
- Townhouse units approved.

To help clarify the understanding of 'affordable' housing for SPA reporting, the following section speaks to the connection between affordability and income level.

New Affordable Housing Units by Household Incomes Served

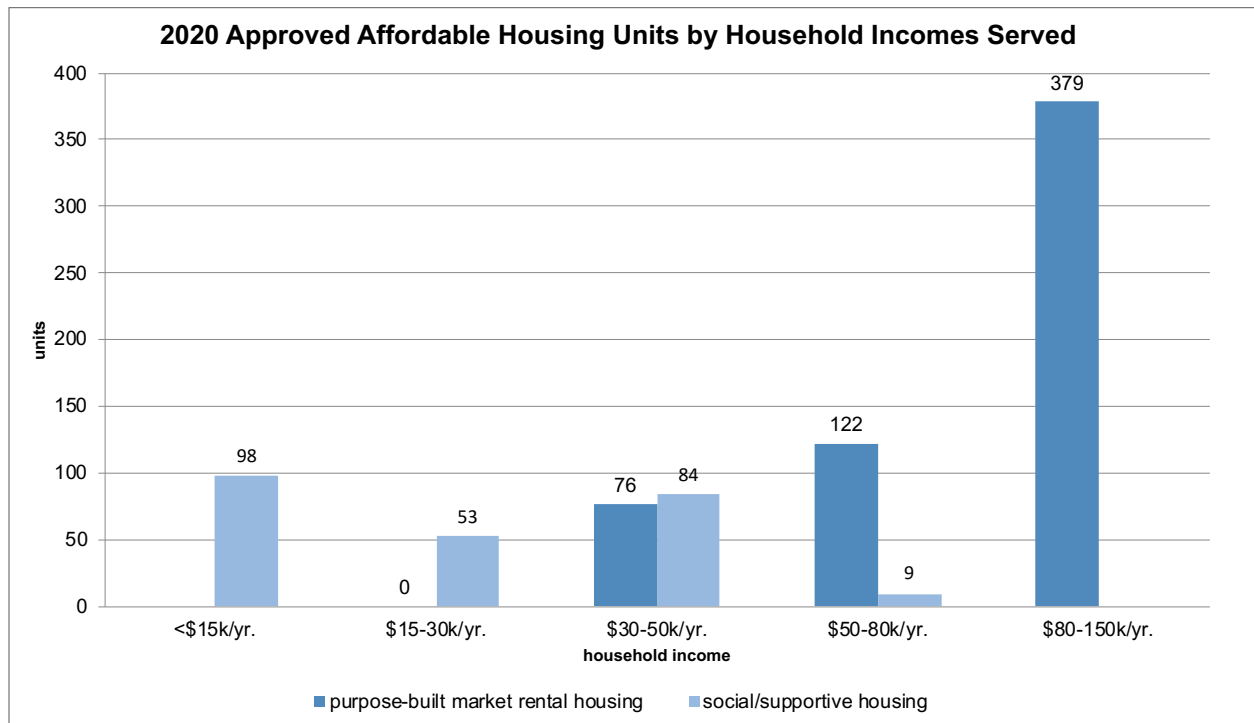
Housing affordability is a relative measure of a household's ability to pay for housing – it relates the price or cost of housing to household income. Housing is considered to be affordable when it comprises 30% or less of a household's total income before taxes. Households paying over 30% of their total income on housing costs are

⁶ Metro Vancouver. (2015). The Metro Vancouver Housing and Transportation Cost Burden Study: A New Way of Looking at Affordability

considered to be ‘housing cost burdened.’ This is particularly relevant for low and moderate income households whose household expenses take a higher overall share of their monthly budgets, whereas higher-income households may be able to absorb higher housing costs. It is also worth noting the importance of the full affordability picture (i.e. the transportation and housing cost-burden). Proximity to frequent transportation alternatives lowers a household’s overall transportation–housing cost burden. Further, Phase 1 of Metro Vancouver’s Transit–Oriented Affordable Housing Study found that renter households, particularly

those with lower incomes, are more likely to use transit. Matching affordable housing supply with demand, particularly in transit-oriented locations such as the Broadway corridor, is an important component of the transit and affordable housing connection.

The following chart shows net new purpose-built market rental and social/supportive housing units by incomes served – how many units are affordable to a particular household income where that household pays no more than 30% of total income on rent.



The majority of new purpose-build market rental housing approved in 2020 were affordable to households earning over \$80k per year. The majority of new social/supportive housing approvals were affordable to households earning less than \$15k per year and between \$30k and \$50k per year.

As part of the Broadway Plan process, the City will outline affordable housing targets by location, housing type, target income and tenure.

These targets will be added to SPA monitoring. Consideration of policy direction for family-sized housing units will also be a part of the Broadway Planning process.

The following table (Table 3) provides data on the housing approvals in the Broadway Subway SPA Geography for both 2019 and 2020. Note that following approval, projects may take a number of years to construct before units are ready for occupancy.

Housing Type	Existing 2018		Approvals 2019		Approvals 2020		Total	
	# buildings	# units	# buildings	# units	# buildings	# units	# buildings	# units
<i>Affordable Housing Stock</i>								
Purpose-Built Market Rental Housing	1,486	20,463	3	72	3	577	1,492	21,112
Social/Supportive Housing	113	5,167	1	90	3	244	117	5,501
Total	1,599	25,630	4	162	6	821	1,609	26,613
<i>Other Housing Stock</i>								
Laneway Housing	14	14	2	2	4	4	20	20
Condominiums	2,041	26,616	6	361	3	121	<i>not available due to data collection methods (see notes below)</i>	
Coach Houses			10	10	2	2		
Townhouses			0	0	0	0		
Total	2,055	26,630	18	373	9	127		

Table 3: Housing Approvals in Broadway Subway SPA Geography

Notes:

- 'Existing 2018' refers to existing, approved and under construction buildings/units as of December 31, 2018. 'Approvals 2019/2020' refers to new buildings/units approved for the period January 1 to December 31 for the respective year. For projects which require a rezoning 'approved' refers to when the project is approved at public hearing, and for projects which do not require a rezoning and are enabled under existing zoning 'approved' refers to when the project has been issued a development permit.
- Data is drawn from City of Vancouver permit systems and Provincial BC Assessment data. Due to discrepancies between the Provincial historic data collection of strata ownership units and municipal tracking systems, 'Existing 2018' baseline building and unit numbers for strata ownership units are estimates and not able to be further broken down by housing type (e.g. townhouse). This is why for annual reporting, new approved condominium units, coach houses and townhouses are reported, but the baseline housing stock numbers are combined for all of those housing types.
- Condominium and townhouse approval numbers are gross rather than net unit counts due to data gaps in municipal tracking systems; purpose-built market rental housing, social/supportive housing, coach houses and laneway housing are net unit counts. Approvals numbers for condominiums, coach houses and townhouses cannot be added to 'Existing 2018' baseline numbers as this would not be an accurate total as the gross approval numbers do not account for units lost through redevelopment.
- For the purposes of the SPA reporting, affordable housing is considered to include purpose-built market rental as well as social and supportive housing units, recognizing that affordability is a relative measure of the price or cost of housing relative to household income. The social/supportive housing category includes co-operative housing units.

The City approved 948 housing units in the Broadway SPA Geography in 2020, nearly doubling the 2019 approval numbers. 87% of these approvals were purpose-built rental or social/supportive housing enabled under the Broadway Plan Interim Rezoning Policy⁷ in response to

ongoing housing affordability challenges being experienced by Vancouverites (see Figure 4). This is a significant increase from 2019, in which 30% of housing approvals were purpose-built rental or social/supportive housing.

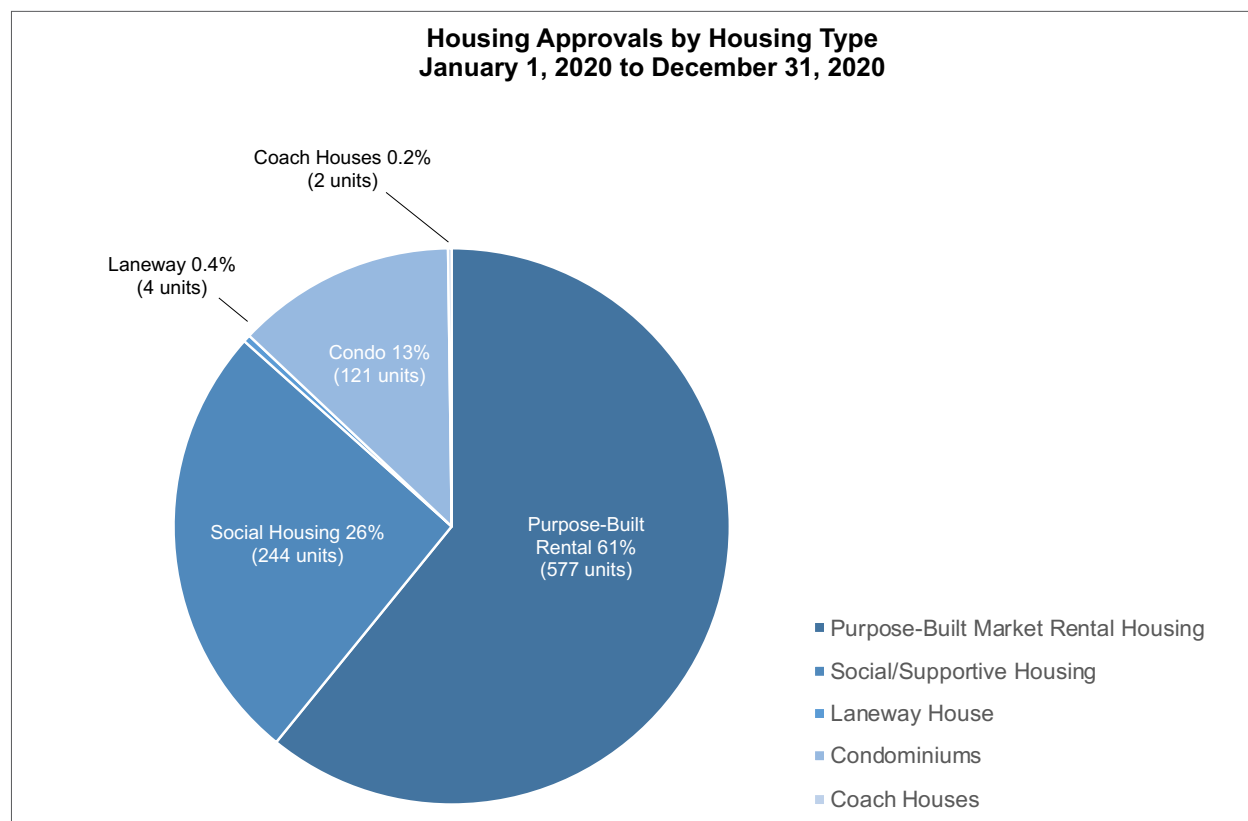


Figure 4: Housing Approvals by Housing Type (January 2020 – December 2020)

The 244 social and supportive housing units approved in the SPA Geography include 98 deeply affordable units for people experiencing homelessness, enabled through a partnership between the City of Vancouver and Government of British Columbia to develop temporary modular housing (TMH) throughout Vancouver. TMH buildings address the immediate and urgent housing needs of people experiencing

homelessness in Vancouver. All homes are self-contained dwellings with a private bathroom and kitchen and are operated by an experienced non-profit housing operator to provide customized resident supports and manage the building 24/7.

The 577 units of purpose-built market rental housing units approved include 120 units designated for low and moderate-income

⁷ The City’s established practice is to limit the types of new rezoning applications which will be considered during a significant planning process so as to not pre-empt or divert the planning program. This practice continues for the Broadway Planning process. In recognition of ongoing housing affordability challenges that are creating significant hardship, in particular for people experiencing homelessness and low-income individuals and families, an interim rezoning policy was established. The policy outlines the circumstances under which new rezonings will be considered during the planning process. This includes projects involving 100% social/supportive housing and 100% below-market rental housing.

households earning incomes between \$30-\$80k per year. These units were enabled through the City’s Moderate Income Rental Housing Pilot Program (97 units) and the Below-Market Rental Housing Policy for Rezoning (23 units). Data provided earlier in this section provides additional information on the SPA Geography’s 2020 net new affordable housing (social and supportive and purpose-built market rental) by household income served.

Phase 1 of Metro Vancouver’s Transit-Oriented Affordable Housing Study found that renter households, particularly those with lower incomes, are more likely to use transit. Access to frequent transit lowers transportation costs and improves access to services and employment. This increase in supply of affordable housing in the Broadway corridor is both supportive of transit ridership objectives and shared transit-oriented affordable housing goals.

Performance Measure 4: Sustainable Transportation

Sustainable transportation for the purposes of SPA monitoring includes walking, cycling, SkyTrain and bus in the SPA Geography, recognizing that these modes are part of the broader City and regional transportation network.

The Performance Measures Framework includes a total of seven transportation indicators which are updated either on an annual or 5-year basis (p. 15):

- Average daily boardings and alightings by station
- Average daily bus boardings and alightings
- Peak Load Factors by Mode
- Pedestrian Counts
- Cycling Counts
- Journey to Work Mode Split
- Rates of car ownership
- Total annual ridership for Broadway Subway extension (for future reporting, once in service)⁸

As noted earlier, this report does not include updated transit data for 2020 given ongoing challenges related to the cyberattack TransLink experienced in December 2020, which impacted TransLink’s access to key data sources and

processing resources. As discussed with the SPA Working Group, the 2020 transit data could be made available in the future upon request to any of the SPA partner agencies interested. It is also worth mentioning that the data would be limited to an 8-week period in the fall of 2020 (consistent with the 2020 Transit Service Performance Review approach), and due to COVID-related ridership impacts, the data will indicate ridership which is an exception from expected longer term trends. It is also important to note that ridership in 2020 fluctuated greatly in response to rapidly evolving pandemic conditions – after the Provincial state of emergency was declared on March 18, 2020, there was no ‘average day’ in 2020 from a ridership perspective. As a result, ridership data averaged over 2020 does not offer meaningful insights for future service planning.

⁸ This indicator will be tracked once the Broadway Subway is operational.



Cycling Counts

As with walking, cycling will likewise be an important mode for customers accessing the Broadway Subway, and increased cycling activity over time will be an indication of the SPA Geography's continued evolution as a community designed to support the SkyTrain investment and sustainable transportation generally.

Approximately 3.5 million cycling counts were reported from January 1 through December 31, 2020, which is a 5% increase compared to 2019 cycling counts. Cycling counts are taken from four permanent bike counters (see Appendix C) located at:

- Burrard Street near Cornwall Avenue (closest to future Arbutus Station)
- E 10th Avenue near Clark Drive (closest to VCC–Clark Station)
- Ontario Street near 11th Avenue (closest to Broadway–City Hall Station)
- Seawall at Creekside Community Centre (closest to future Great Northern Way and Mount Pleasant stations)

As was the case in 2019, the highest number of cycling counts were observed at the Burrard and Cornwall location, with the fewest counts observed at the 11th at Ontario location (see Figure 5).

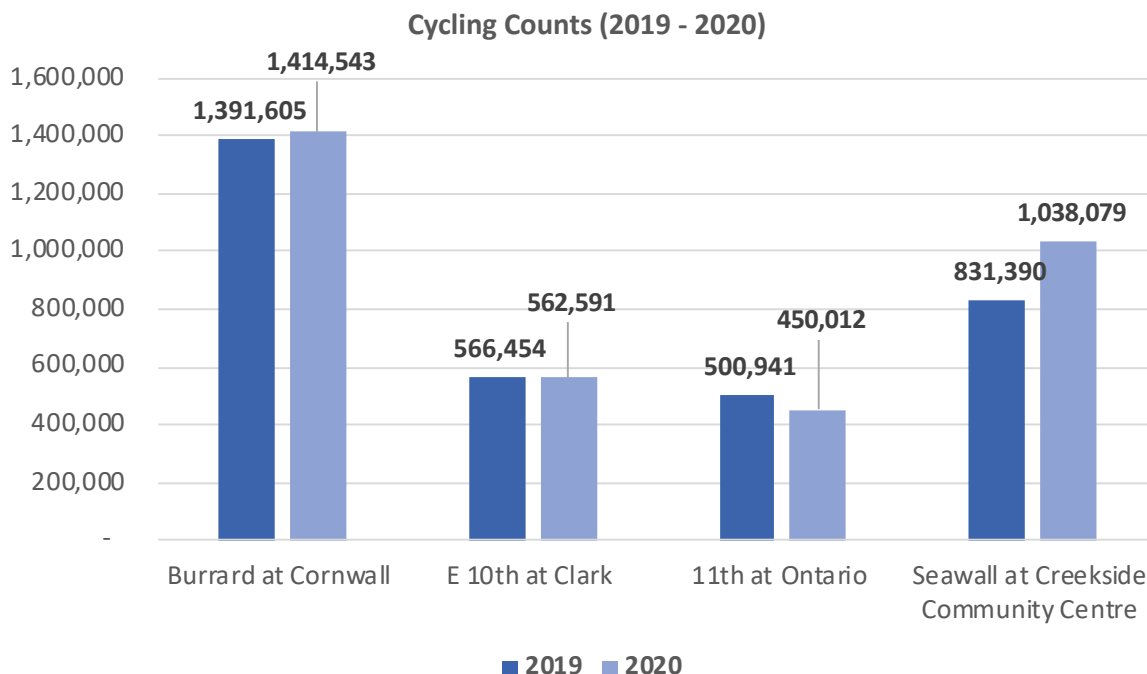


Figure 5: Cycling Counts (2019 – 2020)

Conclusion and Next Steps

2020 was an unprecedented year in many regards, with the COVID-19 pandemic having far-reaching impacts on multiple aspects of our daily lives from our travel patterns to where and how we work. Understandably, work programs, budgets and priorities had to be re-evaluated in the context of a rapidly evolving situation and in light of what will likely be a long road to recovery.

Given the Provincial Health Orders regarding physical distancing and large gatherings, the 2020 public engagement strategy for the Broadway Plan needed to be re-assessed and launched in a COVID-safe manner. This caused delays to the planning process, resulting in the need to adjust the anticipated completion date for the Plan from end of 2021 (as committed to in the SPA) to by the end of 2022. Despite this change in timing, the scope listed in the SPA under the Broadway Plan commitment continues to be advanced, with the SPA partners continuing to collaborate effectively through new ways of working together.

COVID-19 also had a notable impact on transit ridership, with physical distancing measures, public perceptions of risk and the rapid shift to remote work being among the key factors affecting transit use. Although TransLink maintained service at near-normal levels through most of 2020, the pandemic had a significant impact on operations. During this time, TransLink’s focus was on keeping customers and employees safe, and providing service where it was needed most. While ridership data average over 2020 does not offer meaningful insights, future reporting will include updated transit data, which will be critical as we track transit ridership recovery.

A key focus for the SPA partners moving forward will be to continue to collaborate on the final planning stages of the Broadway Plan, to work together to advance transportation demand management initiatives in the Broadway Corridor during construction, and to work together to define the scope and launch the Vancouver Area Transport Plan process.

Glossary

10-Year Vision – The 10-Year Vision for Metro Vancouver Transit and Transportation, developed by the Mayors’ Council in 2014.

Broadway Subway Project – An approximately 5.7 kilometre extension of the Millennium Line from its current terminus at VCC-Clark Station to a new western terminus at Arbutus Street.

Broadway Subway Supportive Policies Agreement (SPA) – The Supportive Policies Agreement for the Broadway Subway Project, executed by the City of Vancouver and TransLink in June 2018.

Monitoring Committee – A multi-stakeholder committee formed by TransLink and the City in December 2018 to: (i) review the performance of land use and transportation outcomes for the Broadway Subway Corridor and (ii) monitor compliance by each party with the commitments and responsibilities set out in the Broadway Subway SPA.

Working Group – A multi-stakeholder staff working group from the agencies represented on the Monitoring Committee that reports to the Monitoring Committee and supports its duties and responsibilities.

Broadway Subway SPA Implementation & Monitoring Timeline – A timeline developed to track the progress of key SPA commitments and delineate when and how SPA reporting will occur.

Annual Report – One of the two primary SPA reporting deliverables; published on an annual basis to provide a high-level snapshot of progress on SPA commitments and outcomes.

5-Year Performance Report – One of the two primary SPA reporting deliverables; published on a 5-Year basis to provide a comprehensive analysis of progress on SPA commitments and outcomes, and may recommend actions if outcomes not tracking as expected.

Performance Measures Framework – A framework developed by partner staff to track the performance of land use and transportation outcomes associated with the four key areas of SPA monitoring interest (population, employment, housing supply and sustainable transportation).

Broadway Subway SPA Geography – A defined geography that will be used for data collection and outcomes monitoring; delineated by city blocks and constitutes an approximate 800 metre walk, using existing walking networks, from the Broadway Subway Project stations.

APPENDICES

APPENDIX A DATA SUMMARY TABLE

Indicator	Data Source	Data Year for this Report	Next Update ¹ of Data	Partner Agency Obtaining Data
Number of People	Statistics Canada	2016	2021	Metro Vancouver
Number of Jobs	Statistics Canada	2016	2021	Metro Vancouver
Jobs by Industry	Statistics Canada	2016	2021	Metro Vancouver
Job Space	City of Vancouver	2020	2021	City of Vancouver
Number of purpose-built market rental units approved	City of Vancouver	2020	2021	City of Vancouver
Number of social and supportive housing units approved	City of Vancouver	2020	2021	City of Vancouver
Number of condo units approved	City of Vancouver	2020	2021	City of Vancouver
Number of laneway housing units approved	City of Vancouver	2020	2021	City of Vancouver
Number of coach house units approved	City of Vancouver	2020	2021	City of Vancouver
Number of townhouse units approved	City of Vancouver	2020	2021	City of Vancouver
Rates of car ownership	ICBC	2019	2024	City of Vancouver
Total annual ridership for Broadway Subway extension	TransLink	-	2025	TransLink
Average ² daily boardings and alightings by station	TransLink	2019	2021	TransLink
Average daily bus boardings and alightings ³	TransLink	2019	2021	TransLink
Peak Load Factors by Mode	TransLink	2019	2021	TransLink
Cycling Counts	City of Vancouver	2020	2021	City of Vancouver
Pedestrian Counts	City of Vancouver	2018	2023	City of Vancouver
Journey to Work Mode Split	Statistics Canada	2016	2021	Metro Vancouver

Notes:

1. Data collected through the Census is generally released one year following the collection year, with additional time needed for the custom Census data order required for SPA reporting.
2. For stations connected by the Broadway Subway Project.
3. For all routes operating in Broadway Subway SPA Geography.

APPENDIX B DEFINITIONS OF HOUSING TYPES FOR BROADWAY SUBWAY SPA MONITORING

Source: City of Vancouver Housing Vancouver Strategy & supporting documents

Purpose-Built Market Rental: Multi-family housing built with the intent to be rented in the private market. Includes rental housing secured by legal agreement (i.e. Secured market rental housing guaranteed through a legally binding covenant or housing agreement registered on title).

Social Housing: From City of Vancouver Zoning & Development By-Law which defines as rental housing:

- In which at least 30 per cent of the dwelling units are occupied by households with incomes below housing income limits, as set out in the current “Housing Income Limits” table published by BC Housing
- Which is owned by a non-profit corporation, by a non-profit co-operative association, or by or on behalf of the city, the Province of British Columbia, or Canada
- Is secured by a housing agreement or other legal commitment

Supportive Housing: Subsidized housing with supports that help individuals to maintain housing stability. Supports help tenants stabilize their lives, enhance their independent living skills, and reconnect with their communities. The services provided to tenants are flexible and vary from building to building. Some services are provided by on-site staff, and some services are delivered through outreach programs. There are several forms of supportive housing available:

Buildings where all of the units are supportive (dedicated)

Social housing buildings where some of the units are supportive (mixed)

In scattered market apartments with rent supplements

Condominium Apartment (“condo”): Units within apartment buildings that are separately strata-titled and can be owned and sold independently or may be rented to a non-owner household. Condominium buildings generally include common amenity areas which are jointly owned and maintained by the strata corporation.

Laneway House: A small, detached home built on a low-density lot at the lane. Laneway homes are permitted in addition to a secondary suite in the main house, and like secondary suites, are for rental or family occupancy only and cannot be strata titled.

Coach House: A small, detached home typically built at the rear of the site adjacent to the lane. The coach house may be strata-titled (sold separately from the main house) unlike laneway homes which are always rental.

Townhouse: Ground-oriented, multi-family homes which can be a combination of side-by-side and top-and-bottom (“stacked”) units or a single or double row of attached units with individual entrances from the street or courtyard. Private outdoor space is provided at the ground level and on roof decks.

APPENDIX C BIKE COUNTER LOCATIONS



TO: Board of Directors

FROM: Geoff Cross, VP, Transportation Planning and Policy

DATE: October 22, 2021

SUBJECT: TransLink Park and Ride Guidelines

EXECUTIVE SUMMARY

The TransLink Park and Ride Guidelines were developed to assist TransLink in applying the Park and Ride Policy and to inform decisions related to Park and Ride. They include guideline statements on managing Park and Ride, partnerships, new Park and Ride opportunities, and adapting Park and Ride for the future. The final Park and Ride Guidelines are now publicly available on the TransLink website.

PURPOSE

The purpose of this report is to inform the Board of Directors of the development of TransLink's Park and Ride Guidelines and to share the final document and how it will be used. This report is for information purposes only.

BACKGROUND

TransLink's Park and Ride Policy, adopted by the Board in 2012, outlines TransLink's approach to providing, managing, and pricing Park and Ride facilities within Metro Vancouver. The Policy recognizes that Park and Ride is an important form of accessing the transit network and can improve options for customers that cannot effectively or efficiently use other modes to access transit.

There are currently 20 formal Park and Ride facilities in the region, of which 9 are operated by TransLink and 11 are non-TransLink facilities (Figure 1). These Park and Rides provide 7,600 parking spaces, of which 5,600 are at TransLink facilities. In addition to these official facilities listed on the TransLink website, there are other parking lots and garages throughout the region that may provide similar services unofficially.

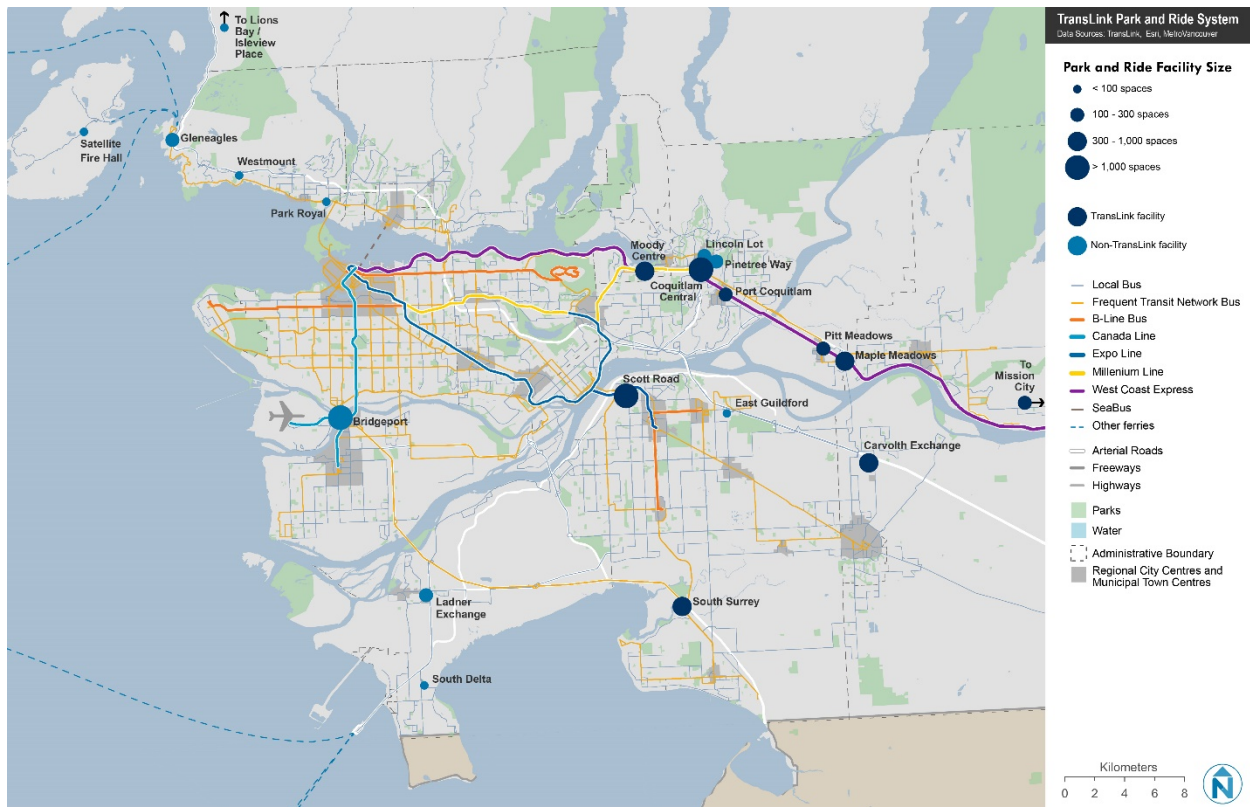


Figure 1. Regional Park and Ride facilities (by ownership and capacity)

DISCUSSION

The Park and Ride Policy is a two-page document with high-level planning principles to guide decision-making on Park and Ride facilities. While useful as a policy framework, the level of detail in the Policy was found to be insufficient to support decisions related to Park and Ride, particularly regarding management and expansion. A need for more detailed and practical guidance was identified, which led to the development of the 19-page Park and Ride Guidelines. The Guidelines were developed under the context of the existing 2013 Regional Transportation Strategy, using the “Invest, Manage, and Partner” themes as an organizing framework of the document, with the addition of “Adapt” to recognize the importance of proactively planning for change and responding to new opportunities, challenges, and customer needs. They join the series of other guidelines, including Transit-Oriented Communities, Transit Service, and Transit Passenger Facility Design Guidelines, intended to be used as guidance for the planning and management of TransLink’s customer facing facilities

The Guidelines will assist TransLink in applying the Park and Ride Policy and inform decisions related to Park and Ride, including what locations are suitable for Park and Ride; how Park and Ride is managed; and where/when should Park and Ride be adapted to other uses.

The Park and Ride Guidelines include guideline statements to inform decisions on:

- Managing Park and Ride, including setting parking rates, technology, and monitoring performance
- Partnerships, including exploring opportunities, working with partners, and leveraging emerging mobility services

- New Park and Ride Opportunities, including evaluating opportunities with a suitability evaluation framework and determining optimal capacity
- Adapting Park and Ride for the Future, including redevelopment of existing Park and Ride facilities and the future of Park and Ride

TransLink will use the Park and Ride Guidelines to support decision making related to new and existing Park and Ride facilities that are under its control. For example, during TransLink's Area Transport Plan (ATP) processes, these Guidelines can be used to evaluate the need for Park and Ride and to inform decisions on the future of existing facilities, such as redevelopment for other uses as land use patterns change over time.

The Guidelines will also be useful in responding to occasional inquiries from government partners and developers about Park and Ride facilities and in considering the need for Park and Ride in conjunction with major expansions of the transit system. TransLink is not currently funded to implement Park and Ride facilities but would welcome conversations about potential partnerships. TransLink's Real Estate Division manages the Park and Ride facilities operated by TransLink and leads partnership efforts with external parties.

The Park and Ride Guidelines (included as Attachment 1) were developed through engagement with internal and external stakeholders, including the Regional Transportation Advisory Committee (RTAC). The final guidelines were endorsed by the Enterprise Senior Leadership Team on May 19, 2021, approved by the Service Change Approval Committee on June 22, 2021, and provided to RTAC for information at their meeting on September 16, 2021.

Both the [Park and Ride Policy](#) and the [Park and Ride Guidelines](#) are now publicly available on the TransLink website.

ATTACHMENTS

Attachment 1 – TransLink Park and Ride Guidelines



Park and Ride Guidelines

June 2021

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INTRODUCTION

Purpose

Park and Ride plays several roles that support the TransLink system: increasing access to transit (especially where non-driving station access options are limited), expanding the reach of the regional transit system, and providing a revenue source. The purpose of this document is to provide guidance on decisions related to Park and Ride, including what locations are suitable for Park and Ride (including partnering opportunities), where and when should Park and Ride be adapted to other uses, and how Park and Ride is managed. This work is informed by the TransLink Park and Ride Policy adopted in 2012.

How to Use

TransLink uses the Park and Ride Guidelines to support decision making related to new and existing Park and Ride facilities that are under its control. These guidelines are used to inform decisions related to:

- The management and pricing of Park and Ride;
- Partnerships opportunities for Park and Ride;
- The placement of new Park and Ride facilities; and
- The adaptation of Park and Ride facilities to other uses.

The Park and Ride Guidelines are part of a series of TransLink documents that are intended to be used as guidance for planning and management of TransLink's customer facing facilities. Other related TransLink documents that provide both planning and design guidance, and should be referenced with these Park and Ride Guidelines may include:

- Transit-Oriented Communities Design Guidelines (TOCDGs);
- Transit Passenger Facility Design Guidelines (TPFDGs);
- Bus Infrastructure Design Guidelines (BIDGs); and
- Bus Customer Amenity Program Framework.

Existing conditions for Park and Ride are included in Appendix A.

Park and Ride Policy

The policy document informing this guidance is the 2012 Park and Ride Policy, which is included in Appendix B. This policy was approved by TransLink's Board of Directors and sets TransLink's approach to existing and future Park and Ride facilities in Metro Vancouver. Based on the guiding principles established within the policy, the guidelines in this document provide additional direction and tools to inform decision-making.

OBJECTIVES

These guidelines bring a consistent approach to Park and Ride management and establish clear planning objectives to guide decision-making. These objectives reflect an evidence-based approach that emphasizes the connection between TransLink's strategic goals and the performance of Park and Ride facilities in the context of the wider regional transportation network. These guidelines are consistent with the wider principles of how TransLink plans for people accessing the regional transit system.



Manage Park and Ride to be more efficient and user-focused

- Generate revenue to support capital investments, operations, and cost recovery
- Proactively manage parking assets
- Realize the potential for transit-supportive land development and major projects



Partner to provide Park and Ride that extends the reach beyond TransLink-owned parking facilities

- Extend the reach of the regional transportation system
- Strategically integrate emerging mobility services



Invest in Park and Ride to increase access to transit

- Increase transit ridership and/or reduce vehicle kilometres travelled (VKT)
- Foster equitable access to the transit system, including enabling access to high-quality transit from locations that have lower levels of transit service
- Provide context-sensitive options for station access
- Choose Park and Ride locations that are cost-effective
- Promote transit-supportive development



Adapt Park and Ride to proactively plan for change and respond to new opportunities, challenges, and customer needs

- Protect the ability of Park and Ride to change over time
- Mitigate risks presented by changing mobility and development trends
- Leverage and manage emerging mobility services
- Improve sustainability and reduce greenhouse gas emissions



MANAGING PARK AND RIDE

Setting Parking Rates

Parking rates will vary significantly across the range of Park and Ride locations and should encourage efficient travel in the region with respect to meeting TransLink's goals and objectives. The following provides guidance on how TransLink will set parking rates.

- 1. In managing Park and Ride, TransLink's approach will be to manage demand at existing facilities before adding new capacity.**
- 2. Rates will reflect relative demand at each location, with the intent that the cost of parking will influence demand to ensure that a desirable level of space availability is maintained.**
 - Demand-responsive pricing aims to ensure consistent customer access and fair pricing across the system, based on pre-established utilization and availability metrics.
 - Demand-responsive pricing will align supply and demand of Park and Ride, improving the customer experience by making it easier to find parking, while avoiding over-supply of parking which may negatively impact multimodal access and transit-oriented development goals.
- 3. A transparent, data-driven, and predictable process will determine rate adjustments. Rate adjustments will occur not more than twice per year, and only when necessary to attain performance targets.**
 - There is no static projected best rate. Rather, the right rate is the lowest rate that achieves the demand-responsive target range of 70-85% occupancy.
 - o Parking facilities with average weekday occupancy of over 85% should be considered for a price increase.
 - o Parking facilities with average weekday occupancy of under 70% should be considered for a price decrease.
 - o Price changes should be made in small increments biannually until an equilibrium is reached. It is recommended that price changes be no more than 10% with each increase. Special cases may exist where a larger price change is advised, and these cases will be reviewed on a case-by-case basis.
 - At new facilities or at existing facilities that are currently free and should be priced, a starting rate must be identified. Factors to consider when defining an initial rate include the following:
 - o The location of the Park and Ride facility with respect to the transit network
 - o The type and frequency of the transit service at the Park and Ride facility
 - o The level of accessibility to the transit station/exchange by non-auto modes of transport
 - o The respective cost of making a comparable journey by other transport modes
 - o If a new facility is created within the catchment market of an existing parking facility, the rate can be set to match the nearby facility. Similarly, a facility moving from free to priced can initially be assigned the lowest rate of nearby parking facilities.

4. Off-peak rates will be set to encourage more transit use at these times and to provide lower-cost parking options when such rates will not result in constrained space availability.

- Day-of-week pricing: Weekend ridership and parking space usage is often lower, and parking rates could be lowered at some locations on weekends to maximize utilization of station/exchange area assets.
- Time of day pricing: Low-demand periods in the early morning or after the morning peak may have decreased parking rates to attract riders, distribute demand on the transit system or to support shared parking agreements with neighbouring uses.

Technology

The pricing and management guidelines will rely on greater operational and technology control. A customer interface that improves convenience and makes it easier to pay for parking can help support a good rider experience.

5. Consider technology improvements that support a good rider experience and efficient monitoring.

- TransLink should consider investment in new monitoring infrastructure when and where they meet parking system goals described in these guidelines.
- Technology improvements may range from improving access control, ease of payment, real-time parking availability information, implementation of demand-responsive pricing, improved data accuracy, and shared or flexible parking arrangements.

6. Consider using Park and Ride space for emerging mobility options to maximize access to stations.

- Innovations related to emerging mobility options may be useful in maximizing transit access and station/exchange-area resources. These new opportunities should be considered to the extent they meet system goals. Considerations may include collaboration with shared mobility providers, special accommodation for vanpools, expanded pick-up/drop-off areas for ride-hailing, or incorporating infrastructure for electric vehicles and driverless technology, among others.

Monitoring Performance

The ability to adjust rates to match utilization and system goals requires data provided by ongoing monitoring of weekday average utilization at all Park and Ride facilities, with an expectation that regular adjustments are important to calibrate access demands.

7. Regularly collect data to inform demand, supply, and pricing decisions.

- Data collection should be done regularly and throughout the year to ensure that pricing decisions are data-driven and that the primary data-driven consideration for adjusting rates will be parking demand and availability at each facility.



PARTNERSHIPS

Partnering allows TransLink to extend the reach of Park and Ride beyond TransLink-owned facilities by optimizing opportunities to extend the reach of the regional transportation system and by strategically integrating emerging mobility services. Partners can include municipalities, partner agencies, and private sector partners.

8. If a need for a new Park and Ride location or additional capacity is identified, TransLink’s primary approach will be to explore partnership opportunities to provide the parking using existing infrastructure, and new Park and Ride facilities will only be built if alternative options do not exist or are not feasible.

- The following hierarchy of preference will guide TransLink in the provision of new parking capacity at Park and Ride facilities:
 - o New parking supply should be provided by third party providers.
 - o If the above is not feasible in areas of recognized demand, TransLink will be open to partnerships for the delivery of new parking supply.
 - o If neither of the above are feasible in areas of recognized demand, TransLink will assess the business case for developing new parking to meet the demand where cost effective.

9. TransLink will work with partners to identify opportunities for Park and Ride partnerships.

- Partnership opportunities could include leasing space from existing parking garages, lots, or developments as well as agreements for partners to operate facilities on behalf of TransLink. Operations agreements could also include maintenance, repair, security, and indemnity for liability. Shared parking agreements could involve parking spaces that are reserved for Park and Ride on certain days of the week or until a specified time of day and available for shared use with other users at other times.
- TransLink will work closely with partners to determine the most suitable arrangement for each location. TransLink’s Park and Ride plans will also be aligned with municipal policies limiting Park and Rides in certain areas or throughout a municipality.
- In addition to Park and Ride facilities with formal partnerships, TransLink will also foster collaboration and coordination with private Park and Ride providers to improve the reach of the transit network.

10. TransLink will explore partnership opportunities to leverage emerging mobility services.

- Partnerships could be beneficial for integrating various mobility services, such as shared micromobility, car-sharing, ride-hailing, and other emerging mobility options. Providing a range of alternative options to access transit could reduce the need and the demand for Park and Ride services. Such partnerships could be implemented at strategic locations to respond to the changing needs of customers.



NEW PARK AND RIDE OPPORTUNITIES

Evaluating New Opportunities

Park and Ride is one way for people to access the transit system and is particularly important in areas where the provision of transit service would not be cost-efficient or effective for TransLink to meet its strategic or financial goals. Generally, Park and Ride predominantly serves as a way to connect to transit for longer, regional trips. The design of Park and Ride facilities will prioritize active and sustainable modes.

11. The location and level of supply of new Park and Ride should positively support TransLink’s goals and objectives of prioritizing sustainable modes of transport for accessing the transportation network where these modes are viable, desired, and cost-effective.

- TransLink will support Park and Ride that extends the reach of the transit network to people living in areas where the provision of transit service is not cost-effective for the agency in meeting its strategic goals.
- New Park and Ride will only be provided at locations that meet the majority of the “Invest” objectives identified in these guidelines. The following suitability evaluation framework (Table 1) should guide the evaluation process to determine appropriate locations for new Park and Ride facilities. Each objective should be assigned either high, medium, or low suitability and will inform the overall suitability determination.



Table 1 Park and Ride suitability evaluation framework

Objective	Key Question(s) for Evaluation	Higher Suitability at...	Potential Suitability Measures	Suitability (High/Med/Low)
Increase transit ridership and/or reduce VKT	<ul style="list-style-type: none"> How will a Park and Ride at this location impact ridership and VKT? 	<ul style="list-style-type: none"> Locations with catchment area driving population whose destination is served by transit Locations with higher capacity/frequency transit Locations with congested roadway travel conditions and where a park and ride facility could be situated in advance of the congestion 	<ul style="list-style-type: none"> Potential ridership increase Estimated VKT reduction Population density within 10-minute morning peak drive time of the station/exchange. (Driveshed: within a ten-minute morning peak drive time of the station/exchange) Number of commute trips to rapid transit accessible jobs Percent of commute trips by automobile to rapid transit accessible jobs Type of transit service 	
Foster equitable access to the transit system, including enabling access to high-quality transit from locations that have lower levels of transit service	<ul style="list-style-type: none"> Will a Park and Ride at this location extend access for more remote locations? Will a Park and Ride at this location extend access where transit service is less frequent and where coverage may be poor? 	<ul style="list-style-type: none"> Locations farther from key regional employment centres Rapid transit stations with poorer connecting bus service Bus exchanges with more connecting bus service Locations providing fast and frequent rapid transit service 	<ul style="list-style-type: none"> Distance from key regional employment centres with rapid transit access (e.g. central Vancouver, Surrey city centre, Metrotown, etc.) Number and quality of transit connections at station or exchange 	
Provide context-sensitive options for station access	<ul style="list-style-type: none"> Will a Park and Ride at this location be in a more auto-oriented context that would not detract from urban design, including walking and cycling connectivity? Will a Park and Ride at this location be aligned with local land use plans and policies? 	<ul style="list-style-type: none"> Locations that are more auto oriented Locations with fewer walking/cycling opportunities Locations that serve primarily low-density, residential areas (with densities too low to support bus service) 	<ul style="list-style-type: none"> Population density within 10-minute walkshed. (Walkshed: within a ten-minute walk of the station/exchange) Percent of comfortable roadway kilometers within walkshed Intersection density Proximity to highway access Station access mode share Local land use plans and policies 	
Choose Park and Ride locations that are cost-effective	<ul style="list-style-type: none"> Is vacant land available to be used as a Park and Ride? Will a Park and Ride at this location be the highest and best use of this land? Will partnership opportunities make this a more viable Park and Ride? Will a Park and Ride at this location be the most cost-effective means of extending the reach of transit? 	<ul style="list-style-type: none"> Locations with vacant or underutilized land Locations with less expensive land value Locations with strategic partnership opportunities Locations where a Park and Ride facility would be less costly to provide than feeder bus line(s) servicing the catchment area 	<ul style="list-style-type: none"> Land availability Land value Partnership opportunities Estimated relative cost per boarded passenger 	
Promote transit-supportive development	<ul style="list-style-type: none"> Will this Park and Ride be located where development potential is low? 	<ul style="list-style-type: none"> Locations with low development potential Locations with mid-term development potential Locations outside of Metro Vancouver's focused growth areas 	<ul style="list-style-type: none"> Regional growth strategy context Local land use context Known development interest 	

Additional guidance on recommended thresholds for the potential suitability measures is summarized in Appendix C.

Determining Optimal Capacity

The appropriate amount of Park and Ride capacity will vary across the region and should be right-sized to efficiently serve the needs of customers whilst meeting agency objectives.

- 12. The correct level of Park and Ride supply will be determined by a full understanding of the local market, the demand for accessing the transit network by different modes of transportation, and how these relate to meeting TransLink's strategic goals, including cost-recovery objectives.**

The optimal level of Park and Ride parking capacity can be determined using the following steps.

Step 1: Measure or Estimate Demand – Use demonstrated and/or estimated demand for Park and Ride parking spaces to quantify demand for new or added Park and Ride capacity. If this measure is at or below existing capacities, no expansion (for existing facilities) should be considered. The financial feasibility of constructing new or maintaining any existing Park and Ride capacities should be assessed based on steps 2 and 3 below.

- At new locations without existing Park and Ride:
 - o Regional modeling data to estimate potential demand at new locations or any locations that do not currently have Park and Ride parking
- At existing Park and Rides:
 - o Average peak occupancy of existing parking capacity, at 1pm Tuesdays – Thursdays
 - o Wait lists for permits (a key measure of latent demand)

Step 2: Estimate Cost – Use estimated per-space cost to construct, maintain and operate, or lease new Park and Ride parking to quantify cost-recovery needs for any new parking provided.

- Determine the sum of all one-time cost measures that are relevant for viable capacity development or expansion options.
 - o The per-space cost of acquiring any land necessary to provide the added capacity
 - o Average per-space surface-lot construction cost, using local benchmarks and/or systemwide averages
- Determine the sum of all ongoing cost measures relevant for viable capacity development or expansion options.
 - o The per-space cost of leasing any land necessary to provide the added capacity
 - o Estimated per-space operations and maintenance costs
 - o Per-space lease costs, where there is an option to lease off-site parking spaces for Park and Ride

Step 3: Project Revenue – Use demonstrated and/or estimated fare and parking-fee revenue from each new Park and Ride space to quantify the potential cost-recovery schedule for any new parking provided.

- At new locations without existing Park and Ride:
 - o Use systemwide measures for fare and parking revenue estimates
- At existing Park and Rides:
 - o Fare revenue from Park and Ride parking users, systemwide and/or for each Park and Ride location

- Average occupancy of parked vehicles, systemwide and/or for each Park and Ride location
- Average fare/rider, systemwide and/or for each Park and Ride location
- o Parking-fee revenue, per peak-hour-occupied parking space, systemwide and for each Park and Ride location

Step 4: Incorporate Suitability Implications – Use the Park and Ride suitability evaluation framework to determine the following upper limit on the location’s optimal supply level, as follows:

- Low suitability = No new supply or expansion of existing supply.
- Medium/high suitability = Consider new supply or expansion of existing supply. Expansion is limited by how much surface parking can be added, with all associated costs for the new spaces offset by new/increased fare and parking-fee revenue within a period of 10-20 years. Given the very high costs of new structured parking and the low resilience of these structures to changing demand, land use, and technologies, structured parking will not be considered as a method of Park and Ride expansion.

Step 5: Evaluate the Cost Recovery Period – Consider the projected revenue from the new or added capacity (per Step 3), which must be sufficient to fully offset the total cost (not including land acquisition costs) of the new or added parking (based on Step 2) within a period of 10-20 years, including all ongoing operations and maintenance or lease costs over that time.





ADAPTING PARK AND RIDE FOR THE FUTURE

Redevelopment of Existing Park and Ride Facilities

Park and Ride improves access to the transit network where sustainable modes of transportation are not available or practical. As land uses change and mobility options improve, Park and Ride facilities may no longer be necessary or appropriate. In such cases, existing Park and Ride facilities should be redeveloped into other uses. Depending on the location, alternative uses could include improved access for sustainable modes of transportation and shared mobility or transit-oriented development.

13. TransLink will support retaining Park and Ride where it represents the highest and best use of the land or it is a near-term measure to support future land development.

- As conditions change, the suitability assessment can be repeated over time to evaluate whether the location of an existing facility is still appropriate for a Park and Ride or whether redevelopment could be more beneficial.
- When redevelopment is considered, an analysis of the highest and best use should be conducted to determine whether the revenue and benefit generated from the Park and Ride is greater than the revenue and benefit generated from a transit-oriented development or a transit-oriented development with some amount of replacement parking.
- Highest and best use can be determined using the following steps:
 - o Estimate the potential commercial square footage and/or residential units in a viable potential development on the site.
 - o Estimate the potential land purchase price and annual lease revenue based on recent comparable developments.
 - o Estimate the potential fare revenue from residents and workers employed at the potential development (based on mode shares of comparable adjacent developments, or a range of potential trip capture rates).
 - o Consider other policy objectives.
 - o Determine whether the estimated annualized revenue from the existing Park and Ride (calculated in Step 3 on page 10) is greater than a potential viable transit-oriented development (TOD) project.
 - If yes, consider retaining the Park and Ride at the target site.
 - If no, consider proceeding with a TOD at the target site.
 - o If an existing Park and Ride is redeveloped, one-to-one parking replacement will not be required to enable flexibility and right-sizing according to the level of demand at the time of redevelopment.

- o If a need to retain Park and Ride spaces at the site has been identified through the suitability assessment, determine whether some amount of Park and Ride spaces could be added to the TOD project to maximize revenue and station/exchange access. Incorporating Park and Ride into TOD developments has different impacts on TransLink revenue, depending on which party is responsible for construction and ongoing management and revenue:
 - TOD developer builds parking, TransLink manages = Largest reduction in land lease/sale revenue (dependent on number of spaces, impact to development size), increased parking revenue (compared to no onsite commuter parking).
 - TransLink builds parking, TransLink manages = Moderate reduction in land lease/sale revenue (dependent on number of spaces, impact to development size), increased parking revenue (compared to no onsite commuter parking).
 - Developer builds parking, developer manages = Lowest reduction in land lease/sale revenue (dependent on number of spaces, impact to development size), no parking revenue for TransLink.

Future of Park and Ride

Global trends in transportation include many new disruptors to conventional transportation systems, including Park and Ride. Disruptive technologies and services include shared and emerging mobility, mobile applications, open data, and mobility as a service. They are challenging long-standing assumptions about parking revenue, the role of the private vehicle, and the definition of transit. The impacts on transit ridership vary, and identifying beneficial partnerships can be challenging.

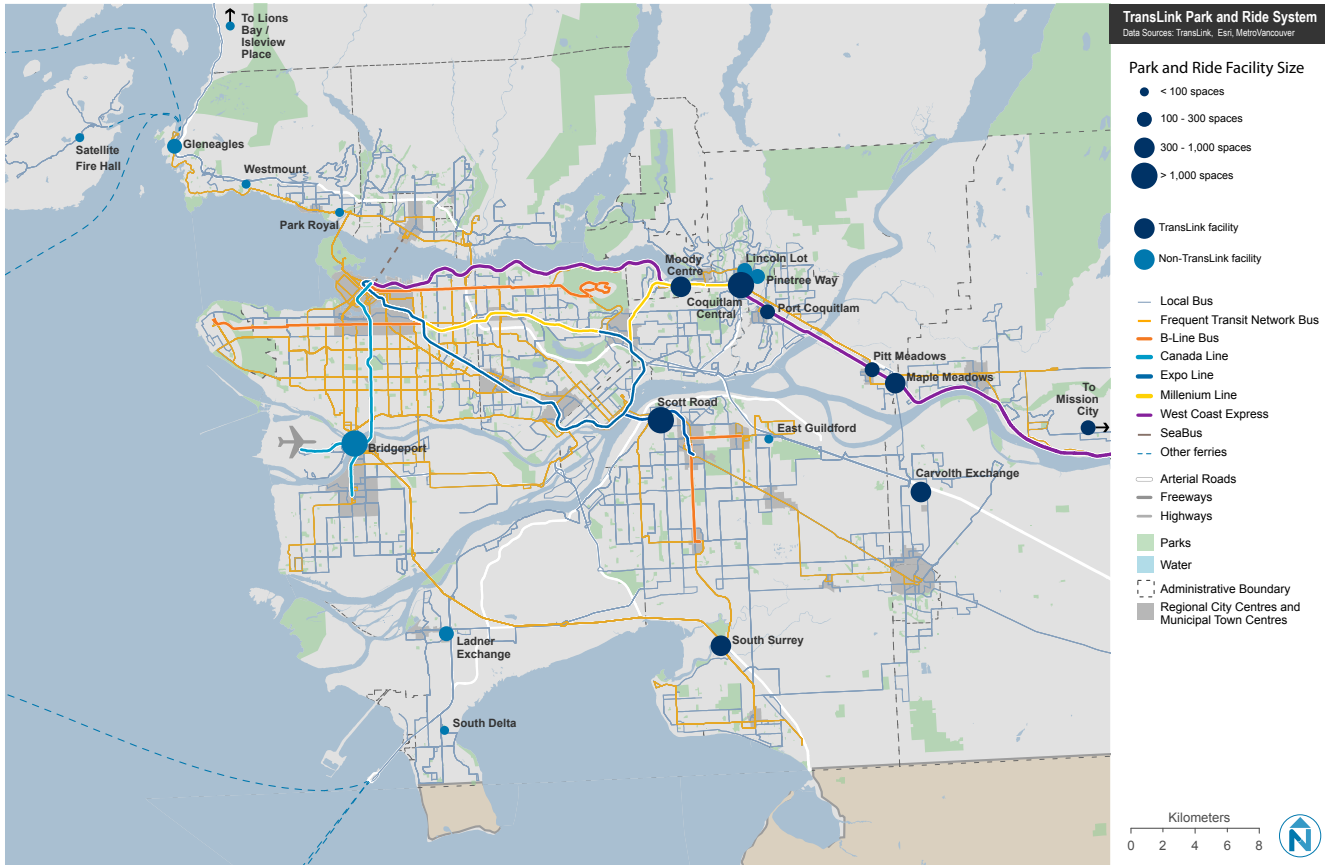
14. TransLink will adapt Park and Ride locations to respond to changing needs.

- The emerging disruption can be leveraged through assets under TransLink’s control, including parking, station access options, and real estate. It is also important to plan for a streamlined user experience and provide high-quality open data and technology standards to facilitate innovation. Seeking new forms of collaboration is key, especially in areas that are not suitable for fixed-route transit. The evaluation of partnership opportunities should consider various factors, such as the level of demand, the cost of investment, and any potential subsidies.
- There is a high degree of uncertainty about the future of transportation and transit. The adoption of automated vehicles is expected to accelerate current trends. There is less uncertainty about parking since the demand for off-street parking is anticipated to continue to decline. In contrast, the demand for curbside parking is rapidly increasing, leading to growing competition for space.
- Electric vehicles are becoming more common, leading to increased demand for charging stations. Opportunities to provide electric vehicle charging infrastructure at Park and Ride locations may be explored.

- Traditional Park and Rides remain important, but the options to access transit will continue to diversify as the mode share of non-driving options increases. Park and Ride will continue to be a key component of the regional transportation system, but the number of Park and Ride locations is expected to decline. The facilities are anticipated to become smaller with more flexible parking options. More Park and Ride facilities are expected to more quickly evolve towards a mobility hub or a transit-oriented development.
- As the mobility landscape is evolving rapidly, it is important for the regional transportation system to be flexible and able to adapt to new conditions and customer needs. New and emerging mobility options, such as ride-hailing and shared micromobility, can enable convenient access to transit without the need for a personal motor vehicle. Such changes are expected to reduce the need for Park and Ride and increase the need for other services, such as parking spaces for car-sharing, pick-up and drop-off zones for ride-hailing, charging for electric vehicles, and parking facilities for bicycles and shared micromobility devices. The management of existing Park and Ride facilities and the planning of new facilities should ensure or support the ability to flexibly transition the facilities to new uses in the future.



APPENDIX A – REGIONAL PARK AND RIDE FACILITIES (BY OWNERSHIP AND CAPACITY)



APPENDIX B – PARK AND RIDE POLICY



PARK AND RIDE POLICY ENTERPRISE POLICY

Issued By	Strategic Planning and Policy
Approved By:	Board of Directors
Meeting Date:	October 24, 2012
Corporate Secretary Signature:	Original Signed by Gigi Chen-Kuo

1. PURPOSE

This policy statement outlines TransLink's approach to existing and future Park and Ride facilities in Metro Vancouver. The policy brings a consistent approach to Park and Ride management and establishes clear planning principles to guide decision-making.

2. POLICY

Park and Ride is an important form of accessing the transit network and can improve options for customers that cannot effectively or efficiently use other modes to access transit.

1. Park and Ride is an important asset and TransLink will monitor and manage Park and Ride facilities to achieve the following:
 - Greater equity in the regional transportation system;
 - Cost recovery to contribute to the cost of operations and construction of Park and Ride facilities;
 - Revenue generation;
 - Improved efficiency of the regional transportation system;
 - Successful opportunities to realize the potential for land development to become more transit supportive; and
 - Support for major projects to maximize the return on investment.
2. Decisions regarding pricing, supply, and management will be context sensitive to take account of the local market characteristics. This includes a consideration of: location; type and frequency of transit service; accessibility to the transit network; utilization patterns of the facility; and, future uses of the land and surrounding lands.

Supply

3. TransLink recognizes there are opportunities to expand or reduce existing Park and Ride facilities and provide new Park and Ride facilities in the region in order to meet the agency's strategic goals.





4. Park and Ride will only be provided where it is cost effective and can provide efficient access to the transit network.

The level of motor vehicle parking supply and location of Park and Ride should positively support TransLink's goals and objectives and represent the highest and best use of land. TransLink will take an overview of the whole transportation system when identifying opportunities to enable the correct level of supply to be delivered. This supply can be met either by: TransLink; through partnerships; or, by a third party.

Pricing

5. All TransLink-controlled Park and Ride facilities will adopt variable paid parking. Variable pricing will be implemented to: ensure revenue generation to contribute to costs; encourage efficient travel; provide incentives for sustainable travel behaviour; and, be convenient and simple for customers to understand.

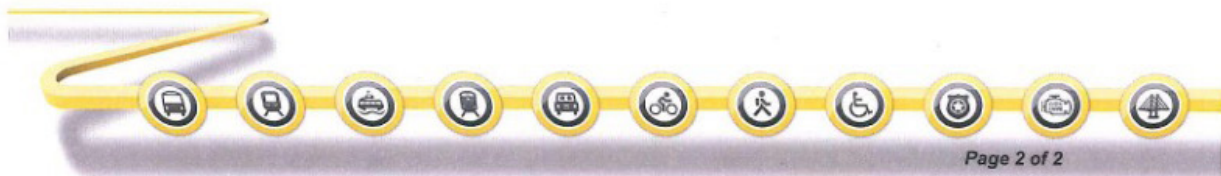
Management

6. TransLink will adopt and follow a design approach for Park and Ride facilities that is consistent with the Bus Infrastructure Design Guidelines, the Transit Passenger Facility Design Guidelines, and relevant Municipal design guidelines.
7. TransLink will monitor the application of the policy across the Park and Ride network and collect appropriate data to inform the ongoing delivery of the policy.

3. APPLICATION

This policy applies to all Park and Ride facilities operated by, or in partnership with, TransLink. Where TransLink leases land it will work with the relevant landowner to deliver elements of the policy where feasible.

This policy is supported by a companion *Policy Guidelines* document which provides further information on the Park and Ride policy.



APPENDIX C – RECOMMENDED THRESHOLDS FOR PARK AND RIDE SUITABILITY MEASURES

In order to establish the below recommended thresholds for the identified suitability measures, an analysis of both industry best practices and existing conditions at rapid transit stations across TransLink’s system were conducted.

Suitability Measure	Recommended Minimum for a subject location	Recommended Maximum for a subject location
Estimated ridership increase	Variable (based on catchment area)	
Estimated VKT reduction	Variable	
Population density within driveshed	At least 4 residents/hectare	
Population density within walkshed		No more than 40 residents/hectare
Number of commute trips to key regional employment centres with good transit access	Variable (based on employment centre size)	
Auto mode share to key regional employment centres with good transit access	Variable (based on local mode share)	
Type of transit service ¹	At least Peak-Only/Basic	Rapid
Distance from key regional employment centres	At least 10 km	
Number of connecting services to a bus exchange	At least 3 (including some regional connecting services)	
Number of connecting services to a rapid transit station	At least 1	7 or more
Intersection density	At least 0.2 per hectare	No more than 0.6 per hectare
Bike network connectivity	Low to moderately bikeable environments represent increased suitability for a Park and Ride.	
Highway access	0 km	Within 2 km
Station/exchange access mode share	Variable (based on local mode share)	
Land availability	More land availability represents increased suitability for a Park and Ride.	
Land value	Lower land values represent increased suitability for a Park and Ride.	
Partnership opportunities	Opportunities (e.g. leased access to private parking facilities) that advance TransLink’s strategic interests represent increased suitability for a Park and Ride.	
Regional Growth Strategy Context	<p>Within the urban containment boundary and outside a focused growth area² represents increased suitability for a Park and Ride.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Metropolitan Core/Surrey Metro Centre: New Park and Ride not recommended • Regional City Centre: New Park and Ride not recommended • Municipal Town Centre: New Park and Ride may be considered • Frequent Transit Development Area: New Park and Ride may be considered 	
Local land use context	Existing or planned lower density development and limited land use mix represent increased suitability for a Park and Ride.	
Known development interest	Low to moderate levels of development interest represent increased suitability for a Park and Ride. ³	

1. Per TransLink’s Transit Service Guidelines.
2. Growth areas identified per the Regional Growth Strategy and as may be amended from time to time.
3. Park and Ride at locations with moderate levels of development interest may represent the best temporary use of a site preserved as a land bank for future transit-oriented development.

TO: Board of Directors

FROM: Geoff Cross, VP, Transportation Planning & Policy

DATE: October 22, 2021

SUBJECT: Independent Transit Service Application – BCAA Shuttle

PROPOSED RESOLUTION

That the TransLink Board of Directors determine that the proposed *BCAA Shuttle* would not be an Independent Transit Service under Section 5 of the *South Coast British Columbia Transportation Authority Act*.

EXECUTIVE SUMMARY

A review of the proposed *BCAA Shuttle* indicates that it is not defined as an Independent Transit Service (ITS) since its primary purpose is research, not general mobility. Management recommends that the Board determine that the proposed *BCAA Shuttle* would not be an Independent Transit Service.

PURPOSE

The purpose of this report is to seek a Board decision that the proposed *BCAA Shuttle* is not considered an Independent Transit Service (ITS) and therefore does not require TransLink approval to operate.

BACKGROUND

South Coast British Columbia Transportation Authority Act

Under Section 5 of the *Act*, TransLink's Board of Directors is authorized to determine whether or not a service should be considered an Independent Transit Service. TransLink's [Independent Transit Service Policy](#) – approved by the Board in December 2012 – provides direction on the process, a definition of ITS, evaluation criteria, and standard terms & conditions required for approval. As outlined in the *Act* and the *Policy*, TransLink may grant approval for an ITS to operate, provided it does not negatively impact the effectiveness or financial viability of the regional transportation system. The ITS policy includes definitional criteria used to determine whether a service should be considered an ITS.

DISCUSSION

Service Summary

UBC Research in partnership with BCAA is planning on an EasyMile EZ10 autonomous shuttle that could start as early as winter 2022. The proposed *BCAA Shuttle* would be an autonomous low-speed shuttle/bus operating on two routes on the University of British Columbia (UBC) campus. Route 1 would follow a pedestrian pathway through the Varsity Fields between Thunderbird Boulevard and W 16th Avenue. Route 1 is not a public road nor open to vehicle traffic. Route 2 would follow a loop of approximately 2.2km in length on East Mall between University Boulevard and Stadium Street. There would tentatively be a total of eight stops at UBC Bookstore, Hospital Lane, Brimacombe Building, Thunderbird Boulevard intersection, and north of Stadium Road intersection.

The shuttle would operate as a 12-month pilot from Monday to Friday between 8 am and 6 pm with an estimated frequency of 12-18 minutes. There would be no charge to passengers. The service would not need to access any TransLink infrastructure. The autonomous low-speed vehicles would be accessible and have an occupancy of six seated passengers and one standing operator. The partners in this project include EasyMile (technology provider), UBC (research), Rogers Telecommunications (wireless connectivity and research) and Transportation Canada (funding).

In order to take place, this AV shuttle pilot would require an amendment/exemption to the Province of BC *Motor Vehicle Act*. A Cabinet decision is expected in November 2021. BCAA approached TransLink through the TransLink Tomorrow/New Mobility team to request support on pilot project coordination and in-kind staff time for monitoring and evaluation of the potential impacts to road safety, GHG reduction, accessibility, and other regional goals and objectives outlined in the 30-year vision Transport2050.

ITS Classification and Evaluation

The first step in the review of an ITS application is to determine if the service fits the definition of an ITS (Table 1). A service is defined as an ITS only if all the definitional criteria are fulfilled.

Table 1. ITS Definition and Determination

Definitional Criteria	Defined as ITS if:	BCAA Shuttle:
Service is either bus or rail transportation	Yes	Yes
Provided primarily within the transportation service region	Yes	Yes
Provided by a person or municipality other than the authority or its subsidiaries or contractors	Yes	Yes
Does not meet any of the following definitions: carpool vehicle, passenger transportation pool vehicle (e.g. employer-sponsored carpool/vanpool), interregional bus (connecting outside service area), passenger directed vehicle (e.g. taxis), school bus, emergency vehicle	Yes	Yes
The primary purpose of the service is to provide general mobility	Yes	No

The *BCAA Shuttle* fulfills the first four definitional criteria but not the fifth since the primary purpose of the service is research to gain new mobility insights on autonomous vehicles in mixed traffic, not transit service for general mobility. As a result, the *BCAA Shuttle* is not considered an Independent Transit Service per the criteria outlined in Section 2 of the ITS policy. If the purpose of the shuttle shifts to providing general mobility in the future, it would then meet the definition of an ITS.

If a service is considered an ITS, the second step of the review involves an evaluation of the impact on the effectiveness of the regional transportation system. Since the *BCAA Shuttle* is not considered an ITS, TransLink does not have the authority to proceed with the evaluation.

Future Implications

In the past, only services defined as an ITS have been brought to the Board for a decision. Although staff's assessment is that the *BCAA Shuttle* does not meet the definition of an ITS, the rationale for bringing this report to the Board is that this application involves autonomous vehicles and future ITS applications involving autonomous vehicles are expected. Emerging technology and services, including autonomous vehicles and on-demand services, are challenging the definitions of conventional transportation.

TransLink recognizes the benefits to this research and will be interested to see the results of this pilot which are expected to be available in 2022.

RECOMMENDATION

Management recommends that the Board determine that the proposed *BCAA Shuttle* would not be an Independent Transit Service under Section 5 of the *South Coast British Columbia Transportation Authority Act* and so does not require TransLink approval to operate.

TO: Board of Directors

FROM: Geoff Cross, Vice President, Transportation Planning and Policy

DATE: November 16, 2021

SUBJECT: Extension of Bowen Island Community Shuttle Service Contract

PROPOSED RESOLUTION:

That the TransLink Board of Directors authorize Management to negotiate and execute a one-year service contract extension with First Transit to operate community shuttle services on Bowen Island from January 1, 2022 to December 31, 2022.

EXECUTIVE SUMMARY

Management is seeking a one-year service contract extension with First Transit to operate the Bowen Island community shuttle bus service.

This proposed extension to December 31, 2022 is to provide sufficient time for the negotiation and award of a new contract with the successful proponent of the Bowen Island Community Shuttle RFP issued on June 30, 2021.

PURPOSE

Management is seeking Board approval for a one-year service contract extension with First Transit to operate the community bus shuttle service on Bowen Island in 2022.

BACKGROUND

On November 28, 2016, TransLink entered into a service operating contract with First Transit to operate Community Shuttle bus services on Bowen Island (two routes). The term of the agreement ran from January 1, 2016 to December 31, 2019 with options to extend each contract up to a further two additional years. At the end of 2019, TransLink exercised the option and the contract to operate community shuttle bus service on Bowen Island was extended to the end of 2021. On June 30, 2021 TransLink staff issued a Request For Proposals for the operation of community shuttle services on Bowen Island (the "RFP").

DISCUSSION

The Bowen Island Community Shuttle Services RFP closed on August 15, 2021 and submissions were received.

To allow for sufficient time to complete the remainder of the evaluation process, negotiations and prepare an award recommendation to the Board of Directors, Management is requesting to extend First Transit's existing contract for community bus shuttle service operations on Bowen Island by one year, to December 31, 2022.

The request for a one-year contract extension is a contingency in the event of unexpected delays in the process. It is anticipated that Management will seek Board approval of the recommended proponent and award of the new contract in June 2022.

Customer Impact

This contract extension is required to ensure service continuity for existing Bowen Island Community Shuttle services and customers through 2022 while the procurement process for the RFP progresses and concludes, including sufficient time for a seamless transition in the event a different service operator is selected.

Financial Impact

If this recommendation is approved, TransLink will be working closely with the service provider to ensure that the final budget amount is consistent with current 2022 operating budget projections for CMBC shuttle service operations.

TO: Board of Directors

FROM: Kevin Quinn, Chief Executive Officer

DATE: November 25, 2021

SUBJECT: Public Delegations at the September 23, 2021 Board of Directors Meeting

EXECUTIVE SUMMARY

The Board received four public delegations at its September 23, 2021 Board meeting and one written submission.

On September 23, 2021, the Board received four public delegations at its September 23, 2021 public Board meeting on the following topics:

- **Lifetime Bus Passes for HandyDART Retirees**
 - Two delegates spoke to the Board to request that TransLink provides lifetime bus passes for retired HandyDART employees.
 - The Chair noted the Board's appreciation for their years of service and requested that Management follow up after the meeting. Management responded in writing to the two delegates and confirmed that lifetime bus passes for respective retired HandyDART employees would be a benefit provided by their employer and recommended that the individuals follow up with their employer and/or union with their request.
- **FCEB Pilot Project Request**
 - A public delegate spoke to the Board on zero emission vehicles in TransLink's fleet and suggested hydro refuelling stations with an on-site electrolyser at a bus depot through a pilot project.
 - Management followed up in writing to share information about TransLink's commitment to reduce its greenhouse gas emissions by 80% by 2050. To further this goal, TransLink has examined a variety of technology solutions, including the use of battery-electric technology and fuel-cell technology for their operations. Although TransLink is not considering a fuel cell pilot at this time, TransLink is replacing diesel and diesel-hybrid buses at end of life with battery-electric buses.
- **Bus Trips and Bus Stop Balancing Program**
 - One delegate requested information about the number of cancellation of bus trips each day on certain bus routes, and also requested that TransLink cancel the bus stop balancing program because of impacts on those reliant on transit.
- **Surrey Langley SkyTrain Timeline**
 - The Board received a written submission about the Surrey Langley SkyTrain project and timing for delivery of the project.
 - Management responded to the written submission and provided information about the expected timeline for the project, including what is known about the estimated completion date now that it is being delivered by the Provincial government in one stage to Langley City. Details were also shared about the benefits this project will bring to Surrey and Langley for decades.

TO: Board of Directors

FROM: Jeffrey Busby, Vice President, Engineering

DATE: November 11, 2021

SUBJECT: Pattullo Bridge Condition Monitoring Report

EXECUTIVE SUMMARY

This report provides an update on condition monitoring activities on the Pattullo Bridge. TransLink continues to closely monitor and inspect the condition of the Bridge and take corrective action where appropriate. Recent and on-going activities include:

- *Condition Inspection* by Mott MacDonald Canada Limited;
- *Railing Inspection and Repairs* by Mott MacDonald Canada Ltd., and Mainroad Contracting Ltd;
- *Deck Condition Monitoring and Repairs* by Mainroad Contracting Ltd. and WSP;
- *Winter Monitoring Survey* by Northwest Hydraulic Consultants; and
- *Coordination with Pattullo Bridge Replacement Project.*

PURPOSE

This Report is a recurring status report that provides an information update on condition monitoring activities on the Pattullo Bridge. The previous report was issued in August 2021.

BACKGROUND

The Pattullo Bridge is 83 years old. Most of the structural components have passed the predicted design life, and some are reaching the end of their useful life. Temperature fluctuation, rainfall, wind, river action, live traffic loads and the aging of the steel and concrete components all contribute to the condition of the bridge. The Province of British Columbia is leading the Pattullo Bridge Replacement Project, which will construct a new bridge as well as decommission the existing bridge.

With the responsibility for the safety and operations of the existing bridge, TransLink monitors the condition of the structure closely through conducting regular inspections and consultations with experienced bridge engineers. Management then performs the necessary maintenance and repairs in response to the inspection findings.

DISCUSSION

Recent and on-going inspection activities are listed in Table 1.

Table 1: August 2021 to October 2021 Pattullo Bridge Ongoing Inspections and Monitoring

REFERENCE	ACTIVITY	CONSULTANTS / PARTNERS	STATUS
1	Condition Inspection	Mott MacDonald – design consultant	On-Foot Inspection – completed in July 2021 Snooper inspection to be scheduled for Q4 2021 (subject to presence of birds)
2	Railing Inspection and Repairs	Mott MacDonald – design consultant Mainroad Contracting - bridge operations and maintenance contractor	Inspection completed in July 2021
3	Deck Condition Monitoring and Repairs	Mainroad Contracting WSP – deck consultant	Monthly deck monitoring – ongoing Soffit inspection – Q4 2021 (subject to presence of birds) Pothole repairs – to be scheduled
4	Freshet Monitoring Survey	Northwest Hydraulic Consultants	Monthly monitoring – ongoing Freshet Survey – completed in June 2021
5	Pattullo Bridge Replacement Project	Province of British Columbia	Forecast In Service – 2024

1. Condition Inspection

Annually, TransLink retains the services of Mott Macdonald (structural consultants) to conduct both a visual and snooper inspection of the bridge. The 2021 on-foot inspection was conducted on July 21, 2021 and the report summarizing the findings and recommendations of the inspection was provided to TransLink in Q3 2021. Based on the inspection, Mott has not identified any components requiring near-term repairs/rehabilitation. Given that the Bridge will be decommissioned following the opening of the Pattullo Replacement Bridge, and TransLink’s objective is to keep the bridge operational, rather than long-term asset preservation, Mott recommends that only deteriorated components that pose safety hazards or compromises the bridge’s structural integrity should be repaired.

In addition to the on-foot inspection, a close-proximity inspection of structural elements below the bridge deck is also conducted annually with a snooper truck. Inspection will be completed at night to minimize traffic impacts.

Originally, the snooper inspection was scheduled to occur in May 2021. However, the work has been deferred due to the presence of peregrine falcons, which are protected under the *Migratory Birds Convention Act*, nesting under the bridge. Follow-up surveys have been conducted monthly since the

falcons were initially detected at the end of April, but as of the end of September, the falcons were still present. Follow-up surveys will continue to be conducted. The annual snooper inspection will be scheduled once the birds have left the bridge. Subject to the findings of the survey, the snooper inspection work is anticipated for Q4 2021.

2. Railing Inspection and Repairs

The railings will continue to deteriorate over the remaining service life of the Bridge. To ensure safety, TransLink continues to monitor and repair or replace railing posts as needed. As the bridge will be replaced, only railings posing safety concerns to pedestrians, cyclists, and vehicles either through loose or broken connections, are considered a priority for repair.

The 2021 railing inspection was completed by Mott MacDonald in July 2021. A report presenting the findings of the inspection as well as a list of repairs was submitted to TransLink in September 2021. Based on Mott's inspection, a total of 10 posts and 69 railing connections require repairs. Compared to 2020, the progression of deterioration has remained relatively stable with fewer posts and connections requiring repairs than previous years. For all other railings, Mott recommends that TransLink continue to monitor the progression of deterioration until the bridge is no longer operational.

3. Deck Condition Monitoring and Repairs

The reinforced concrete deck of the Pattullo Bridge is in an active and advanced state of deterioration, primarily due to corrosion of the reinforcing steel. While repairs to the north portion of the deck between Pier 0 and Pier 9 were completed in the summer of 2016, the risk of pothole formation still exists, particularly for the south approach of the Bridge (Pier 9 to Pier 29).

To ensure the deck remains functional and safe for operations, deck experts from WSP conduct monthly walk-through inspections from the deck, ground and catwalk levels. In the recent surveys, WSP has identified several potholes in its initial stages of formation. While no significant deck repairs requiring full closure of the Bridge are anticipated, Mainroad has been directed to undertake the repairs with overnight directional closures of the bridge. The repairs are currently being scheduled and are expected to occur in Q4 2021.

In addition to the top surface of the deck, extensive corrosion-related damage is also occurring to the bottom surface (soffit). Debris netting is currently in place to protect the public and other infrastructure, including the railway tracks, from concrete falling from the deck soffit. WSP will continue to monitor the condition of the deck soffit. Once the peregrine falcons are no longer observed, a close-proximity visual inspection will be conducted on the main span using a snooper truck at night (see also Item 1).

4. Freshet Monitoring Survey

The Pattullo Bridge is situated in the narrowest part of the river, which experiences large tidal fluctuations. This elevates scour and erosion risks. Changing river hydraulics are monitored through bi-annual surveys conducted by Northwest Hydraulic Consultants Ltd (NHC).

The 2021 freshet monitoring survey was undertaken from June 14-15, 2021. The key findings of the freshet monitoring survey, as they are relevant to the existing bridge, are as follows:

- Launching (displacement) of the scour protection on the north-east side of Pier 4 was noted. Additional assessment to review the capacity of the remaining riprap to protect from scour was

undertaken by NHC. Based on NHC's review, unless further displacement of the riprap occurs, the existing riprap apron will continue to provide protection until a threshold scour event, defined as a 10 metre drop in the riverbed elevation, occurs. For context, the bed elevation lower by about 1.5m during the June 2021 survey. If further displacement or the threshold scour event occurs, then further assessment should be undertaken to determine if immediate remedial measures are required.

- Possible launching of riprap material at Pier 5 may have occurred. However, bed level changes in the area appear to be minimal and is not of immediate concern.
- Bed levels at Pier 6 were below the minimum historic envelope previously seen around the pier. However, based on NHC's assessment, there are no immediate concerns; NHC recommends that the pier be monitored closely in future surveys.

Due to in-river works required for the Pattullo Bridge Replacement Project and improvements to the CN Rail Bridge, NHC has conducted monthly bathymetric surveys since February 2019 in the vicinity of the existing bridge and will continue to closely monitor the river hydraulics throughout construction of the Pattullo Replacement Bridge. Any issues of concern, including any substantive changes to the riverbed conditions, will be reported to TransLink.

5. Coordination with Pattullo Bridge Replacement Project

Efforts to identify a long-term solution for the Pattullo Bridge have been underway since 2006. While TransLink led the project through the conceptual development and planning phases, the Province is delivering the Pattullo Bridge Replacement Project. Management continues to coordinate with the Province as needed for the Replacement Project.

In Q1 2020, the Fraser Crossing Partners (FCP) consortium was selected by the Province to design and construct the new Pattullo Bridge. TransLink staff meet regularly with Fraser Crossing Partners and the Province to provide support and coordination.

Customer Impact

To minimize impacts on the public, all activities requiring lane and bridge closures are generally scheduled between 10:00 pm and 5:00 am, when volumes on the bridge are lowest. A robust communications plan has been developed to utilize all available channels in support of any closures that impact the public. Inquiries related to the Pattullo Bridge Replacement Project are directed to the Province's 24hr project information line and the Province's project website.

Work to date on the Pattullo Bridge Replacement Project has had minimal impacts on TransLink's customers. Upcoming work will have various interfaces with SkyTrain infrastructure and the existing Pattullo Bridge. TransLink and BCRTC will continue to work with Fraser Crossing Partners as required to ensure impacts on assets, infrastructure and customers are proactively managed.

Financial Impact

All monitoring, inspection, and repair work is being performed under existing approved operating and capital funds.

TO: Board of Directors

FROM: Jeffrey Busby, Vice President, Engineering

DATE: November 4, 2021

SUBJECT: Surrey Langley SkyTrain Project Update

EXECUTIVE SUMMARY

In January 2020, the Board and the Mayors' Council endorsed a draft business case for a SkyTrain extension along Fraser Highway. Since December 2020, Management is working to transition project delivery to the Province. On July 9, 2021, Prime Minister Trudeau announced \$1.3 billion in federal funding to extend the Expo Line 16-km from the existing terminus to Langley Centre. On October 5, 2021, the Province announced it was delivering the Surrey Langley SkyTrain (SLS) and the project would be delivered in a single 16-kilometre phase to Langley Centre.

PURPOSE

This report is for information and provides an update on the Surrey Langley SkyTrain (SLS) Project.

BACKGROUND

Surrey Langley SkyTrain Project key timeline:

- December 2018 - the Board and Mayors' Council directed Management to develop the Surrey Langley SkyTrain project, and to initiate a planning process to refresh the overall South of Fraser Rapid Transit Plan. A budget of \$30 million was approved for this purpose in January 2019.
- January 2020 - the Board and Mayors' Council endorsed a draft business case and directed Management to submit it to senior government for approval. The draft business case describes the full Surrey to Langley project, and recommends construction in stages consistent within available funding. Stage 1 would extend SkyTrain approximately 7 kilometers from King George to Fleetwood with four new stations at a cost of \$1.63 billion to be delivered using a Design Build Finance procurement model.
- July 2021 - Prime Minister Trudeau announced \$1.3 billion in federal funding to extend the Expo Line 16 kilometres from Surrey City Centre to Langley Centre. The total project cost estimate prepared by the Province is \$3.94 billion.
- October 2021 - the Province announced it was delivering the Surrey Langley SkyTrain (SLS) Project and the Project would be delivered in a single phase to Langley Centre. This decision supersedes the recommendations in the January 2020 business case.

Management is working with provincial staff to support development and implementation of the project. This includes developing technical requirements, funding shares, governance structures, and roles and responsibilities.

DISCUSSION

SLS Project Development Activities

Activities completed since the previous reporting period include finalizing agreements to assign SLS professional service contracts to the Province. Coordination with provincial staff focused on confirming supporting facility requirements, including OMC5, and project governance. Staff continue to meet to develop Supportive Policies Agreements with the City and Township of Langley.

SLS will operate as an extension of the integrated Expo and Millennium Line network and rely on systems, infrastructure, and services that are being modernized during the development and implementation period. Parallel projects being delivered in the Expo and Millennium Line Upgrade Program (EMUP) and the Broadway Subway Project are being coordinated through a recently established Rail Expansion Program Office.

The future work program includes continued technical requirements definition and negotiating a Support Agreement to clarify TransLink's role in design review, testing, commissioning and start up.

Communications

Project related communications and engagement is being led by the Province. TransLink will provide support as appropriate.