

Version: July 23, 2020

July 30, 2020, 9:00AM to 10:30AM

Via Videoconference (live streamed to Mayors' Council YouTube Channel)

Chair:	Mayor Jor	athan X. Coté Vice-Chair: Mayor Jack Froese					
Note that tin afterwards c	Note that times for each agenda item are estimates only. This meeting will be livestreamed and available afterwards on the <u>Mayors' Council's YouTube channel</u> .						
9:00AM	1.	PRELIMINARY MATTERS1.1. Adoption of agenda					
9:05AM	2.	PUBLIC DELEGATES					
9:30AM	3.	REPORT OF TRANSLINK MANAGEMENT 3.1. COVID Response and Recovery Update ORAL					
9:50AM	4.	REPORT OF JOINT FINANCE COMMITTEE 4.1. Improving Travel Times for Bus Customers – Rapid Response Assessment 9					
10:20AM	5.	REPORT OF THE REGIONAL TRANSPORTATION PLANNING COMMITTEE 5.1. Provincial Transportation Projects Update 35					
10:25AM	6.	OTHER BUSINESS 6.1. Next Meeting (via videoconference) – October 1, 2020					
10:30AM	7.	ADJOURN to closed session					

Note that Mayors' Council members and Public Delegates will be participating via Zoom videoconferencing. Zoom connection information sent separately via e-mail.

MEETING OF THE MAYORS' COUNCIL ON REGIONAL TRANSPORTATION DRAFT PUBLIC MEETING MINUTES

Minutes of the Public Meeting of the Mayors' Council on Regional Transportation (Mayors' Council) held Thursday, June 25, 2020 at 9:00 a.m. via videoconference.

PRESENT:

Mayor Jonathan Coté, New Westminster, Chair Mayor Jack Froese, Langley Township, Vice-Chair Chief Ken Baird, Tsawwassen First Nation Mayor Neil Belenkie, Belcarra Mayor Malcolm Brodie, Richmond Mayor Linda Buchanan, North Vancouver City Councillor Craig Cameron, West Vancouver (alternate) Mayor Bill Dingwall, Pitt Meadows Mayor George Harvie, Delta Mayor Mike Hurley, Burnaby Mayor Mike Little, North Vancouver District Mayor Doug McCallum, Surrey Director Jen McCutcheon, Electoral Area A Mayor John McEwen, Anmore Mayor Ron McLaughlin, Lions Bay Mayor Mike Morden, Maple Ridge Councillor Alison Morse, Bowen Island Mayor Richard Stewart, Coquitlam Mayor Rob Vagramov, Port Moody (arrived at 9:06 p.m.) Mayor Val van den Broek, Langley City Mayor Darryl Walker, White Rock Mayor Brad West, Port Coquitlam

REGRETS:

Mayor Kennedy Stewart, Vancouver

ALSO PRESENT:

Michael Buda, Executive Director, Mayors' Council on Regional Transportation Secretariat Christine Dacre, Chief Financial Officer, TransLink Kevin Desmond, Chief Executive Officer, TransLink Daniel Freeman. Senior Manager, Bus Priority Programs, TransLink Eve Hou, Manager, Policy Development, TransLink Sarah Ross, Director, System Planning, TransLink

PREPARATION OF MINUTES:

Carol Lee, Recording Secretary, Mosaic Writing Group

CALL TO ORDER

Chair Jonathan Coté declared that a quorum was present, called the meeting to order at 9:02 a.m. and reviewed the process that will be used for voting during the virtual meeting.

1. PRELIMINARY MATTERS

1.1 Adoption of the Agenda

Draft agenda for the June 25, 2020 Public Meeting of the Mayors' Council on Regional Transportation, version dated June 24, 2020, was provided with the agenda material.

It was MOVED and SECONDED

That the agenda of the June 25, 2020 Public Meeting of the Mayors' Council on Regional Transportation be adopted, as presented.

CARRIED

1.2 Approval of Minutes (May 28, 2020)

Draft minutes of the May 28, 2020 Public Meeting of the Mayors' Council on Regional Transportation was provided with the agenda material.

It was MOVED and SECONDED

That the minutes of the May 28, 2020 Public Meeting of the Mayors' Council on Regional Transportation be adopted, as presented.

CARRIED

2. PUBLIC DELEGATION PRESENTATIONS

The following documents were provided with the agenda material:

- Report titled "Item 2 Public Delegates: names, topics and presentations", dated June 24, 2020
- Report titled "Item 2 Public Delegate Presentations", dated June 25, 2020.

Member Arrived

Mayor Robert Vagramov joined the meeting at 9:06 a.m.

2.1 Joe Kunzler

Mr. Kunzler expressed support for the Transit Police and requested that the Mayors' Council take action to require all transportation network companies (TNCs) utilize electric vehicles exclusively by 2025 and to implement bus lanes to encourage transit ridership. Mr. Kunzler encouraged the Mayors' Council to read the written submission that he provided in advance of the meeting.

3. REPORT OF TRANSLINK MANAGEMENT

3.1 CEO Report on Transit Service to Support BC Restart

Presentation titled "TransLink Management Report", dated June 25, 2020, was provided with the agenda material.

Kevin Desmond, Chief Executive Officer, TransLink, led the review of the presentation titled "TransLink Management Report" and highlighted:

- "Wearing is Caring" campaign to encourage customers to wear a face covering or mask when travelling by transit was launched on June 15, 2020
 - \circ $\;$ The effectiveness of the campaign will continue to be evaluated
- Update on the Safe Operating Action Plan (SOAP)
- Launch of new Open Call for Innovation, inviting the public to provide ideas on how TransLink can improve health, safety and public trust as it welcomes customers back to the public transit system in the context of COVID-19
- Ridership:
 - Ridership is returning gradually
 - Challenges with predicting a return to pre-COVID-19 ridership levels

• Across the system, ridership has returned more in off-peak hours and weekends than during the peak

Discussion ensued on:

- TransLink will work to raise public awareness of the benefits of wearing a mask and appeal to the its willingness to do what is best for the collective:
 - If it becomes necessary, TransLink will work with public health officials to mandate the wearing of masks while travelling by transit
- Whether the increase in ridership during non-peak hours indicates a change in the number of people electing to continue to work from home.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation receive this report for information.

CARRIED

4. REPORT OF THE JOINT FINANCE AND GOVERNANCE COMMITTEE

4.1 COVID-19 Relief and Recovery Funding Strategy

The following documents were provided with the agenda material:

- Report titled "Item 4.1 COVID-19 Relief and Recovery Funding Strategy", dated June 11, 2020
- Presentation titled "TransLink Board Revenue Forecasting Update", dated June 11, 2020.

Christine Dacre, Chief Financial Officer, TransLink, led the review of the presentation provided with the agenda material and highlighted:

- Four plausible COVID-19 scenarios that were presented to the Mayors' Council and TransLink Board of Directors in April 2020:
 - Scenario 1 Quick Recovery
 - Scenario 2 Lasting Impacts
 - Scenario 3 Hibernation
 - Scenario 4 Paradigm Shift
- Expected travel demand will be tied to the BC Restart Plan phases
- Mapping of the four plausible scenarios to the potential progressions of the BC Restart Plan
- Fare revenue modeling methodology to develop the forecasts for the 2020–2021 revenue losses
- Range of uncertainty in transit demand within each scenario.

Discussion ensued on:

- Whether there is sufficient flexibility in the bus system to adjust to daily ridership changes
- Discussions with senior governments are ongoing regarding the financial supports required to address TransLink's ongoing fiscal challenges.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation receive this report for information.

CARRIED

5. REPORT OF THE JOINT NEW MOBILITY COMMITTEE

5.1 COVID-19 Impacts on Long-Term Planning

The following documents were provided with the agenda material:

- Report titled "Item 5.1 COVID Impacts on Long Term Planning", dated June 16, 2020
- Presentation titled "The Future of How We Move & Live: COVID-19 Impacts & Opportunities", dated June 25, 2020.

Sarah Ross, Director, System Planning, and Eve Hou, Manager, Policy Development, TransLink, jointly led the review of the presentation provided with the agenda material and highlighted:

- COVID-19 has created public anxiety about physical distancing in public spaces:
 - The need to consider how to address the public's increased concern about being in shared urban environments and especially, while riding public transit
- There are clearly articulated transport and land use objectives for the Metro Vancouver region:
 - Opportunity to accelerate the objectives in the context of COVID-19.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation receive this report for information.

CARRIED

5.2 Opportunities for Reallocating Road Space

The following documents were provided with the agenda material:

- Report titled "Item 5.2 Opportunities for Pandemic-response Regional Roadway Changes", dated June 17, 2020
- Presentation titled "Opportunities for Pandemic-response Regional Roadway Changes", dated June 25, 2020.

Ms. Ross led the review of the presentation provided with the agenda material and highlighted:

- Objective of supporting municipal pandemic-response efforts to advance walking, cycling and public spaces:
 - TransLink provides resources, planning and design expertise and funding for bus speed and reliability
- Reductions in the travel lane capacity of the Major Road Network (MRN) requires TransLink approval
- Comparison of space required for one person utilizing different transportation modes
- Opportunities for bus priority in street changes:
 - Bus stop optimization
 - Bus bulbs and boarding islands
 - Lane designations
 - Regulatory changes
- Opportunities to implement bus priority in the 20 bus corridors where passenger delay most frequently occurs.

Discussion ensued on:

• The anticipated effectiveness of utilizing temporary measures to trial the opportunities to change roadways to provide bus priority

- Request that TransLink engage with local Business Improvement Areas (BIAs) regarding the need to balance increasing pedestrian and cycling space with providing vehicular access to local businesses:
 - The consultation process with each municipality, BIA and road authority will be unique, depending upon the change being proposed
 - Suggestion that TransLink work with municipalities to coordinate data collection on the positive impact to local businesses of increased cycling and walking activity and transit ridership
- Suggestion that reallocation of roads for the pedestrian and cycling use be considered in addition to reducing delays to buses
- The need to ensure that there are initiatives to reduce the impact of congestion on transit
- Suggestion that TransLink focus its efforts on transit priority investments in those municipalities that are willing, to avoid wasting time and financial resources
- Suggestion that all municipalities work with the provincial government and other organizations to engage the community to encourage improvements in transit and goods and services movement to benefit the prosperity of the region
- TransLink is willing to engage with municipalities on smaller initiatives with smaller impacts.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation (Mayors' Council):

- Ask TransLink staff to develop a rapid response plan for quick-win bus priority on the top 20 corridors for passenger delay, including associated operating savings, and estimated implementation costs for consideration at the next meetings of the Mayors' Council and Board of Directors; and
- 2. Receive this report for information.

CARRIED

5.3 Greenhouse Gas (GHG) Emission Targets for Ride-Hailing

The following documents were provided with the agenda material:

- Report titled "Item 5.3 Greenhouse Gas Requirements on Ride-Hailing Vehicles", dated June 18, 2020
- Presentation titled "Greenhouse Gas Requirements on Ride-Hailing Vehicles", dated June 25, 2020.

Ms. Hou led the review of the presentation provided with the agenda material and highlighted:

- Ride-hailing has the potential to contribute an incremental increase in regional greenhouse (GHG) emissions but the provincial regulation of the Transportation Network Services (TNS) industry lacks consideration of GHGs
- Regulatory authority of the Province of BC and municipalities
- Policy basis for taking action on climate change mitigation
- Options to address GHGs from TNS:
 - o Incentives
 - Regulatory requirement
- Pros and cons of the incentives and regulations.

It was MOVED and SECONDED

That the Mayors' Council on Regional Transportation:

- 1. Write a letter to the BC Minister of Transportation and Infrastructure requesting that:
 - a. The regulations governing Transportation Network Services (TNS) be amended to establish greenhouse gas requirements on TNS operators and that these requirements include:
 - i. A future-year emissions reduction and/or zero-emissions target, with interim targets;
 - ii. A requirement that each TNS operator submit an emissions reduction plan outlining the measures to be taken to achieve the targets established; and
 - iii. A requirement to report, at regular intervals, progress towards achieving the established targets;
 - b. Consideration be given for equivalent requirements for the taxi industry; and
 - c. A copy of the letter be sent to the BC Ministry of Energy and Mines in order to encourage creation of new funding programs specifically aimed at supporting shared-use vehicles and gig-economy commercial vehicles to transition to clean energy vehicles;
- 2. Encourage all municipal councils to support Motion B9 "BC Clean Kilometre Act for Ride Hailing fleets" at the Union of BC Municipalities convention in September 2020;
- 3. Forward a copy of this report to Metro Vancouver's Climate Action Committee for consideration of a parallel process through Metro Vancouver's Board of Directors; and
- 4. Receive this report.

CARRIED

6. OTHER BUSINESS

6.1 Next Meeting

The next Public Meeting of the Mayors' Council was scheduled for July 30, 2020 and will be held via videoconference.

7. ADJOURNMENT

There being no further business, the June 25, 2020 Public Meeting of the Mayors' Council on Regional Transportation was adjourned to a Closed Session at 10:46 a.m.

Certified Correct:

Mayor Jonathan X. Coté, Chair

Carol Lee, Recording Secretary Mosaic Writing Group TO:Mayors' Council on Regional TransportationFROM:Gemma Lawrence, Coordinator, Mayors' Council SecretariatDATE:July 9, 2020

SUBJECT: ITEM 2 – Public Delegate Presentations

RECOMMENDATION:

That the Mayors' Council on Regional Transportation receive this report.

PURPOSE:

To introduce the objectives and process for hearing from public delegates.

BACKGROUND:

Public participation at meetings is valued by the Mayors' Council, and 30 minutes is set aside at each open meeting to receive public delegations. The Mayors' Council will only receive public delegations who intend to speak on matters that are within the authority of the Mayors' Council.

Individuals can apply to be a delegate by completing the online <u>Application Form</u> up until 8:00AM, two business days prior to the meeting. In situations where there isn't enough time to hear from everyone wishing to speak, the Mayors' Council encourages written submissions be sent to <u>mayorscouncil@translink.ca</u>.

The webpage for public delegates includes a Protocol for Public Delegates that notes:

- the Mayors' Council Chair will exercise discretion in maintaining a reasonable level of order and decorum;
- delegates and all meeting participants are reminded that different points of view are respected, and discussions are kept above the level of personal confrontation, disruptive behaviour and profanity.

DISCUSSION:

The deadline to apply to speak to the Mayors' Council is 8:00am two days prior to the meeting. At the time of this report, not all prospective speakers will have had a chance to complete applications. Accordingly, the **list of approved speakers, as well as any written submissions or presentations, will be provided <u>on table</u>. Any presentations provided by delegates will also be provided to Mayors' Council members only, on table (up to 10-pages maximum). Each delegation will be given a maximum of <u>three minutes</u> to address the Mayors' Council. As a general rule, there are no questions or discussion between Council and delegates. The policy governing Public Delegates can be <u>found online</u>.**

TO: Mayors' Council on Regional Transportation

FROM: Sarah Ross, Director, System Planning

DATE: July 24, 2020

SUBJECT: Item 4.1 - Improving Travel Times for Bus Customers: Bus Priority Rapid Response Assessment

RECOMMENDATION:

That the Mayors' Council on Regional Transportation:

- 1) Receive the attached report for information
- Request TransLink staff to report back to the Mayors' Council and Board on the implementation status of rapid response bus priority projects, as well as outcomes such as passenger delay and operating cost savings.

PURPOSE:

The purpose of this report is to present an assessment of the near-term opportunities for improving travel times for bus customers. This report was developed by TransLink staff following the request of the Mayors' Council at its last meeting on June 25, 2020.

BACKGROUND:

TransLink's vision is to create Metro Vancouver as a better place to live, through transportation excellence. Our mission is to connect the region and enhance livability by providing a sustainable transportation network, one that is embraced by our communities. Vibrant streets where it is comfortable to be a pedestrian and where local businesses are thriving are a vital part of a livable region and sustainable transportation. Transit, streetscapes designed for walking, and retail or commercial destinations are mutually supportive.

Buses are the workhorse of our transit network and they play a critical role in moving people in Metro Vancouver. Fast and reliable bus service helps advance livability and economic vibrancy in the region by:

- Making transit an attractive travel choice compared to driving
- Improving access, mobility, and equity
- Making efficient and effective use of our limited roadway space and finite natural resources
- Improving efficiency and effectiveness of public funds

DISCUSSION:

Improving travel times for bus customers is critical to both increasing transit ridership and decreasing bus operating costs, as described in the "Bus Delay Due to Congestion" staff report (October 25, 2019) and associated "2019 Bus Speed and Reliability Report". TransLink and cities have begun taking steps to

address bus delay on many of twenty priority corridors identified in that report. The RapidBus program has already delivered large improvements across three of those corridors, and planning work is underway for the next two. Municipalities have also begun advancing an increasing number of smaller-scale bus priority studies and capital projects with support from TransLink's competitive funding programs.

The current moment presents opportunities to accelerate those efforts. Near-term roadway changes have the potential to give local businesses, walking, cycling and transit their best chance during the pandemic and to set the stage for economic recovery, and resilient and liveable cities. On June 25, 2020 the Mayors' Council asked TransLink staff to develop an assessment of near-term bus priority opportunities on the top twenty corridors for passenger delay, including associated costs and savings (report on "Opportunities for Pandemic-response Regional Roadway Changes").

Bus Priority Rapid Response Assessment

TransLink staff have developed a "Bus Priority Rapid Response Assessment: Opportunities for Quickly Improving Travel Times for Bus Customers" – see attached.

The report first illustrates the potential scale of benefits of bus priority among the top 20 corridors for passenger delay. Across those corridors today bus priority lanes currently account for 12-22% of total transit network kilometres depending on the time of day. Extending bus priority lanes to cover most of the top 20 corridors could eliminate 10-15% of all region-wide passenger delay and save the region an estimated \$10 million per year in operating costs.

A more focussed assessment of what is technically possible and appropriate considering local context, identified more specific opportunities for near-term deployment of four distinct types of bus priority:

- 1. Bus priority lanes focussed on locations with 3 travel lanes, outside of retail precincts
- 2. Bus bulbs focussed on locations with all-day curb parking
- Tactical changes (smaller changes such as turn restrictions, turn pockets, transit approach lanes, traffic signal adjustments, and temporary changes) – focussed on locations not suitable for bus lanes or bus bulbs with identified intersection related delay
- 4. Bus stop balancing- focused on locations with high number of closely spaced stops

Dozens of near-term bus priority opportunities have been identified. **TransLink is not proposing removing parking in retail precincts**, recognizing the economic hardships being faced by businesses during this pandemic. These near-term bus priority opportunities in fact include many potential winwins to support transit customers as well as increase space for walking, parking, or other potential street uses such as patios.

Bus customers do stand to benefit and could save up to 5 minutes per trip along a corridor, or 10 minutes per day. If all these bus priority opportunities were realized, they could also generate an estimated \$2M per year in operating savings for the region. At an estimated \$2M in capital costs, these would be cost-effective regional investments that would pay for themselves within one year. Through TransLink's Bus Speed and Reliability municipal funding program, over 20 city-led bus priority projects along these corridors have already been awarded funding and could be implemented in some form in 2020. Specific project scope and timing will be confirmed by the municipality leading it and is subject to

change based on results of engagement and project development.

Working with municipal partners, and engaging with stakeholders

TransLink works closely with municipal and provincial road authority partners in the development of all bus priority initiatives, as the critical levers for bus priority are under local or MOTI control. Municipalities are also frequently best positioned to examine the local trade-offs between users of the roadway needed to develop contextually appropriate solutions. Municipalities also have strong existing relationships with key local stakeholders, such as businesses and residents.

Over the last few months, TransLink staff have worked closely with municipal staff to support locally initiated pandemic street changes for active transportation, and business recovery (patios, loading zones). TransLink has provided technical support as well additional funding through the Bus Speed and Reliability program specifically to enable near-term implementation of bus priority. TransLink and municipal staff have collaborated on the identification of opportunities for bus priority, with a focus on win-win opportunities for transit and businesses.

As specific opportunities identified in this assessment are developed and advanced by the local municipalities, TransLink will support them in engaging with key stakeholders, including business communities. Staff are acutely aware of the precarious situation of many businesses across the region and recognize the need and opportunities to strengthen businesses and transit to ensure a strong recovery. As part of that effort TransLink staff are meeting with a group of Business Improvement Areas in the City of Vancouver on July 17 to discuss their needs and identify opportunities to further support them through street changes and other efforts.

CONCLUSION:

The opportunities for bus priority identified in this report demonstrate the potential for the region to quickly improve travel times for bus customers and improve the transit system's operating efficiency. Actual near-term bus priority projects will still require significant work by municipalities and TransLink to advance to implementation. As part of that effort TransLink staff will continue to work with municipal staff to support technical analysis and project development, confirm funding, and engage with stakeholders and transit customers.

Monitoring is a particularly important aspect of quick-build projects with lower cost temporary materials. As projects are delivered, TransLink will closely monitor outcomes on bus speed and reliability and inform municipalities so they can make timely adjustments. That monitoring can also inform whether pilots should be made permanent.

At the same time, TransLink staff will continue to work with cities and the provincial government to also advance larger, more complex bus priority projects that cannot be addressed in the near-term.

ATTACHMENTS

- 1. PowerPoint Presentation
- 2. July 2020 MC Report Bus Priority Rapid Response Assessment



Improving Travel Times for Bus Customers



Fast and reliable bus service helps advance livability and economic vibrancy in the region by:

- Making transit an attractive travel choice compared to driving
- Improving access, mobility, and equity
- Making efficient and effective use of our limited roadway space and finite natural resources
- Improving efficiency and effectiveness of public funds

Together all the way

TRANS LINK



Together all the way

Specific opportunities for quick deployment of four distinct types of bus priority

- · Bus priority lanes focused on locations with 3 travel lanes, outside of retail precincts. TransLink is not proposing removing parking in retail areas
- · Bus bulbs focused on locations with all-day curb parking
- Tactical changes smaller changes such as turn restrictions, turn pockets, transit approach lanes, traffic signal adjustments, or temporary changes
- Bus stop balancing focused on locations with ٠ high number of closely spaced bus stops



Together all the way



Dozens of near-term bus priority opportunities

Near term bus priority and bus stop optimization opportunities

81 bus network km of potential near-term bus priority



Dozens of near-term bus priority opportunities

- Save customers up to 5 min per trip (10 min per day) on a given corridor
- \$2M / yr in operating cost savings (estimate)
- \$2M in capital costs (estimate)
- 20+ projects already being advanced by cities

Together all the way



TransLink and Municipalities working together to advance projects

- TransLink
 - Identify opportunities
 - Provide funding
 - Partner with municipalities on engagement
 - Monitor benefits and impacts
- Municipalities (& MOTI):
 - Make final decision
 - Implement street changes
 - Typically lead engagement, with TransLink support
 - Monitor benefits and impacts

Together all the way

TRANS LINK

TRANS LINK



Improving Travel Times for Bus Customers

Bus Priority Rapid Response Assessment

July 2020

TransLink

Contents

1.	Potential for Bus Priority	<u>)</u>
1.1.	Importance of bus priority	<u>)</u>
1.2.	Where bus priority matters most (top 20 corridors)2	<u>)</u>
1.3	Current state of bus priority	3
1.4	The potential for bus priority rapid response5	5
2	Bus Priority Rapid Response Assessment	5
2.1	Approach and summary	5
2.2	Bus priority lanes)
2.3	Bus bulbs11	L
2.4	Tactical changes	<u>)</u>
2.5	Bus stop balancing15	5
3	Conclusion and next steps	5

1. Potential for Bus Priority

1.1. Importance of bus priority

Buses are the workhorse of our transit network and they play a critical role in moving people in Metro Vancouver. Bus service has been experiencing a steady and consistent decline in bus speeds, and in 2019 it was estimated that 80% of bus routes were slower compared to five years ago due to the negative effects of congestion and lack of transit priority in critical areas. The incremental cost of delay for buses was estimated at more \$5 million annually (2019 Bus Speed & Reliability report, TransLink). As the region's congestion increases, bus priority measures are needed to ensure that bus service is fast and reliable. Fast and reliable bus service ensures that our transportation network is sustainable, equitable and efficient.

- <u>Fast, reliable service makes transit an attractive travel choice compared to driving</u>. More people choose to use transit when they can count on it to get them where they need to go in a reasonable amount of time.
- <u>Fast, reliable bus service improves access, mobility, and equity.</u> This includes more frequent journeys on buses; better access to goods, services, and participation in civic and social life, and the economy; better access and mobility for all, especially women, seniors and lower income residents who typically rely on transit more.
- <u>Transit is among the most efficient and effective uses of our limited roadway space and finite</u> <u>natural resources.</u> Providing fast, reliable bus service supports goals of managing limited resources and providing the general public with efficient services.
- <u>Fast, reliable service improves efficiency and effectiveness of public funds.</u> With faster and more reliable bus service, TransLink can provide the same level of service with fewer buses and at lower cost or increase the level of service with no additional cost.

1.2. Where bus priority matters most (top 20 corridors)

In November 2019, TransLink released a report that identified and ranked twenty corridors (See Figure 1) that generate the most passenger-hours of delay in Metro Vancouver. These top twenty corridors are in most need of improvements across the region. Reducing travel time delay and variability along these corridors has the highest potential for benefiting customers and reducing operating costs.



Figure 1 - Map of the twenty corridors with the worst delay

1.3 Current state of bus priority

Bus priority lanes are one of the most effective ways to reduce travel time delay and variability for buses. They come in various forms depending on the street context, such as bus only-lanes, business access and transit (BAT) lanes, and HOV lanes. Some bus priority lanes operate during limited hours only, such as peak periods, while other bus priority lanes are effective all day.

Across the twenty corridors with the worst delay, bus priority lanes account for only 22% of the bus network kilometres during peak periods, falling to only 12% during midday and on weekends (see Figure 2 for the location of existing bus priority lanes). This means that along these twenty corridors, buses travel in mixed traffic for majority of the time.



Figure 2 – Map showing the current status of bus priority lanes in the top 20 corridors

Table 1 presents the type and length of existing bus priority lanes across the twenty corridors with the worst delay.

Lane Type	Bus Network Kilometres	% of bus priority lanes in network
Pue Drievitu Leve		
Bus Priority Lane	90	22%
Peak-Only	40	10%
All Day	50	12%
Mixed Traffic	325	78%
Rush Regulations	25	6%

Recent Expansion

In the past two years, the amount of bus priority measures across the region have increased significantly. This includes a range of bus priority projects that have been delivered through TransLink's Bus Speed and Reliability Municipal Funding Program and RapidBus Program.

Nearly one-third of the existing bus priority lanes along the top twenty corridors (26 bus network kilometers) has been delivered within the last year through the RapidBus Program. Several additional

bus priority improvements are in various stages of planning, design, and delivery along those corridors through the RapidBus and Bus Speed and Reliability programs.

1.4 The potential for bus priority rapid response

Metro Vancouver municipalities are mobilizing quickly to make critical changes to public policy and the built environment in response to the current public health and economic emergency. Response to pandemic has included the tactical reallocation of street space to better accommodate active transportation and economic recovery with attention to support local businesses. While street changes are happening quickly to give walking, cycling and businesses their best chance, the impacts to transit must also be considered. Transit will be critical to the economic recovery and needs its best chance to continue to move people efficiently. As such, roadway changes on bus corridors, including the removal of bus lanes or reduction of travel lanes used by buses, need to be carefully considered to not undermine transit and ridership recovery. While street changes are important to support the vibrancy of local businesses, there is also a small window of opportunity to move quickly and give transit its best chance so it can move people efficiently and support local economic recovery.

Fortunately, there are many opportunities to improve travel times for bus customers without requiring major infrastructure upgrades. TransLink's Transit Priority Toolkit (2019) identifies the range of solutions available and sections 2.2 through 2.5 in this report identify bus priority measures that can be implemented quickly. One of these measures are bus priority lanes, which are the most effective solution for improving bus speed and reliability and can be implemented quickly in many locations by reallocating existing road space.

To illustrate the potential for reducing delay along the twenty corridors with the worst delay, a highlevel assessment was undertaken to demonstrate the potential benefits and costs of expanding bus priority lanes on these corridors. In this assessment, bus priority lanes were only considered in technically feasible locations – including corridors with at least two travel lanes per direction, without any major implementation or engineering constraints, and where bus priority lanes can be delivered through road space reallocation. Across the top twenty corridors, the high-level assessment identified a maximum potential for over 300 bus network kilometers as technically feasible for new bus priority lanes and 40 bus network kilometres of existing bus priority lanes could be enhanced through extension of bus priority hours.

This assessment showed that maximum implementation of bus priority lanes along the twenty corridors would reduce approximately 10 to 15 percent of all travel time delay across the bus network and save an estimated \$7 - \$10 million annually in operating costs. The capital cost, estimated at \$13 - \$20 million, would be recuperated in the two to three years of operation.

This high-level assessment does not represent a plan for reducing delay; but, was undertaken to illustrate the potential scale of benefits if bus priority lanes were deployed along twenty corridors with the worst delay. We recognize that while bus priority lanes may be *technically* feasible, there are other considerations and that bus priority lanes are not appropriate in all segments of these corridors. The assessment shows the potential benefits of bus priority lanes only, representing one of the many tools in the bus priority toolkit. While yielding high benefits, bus priority lanes do not fit all contexts and are not appropriate in all locations. There are many important considerations that need to inform bus priority design to ensure contextually appropriate solutions.

2 Bus Priority Rapid Response Assessment

2.1 Approach and summary

Approach

The following factors were considered to identify rapid response bus priority opportunities:

a) Develop solutions that are sensitive to the street context.

Existing street contexts were considered in proposing contextually sensitive bus priority solutions to ensure that proposed solutions fit the physical street setting and existing land-uses and activities. Context considerations were deemed especially important to allow for rapid deployment of bus priority measures. Special consideration was given to retail precincts (with considerable demands for curb space, loading zones, parking, etc.), constrained roadways, and other local conditions.

b) Focus on bus priority solutions that can be implemented rapidly.

The opportunities identified in this report require little to no civil works and can be implemented by painting lines, installing or changing signage, or other low-cost methods.

Projects are grouped into four main types:

- Bus priority lanes New or extended HOV or bus-only lanes
- Bus bulbs Minor curb extensions allowing a bus to stop in lane
- Tactical changes small changes at intersections or temporary changes to improve flow of buses
- Bus stop balancing adjustment to stopping patterns in locations with high number of closely spaced bus stops

We recognize that there are many opportunities to significantly reduce passenger delay along the top twenty corridors. Opportunities with significant outcomes typically require careful consideration of the broader context and trade-offs, significant stakeholder engagement, design development, and delivery methods that typically involve civil works. These types of projects have higher capital costs and risks, and have longer timelines for development, engagement and delivery. Projects of this scale were not explored as part of this assessment.

c) Prioritize projects that have a high potential of success in the near-term.

To determine whether potential projects can be advanced in the near-term, we prioritized projects based on the following factors:

- The local road authority is a willing partner
- There is a strong likelihood of benefits
- Projects are either temporary and can be easily adjusted or removed, or there is strong consensus on the benefits of permanent projects
- o Infrastructure requirements and costs are minimal

While municipalities need to lead the delivery of rapid response projects, TransLink can support the delivery by providing technical expertise for analysis and identification of opportunities, funding and partnering on engagement with local communities. TransLink has been working with and heard from municipal partners who are willing to advance bus priority projects.

In late June 2020, TransLink issued a call for funding for 2020 pandemic-response bus priority projects which led to the submission of many proposals by municipalities. This was in addition to other projects already funded by TransLink that may be accelerated for 2020 delivery. Together there are more than 20 potential bus priority projects that have been awarded funding through TransLink's Bus Speed and Reliability municipal funding program and could be implemented in some form in 2020, subject to further project development and engagement.

Summary

Staff have undertaken a high-level assessment of opportunities that are suitable for quick delivery across four different types of bus priority tools: bus priority lanes, bus bulbs, tactical changes, and bus stop balancing. Some of these opportunities have already undergone project development, are funded and advancing to implementation in the near term.

Figure 3 shows the locations of opportunities for near-term bus priority and bus stop balancing in Metro Vancouver and Table 2 shows the estimated costs and benefits attributed to these opportunities.



Figure 3 – Map showing locations of opportunities for near-term bus priority and bus stop balancing

Notes:

- Many of the opportunities for rapid response bus priority identified in this report are in the City of
 Vancouver. That is to be expected, as half of the top twenty corridors for regional bus delay are wholly or
 partially in Vancouver. Vancouver also accounts for a significant share of regional bus ridership, has
 corridors with high-frequency bus routes, and has relatively high levels of roadway congestion. As a result,
 it has a significant share of regional passenger delay.
- While many of the near-term bus priority opportunities are in the City Vancouver, reducing delay benefits the entire region. This is due to the regional nature of transit ridership, with people commuting to or through Vancouver for jobs, education, appointments, entertainment, etc. Because the transit system is funded by the region, the financial gains of reducing bus delay benefits the region. The actual operating cost savings from bus priority will be reinvested in those same corridors to address crowding or in other areas of identified need.

rubic 2 Estimated costs & schejits oj neur term opportamiles jor sas priority and sus stop salaneing	Table 2 –	Estimated	costs &	benefits of	near-term	opportunities	for bu	s priority of	and bus stop	balancing
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	Bus Priority Lanes	Bus Bulbs	Tactical Changes	Bus Stop Balancing	Total
Bus Network Kilometers	30	17	34	-	81
Annual Service Hours Savings (estimated)*	4,500 - 6,500	2,000 - 4,000	1,500 – 2,500	4,000 – 6,000	10,000 – 19,000
Annual Operating Cost Savings (estimated)**	500 - 700k	\$250 - \$450k	\$200 - \$300k	\$400k - \$600k	\$1.4 – \$2.1 M
Capital Costs (estimated)***	700k - \$1,000k	\$500–\$700k	\$200 – \$400k	\$0	\$1.4 - \$2.1 M

Notes:

*Annual Service Hours Savings are order of magnitude estimates that are calculated based on average travel time saving that is estimated for each bus priority measure. The estimated travel time saving for each bus priority measure would vary depending on street context, traffic conditions, etc., which is not accounted for in this estimation.

**Annual Operating Cost Savings are order of magnitude estimates, based on current estimated bus operating costs. All estimates need to be verified as part of more detailed project development.

*** Capital Costs are order of magnitude estimates based on current unit rates, expecting that all projects can be delivered through painting lines, installing and changing signage, and other low-cost delivery methods. Based on our current understanding, civil works are not required to deliver the near-term bus priority opportunities in this report. For example, the estimated cost for bus bulbs assumes use of temporary material.

2.2 Bus priority lanes

Bus priority lanes are the most effective way of improving bus speeds and reliability to reduce delays caused by motor vehicle traffic during congested times. Bus priority lanes are particularly effective when they provide buses with continuous and uninterrupted lanes, reducing instances of buses pulling in and out of general-purpose traffic lanes.

Bus priority lanes are lanes reserved for the exclusive use of buses, either all day or during designated periods such as peak periods or from early morning to early evening, responding to the delay data and with consideration for other needs such as parking demand in residential and retail areas. Outside of the designated periods, bus lanes can be used for general use or parking.

Figure 4 - examples of bus priority lanes in Metro Vancouver



Location considerations for quick implementation of bus priority lanes

Bus priority lanes are most appropriate in roadways with three travel lanes per direction. They can be either in the curbside lane or the 2nd lane (offset bus lane) where it is desired to reserve the curb lane for parking or other uses such as pick-up/drop-off zones. In this assessment, bus priority lanes are only considered outside of retail precincts.

Bus priority lanes can be implemented through converting existing rush regulations, for example, a peak-period general purpose lane can be converted to a peak-period bus-only lane.

Existing bus priority lanes can also be enhanced through extension of hours of bus priority to include more of the day. In some locations, bus travel time data shows significant delay in the periods immediately before or after peak periods. In such cases, extension of the existing hours of bus priority by 30 to 90 minutes can better match demand with capacity and reduce delay significantly. Extension of bus lane periods will also consider retail and residential parking requirements and alternatives among other considerations. TransLink is not proposing removing parking in retail precincts. Figure 5 showing location of opportunities for near-term bus priority lanes, which include:

- 5 km of Peak Only lanes expanded to All Day
- 7 km of new All-Day bus lanes
- 16 km of new Peak Only bus lanes
- 2 km of expanded Peak Only bus lanes

Figure 5 - Map showing location of opportunities for near-term bus priority lanes



Table 3 – Estimated Costs & benefits of near-term opportunities for bus priority lanes

	Bus Network	Annual Service Hours	Annual Operating	Capital Cost
	Kilometers	Savings Estimate	Cost Savings Estimate	Estimate
Bus Priority Lanes	30	4,500 - 6,500	500 - 700k	700k - \$1,000k

TransLink has been working with municipal partners and providing funding to support near-term bus priority projects consistent with the above assessment. TransLink is also working with municipal partners and BC Ministry of Transportation and Infrastructure on several longer-term bus lane projects on the top 20 corridors, including:

- Main Street, EB bus lane extension from Mountain to Phibbs Exchange (North Vancouver / Ministry of Transportation and Infrastructure)
- Highway 99 corridor interim transit priority improvements (Richmond / Ministry of Transportation and Infrastructure)

2.3 Bus bulbs

Bus bulbs are curb extensions or passenger boarding islands that allow buses to stop in moving traffic lanes. The priority provided by the bulge is the time a bus saves by not having to wait to merge back into moving traffic lanes. Bus bulbs also provide extra sidewalk space that can be used for waiting bus passengers and for improved amenities (shelter, bench, wayfinding, landscaping etc.). The additional sidewalk space makes bus bulbs a win-win solution for both buses and pedestrians, providing additional opportunities for physical distancing where sidewalks are not wide. Bus bulbs also allow for more parking as they reduce the space required for buses to pull in and out of a stop.



Figure 6 - Examples of bus bulbs in North Vancouver and Vancouver

Location considerations for quick implementation of bus bulbs

Bus bulbs are an effective way of reducing delay in areas with all-day parking, especially in commercial precincts where curb space is in high demand as bulbs result in net increase in curb space (no space needed for a bus to pull in and out of a stop with a bulge). Bus bulbs are also effective in increasing sidewalk space in high demand areas, making room for public life on the sidewalk and increased opportunities for physical distancing.

Quick implementation of bus bulbs is possible using temporary construction material. There are also prefabricated bus bulbs that can be assembled on site. Some of the existing pandemic street changes to widen sidewalks in Metro Vancouver already include examples of temporary bus bulbs that can be replaced with permanent material.

Several potential locations have been identified across the region where addition of temporary bus bulbs will reduce bus delay while giving curb space back for other uses. Figure 7 shows corridors with opportunities to benefit from bus bulbs that can be implemented in the near-term.



Figure 7 – Map showing location of near-term bus bulbs opportunities

Table 4 – Estimated costs & benefits of near-term bus bulbs opportunities

	Bus Network Kilometers	Annual Service Hours Savings Estimate	Annual Operating Cost Savings Estimate	Capital Cost Estimate
Bus Bulbs	17	2,000 - 4,000	\$250k - \$450k	\$500k – \$700k

TransLink has been working with municipal partners and providing funding to support near-term bus bulb projects consistent with the above assessment.

2.4 Tactical changes

Tactical changes include a range of small changes that can reduce delay for buses and other vehicles without significant impacts to other street users. These measures include addition of right-turn pockets at intersections, turn restrictions, transit approach lanes, signal timing adjustments, temporary pilot projects or construction mitigation measures. Most of these measures can result in improved conditions for all road users as they reduce delay for both buses and vehicles.

Figure 8 – examples of a transit approach lane, turn pocket, and turn restriction



Location considerations quick implementation of tactical changes

Right-turn pockets are suitable at intersections where motor vehicle turns made from a general-purpose lane can cause delay to buses by limiting the flow of buses through an intersection. They are also useful at intersections with high volume of pedestrian crossings, where a right-turning vehicle needs to wait for pedestrians to complete crossing before it can safely complete a right turn. Quick implementation of right-turn pockets at intersections can be accommodated in the parking lane.

Similarly, turn restriction can improve the flow of buses through an intersection. Turn restriction can be time limited or for the duration of the day where needed. They can be quickly implemented through signage or as pilot projects.

Transit approach lanes are short bus lanes on the approach to major intersections, which allow buses to bypass long queues that form at major intersections. They can be quickly implemented by reallocating road space at intersections through lines and signage.

Figure 9 shows locations of corridors with opportunities for tactical changes.



Figure 9 – Map showing locations of near-term opportunities for tactical changes

Table 5 – Estimated costs & benefits of near-term opportunities for tactical changes

	Bus Network	Annual Service Hours	Annual Operating Cost	Capital Cost
	Kilometres	Savings Estimate	Savings Estimate	Estimate
Tactical Changes	34	1,500 — 2,500	\$200 - \$300k	\$200 – \$400k

TransLink has been working with municipal partners and providing funding to support near-term intersection tactical change projects consistent with the above assessment. Some of these locations identified below could be delivered in 2020, subject to project development and engagement:

- 49th Ave, Main St to Boundary St (Vancouver)
- Hastings Street, Burrard to Renfrew (Vancouver)¹
- Fraser Hwy, 96 Ave and 148 Ave (Surrey)
- Edmonds St, Griffiths St to Canada Way (Burnaby)
- Robson St, Thurlow to Burrard (Vancouver)
- Main St, Broadway to 12th Ave (Vancouver)
- East Broadway, east of Fraser to Commercial Drive (Vancouver)

¹ Our assessment identifies opportunities for tactical changes in the remainder of Hastings St (from Renfrew to east of Willingdon St), which need further exploration with the City of Burnaby.

2.5 Bus stop balancing

Bus stop balancing is another opportunity to reduce delay for buses and customers, which can be implemented quickly without requiring new infrastructure.

About two-thirds of bus stops in Metro Vancouver are closer together than recommended by the 2018 Transit Service Guidelines. In some places, there are two bus stops on the same block. In others, there are bus stops immediately before and after an intersection. When stops are too close together, it increases the length of the trip for everyone. The time spent slowing down, pulling into the stop, waiting for traffic to pass, pulling out of the stop, and speeding up again increases both bus speed and schedule reliability. Each year, TransLink buses spend over 700,000 hours stopped at bus stops. That time costs TransLink about \$73 million annually. Making a small change in stop spacing can have a large effect on operating costs.

Bus stop balancing can improve bus performance by reducing delay for buses, reducing journey time for customers, reducing operating costs, and expanding the public realm by freeing up curb and sidewalk space for other uses, such as parking, patio seating and parklets, bike racks, and landscaping.

TransLink estimates that bus stop balancing will affect about 10 – 20% of bus stops per corridor.

Location considerations for quick implementation of bus stop balancing

TransLink will work with municipal partners and stakeholders to advance bus stop balancing on the following routes in the near term. These routes have been selected based on estimated opportunity to consolidate stops, benefits to customer travel time, and operating cost savings:

- Route 2 (MacDonald / Downtown, Vancouver)
- Route 8 (Fraser / Downtown, Vancouver)
- Route 9 (Boundary / UBC, Vancouver)
- Route 106 (New Westminster Station / Edmonds Station, New Westminster & Burnaby)

Figure 10 shows corridors that are identified for rapid response bus stop balancing.



Figure 10 – Map showing near-term bus stop balancing opportunities

Table 6 – Estimated costs & benefits of near-term bus stop balancing opportunities

	Bus Network Kms	Annual Service Hours Savings Estimate	Annual Operating Cost Savings Estimate	Capital Cost Estimate
Bus Stop Balancing	87	4,000 – 6,000	\$400k - \$600k	\$0

3 Conclusion and next steps

TransLink's bus priority assessment demonstrates that there is significant potential for low-cost and near-term opportunities to improve travel times for customers and reduce operating costs. The assessment shows that the capital costs of the bus priority opportunities can be recuperated within the first year of implementation through savings in operating costs. This is an important outcome, as the operating cost savings could be reinvested in those same corridors to address crowding or in other areas of identified need over the years.

TransLink has been working with municipal partners and providing funding to support near-term bus priority projects consistent with the assessment in this report. Some of these projects could be delivered in 2020, subject to project development and engagement. Figure 11 shows both existing bus priority and

the near-term opportunities and demonstrates the extent to which bus priority could quickly be expand across the region.





TransLink is also collaborating with municipal partners and the Ministry of Transportation and Infrastructure to assess and advance several long-term bus priority opportunities with potentially significant benefits.

TransLink staff will continue to work with municipal staff to support technical analysis and project development for the opportunities identified in this assessment, confirm funding, and engage with stakeholders and transit customers.

TransLink staff will also continue to closely monitor bus speed and reliability through the region and inform municipalities so they can make timely adjustments.

SUBJECT:	ITEM 5.1 – Regional Input to Provincial Infrastructure Projects and Studies
DATE:	July 6, 2020
FROM:	Geoff Cross, Vice-President, Transportation Planning and Policy
то:	Mayors' Council on Regional Transportation

RECOMMENDATION:

That the Mayors' Council on Regional Transportation receive this report.

PURPOSE:

This memo is intended to provide an update on ongoing TransLink participation in current Provincial initiatives, including planning studies and infrastructure project development, and to receive input on any areas of specific interest or concern.

BACKGROUND:

The Province of British Columbia plans and manages a significant component of the transportation infrastructure in the Metro Vancouver region. TransLink staff regularly participate in ongoing studies and project development led by the Province. The South Coast British Columbia Transportation Authority Act, that governs TransLink, includes a responsibility to review and advise on the implication to the regional transportation system of provincial highway infrastructure plans.

DISCUSSION:

The Province has increasingly been engaging regional stakeholders, including TransLink, local governments, and First Nations on planning initiatives in the Lower Mainland. Current initiatives include:

George Massey Crossing

TransLink staff have participated in a working group throughout the project development, including support for the Metro Vancouver Task Force. The Province is targeting Fall 2020 for completion of a business case. All remaining options are 8-lane crossings, including designated transit lanes and potential for separated rapid transit, with new active transportation links. TransLink have also provided input on interim solutions, to be implemented prior to full replacement. The focus of input has been on transit priority opportunities and active transport improvements.

Burrard Inlet Rapid Transit Feasibility Study

This study, led by the Province in partnership with local municipalities, is nearing completion. This study was spawned by the Integrated North Shore Transportation Planning Project. While not a funding partner in the current study, TransLink undertook the procurement for the partners on this project and is participating on the working group. The second stage of the study has focused on further engineering assessment of alternative alignments to confirm feasibility within the three main crossing zones (Lions

Gate area, central, and Second Narrows area). The Mayors' Council will be briefed on the results prior to any public release. TransLink input has focused on ensuring this work will be a useful input into T2050 transit network development.

Long-term planning studies

To prepare for the changing needs of Provincial highway assets, the Province undertakes long-term planning studies to identify potential issues and opportunities. Planning studies are intended to inform future project development. Current studies underway include:

- Hwy 1: Upper levels highway
- Hwy 1: east of 264th St
- Hwy 1: Brunette Interchange
- Hwy 7: Lougheed Hwy @ Harris Rd
- Hwy 7B: Mary Hill Bypass

TransLink staff are participating, together with local municipal staff. Input has focused on study scope, process, and content.

Key themes

TransLink provides a regional perspective when participating in Provincial infrastructure initiatives. Key themes of recent input have included:

- Opportunities for transit, particularly transit priority
- Importance of active transportation improvements, goods movement, and connections to MRN
- Alignment with local and regional plans and objectives, and active engagement with regional partners
- Importance of clearly defined objectives
- Alignment with regional modeling and long-term forecasts for land-use and evolving mobility trends.

NEXT STEPS:

The Mayors' Council and Board will continue to be briefed on key Provincial work as they progress. Results from the Burrard Inlet Rapid Transit Study are expected in the summer of 2020. Decision on next steps for the Massey Crossing are expected this fall.