
SUBJECT: Westshore Transit Priority Plan

PURPOSE

This report requests Victoria Regional Transit Commission (the “Commission”) **APPROVAL** to program budget for future work to finalize the design of transit priority infrastructure on Goldstream Ave and the Island Highway.

BACKGROUND

The first phase of the Westshore Transit Priority Action Plan is complete and provides recommendations on further infrastructure investments to advance Rapidbus in both Colwood and Langford. The objective of the study was to develop concept designs and cost estimates for future transit priority measures in the Westshore area. Other study objectives included:

- Analyze the existing conditions to focus attention on key areas of the network that are generating congestion and impeding the efficient operation of transit.
- Identify the appropriate treatment for those key areas from the toolbox of transit priority measures that will improve the performance of transit.
- Analyze the network to evaluate the projected improvements realized by implementing the identified transit priority measures.
- Develop a conceptual design of the priority options where the road network requires modification to accommodate the transit priority measures
- Evaluate the options employing a multiple account evaluation process to identify the best overall measures

A technical advisory committee comprised of City of Colwood, the City of Langford, the Capital Regional District and the Ministry of Transportation and Infrastructure provided guidance and expertise throughout the study process.

The recommended transit priority measures include sections of dedicated bus lanes, bus queue jump lanes and, transit signal priority. Based on the conditions at specific intersections, targeted combinations of the transit priority measures were identified to deliver travel time savings for transit service along the Rapidbus corridor and along key corridors of the Westshore Frequent Transit Network. See appendices for table of transit priority treatments and study area map.

For the Rapidbus Network, the recommended transit priority improvements are transit signal priority and a queue jump lane at Goldstream Ave and Veteran’s Memorial Way. These improvements are estimated to generate travel time savings of up to 20 per cent on Goldstream Ave between the Langford Transit Exchange and Colwood Corners. The transit priority measures for the Rapidbus Network are estimated to yield a benefit to cost ratio of 5 and the construction costs are estimated to be \$630,000.

For the Frequent Transit Network, the recommended transit priority improvements are transit signal priority and a northbound shared bus/bike lane on Sooke Rd. between Aldeane Ave./University Dr. and Colwood Cres. (Jerome Rd) that offers a 20 per cent improvement in travel times for transit. The transit priority measures are estimated to yield a benefit to cost ratio of 0.9 and the construction costs, including engineering and contingency, are estimated to be \$1.3 million.

For the Frequent Transit Network, other intersections were modelled independently. The networked performance of the intersections is not simulated. Given this, the total corridor time savings cannot be estimated from the results of each of the separate intersections. The accumulated results may provide an order of magnitude projection of the potential corridor savings potentially achievable. The Frequent Transit Network construction costs are estimated to be \$4.3 million.

It is recommended that a microscopic simulation of the key frequent network corridors (Sooke Rd. and Veterans Memorial Parkway) be completed to fully capture the corridor transit travel time savings in order to determine the benefits achievable to determine if there is a significant benefit to making a investment.

DISCUSSION

Projects recommended for further advancement are as follows (with further detail shown in Table 1):

- **Goldstream Avenue** - The transit priority investments on Goldstream have the highest level of benefit to transit, align with plans to advance the implementation of Rapidbus and where the highest levels of existing transit ridership occur. This investments should be the highest priority after the Island Hwy transit priority improvements are advanced.
- **Sooke Road** - The transit priority investments on Sooke Rd have a benefit to transit, address an area of significant traffic congestion and align with future development planned in Royal Bay and Sooke. This investment should be prioritized after investments on Goldstream Ave.
- Other transit priority concepts have a modest benefit to transit but the benefit may not be enough to warrant investment at this time.

Travel time savings generated from these improvements make transit a more attractive transportation choice allowing customers to get to their destination quicker and provide the opportunity for operational savings to be reinvested back into the transit system.

Preliminary Class D construction cost estimates have been developed for the transit priority concepts, with a total estimated construction cost of approximately \$2.0 million. Estimates include construction costs, property acquisition allowances, transit signal priority equipment, traffic management, engineering and a contingency of 20 per cent. To take advantage of the signal priority, 55 buses should be equipped with transit signal priority equipment. The detailed consultant report is attached for reference.

Table 1: Westshore Transit Priority Projects

Project		Cost	Action
Rapidbus	Goldstream Ave – Transit signal priority & Q-jump lane	\$630,000	Seek approval in principle from Langford & Colwood and advance detail design work for possible implementation in 2023
Frequent Transit	Sooke Rd – Northbound bus lane Aldeane to Jerome	\$1.3 million	Seek approval in principle from Colwood advance and detail design work work for possible implementation in 2023 to 2024
Frequent Transit	Various locations	\$4.3 million	Not recommended for short-term advancement. Further evaluate if there are opportunities and value to advance select projects with local government

BC Transit will work with the respective local governments to obtain approvals in principle for the advancement of these transit priority treatments.

If approved for further advancement, \$150,000 would be included in the Commission's 2021/22 and 2022/23 budgets to complete detailed design, community engagement and project management activities. The detailed design process includes retaining an engineering consultant and working with local government staff to further develop a design that is agreeable to all stakeholders, and is ready for tendering and construction.

As there are a number of competing transit investments planned in the next few years, projects will be programmed in future budgets at a later date to ensure they align with other priorities.

RECOMMENDATION

It is recommended that the Commission **APPROVE** the transit priority concepts in principle and allocate \$150,000 in funding as part of the 2021/22 and 2022/23 budget to further develop the project design and complete community engagement activities.

Respectfully,

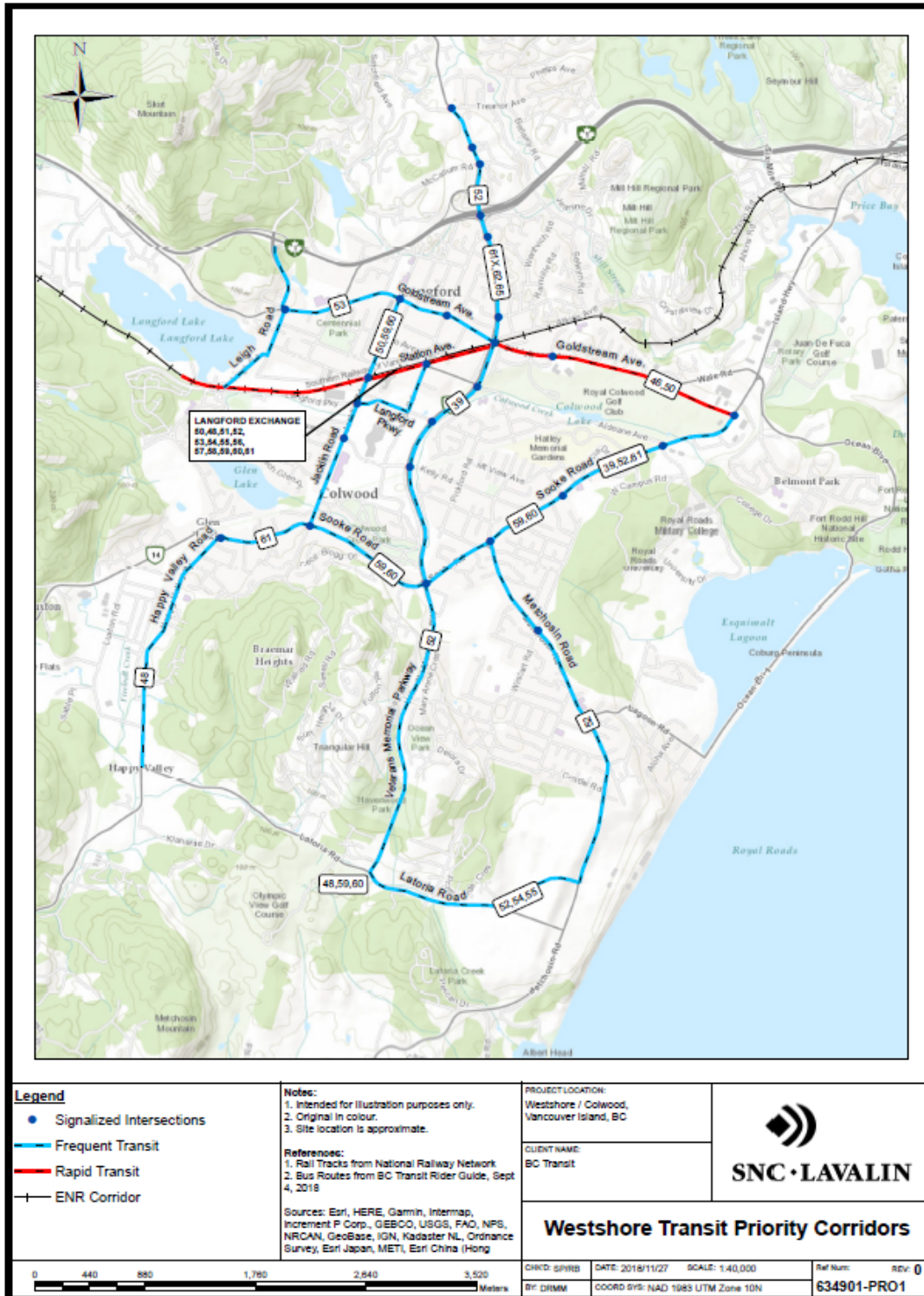


James Wadsworth
Planning Manager

The recommended transit priority measures are summarized in the table below.

Rapid or Frequent Transit Network	Location	Transit Priority Measures
Rapid	Goldstream at Old Island Highway	Eastbound LT TSP New intersection controller
	Goldstream Ave. at Wale Rd.	Westbound LT TSP
	Goldstream Ave. at VMP	Westbound and Eastbound TSP New intersection controller Westbound and eastbound bus queue jump lanes
	Jacklin Rd. at Langford Pkwy	Southbound LT TSP
	Langford Pkwy at Phipps Rd.	Eastbound LT TSP New intersection controller
Frequent	Veterans Memorial Parkway. at Peatt Rd	SBT & NBT TSP New intersection controller SB Bus queue jump lane New Type 3 transit shelter
	Veterans Memorial Parkway at Langford Parkway	EB LT TSP New intersection controller
	Veterans Memorial Parkway at Kelly Rd	NB LT TSP New intersection controller
	Veterans Memorial Parkway at Sooke Rd	EB and WB TSP (protected queue jump phase) New intersection controller EB and WB bus queue jump lanes New EB & WB Type 4 transit shelters
	Sooke Rd at Happy Valley Rd	EBT & WBT TSP (protected queue jump phase) EB bus lane New intersection controller New EB Type T4 transit shelter
	Sooke Rd at Jacklin Rd	WBT TSP (protected queue jump phase) WB Bus queue jump lane New WB Type T4 transit shelter
	Sooke Rd at Metchosin Rd	WBL TSP New intersection controller
	Sooke Rd at Kelly Rd	SBL TSP New intersection controller
	Latoria Rd at Happy Valley Rd	New WB RT lane from Latoria to Happy Valley

Westshore Transit Priority Corridors



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Project Path: