Attachment: Victoria Regional Transit System Winter 2020 Service Performance Report

Introduction

This report presents the ridership performance for the Victoria Regional Transit System – at the system and route level – during the period from January 6, 2020 to April 5, 2020 against the performance design guidelines established in the Victoria Regional Transit System 2013/14 Service Review. As of March 16, the Province introduced physical distancing measures and directed the public to avoid non-essential travel. Therefore, three weeks of the winter schedule period, which is fourteen weeks in total, were impacted by public health directives related to COVID-19.

Purpose

Performance Guidelines define numeric thresholds and targets for a particular system and its routes and services. In tandem with Service Design Standards, Performance Guidelines provide a high level lens to evaluate existing services, identify trends in performance and determine how service and supporting features (fares, marketing, facilities, etc.) should be adjusted to improve the effectiveness and efficiency of the system to optimize resources.

For a service to be efficient and productive, a balance should be achieved between oversupply and overcrowding. A number of measures can support this equilibrium:

- Implement transit priority
- Alter frequency
- Reduce/increase coverage
- Targeted marketing/corridor branding
- Change service span
- Change bus stop spacing
- Bus route changes
- Vehicle type allocation

When performance falls below the set guidelines, recommendations to the Commission will focus on the utilization of the above tools to maximize efficiency.

KEY ASSUMPTIONS

Data

Ridership information is collected through Automated Passenger Counter (APC) units, which are in place over 60 percent of the buses assigned to the Victoria Region's conventional fleet. This system counts the number of persons boarding and disembarking from a vehicle. If a person boards multiple buses in a single journey or in a specific day, this is reflected as multiple boardings.

External Factors

In addition to service changes, there are a number of external factors that may affect transit ridership. Some of these include fare increases, changing fuel prices, changing community economics and land use changes.

Performance Measures

Performance measures have been chosen that evaluate the effectiveness of service planning investments on a system and route level.

System level

The measures used for the system guidelines are:

- **Operating cost per passenger trip** – annual operating cost divided by the total number of passenger trips predicted from farebox revenue and transit passes
- **Cost recovery** – the portion of operating costs that are recovered from fare revenues
- **Boardings per route km** – the total number of passengers boarding a bus divided by the total kilometres of in-service routes
- **Boardings per revenue hour** – the total number of passengers boarding a bus divided by the total time of in-service hours

Route level

The measures used for the route level guidelines are averaged on a daily basis according to the following definitions:

- **Trips Operated** – the total number of trips operated
- **Service Hours** – the total number of hours where buses are in service per day, including recovery (layover) and deadhead time
- **Revenue Hours** – the total number of hours where buses are in service carrying passengers, excludes recovery and deadhead time
- **Passenger Boardings** – the total number of passengers boarding a bus
- **Boardings per Trip** – the total number of passengers travelling on a bus divided by the number of trips operated to express the mean usage level of buses on a route
- **Boardings per Revenue Hour -** the total number of passengers travelling per day divided by the revenue hours to express the operational efficiency of a route
- **Boardings** – the number of passengers that board transit buses. Passengers are counted each time they board a vehicle regardless of whether they pay the full fare, use a pass or need to use more than one bus to arrive at their destination.

Route level performance guidelines have been classified into four categories (Rapid Transit, Frequent Transit, Local Transit and Targeted Transit) to acknowledge different performance expectations based on a route’s objective, and in accordance with the 2011 Transit Future Plan and the Victoria Regional Transit System 2013/14 Service Review.

Performance Targets

Tables 1 and 2 outline the performance targets set for the system and route level. As well as monitoring existing performance against these guidelines, historical trends will also be monitored to determine if the system or routes are becoming more or less efficient over time. Significant variance (+/– 25 per cent) from the target will place a route on an action list for further investigation and will require more detailed analysis. Routes that fall below the 25 per cent variance will be candidates for corrective adjustments, and routes that are above the 25 per cent variance will be candidates for service improvements. BC Transit will report on an annual basis how the system and routes are performing and this will help guide planning decisions.

System Level

The purpose of monitoring system wide performance is to identify trends in system performance, and compare the performance of the transit system with other peer transit systems. These measures are designed to monitor the pulse of the Victoria Regional Transit System as a whole and guide service planning decisions. This can be particularly useful when identifying system wide impacts of major investments in the transit network, such as development of the Rapid and Frequent Transit networks.

Table 1: System Level Performance Guidelines

Metric	Target	2019/20 Actual
Operating cost per passenger trip	$4.50	$4.00
Cost recovery	30.0%	40.1%

Route Level

Analysis on a route-by-route basis gives a detailed indication of how individual components of the transit system are performing. A route-by-route analysis allows observations of the impact of service changes and investments made in the past and identifies future opportunities for strategic investment or re-investment.

Table 2: Route Level Performance Guidelines

Route Type	Boardings per Trip	Boardings per Revenue Hour
Rapid Transit	40	55
Frequent Transit	40	55
Local Transit (High Demand)	25	40
Local Transit (Coverage)	10	20
Targeted Transit	40	60

System Performance

The table below display average daily system performance for passenger boardings, boardings per route kilometre, and boardings per revenue hour for the fall 2019 service periods.

Table 3: Winter 2020 Average Weekday System Performance by Sub-region

System Level	Trips Operated	Revenue Hours	Service Hours	Projected Boardings	Boardings/ Trip	Boardings/ Revenue Hour
Core	2,430	1,478.13	1,977.37	74,075	30.5	50.1
Westshore	511	348.36	458.19	12,957	25.4	37.2
Peninsula	306	248.90	351.44	7,355	24.0	29.6
Total	**3,247**	**2,075.39**	**2,787.00**	**94,387**	**29.1**	**45.5**