

VICTORIA REGIONAL TRANSIT SYSTEM WINTER 2014 SERVICE PERFORMANCE REPORT

Introduction

This report presents the ridership performance review for the Victoria Regional Transit System at the system and route level over the period of April 7th, 2014 to June 29th 2014 against the performance design guidelines developed through the service review process.

Performance Guidelines

What they are and what they define: Performance Guidelines define numerical thresholds and targets for a particular system and its routes and services.

Why they matter: Working in tandem with Service Design Standards, Performance Guidelines are tools that evaluate existing services, identify trends in performance and, based on this evidence, 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 establish this equilibrium such as:

- Implement transit priority
- Change service span
- Alter frequency
- Change bus stop spacing
- Reduce/increase coverage
- Bus route changes
- Targeted marketing/Corridor branding
- 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.

Performance Measures

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

System level: The measure used for the system guidelines is:

Average boardings per revenue hour - Measures the total volume of ridership as compared to the supply of transit service.

Cost per passenger trip – Measures the average cost to provide service per passenger trip

Cost recovery – A measure of the financial performance of the transit system usually expressed in terms of total operating revenue/total operating expenses.

Passengers trips per capita – Measures the ratio between transit trips and the population of the service area

Route level: The measures used for the route level guidelines are:

Average boardings per revenue hour - Measures the total volume of ridership as compared to the supply of transit service.


Average boardings per trip - Measures the total number of people that board a vehicle on a specific trip.

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.

Performance Targets

Table 9 and 10 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%) 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% variance will be candidates for corrective adjustments and routes that fall above the 25% 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

 Investigate for corrective action

 Investigate for service improvements.

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 9: System Level Performance Guidelines

System	Measure
Boardings per revenue hour	50
Cost per passenger trip	4.5
Cost recovery	30%
Passengers trips per capita	65

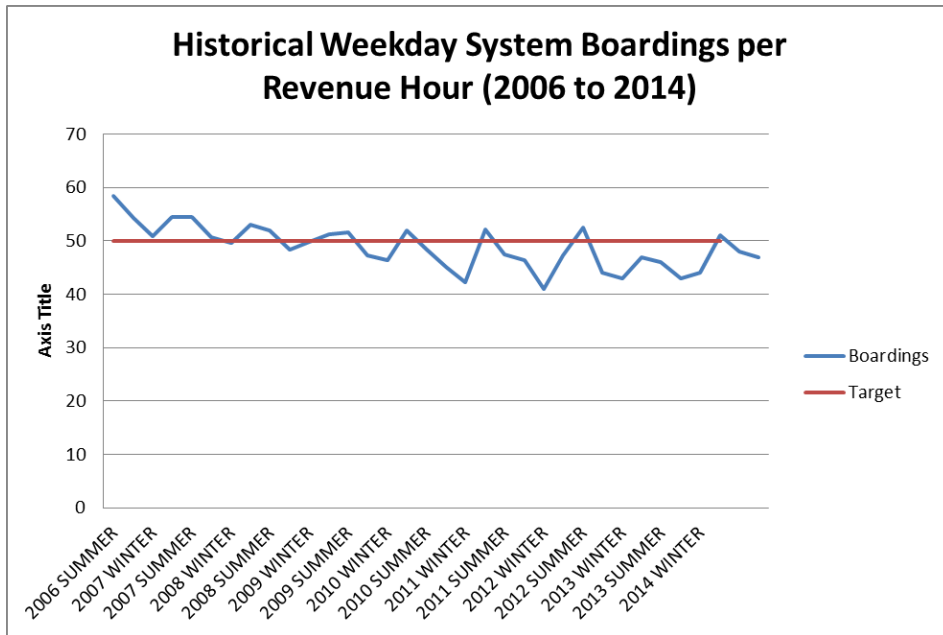
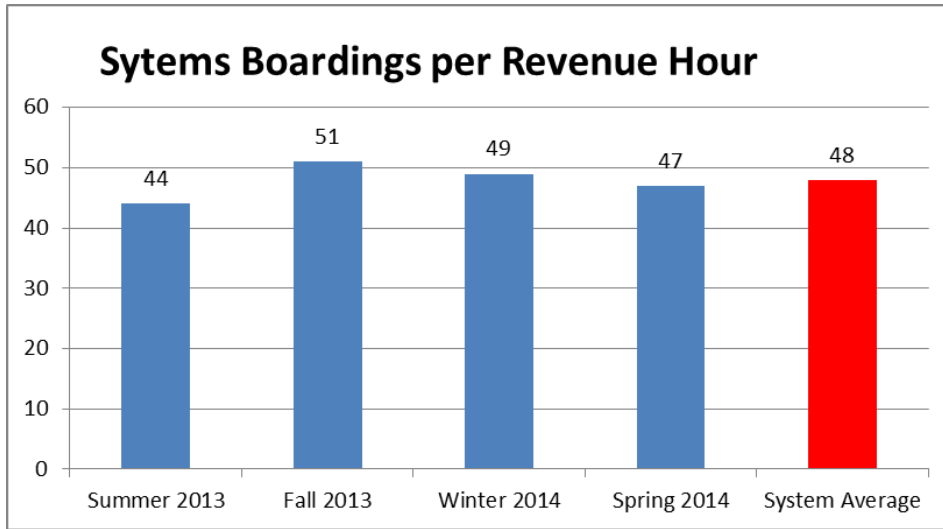
Route Level

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 10: Route Level Performance Guidelines

	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
Community Coverage	-	5

Transit System Performance Results



Weekday boardings have been trending upward likely due to service increases, efficiency improvements and a recovery in ridership from the labour disruption in 2012.

Declining performance between 2006 and 2012 could be related to:

- Investments in service between 2005 and 2010 had been directed towards lower performing types of services such as evening service, an expansion of community bus in suburban and rural areas, as well as expansion of conventional service on the Peninsula
- More resources (service hours) are required to undertake the same amount of trips due to slower travel speeds and as a result fewer passengers are carried per revenue hour

System Performance- April 7th to June 29th 2014Period

Weekday System Performance

System Level	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50
System Total	3,149	2,036.07	96,395	30.6	47
Urban Total	2,367	1,415.12	78,135	33.0	55
Western Total	462	1,719.60	10,653	23.1	6
Peninsula Total	320	266.15	7,607	23.8	29
Suburban Total	782	1,985.75	18,260	23.4	9

Saturday System Performance

System Level	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50
System Total	2,000	1,247.26	61,765	30.9	50
Urban Total	1,514	913.76	50,098	33.1	55
Western Total	306	181.43	6,174	20.2	34
Peninsula Total	180	152.07	5,493	30.5	36
Suburban Total	486	333.50	11,667	24.0	35

Sunday System Performance

System Level	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50
System Total	1,487	911.58	47,256	31.8	52
Urban Total	1,103	653.10	38,009	34.5	58
Western Total	234	136.54	4,911	21.0	36
Peninsula Total	150	121.94	4,336	28.9	36
Suburban Total	384	258.48	9,247	24.1	36

Route Performance Results

Weekday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express	125	43.98	2,400	19.2	54.6
16 - Uptown/UVic Express	77	28.28	1,582	20.5	55.9
50 - Langford Exch/Downtown	172	124.73	6,148	35.7	61.4
70 - Swartz Bay/Downtown Express	58	53.58	1,890	32.6	35.3

----- Investigate for corrective action

----- Investigate for service improvements

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	198	100.08	5,606	28.3	56.0
6 - Esquimalt/Royal Oak	234	181.12	11,747	50.2	64.9
11 - UVic/Tillicum Mall	145	132.87	6,718	46.3	50.6
14 - UVic/Vic Gen	211	178.12	8,983	42.6	50.4
26 - UVic/Dockyard	99	71.68	4,196	42.4	58.5
27 - Gordon Head/Downtown	117	67.72	4,895	41.8	72.3
28 - Majestic/Downtown	123	69.05	5,027	40.9	72.8
30 - Royal Oak Exch/James Bay	92	67.12	3,425	37.2	51.0
31 - Royal Oak Exch/James Bay	93	65.63	4,171	44.8	63.6

----- Investigate for corrective action

----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special	2	1.20	68	34.0	56.7
19 Hillside	2	0.93	68	34.0	73.1
29 - UVic	0	:	:	:	:
33 - UVic	0	:	:	:	:
51 - Langford Exch/UVic	13	9.10	344	26.5	37.8
76 - Swartz Bay/UVic					

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	124	46.77	2,520	20.3	53.9
3 - Gonzales/Beacon Hill	73	41.27	1,591	21.8	38.6
7 - UVic/Downtown	120	58.28	2,674	22.3	45.9
8 - Interurban/Oak Bay	46	35.42	2,023	44.0	57.1
21 - Interurban/Downtown	92	49.20	2,452	26.7	49.8
22 - Vic General/Hillside Mall	71	55.98	2,531	35.6	45.2
24 - Admirals Walk/Cedar Hill	44	29.52	907	20.6	30.7
25 - Admirals Walk/Maplewood	42	34.75	1,125	26.8	32.4
39 - Royal Roads/UVic	59	39.53	1,692	28.7	36.2
61 - Sooke/Downtown	63	54.12	1,695	26.9	31.3
72 - Swartz Bay/Downtown via Fifth	81	92.22	2,897	35.8	31.4
75 - Saanichton/Royal Oak/Downtown	74	62.10	2,031	27.4	32.7

----- Investigate for corrective action

----- Investigate for service improvements

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown	12	3.55	60	5.0	16.9
10 - Jubilee/Dockyard	65	29.23			
12 - University Heights/UVic	40	10.15	321	8.0	31.6
13 - Cadboro Bay/UVic	12	2.90	36	3.0	12.4
32 - Cordova Bay	31	10.32	265	8.5	25.7
35 - Ridge	18	5.10	302	16.8	85.1
49 - Langford Exchange	12	1.40			
52 - Colwood	64	35.73	1,042	16.3	17.9
53 - Atkins	27	9.68	79	2.9	2.2
54 - Metchosin	10	9.45			
55 - Happy Valley	7	6.83			
56 - Florence Lake	23	14.10			
57 - Millstream	20	15.55	528	26.4	34.0
58 - Langford Meadows	20	7.55			
59 - Triangle Mountain	9	4.95			
60 - Wishart	9	4.95	57	6.3	2.0
63 - Otter Point	4	2.20			
64 - East Sooke	9	9.83			
81 - Swartz Bay/Brentwood	32	23.60	374	11.7	15.8
83 Sidney/Royal Oak	17	15.95	208	12.2	13.0
85 North Saanich	9	6.20	58	6.4	9.4
86 Deep Cove/McTavish Exch	4	1.30	8	2.0	6.2
88 Sidney/Airport	45	11.20	141	3.1	12.6

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Saturday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express	0	:	:	:	:
16 - Uptown/UVic Express	0	:	:	:	:
50 - Langford Exch/Downtown	126	85.55	4,502	35.7	52.6
70 - Swartz Bay/Downtown Express	22	21.27	883	40.1	41.5

----- Investigate for corrective action

----- Investigate for service improvements

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	129	59.50	3,412	26.4	57.3
6 - Esquimalt/Royal Oak	168	118.92	7,353	43.8	61.8
11 - UVic/Tillicum Mall	121	101.12	5,102	42.2	50.5
14 - UVic/Vic Gen	128	99.20	5,042	39.4	50.8
26 - UVic/Dockyard	129	82.92	3,796	29.4	45.8
27 - Gordon Head/Downtown	84	50.17	3,549	42.3	70.7
28 - Majestic/Downtown	86	48.62	3,895	45.3	80.1
30 - Royal Oak Exch/James Bay	73	50.33	3,113	42.6	61.9
31 - Royal Oak Exch/James Bay	75	48.38	3,052	40.7	63.1

----- Investigate for corrective action

----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special	0	:	:	:	:
19 Hillside	0	:	:	:	:
29 - UVic	0	:	:	:	:
33 - UVic	0	:	:	:	:
51 - Langford Exch/UVic	0	:	:	:	:
76 - Swartz Bay/UVic	0	:	:	:	:

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	85	30.48	2,238	26.3	73.4
3 - Gonzales/Beacon Hill	38	20.12	880	23.2	43.7
7 - UVic/Downtown	86	41.10	2,385	27.7	58.0
8 - Interurban/Oak Bay	40	27.47	1,762	44.1	64.1
21 - Interurban/Downtown	28	11.37	985	35.2	86.6
22 - Vic General/Hillside Mall	61	43.28	1,628	26.7	37.6
24 - Admirals Walk/Cedar Hill	32	19.93	463	14.5	23.2
25 - Admirals Walk/Maplewood	33	22.22	600	18.2	27.0
39 - Royal Roads/UVic	16	5.07	150	9.4	29.6
61 - Sooke/Downtown	36	21.17	749	20.8	35.4
72 - Swartz Bay/Downtown via Fifth	69	77.43	3,065	44.4	39.6
75 - Saanichton/Royal Oak/Downtown	37	30.42	1,134	30.6	37.3

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown	0	:	:	:	:
10 - Jubilee/Dockyard	56	22.37			
12 - University Heights/UVic	20	4.67			
13 - Cadboro Bay/UVic	6	1.52			
32 - Cordova Bay	20	5.00	148	7.4	29.6
35 - Ridge	0	:	:	:	:
49 - Langford Exchange	0	:	:	:	:
52 - Colwood	55	28.33			
53 - Atkins	23	8.92			
54 - Metchosin	7	7.62	125	17.9	16.4
55 - Happy Valley	0				
56 - Florence Lake	14	7.70			
57 - Millstream	15	9.75			
58 - Langford Meadows	17	6.12			
59 - Triangle Mountain	7	3.37			
60 - Wishart	6	2.90			
63 - Otter Point	0	:	:	:	:
64 - East Sooke	0	:	:	:	:
81 - Swartz Bay/Brentwood	14	10.92	269	19.2	24.6
83 Sidney/Royal Oak	8	4.78	41	5.1	8.6
85 North Saanich	0	:	:	:	:
86 Deep Cove/McTavish Exch	0	:	:	:	:
88 Sidney/Airport	30	7.25	101	3.4	13.9

----- Investigate for corrective action
 ----- Limited Samples

----- Investigate for service improvements

Sunday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express	0	:	:	:	:
16 - Uptown/UVic Express	0	:	:	:	:
50 - Langford Exch/Downtown	104	68.17	3,739	36.0	54.8
70 - Swartz Bay/Downtown Express	21	19.12	962	45.8	50.3
----- Investigate for corrective action				----- Investigate for service improvements	

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	88	40.75	2,514	28.6	61.7
6 - Esquimalt/Royal Oak	110	78.95	6,026	54.8	76.3
11 - UVic/Tillicum Mall	77	63.75	3,646	47.4	57.2
14 - UVic/Vic Gen	102	78.33	3,636	35.6	46.4
26 - UVic/Dockyard	87	53.75	2,538	29.2	47.2
27 - Gordon Head/Downtown	66	42.45	2,607	39.5	61.4
28 - Majestic/Downtown	66	41.67	2,886	43.7	69.3
30 - Royal Oak Exch/James Bay	54	34.78	2,616	48.4	75.2
31 - Royal Oak Exch/James Bay	54	34.10	2,749	50.9	80.6

----- Investigate for corrective action ----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special	0	:	:	:	:
19 Hillside	0	:	:	:	:
29 - UVic	0	:	:	:	:
33 - UVic	0	:	:	:	:
51 - Langford Exch/UVic	0	:	:	:	:
76 - Swartz Bay/UVic	0	:	:	:	:

----- Investigate for corrective action ----- Investigate for service improvements

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	65	22.50	1,077	16.6	47.9
3 - Gonzales/Beacon Hill	34	16.92	456	13.4	27.0
7 - UVic/Downtown	65	29.18	1,030	15.8	35.3
8 - Interurban/Oak Bay	26	15.05	881	33.9	58.5
21 - Interurban/Downtown	26	11.08	1,074	41.3	96.9
22 - Vic General/Hillside Mall	56	37.20	1,770	31.6	47.6
24 - Admirals Walk/Cedar Hill	21	12.70	1,619	77.1	127.5
25 - Admirals Walk/Maplewood	20	13.98	366	18.3	26.2
39 - Royal Roads/UVic	15	4.75	126	8.4	26.5
61 - Sooke/Downtown	24	14.42	540	22.5	37.4
72 - Swartz Bay/Downtown via Fifth	52	58.80	1,924	37.0	32.7
75 - Saanichton/Royal Oak/Downtown	32	22.82	1,063	33.2	46.6

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown	0	:	:	:	:
10 - Jubilee/Dockyard	25	10.48			
12 - University Heights/UVic	30	7.00	98	3.3	14.0
13 - Cadboro Bay/UVic	0	:	:	:	:
32 - Cordova Bay	16	3.73	54	3.4	14.5
35 - Ridge	0	:	:	:	:
49 - Langford Exchange	0	:	:	:	:
52 - Colwood	40	20.12			
53 - Atkins	10	3.58			
54 - Metchosin	6	5.90			
55 - Happy Valley	0	:	:	:	:
56 - Florence Lake	13	6.62			
57 - Millstream	12	7.33			
58 - Langford Meadows	14	5.07			
59 - Triangle Mountain	6	2.90			
60 - Wishart	5	2.43	45	9.0	18.5
63 - Otter Point	0	:	:	:	:
64 - East Sooke	0	:	:	:	:
81 - Swartz Bay/Brentwood	15	11.95	275	18.3	23.0
83 Sidney/Royal Oak	6	3.45			
85 North Saanich	0	:	:	:	:
86 Deep Cove/McTavish Exch	0	:	:	:	:
88 Sidney/Airport	24	5.80			

----- Investigate for corrective action
 Limited Samples

----- Investigate for service improvements

Appendix

Key Assumptions

Data

Ridership information used was collected from the fall of 2014 through automated passenger counters which are in place on more than 140 of the buses assigned to the Victoria Region's conventional fleet. This system counts the number of persons boarding and disembarking from a vehicle. A person may board more than one bus to complete a single trip when transfers are involved.

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 macro-economics and changes in land use.

GLOSSARY

Boardings

The number of times passengers board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination and regardless of whether they pay a fare, use a pass or transfer, ride for free, or pay in some other way. Also called unlinked passenger trips.

Peak Hours

Refers to weekday a.m. and p.m. service during commute hours to carry a maximum number of passengers. An example of commute or peak hours could be defined as time between 6:00 a.m. and 9:00 a.m. in the morning, and between 3:00 p.m. and 6:00 p.m. at night.

Revenue Service

The time when a vehicle is available to the general public and there is an expectation of carrying passengers. These passengers either directly pay fares, are subsidized by public programs, or provide payment through some contractual arrangement. Revenue service includes layover / recovery time. Revenue service excludes deadhead.