



Service Delivery

Quarterly Performance Report

System-wide Boardings								
Boardings by Service Mode	Fourth Quarter			YTD Through December			Annual SIP	
	2015	2016	%Δ	2015	2016	%Δ	Target	% YTD Target
ST Express	4,476,337	4,456,055	-0.5%	18,312,624	18,468,373	0.9%	19.5 M	95%
Sounder	1,006,924	1,004,649	-0.2%	3,851,888	4,162,641	8.1%	3.73 M	112%
Tacoma Link	245,845	240,063	-2.4%	973,412	937,885	-3.6%	0.95 M	99%
Link	2,844,632	5,228,684	83.8%	11,530,411	19,121,621	65.8%	17.2 M	111%
Paratransit	10,697	12,738	19.1%	46,033	48,243	4.8%	0.07 M	69%
Total Boardings	8,584,435	10,942,189	27.5%	34,714,311	42,738,763	23.1%	41.45 M	103%
Average Weekday Boardings	115,621	147,901	27.9%	116,673	142,633	22.3%		

Total Sound Transit ridership increased by 27.5% during the fourth quarter of 2016 compared to the same period in 2015. Link and paratransit saw increases during the quarter and ST Express and Sounder remained essentially flat. System-wide average weekday boardings increased 27.9% compared to the fourth quarter in 2015. There was one fewer weekday in the quarter compared to the prior year.

ST Express bus ridership decreased marginally by 0.5% compared to the fourth quarter in 2015. Average weekday boardings came to 62,595 which was a 1.1% increase over the fourth quarter of 2015. This ridership growth was tempered by low fuel prices, which tend to depress bus ridership.

Sounder average weekday boardings experienced a 3.1% increase over the fourth quarter of 2015; commute ridership on the South line increased by 2.1%; and YTD ridership increased 8.1% over 2015. Ridership growth on the South line is attributed to the new Sounder mid-day trains which were implemented in the September service change.

Tacoma Link ridership decreased 2.4% compared to the fourth quarter of 2015. Decreased ridership coincides with declines in Pierce Transit service in Pierce County. Average weekday boardings stood at 3,235 for the fourth quarter of 2016, a decrease of 4.0% compared to the same period of 2015.

Link light rail ridership continued its strong growth during the fourth quarter, with a 83.8% increase compared to the same period last year. Ridership growth is largely attributed to the expansion of service to new stations at Capitol Hill, University of Washington, and Angle Lake. Average weekday boardings were 66,203, an 89% increase compared to the fourth quarter of last year.

Paratransit ridership services increased by 19.1% for the fourth quarter of 2016. Paratransit service is provided along the Link corridor under contract with King County Metro. The increase in Paratransit ridership is attributed to the opening of the Link extensions and additional customers requesting access to the Link system.

Quarterly Data (October to December 2016)

ST Express ridership decreased marginally by 20K boardings or 0.5% during Q4 2016. Average weekday boardings increased by 1% to 62,595. The largest ridership gains were seen on Route 542 (Redmond-University District), which increased by 24% compared to the same time last year, Route 554 (Issaquah-Seattle), which increased by 7%, and on Route 580 (Lakewood-Puyallup), which increased by 22%. Route 580 began service in September of 2015; therefore, Q4 2015 was the first quarter of ridership data for this route.

Route 586 showed a decline of 16% during Q4 due to a decrease in the number of daily trips operated on the route, which became effective with the September 2015 service change.

Sounder total ridership declined slightly, 0.2%, in the fourth quarter due to one less day of weekday service and fewer special events compared to the same quarter of last year. However, both Sounder commuter lines showed growth, with a 0.1% increase on the North Line and a 2% increase on the South Line.

Tacoma Link ridership during Q4 2016 decreased slightly compared to the prior year with 6K less boardings or a difference of 2%.

Link ridership increased by 84% in Q4 versus the same period of last year, mainly driven by the Link extensions and the implementation of 6-minute peak frequencies in Q4 2015. Average weekday boardings increased to 66,203.

ST Express Boardings by Route					
		Q4 2015	Q4 2016	%Δ	YTD
510-513	Everett-Seattle	636,198	620,649	-2%	2,598,433
522	Woodinville-Seattle	379,488	386,084	2%	1,568,904
532	Everett-Bellevue	131,234	126,533	-4%	531,172
535	Lynnwood-Bellevue	132,849	129,745	-2%	512,925
540	Kirkland-U. District	42,262	38,182	-10%	160,862
541	Overlake-U. District	0	43,570	N/A	132,851
542	Redmond-U. District	110,040	135,907	24%	539,674
545	Redmond-Seattle	636,763	607,110	-5%	2,605,320
550	Bellevue-Seattle	756,800	754,381	-0.3%	3,151,998
554	Issaquah-Seattle	267,390	286,845	7%	1,180,368
555/556	Issaquah-Northgate	99,236	94,892	-4%	399,805
560	West Seattle-SeaTac-Bellevue	138,747	127,138	-8%	522,058
566/567	Auburn-Kent-Overlake	138,558	125,564	-9%	538,644
574	Lakewood-SeaTac	195,418	192,340	-2%	766,163
577/578	Seattle-Federal Way/Puyallup	260,785	255,636	-2%	1,061,255
580	Lakewood-Puyallup	28,992	35,432	22%	124,657
586	Tacoma-U. District	33,270	28,083	-16%	113,823
590-595	Lakewood/Tacoma-Seattle	456,172	437,466	-4%	1,831,870
596	Bonney Lake-Sumner	29,536	29,294	-1%	121,821
	Sounder Supplemental Bus	2,601	1,204	-54%	4,678
	Link Supplemental Bus	0	0	N/A	1,090
ST Express Total		4,476,337	4,456,055	-0.5%	18,468,373
Average Weekday		61,909	62,595	1%	64,127

Sounder Commuter Rail Boardings by Corridor				
North Line	Q4 2015	Q4 2016	%Δ	YTD
Commuter	92,734	92,858	0.1%	390,280
Special	16,422	9,582	-42%	36,758
Subtotal	109,155	102,440	-6%	427,038
South Line	Q4 2015	Q4 2016	%Δ	YTD
Commuter	863,961	882,410	2%	3,676,620
Special	33,807	19,800	-41%	58,984
Subtotal	897,768	902,209	0.5%	3,735,603
Total Sounder	1,006,924	1,004,649	-0.2%	4,162,641
Average Weekday	15,259	15,730	3%	16,049
Tacoma Link Light Rail Boardings				
	Q4 2015	Q4 2016	%Δ	YTD
Tac Dome-Theatre Dist	245,845	240,063	-2%	937,885
Average Weekday	3,371	3,235	-4%	3,181
Link Light Rail Boardings				
	Q4 2015	Q4 2016	%Δ	YTD
UW-Angle Lake	2,844,632	5,228,684	84%	19,121,621
Average Weekday	34,965	66,203	89%	59,118
Paratransit Boardings				
	Q4 2015	Q4 2016	%Δ	YTD
Link Service Area	10,697	12,738	19%	48,243
Average Daily	116	138	19%	158
Sound Transit System Boardings				
	Q4 2015	Q4 2016	%Δ	YTD
Total Boardings	8,584,435	10,942,189	27%	42,738,763
Average Weekday	115,621	147,901	28%	142,633

Quarterly Data (October to December 2016)

ST Express Bus	Q4 2014	Q4 2015	Q4 2016	Q4 Budget
Revenue Vehicle Hours Operated ¹	139,853	148,734	155,691	144,500
Revenue Vehicle Miles Operated	2,930,609	2,917,762	3,009,122	2,998,500
Trips Operated	113,530	114,695	120,863	116,500
Platform Hours Operated	181,968	185,458	194,772	186,250
Boardings	4,407,362	4,476,337	4,456,055	4,959,250
Boardings per Revenue Hour	31.5	30.1	28.6	34.3
Boardings per Trip	38.8	39.0	36.9	42.6
Cost per Boarding ²	\$6.39	\$5.17	\$6.77	\$6.25
Percentage of Scheduled Trips Operated	99.9%	99.9%	99.8%	≥ 99.8%
On-Time Performance ³	85.9%	79.5%	83.3%	≥ 85.0%
Customer Complaints per 100K Boardings	13.5	19.7	19.1	< 15.0
Prev. Accidents per 100K Platform Miles ⁵	0.84	0.80	0.84	< 0.80
Sounder Commuter Rail	Q4 2014	Q4 2015	Q4 2016	Q4 Budget
Revenue Vehicle Hours Operated ¹	12,478	14,763	14,321	14,750
Revenue Vehicle Miles Operated	399,105	444,759	459,592	466,538
Trips Operated	1,739	1,788	2,045	2,050
Boardings	913,720	1,006,924	1,004,649	990,683
Boardings per Revenue Vehicle Hour	73.2	68.2	70.2	67.2
Boardings per Trip	525.4	563.2	491.3	483.4
Cost per Boarding ²	\$11.32	\$9.78	\$11.62	\$11.92
Percentage of Scheduled Trips Operated	99.9%	97.8%	98.7%	≥ 99.5%
On-Time Performance ³	96.6%	93.2%	87.3%	≥ 95.0%
Customer Complaints per 100K Boardings	5.4	11.6	21.3	< 15.0
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	0.00	≤ 1.00
Tacoma Link Light Rail	Q4 2014	Q4 2015	Q4 2016	Q4 Budget
Service Hours Operated	2,481	2,474	2,502	2,461
Service Miles Operated	19,174	19,053	19,267	19,073
Trips Operated	12,407	12,375	12,512	12,370
Boardings	249,482	245,845	240,063	264,708
Boardings per Service Vehicle Hour	100.5	99.4	95.9	107.6
Boardings per Trip	20.1	19.9	19.2	21.4
Cost per Boarding ²	\$4.10	\$4.41	\$4.78	\$4.86
Percentage of Scheduled Trips Operated	99.9%	99.9%	99.9%	≥ 98.5%
On-Time Performance ³	99.9%	99.9%	99.9%	≥ 98.5%
Customer Complaints per 100K Boardings	0.0	0.0	0.0	< 15.0
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	1.31	≤ 1.66
Link Light Rail	Q4 2014	Q4 2015	Q4 2016	Q4 Budget
Revenue Vehicle Hours Operated ¹	35,802	38,897	60,653	44,478
Revenue Vehicle Miles Operated	672,937	742,232	1,239,079	882,048
Trips Operated	22,521	25,138	26,255	25,166
Boardings	2,600,872	2,844,632	5,228,684	5,275,000
Boardings per Revenue Vehicle Hour	72.6	73.1	86.2	118.6
Boardings per Trip	115.5	113.2	199.2	209.6
Cost per Boarding ²	\$4.39	\$5.15	\$4.10	\$4.05
Percentage of Scheduled Trips Operated	99.2%	98.5%	98.0%	≥ 98.5%
Headway Performance ⁴	94.3%	91.3%	93.7%	≥ 90.0%
Customer Complaints per 100K Boardings	1.0	1.1	1.4	< 15.0
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	0.05	< 0.30

1-Revenue hours: The total amount of time during which service is available to carry passengers. Tacoma Link reports as service hours since it does not collect fares.

2-Cost per boarding is calculated as the total actual operating costs (including Agency overhead) before depreciation divided by the total number of riders.

3-On-time performance standards are described in the budget.

4-Headway Performance: 2015 and 2016 are reported using a tolerance of +/- 2 minutes (a tolerance of +/- 3 minutes was used for 2014).

5-Preventable accident: An accident in which the operating employee failed to do everything reasonable to prevent the accident.

Year to Date Data (January to December 2016)

ST Express Bus	YTD 2014	YTD 2015	YTD 2016	YTD Budget	Notes
Revenue Vehicle Hours Operated ¹	575,262	584,393	596,619	578,000	ST Express did not meet its year end targets, with the exception of percentage of scheduled trips operated. Overcrowding and traffic congestion continue to negatively impact performance and the customer's experience. ST Express was also outside of the targeted range for preventable accidents in Q4. While the majority of accidents are minor in nature, staff and partners are working to identify trends and implement changes to reduce preventable accidents, with a focus on safety as the highest priority.
Revenue Vehicle Miles Operated	11,668,550	11,604,165	11,915,866	11,994,000	
Trips Operated	452,034	453,097	475,095	466,000	
Platform Hours Operated	717,301	727,947	761,231	745,000	
Boardings	17,669,833	18,312,624	18,468,373	19,500,000	
Boardings per Revenue Hour	30.7	31.3	31.0	33.7	
Boardings per Trip	39.1	40.4	38.9	41.8	
Cost per Boarding ²	\$6.26	\$5.90	\$6.40	\$6.37	
Percentage of Scheduled Trips Operated	99.9%	99.9%	99.8%	≥ 99.8%	
On-Time Performance ³	85.9%	82.2%	82.8%	≥ 85.0%	
Customer Complaints per 100K Boardings	13.5	14.8	17.6	< 15.0	Sounder largely met all their targets with the exception of YTD percentage of scheduled trips operated and on-time performance. Delays and interruptions were mostly due to construction of the third mainline by BNSF (an ST2 project to expand railroad capacity) near Auburn that forced a single track railroad for a number of weeks. Additional freight interference delays were also largely related to that work.
Prev. Accidents per 100K Platform Miles ⁵	0.84	0.80	0.84	< 0.80	
Sounder Commuter Rail	YTD 2014	YTD 2015	YTD 2016	YTD Budget	
Revenue Vehicle Hours Operated ¹	50,375	58,760	58,778	56,150	
Revenue Vehicle Miles Operated	1,603,802	1,783,253	1,810,562	1,866,151	
Trips Operated	7,048	7,200	7,507	7,362	
Boardings	3,361,318	3,851,831	4,162,641	3,727,169	
Boardings per Revenue Vehicle Hour	66.7	65.6	70.8	66.4	
Boardings per Trip	476.9	535.0	554.5	506.3	
Cost per Boarding ²	\$11.63	\$10.54	\$10.58	\$12.28	
Percentage of Scheduled Trips Operated	96.7%	98.9%	98.7%	≥ 99.5%	Tacoma Link met all service performance targets in Q4 YTD, with the exception of boardings. Preliminary year-end ridership on Tacoma Link showed a 0.3% decrease over 2015 but would still rank the sixth highest ridership year for the Tacoma Link system.
On-Time Performance ³	95.1%	96.2%	92.8%	≥ 95.0%	
Customer Complaints per 100K Boardings	7.6	6.3	11.2	< 15.0	
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	0.00	≤ 1.00	
Tacoma Link Light Rail	YTD 2014	YTD 2015	YTD 2016	YTD Budget	
Service Hours Operated	9,784	9,814	9,864	9,844	
Service Miles Operated	75,605	75,567	75,968	76,291	
Trips Operated	48,921	49,073	49,333	49,481	
Boardings	973,605	973,412	937,885	950,000	
Boardings per Service Vehicle Hour	99.5	99.2	95.1	96.5	
Boardings per Trip	19.9	19.8	19.0	19.2	Link largely met all targets but was slightly outside the target for boardings per revenue vehicle hour Q4 YTD 2016. Performance has increased compared to 2015 by 18%, but fell 3.3% short of target.
Cost per Boarding ²	\$4.18	\$4.36	\$4.62	\$5.42	
Percentage of Scheduled Trips Operated	99.9%	99.9%	99.9%	≥ 98.5%	
On-Time Performance ³	99.9%	99.9%	99.9%	≥ 98.5%	
Customer Complaints per 100K Boardings	0.7	0.2	0.5	< 15.0	
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	1.31	≤ 1.66	
Link Light Rail	YTD 2014	YTD 2015	YTD 2016	YTD Budget	
Revenue Vehicle Hours Operated ¹	143,887	145,847	204,824	177,911	
Revenue Vehicle Miles Operated	2,697,552	2,719,160	4,103,169	3,528,190	
Trips Operated	90,500	92,780	102,312	100,664	
Boardings	10,937,883	11,530,411	19,121,621	17,200,000	
Boardings per Revenue Vehicle Hour	76.0	79.1	93.4	96.7	
Boardings per Trip	120.9	124.3	186.9	170.9	
Cost per Boarding ²	\$5.36	\$5.07	\$4.21	\$4.97	
Percentage of Scheduled Trips Operated	99.5%	99.0%	98.4%	≥ 98.5%	
Headway Performance ⁴	94.2%	90.3%	90.7%	≥ 90.0%	
Customer Complaints per 100K Boardings	1.2	1.2	1.9	< 15.0	
Prev. Accidents per 100K Platform Miles ⁵	0.00	0.00	0.05	< 0.30	

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