SHORT- AND LONG-RANGE PLAN

Intercity Transit

October 2018

INTERcity TRANSIT

NELSON NYGAARD

INTERcity TRANSIT

Table of Contents

Table of Figures

Page

1 INTRODUCTION

This Short- and Long-Range Transit Plan reimagines Intercity Transit—both today and into the future.

The plan establishes a long-term vision for transit in Thurston County, as well as near-term strategies to improve service, and in turn move toward the vision. It uses a combination of rigorous analyses and thoughtful community input to tackle challenges and build on success. This is *our* plan for Intercity Transit.

WHAT IS INCLUDED IN THIS REPORT?

The Short- and Long-Range Transit Plan contains three sections: an Existing Conditions analysis, a Short-Range Plan, and a Long-Range Plan.

Existing Conditions

Chapters: 2-7

The Existing Conditions section sets the stage for the short- and long-term recommendations. It assesses existing transit services, reviews pertinent plans and documents, maps relevant demographic characteristics, and analyzes travel patterns. Information in this section refers to 2016, which was the most recent data at the time of the analysis.

Work undertaken from early- to mid-2017

Short-Range Plan

Chapters: 8-9

The Short-Range Plan includes short-term recommendations—drawn from community input and existing conditions findings—designed early in 2018 to be implementable without significant changes in funding. They are the first steps toward the long-term vision. The first set of short-term changes was implemented in September 2018. This may vary slightly from the plan due to public input and operational issues.

Work undertaken from late-2017 to early-2018

Long-Range Plan

Chapters: 10-14

The Long-Range Plan includes setting a vision, defining longer-term strategies, identifying funding strategies, and building a financial plan. These are the bigger picture steps that move us toward the vision.

Work undertaken from early- to mid-2018

Additional information is available in three appendices. Appendix A provides further information, or "scorecards", on individual bus routes. Appendix B presents maps for each existing route. And Appendix C displays the information sheets that were made available to the public, explaining the long-term recommendations in easy-to-understand terms.

PART I

Existing Conditions

2 INTRODUCTION TO EXISTING CONDITIONS

The Existing Conditions section summarizes the conditions in which Intercity Transit (IT) operates and helps identify some of the unmet needs in the community. In addition to this introduction (Chapter 2), the Existing Conditions analysis spans chapters 3 through 7:

- **Chapter 3: Existing Transit Services.** Overview of the Intercity Transit system as it currently exists.
- **Chapter 4: Document Review.** Review of plans and projects relevant to transit developed by agencies, organizations, and other government entities in Thurston County.
- **Chapter 5: Demographic Characteristics.** Population, employment, and other demographic characteristics that are important to transit ridership.
- **Chapter 6: Travel Demand Analysis.** Analysis of travel patterns and travel demand in Thurston County.
- **Chapter 7: Route Summaries.** Summary information including descriptions, ridership, and on-time performance, for each route.

Unless otherwise mentioned, findings from this section reflect existing conditions for the year 2016. At the time of analysis, this was the most recently available information.

3 EXISTING TRANSIT SERVICES

In late 2016 Intercity Transit operated 21 fixed routes within the Thurston County Public Transportation Benefit Area (PTBA) as well as four express routes between Thurston County and Pierce County. This chapter describes different service types, service spans, frequencies, and revenue hours.

Fixed-route services operated by Intercity Transit vary based on route design, function, span of service (hours of operation), and headway (time between buses). Intercity Transit fixed routes are classified into the following groups:

- **Trunk routes** serve high volume corridors and provide the most frequent service within urbanized portions of Thurston County. Trunk routes are Intercity Transit's most intensive services.
- **Secondary routes** serve arterial streets within urbanized areas. They operate most days of the week, providing somewhat frequent service on weekdays with some night and weekend service.
- **Specialized and Shuttle routes** serve unique markets such as weekend late nights and the Capitol campus.
- **Express routes** connect transit centers or park-and-ride lots with major transit destinations, offering travel times comparable to automobiles.

Services operate seven days a week, with 23 routes operating on weekdays, 20 routes operating on Saturdays, and 16 routes operating on Sundays. Figure 3-1 lists all Intercity Transit routes along with their service type and a description of major destinations served. On the following page, Figure 3-2 displays Intercity Transit's system map.

Figure 3-1 Route Types and Descriptions

Service Type	Route	Description
Trunk Routes	13	L&I, East Tumwater, and Downtown Olympia
	41	The Evergreen State College, Downtown Olympia.
	44	Capital Mall, South Puget Sound Community College, Downtown Olympia
	48	The Evergreen State College, Capital Mall, Downtown Olympia
	49	Capital Mall, Downtown Olympia, Sundays only
	66	Lacey, Ruddell Road, Downtown Olympia
	62A	Lacey, Meridian, Downtown Olympia
	62B	Lacey, The Meadows, Downtown Olympia
Secondary Routes	12	L&I, West Tumwater, Downtown Olympia
	21	Bethel Street, North Central Street, Downtown Olympia
	43	Thurston County Courthouse, SPSCC, Tumwater Square, Downtown Olympia
	45	Capital Mall, Conger, Downtown Olympia
	47	Capital Medical Center, Capital Mall, Downtown Olympia
	60	Kaiser Permanente, Panorama City, Downtown Olympia
	64	Lacey, Amtrak, College Street, Downtown Olympia
	67	Lacey, Tri Lake
	68	Lacey, Tumwater Square, Downtown Olympia.
	94	Lacey Corporate Center, Yelm, Downtown Olympia
Specialized and Shuttle Routes	42	Family Court, SPSCC
	101	DASH - Free Downtown Olympia Shuttle
	411	Nightline - Weekend late night: Downtown Olympia to Evergreen (contract)
Express Routes	603	Express Weekdays: Olympia to Tacoma
	605	Express Weekdays: Olympia/Lacey to Tacoma
	612	Express Weekdays: Olympia to Tacoma
	620	Express Weekends: Between Olympia/Lacey and Tacoma Mall

Figure 3-2 Intercity Transit System Map (2017)

CURRENT CONDITIONS

The following tables and charts present span, frequency, and current operating statistics for Intercity Transit routes. Boarding and productivity statistics are based on Automatic Passenger Counter (APC) data collected between February and June 2016. On-time performance statistics are based on CAD/AVL data sampled in July 2017. Operating statistics for Weekday, Saturday, and Sunday services are presented below. For comparison with 2016 and 2017 data, the service period reviewed in this report is for 2016-2017; it is possible that level of service and schedules for some routes may have been updated since the time of writing.

Weekday

Frequency and Span

As shown in Figure 3-3, weekday frequencies range from 15 minutes to 60 minutes. Regular service starts roughly at 6:00 AM and extends on some routes until roughly 12:00 AM. Figure 3-6 illustrates frequencies during weekday peak periods.

Figure 3-4 displays daily boarding, daily revenue hours, passengers per revenue hour, and passengers per revenue mile by route. There are over 13,000 daily boardings systemwide on weekdays. Systemwide, there are 20.3 boardings per revenue hour on weekdays. Productivity ranges from greater than 30 boardings per revenue hour on Route 48 and Route 41 to 6.2 boardings per revenue hour on Route 42. The majority of routes have above 10 boardings per revenue hour, shown in Figure 3-5.

Figure 3-3 Span and Frequency – Weekday*

Route	Service Type	Span	Frequency			
			Peak	Midday	Evening	Late
12	Secondary	6:03 AM - 11:15 PM	30	60	60	60
13	Trunk	6:10 AM - 10:50 PM	15	15	30	60
21	Secondary	6:30 AM - 8:25 PM	30	60	60	-
41	Trunk	6:00 AM - 11:55 PM	15*	30*	30*	30*
42	Specialized and Shuttle	7:15 AM - 6:20 PM	30	30**	-	-
43	Secondary	6:15 AM - 7:40 PM	30	30	30	-
44	Trunk	5:58 AM - 10:25 PM	30	30	30	30
45	Secondary	6:35 AM - 7:55 PM	30	60	60	-
47	Secondary	6:25 AM - 7:55 PM	30	30	30	-
48	Trunk	6:43 AM - 10:13 PM	30	30	30	30
60	Secondary	6:20 AM - 7:55 PM	30	60	60	-
62A	Trunk	5:41 AM - 9:25 PM	30	30	60	-
62B	Trunk	6:00 AM - 12:05 AM	30	30	60	60
64	Secondary	5:48 AM - 9:10 PM	30	60	60	-
66	Trunk	5:56 AM - 11:15 PM	30	30	60	60
67	Secondary	6:10 AM - 7:35 PM	60	60	60	-
68	Secondary	5:58 AM - 8:28 PM	30	60	60	-
94	Secondary	5:34 AM - 9:45 PM	60	60	60	-
101	Specialized and Shuttle	7:10 AM – 6:20 PM	15	15	-	-
411***	Specialized and Shuttle	11:46 PM - 3:18 AM	-	-	-	60
603	Express	6:10 AM - 1:10 PM (SB) 12:00 PM - 8:35 PM (NB)	8 Trips SB, 9 Trips NB			
605	Express	5:15 AM - 11:40 AM (NB) 1:25 PM - 10:00 PM (SB)	8 Trips NB, 10 Trips SB			
609****	Express	5:00 AM – 8:52 AM 3:00 PM – 7:30 PM	10 Trips NB, 11 Trips SB			
612****	Express	6:50 AM - 7:48 AM (SB) 4:15 PM - 5:40 PM (NB)	1 Trip SB, 1 Trip NB			

*Frequency drops 50% during summer

**No service between 9:05 AM and 12:00 PM and between 1:50 PM and 3:00 PM

***Does not operate Mon-Thurs

****Route 609 was eliminated in July 2017 and services were replaced by enhanced Route 612

Figure 3-4 Operating Statistics by Route – Weekday

Route	Service Type	Daily Boardings	Daily Revenue Hours	Boardings per Revenue Hour	Boardings per Revenue Mile
12	Secondary	422	25.5	16.5	1.2
13	Trunk	1,179	52.4	22.5	2.0
21	Secondary	250	10.2	24.6	1.9
41	Trunk	1,442	40.2	35.8	2.8
42	Specialized and Shuttle	44	7.0	6.2	0.6
43	Secondary	660	26.9	24.6	2.0
44	Trunk	835	31.9	26.2	2.1
45	Secondary	167	14.8	11.2	1.1
47	Secondary	617	27.2	22.7	2.6
48	Trunk	1,105	30.7	36.0	2.7
60	Secondary	439	28.2	15.6	1.5
62A	Trunk	1,231	43.3	28.4	2.3
62B	Trunk	1,158	46.8	24.8	2.0
64	Secondary	677	42.0	16.1	1.4
66	Trunk	1,016	47.0	21.6	1.7
67	Secondary	116	13.4	8.6	0.6
68	Secondary	747	39.8	18.8	1.2
94	Secondary	667	44.3	15.0	0.8
101	Specialized and Shuttle	292	23.8	12.3	1.5
411	Specialized and Shuttle	72	3.8	18.6	1.4
603	Express	201	24.8	8.1	11.8**
605	Express	265	24.8	10.7	14.7**
609*	Express	111	23.9	4.6	5.1**
612	Express	26	2.6	9.8	13.0**
System Total		13,739	675.3	20.3	1.5

*2015 data, all others are 2016; Route 609 was eliminated in July 2017 and replaced by enhanced Route 612

**Productivity of Express Routes is based on Boardings per Trip

Figure 3-5 Boardings per Revenue Hour by Route and Service Type – Weekday

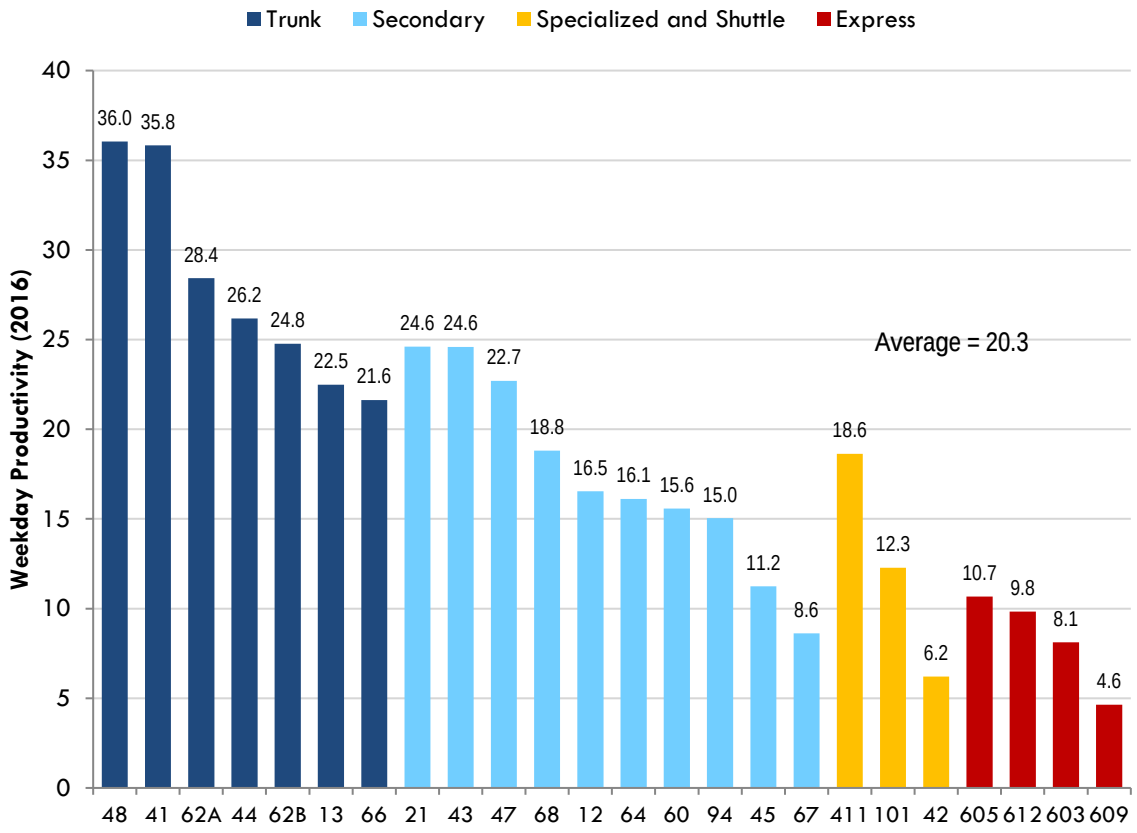


Figure 3-6 Intercity Transit Service Frequency – Weekday Peak (2017)

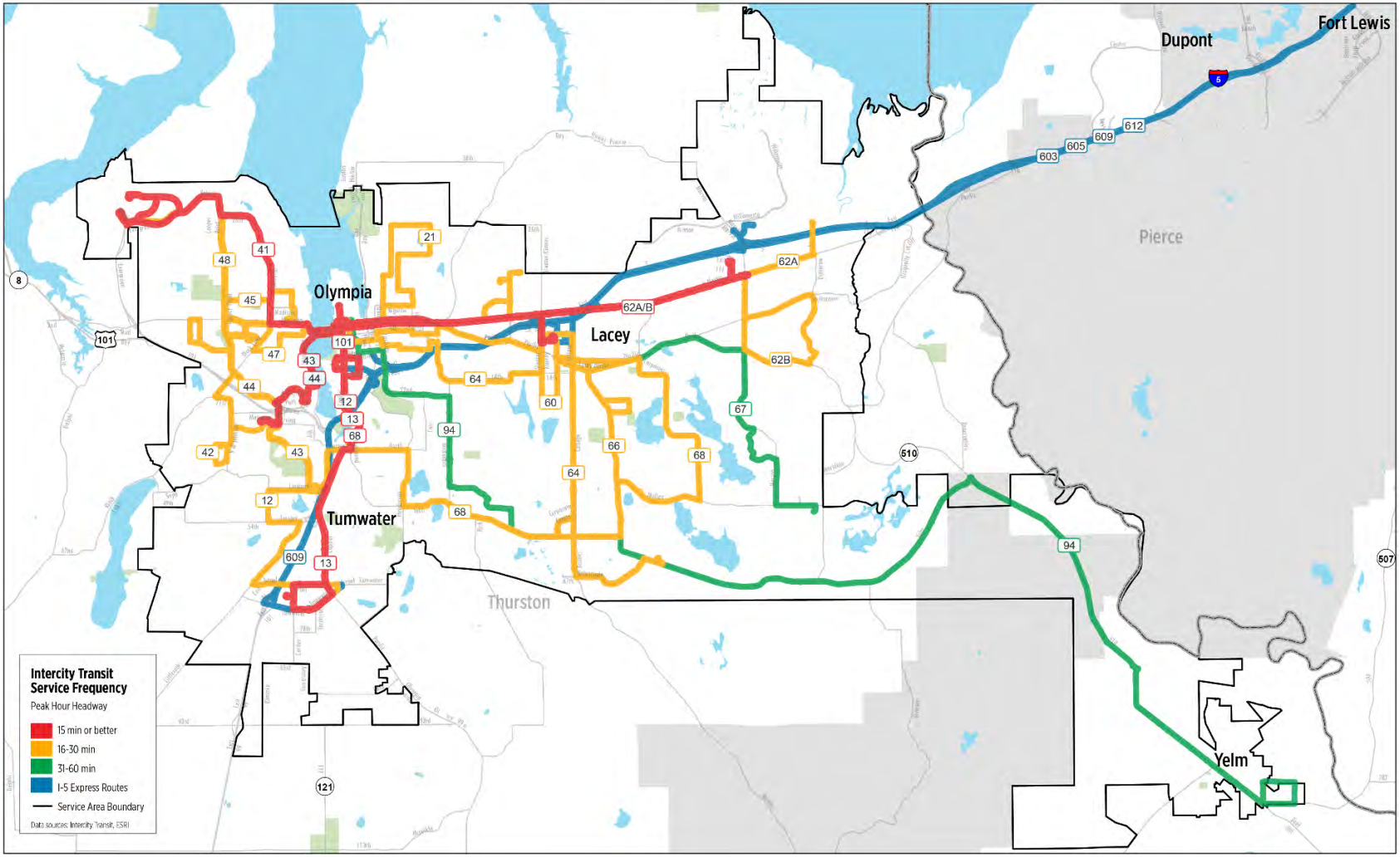


Figure 3-7 Intercity Transit Service Frequency – Weekday Midday (2017)

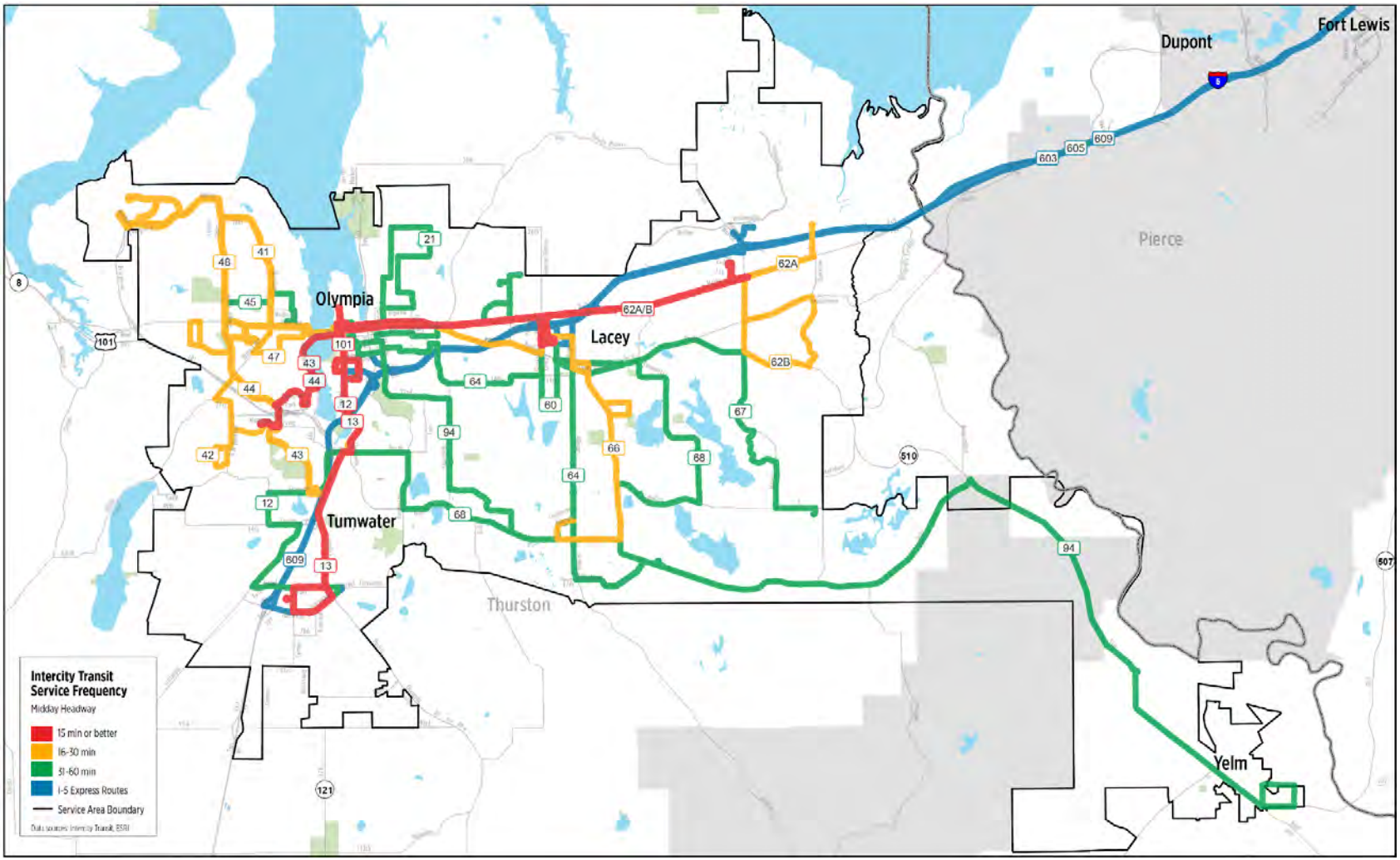
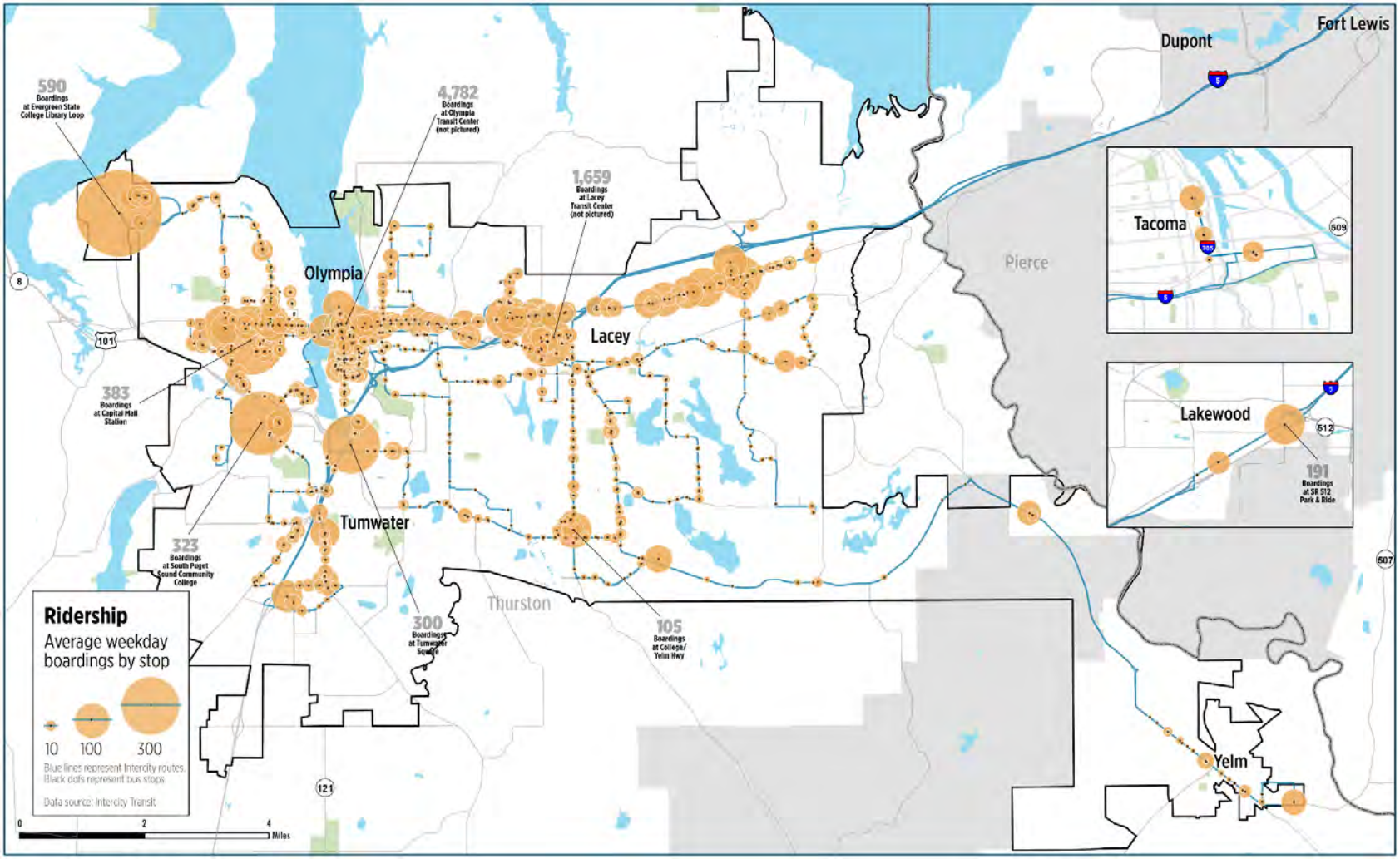


Figure 3-8 Intercity Transit Systemwide Ridership – Weekday (2016)



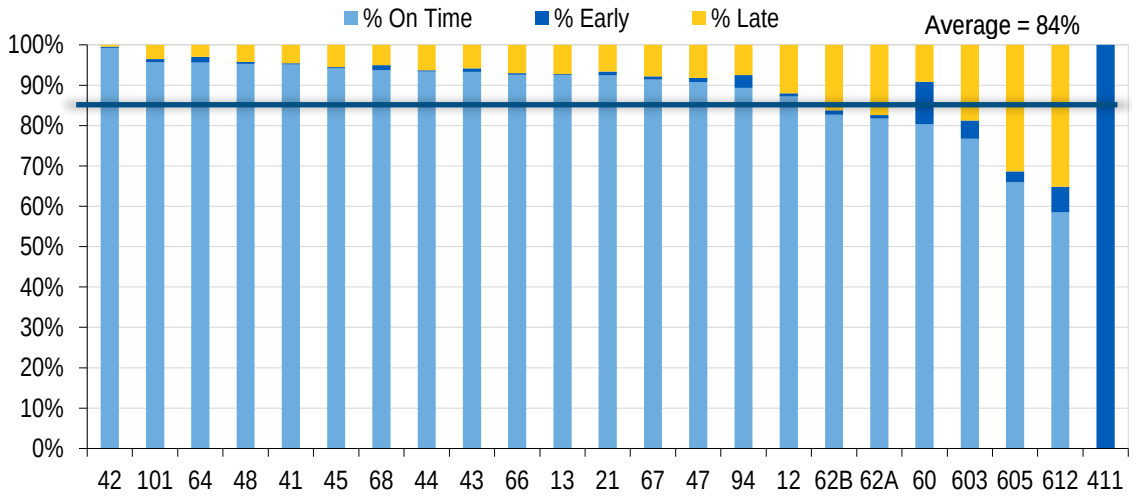
On-Time Performance

Intercity Transit collects its on-time performance data in several ways, including via Automatic Passenger Counter (APC) and via Computer Aided Dispatch (CAD) and Automated Vehicle Location (AVL) systems. The on-time performance data presented here uses CAD/AVL data sampled in July 2017. Systemwide, approximately 10% of trips run late and about 6% of trips run early, as shown in Figure 3-9.

Figure 3-9 On-Time Performance by Route - Weekday

Route	Service Type	On Time	Early	Late
12	Secondary	87%	1%	12%
13	Trunk	93%	0%	7%
21	Secondary	92%	1%	7%
41	Trunk	95%	0%	5%
42	Specialized and Shuttle	99%	0%	0%
43	Secondary	93%	1%	6%
44	Trunk	93%	0%	6%
45	Secondary	94%	0%	5%
47	Secondary	91%	1%	8%
48	Trunk	95%	1%	4%
60	Secondary	80%	11%	9%
62A	Trunk	82%	1%	17%
62B	Trunk	83%	1%	16%
64	Secondary	96%	1%	3%
66	Trunk	93%	0%	7%
67	Secondary	91%	1%	8%
68	Secondary	94%	1%	5%
94	Secondary	89%	3%	8%
101	Specialized and Shuttle	96%	1%	4%
411	Specialized and Shuttle	0%	100%	0%
603	Express	77%	5%	19%
605	Express	66%	3%	31%
612	Express	58%	6%	35%
Average		84%	6%	10%

Figure 3-10 On-Time Percentage by Route – Weekday



Intercity Transit has five major transfer points: Olympia Transit Center, Capital Mall, Tumwater Square, Lacey Transit Center, and Lacey Corporate Center. Late arrivals at these key locations may result in missed connections for passengers wishing to transfer.

Olympia Transit Center is a hub for Intercity Transit routes. Notable late arrivals to OTC (more than 5% of all trips) include Express Routes 612, 605, and 603, Route 13, and Route 44. Late arrivals occur on midday and PM Peak trips for Express Routes. On Routes 13 and 44, late arrivals occur primarily during PM Peak hours. These late arrivals present a challenge for passengers wishing to connect with other routes at the transit center. Additionally, Route 94 has issues with departing late from Olympia Transit Center during PM Peak trips.

Capital Mall is served on weekdays by Routes 44, 45, 47, and 48. Among these, Route 47 has a high incidence of late running at Capital Mall, which may cause issues for passengers wishing to transfer from Route 47 to other routes. Late running on Route 47 tends to occur on midday and PM Peak trips and is not an issue in the evening or AM Peak.

Tumwater Square is served by Routes 12, 13, 43, and 68. Among these, Route 12 has the highest incidence of late running at Tumwater Square, particularly during midday trips.

The **Lacey Transit Center** is a hub for bus routes in downtown Lacey, offering a transfer point between Routes 60, 62A/B, 64, 66, 67, 68, and Express Routes 605, 612, and 620. Routes 62A/B have a high incidence of late running at Lacey Transit Center. For those routes, late running tends to occur on outbound trips during midday and PM Peak hours, and on inbound trips during the AM Peak. Route 66 also has issues with late arrivals to Lacey Transit Center during PM Peak hours.

Finally, **Lacey Corporate Center** provides a transfer opportunity between Routes 66, 68, and 94. However, Route 94 has a high incidence (14%) of late arrivals at the Corporate Center in the inbound direction, potentially resulting in missed connections for passengers traveling from Yelm to Lacey.

Routes with Less than 90% Schedule Adherence

Route 42 has the best on-time performance, with 99% of all trips arriving on time. Routes 101 (Dash), 64, 48, and 41 also have better than 95% on-time performance. Routes with less than 90%

schedule adherence include (in order of magnitude): Express Routes 612, 605, and 603, Route 60, Routes 62A/B, Route 12, and Route 94.

Express Routes

Express route schedules are designed for cases when traffic congestion is present on I-5. Despite this time cushion, many routes arrive late at their endpoints, particularly inbound trips during the PM Peak.

Route 60

Route 60 operates on time just 80% of the time with the remaining trips split between early and late. Route 60 has the highest incidence of early running of any route in the system; nearly all outbound trips are recorded as early at the Lacey Transit Center timepoint. From there, Route 60 continues to Panorama Center (a five minute journey) where it is consistently recorded as arriving late by an average of 3 minutes.

It should be noted that Route 60 is specifically designed to better connect areas with greater senior concentrations to medical facilities. As a result, it carries significant numbers of wheelchairs, which can have an impact on on-time performance. During 2012 operator interviews, operators noted that Route 60 had on time performance issues often due to the impacts of multiple wheelchair passengers using the route.

Route 62A/B

Route 62A/B has below average on time performance with 82-83% of trips operating on time, 1% running early, and 16-17% running late.

On Route 62A, late running tends to occur more often in the inbound direction and during midday and PM Peak trips. This late running frequently occurs along the eastern segment of the route at Martin Way and Carpenter, Martin Way and Meridian Rd, and Martin Way and Marvin Rd timepoints. In the outbound direction, Route 62A often arrives late at Martin Way and Marvin Rd.

On Route 62B, some late running occurs inbound during the AM Peak, while the majority occurs in the outbound direction on PM Peak trips. Late running during outbound trips occurs most often at the Martin Way and Marvin Rd and Pacific and Rockcress timepoints.

Route 62A/B has a high incidence of late running at Lacey Transit Center. The routes depart late from Lacey Transit Center most frequently on outbound trips during midday and PM Peak hours, and on inbound trips during the AM Peak. Additionally, Route 62A/B has issues with departing late from Olympia Transit Center, with more than 10% of PM Peak trips and 4-5% of midday trips leaving late. Despite the poor on-time performance along the route's ends, arrivals at Olympia Transit Center tend to be on time 95% of the time. Intercity Transit operators noted that an extra vehicle is often deployed during peak periods to allow Route 62 buses to continue on Martin Way without deviating into the Lacey Transit Center. As this vehicle is not reflected in the CAD/AVL data sample, on-time performance for the 62A/B is likely worse than the data suggests.

Route 12

Route 12 has the second-highest incidence of late arrivals (12%) compared to other secondary and trunk routes in the system and a low rate of early arrivals. Late arrivals are more common in the inbound (northbound) direction, particularly during midday and PM Peak trips. Despite a high

incidence of late running, more than 95% of trips arrive on time to major transfer points Olympia Transit Center and Tumwater Square. Additionally, Route 12 was on detour due to road construction during the study period.

Route 94

Route 94 has below average on time performance with 89% of trips operating on time, 3% of trips arriving early to their timepoints and 8% of trips arriving late. Most late and early running occurs during PM Peak trips. Schedule adherence is nearly identical in the inbound and outbound directions. Route 94 has a high incidence (9%) of late running at Lacey Corporate Center, a major transfer point. Additionally, Route 94 has issues with departing late from Olympia Transit Center during PM Peak trips.

Weekend

Frequency and Span

Saturday frequencies range from 30 minutes to 90 minutes between routes, and for the most part remain consistent throughout the day. Regular service starts roughly at 8:15 AM and extends on some routes until roughly 12:00 AM, as shown in Figure 3-11.

Figure 3-12 displays daily boardings, daily revenue hours, passengers per revenue hour, and passengers per revenue mile by route for Saturday service. There are over 7,500 daily boardings system wide on Saturdays, with 19 boardings per revenue hour on Saturdays.

As shown in *Productivity of Express Routes is based on Boardings per Trip

Figure 3-13, Route 48, serving the Evergreen State College, Capital Mall, and Downtown Olympia, has the highest Saturday productivity of all routes with 32.3 boardings per revenue hour. Routes 67 and 43 have productivities below 10 boardings per revenue hour. Route 43 is the least productive with 6.4 boardings per revenue hour.

Figure 3-14 and Figure 3-15 show span, frequency, and operating statistics for Sunday service. Regular Sunday service operates from roughly 8:00 AM to 9:00 PM with one route operating until 12:00 AM. Route frequencies range from 30 minutes to 135 minutes, with most service operating every 60 minutes. Systemwide, there are just over 5,000 boardings on Sundays, which is proportional to the difference in service hours between Saturday and Sunday. Sunday productivity system wide is slightly above Saturday productivity, with 19.5 boardings per revenue hour. Route 49, which operates on Sundays only, has the highest productivity, with 36.6 boardings per revenue hour, and is closely followed by Route 41, with 33.6 boardings per revenue hour. Routes 60 and 620 are the least productive Sunday routes, with less than 10 boardings per revenue hour and trip, respectively.

Figure 3-11 Span and Frequency – Saturday

Route	Service Type	Span	Frequency
12	Secondary	8:15 AM - 11:15 PM	60
13	Trunk	8:42 AM - 10:50 PM	60
21	Secondary	9:00 AM - 8:25 PM	60
41	Trunk	8:30 AM - 11:55 PM	30
43	Secondary	8:43 AM - 7:10 PM	60
44	Trunk	8:30 AM - 10:25 PM	30
45	Secondary	8:18 AM - 7:40 PM	60
47	Secondary	8:25 AM - 7:55 PM	60
48	Trunk	8:43 AM - 10:13 PM	30
60	Secondary	8:20 AM - 7:55 PM	60
62A	Trunk	8:33 AM - 9:25 PM	30/60*
62B	Trunk	8:16 AM - 12:05 AM	30/60*
64	Secondary	8:18 AM - 9:10 PM	60
66	Trunk	8:26 AM - 11:15 PM	30
67	Secondary	8:50 AM - 7:35 PM	60
68	Secondary	8:33 AM - 8:28 PM	60
94	Secondary	8:08 AM - 9:00 PM	60/75**
101***	Specialized and Shuttle	9:00 AM – 5:05 PM	10
411	Specialized and Shuttle	11:46 PM - 3:18 AM	60
620	Express	9:00 AM – 9:00 PM	60/90**

*30 min only between 10:30 AM - 5:30 PM

**Every other trip comes after 60 minutes

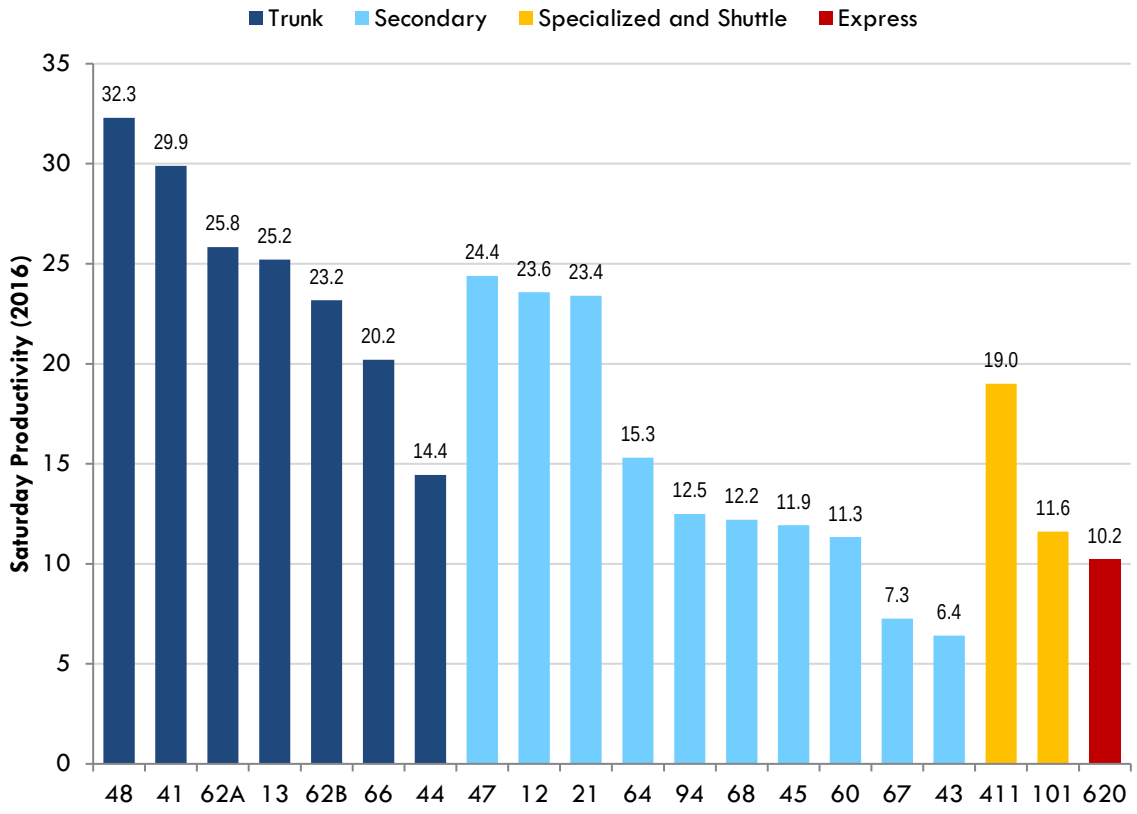
***The Dash route operates on Saturdays between early April and Labor Day

Figure 3-12 Operating Statistics by Route – Saturday

Route	Service Type	Daily Boardings	Daily Revenue Hours	Boardings per Revenue Hour	Boardings per Revenue Mile
12	Secondary	336	14.2	23.6	1.7
13	Trunk	316	12.5	25.2	2.1
21	Secondary	137	5.8	23.4	1.8
41	Trunk	908	30.4	29.9	2.4
43	Secondary	67	10.5	6.4	0.5
44	Trunk	387	26.8	14.4	1.1
45	Secondary	137	11.5	11.9	1.4
47	Secondary	283	11.6	24.4	2.7
48	Trunk	867	26.8	32.3	2.4
60	Secondary	194	17.1	11.3	1.1
62A	Trunk	809	31.3	25.8	2.1
62B	Trunk	832	35.9	23.2	1.8
64	Secondary	379	24.8	15.3	1.3
66	Trunk	809	40.0	20.2	1.6
67	Secondary	78	10.8	7.3	0.5
68	Secondary	290	23.7	12.2	0.8
94	Secondary	300	24.0	12.5	0.6
101	Specialized and Shuttle	184	15.8	11.6	1.6
411	Specialized and Shuttle	71	3.7	19.0	1.4
620	Express	199	21.9	10.2*	0.4*
System Totals		7,581	399.2	19.0	1.4

*Productivity of Express Routes is based on Boardings per Trip

Figure 3-13 Boardings per Revenue Hour* by Route and Service Type – Saturday



*Productivity of Express Route 620 is based on Boardings per Trip

Figure 3-14 Span and Frequency – Sunday

Route	Service Type	Span	Frequency
12	Secondary	9:10 AM – 8:40 PM	60
13	Trunk	8:42 AM – 8:10 PM	60
21	Secondary	9:00 AM - 8:25 PM	60
41	Trunk	9:03 AM - 8:55 PM	30
44	Trunk	8:30 AM - 8:25 PM	60
47	Secondary	8:25 AM - 7:55 PM	60
49	Trunk	9:15 AM - 8:40 PM	30
60	Secondary	8:30 AM - 7:55 PM	60
62A	Secondary	8:33 AM - 8:41 PM	60
62B	Trunk	8:30 AM - 8:55 PM	60
64	Secondary	8:42 AM - 8:10 PM	60
66	Secondary	8:26 AM - 8:47 PM	30
68	Specialized and Shuttle	8:33 AM - 8:28 PM	60
94	Express	8:08 AM- 9:00 PM	135
411	Trunk	9:00 PM - 11:55 PM	60
620	Trunk	9:00 AM - 9:00 PM	60/90*

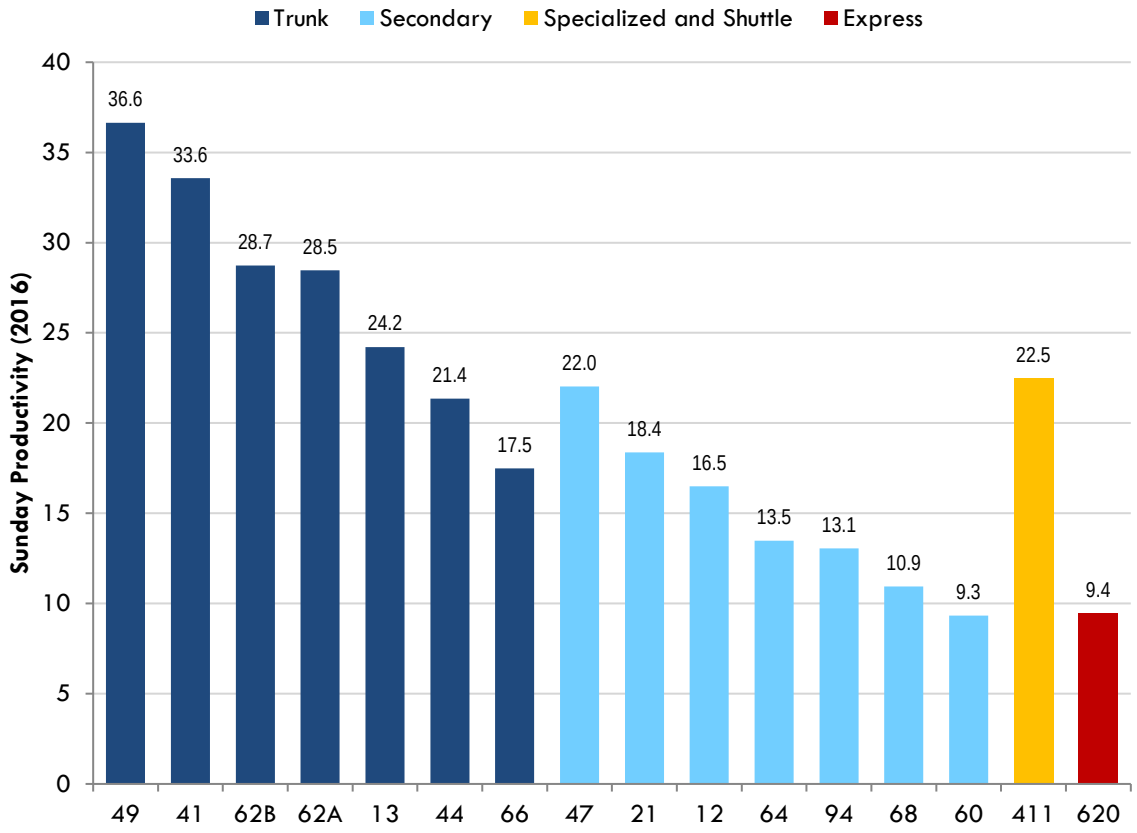
*Every other trip comes after 60 minutes

Figure 3-15 Operating Statistics by Route – Sunday

Route	Service Type	Daily Boardings	Daily Revenue Hours	Boardings per Revenue Hour	Boardings per Revenue Mile
12	Secondary	196	11.9	16.5	1.2
13	Trunk	279	11.5	24.2	2.1
21	Secondary	107	5.8	18.4	1.4
41	Trunk	782	23.3	33.6	2.6
44	Trunk	256	12.0	21.4	1.7
47	Secondary	255	11.6	22.0	2.4
49	Trunk	415	11.3	36.6	3.5
60	Secondary	153	16.4	9.3	0.9
62A	Secondary	514	18.1	28.5	2.1
62B	Trunk	515	17.9	28.7	2.0
64	Secondary	308	22.9	13.5	1.2
66	Secondary	622	35.6	17.5	1.4
68	Specialized and Shuttle	260	23.8	10.9	0.7
94	Express	168	12.9	13.1	0.6
411	Trunk	66	2.9	22.5	1.7
620	Trunk	173	21.9	9.4*	
System Totals		5,068	259.7	19.5	1.4

*Productivity of Express Routes is based on Boardings per Trip

Figure 3-16 Boardings per Revenue Hour* by Route – Sunday



*Productivity of Express Route 620 is based on Boardings per Trip

FIVE-YEAR TRENDS

The annual ridership trends for total boardings, revenue hours, and revenue miles between 2010 and 2015 are summarized below. Historic data comes from figures reported annually by Intercity Transit to the National Transit Database for fixed-route bus services. The number of revenue hours and revenue miles have been increasing, while corresponding ridership has been dropping. Overall, 2015 productivity performance metrics, boardings/revenue hour and mile, are lower than they were in 2010.

Figure 3-17 Operating Trends, 2010 – 2015

Operating Trend	2010	2011	2012	2013	2014	2015	% Change
Annual Boardings	4,313,015	4,505,329	4,567,554	4,434,071	4,470,324	4,283,418	-0.7%
Revenue Hours	193,012	199,060	199,894	201,410	205,393	205,985	6.7%
Revenue Miles	2,604,577	2,702,974	2,725,932	2,766,444	2,887,280	2,887,494	10.9%
Boardings per Revenue Hour	22.3	22.6	22.8	22.0	21.8	20.8	-6.9%
Boardings per Revenue Mile	1.66	1.67	1.68	1.60	1.55	1.48	-10.6%

Figure 3-18 Annual Boardings, 2010 – 2015

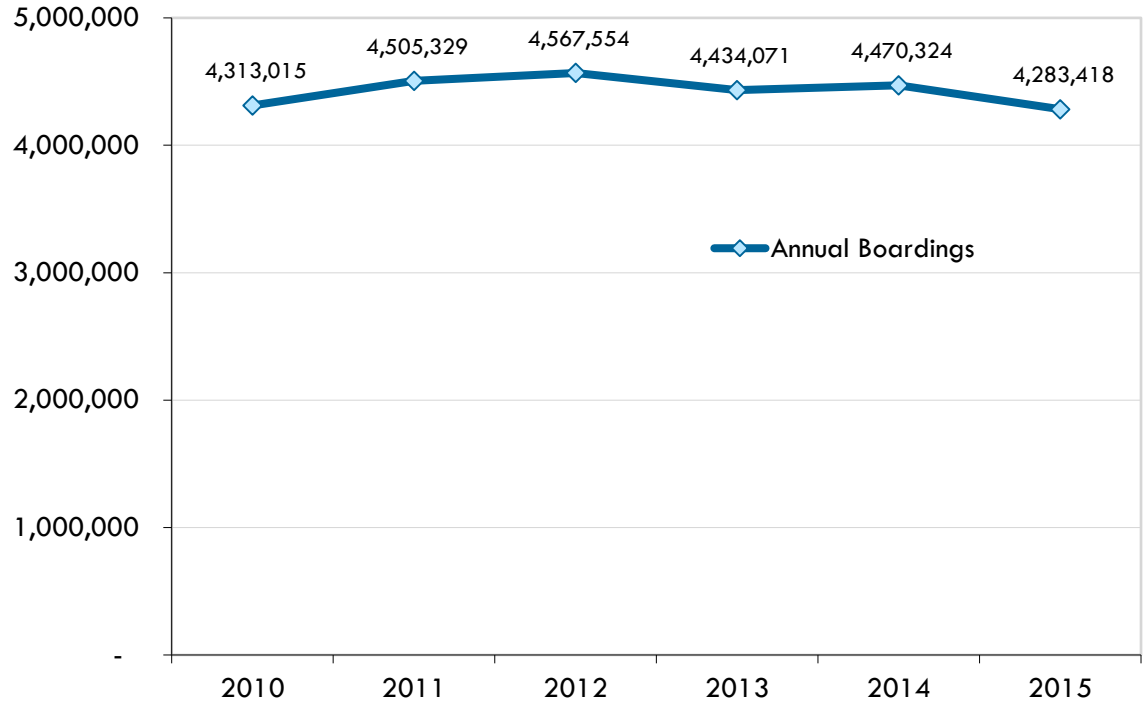
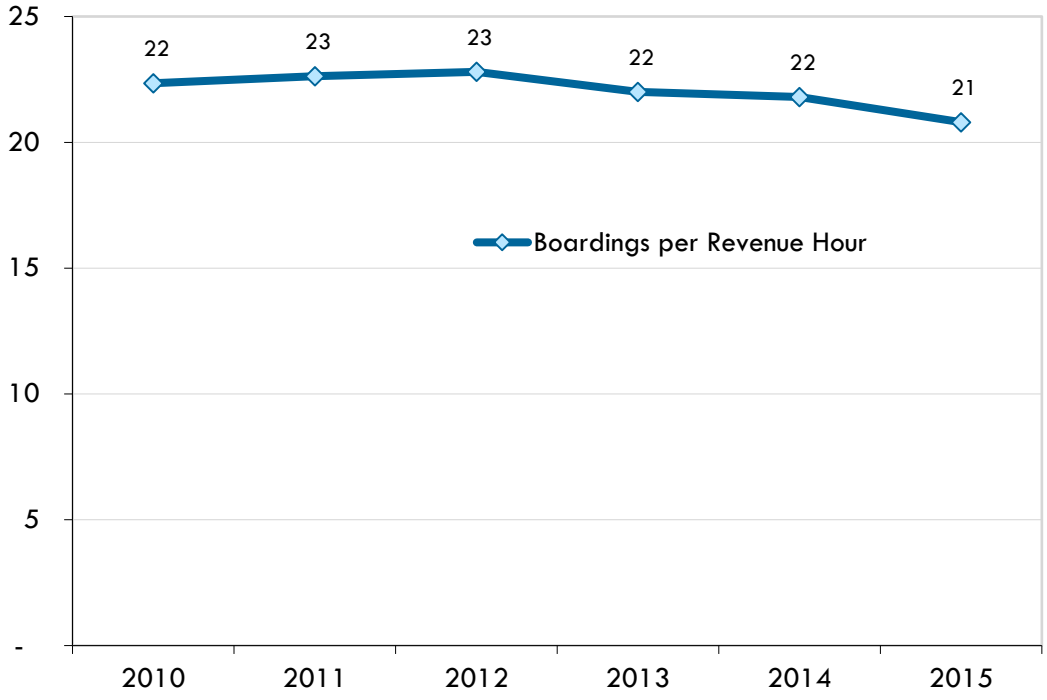


Figure 3-19 Boardings per Revenue Hour, 2010 – 2015



4 DOCUMENT REVIEW

Public documents relating to the region's transit needs and plans are summarized below. These include the following reports:

- Intercity Transit Strategic Plan 2017-2022
- TRPC 2040 Regional Transportation Plan
- Olympia Transit Master Plan
- Intercity Transit Market Segmentation Study, 2015
- Intercity Transit Customer Satisfaction Study, 2015

Intercity Transit Strategic Plan 2017-2022

The 2017-2022 Strategic Plan is the master planning document that will drive Intercity Transit operations and service delivery for the next six years. The plan, updated annually, highlights service concepts, resource priorities, capital investments, and policy direction for 2017-2022. It is based on population growth, regional development and financial forecasting. Included in the Strategic Plan are many broad operational policy positions that guide the agency and its vision for delivery of public transportation services for the region. The Draft 2017-2022 Strategic Plan assumes sales tax and state funding will remain status quo and reflects changes in federal funding including the elimination of federal discretionary grants and the return of funding in December 2015 at reduced rates. The plan recommends a conservative financial approach until the funding future is clearer.

Key recommendations in the Draft 2017-2022 Strategic Plan include:

- Examine and monitor all routes in regards to productivity and issues of coverage.
- Engage with transportation partners to consider alternatives for serving Joint Base Lewis McChord and the I-5 corridor.
- Pursue and leverage state and federal funding to continue work on expanding and renovating the maintenance and operations center at Pattison Street. The facility currently operates over capacity and needs to expand to support fleet changes and other operational needs.
- Enhance 63 bus stop locations.
- Update the long- and short-range service plan.

TRPC 2040 Regional Transportation Plan

The Thurston Regional Planning Council (TRPC) developed its 2040 Regional Transportation Plan (RTP) in 2016. The RTP is meant to serve as a "strategic blueprint for the region's transportation system" over a 20-year time frame. As part of the plan, transportation modeling was conducted, which suggests that urban areas with increasing density will have increased numbers of transit trips. The plan sets out recommendations for how to meet the increased demand for transit. Key recommendations and projects are summarized below.

- Determine what types of high capacity transit (bus rapid transit, passenger rail, commuter rail) the region can support in the future.
- Work with interested stakeholders to create transportation management areas where traditional fixed-route transit service is not feasible.
- Expand Intercity Transit's urban transit service.
- Expand and/or rehabilitate transit transfer stations and transit centers in the region, including the Tumwater transit transfer station, Olympia Transit Center, and Intercity Transit operations base.
- Develop a plan and implementation strategy for a regional network of smaller-sized "park-and-pool" lots to support carpool, vanpool and other trip reduction efforts
- Develop a plan and implementation strategy for connections between the city centers of Lacey, Olympia, and Tumwater with high frequency, express transit service.

Additionally, the Plan sets out the goal of providing a robust level of reliable, effective public transportation options to increase the share of all trips made by public transportation in the region. The following policies for public transportation are outlined:

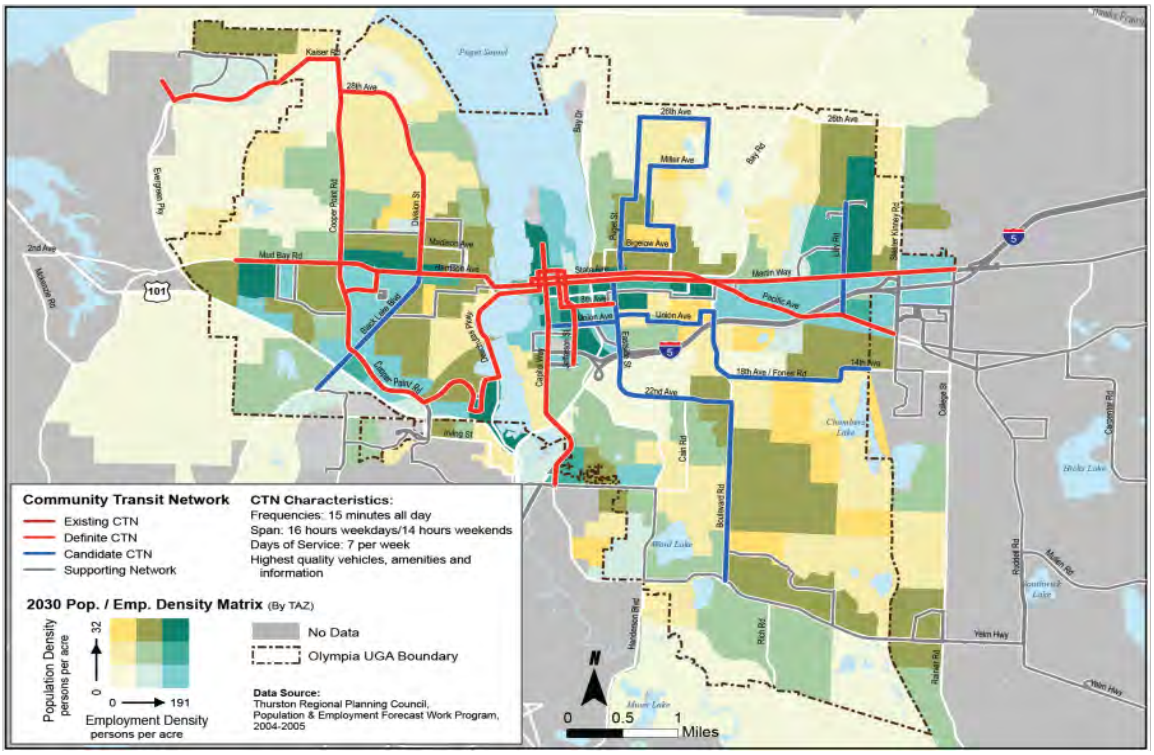
- Support implementation of Intercity Transit's "The Route Ahead" long-range regional transit plan, which emphasizes trunk and primary routes serving core areas and designated strategy corridors.
- Increase the share of all trips made by public transportation.
- Invest in the commuter vanpool program to provide cost-effective, flexible alternatives to driving.
- Develop inter-regional transit partnerships for long-distance commute trips to and from destinations outside Thurston County.
- Provide safe, convenient, and cost-effective transportation service to youth, elders, people with disabilities, or other people with special needs.
- Increase awareness of public transportation and how to use it through expanded education and public information tailored for various age groups and interests.
- Consider a broad range of public transportation programs and services, including but not limited to local street trolleys, bus rapid transit, flex car programs, commuter rail, and high speed passenger rail to ensure a full mix of options for meeting transportation needs as they evolve.
- Explore public transportation options for newly emerging urban centers, including innovating new partnerships where fixed-route service may not be warranted.
- Plan for the long-term countywide funding of public transportation in the region.

Olympia Transit Master Plan

The purpose of the Olympia Transit Master Plan, adopted in August 2009, was to "provide a detailed explanation of how the City of Olympia can be more proactive in leveraging transit investments to meet Comprehensive Plan goals, developing land use policies that support transit-oriented corridors and neighborhoods and measuring performance over time. The Plan supports the Comprehensive Plan's land use strategy by enhancing the public transportation network, thereby reducing people's reliance on the single-occupant vehicle. The Plan seeks to integrate transit service and expansion policy as part of a broader multimodal strategy for mobility in the City of Olympia and neighboring communities." The plan developed a Community Transit Network or CTN, shown in Figure 4-1. CTN corridor characteristics are defined as having transit service seven days a week, 16 hour service span on weekdays, 14 hour service span on weekends, and 15 minute frequency at all times. The plan suggests the following policy recommendations and action items that can be coordinated with Intercity Transit to help implement the CTN:

- Draft policy to establish the CTN
- Adopt a CTN overlay to the City street classification system
- Mandate pedestrian-oriented design be considered during development review
- Develop a joint agreement with Intercity Transit to Implement the CTN
- Accommodate necessary transit center growth at or adjacent to the existing Downtown Olympia Transit Center
- Partner with neighboring jurisdictions on comprehensive corridor studies for key CTN corridors including Martin Way, Capitol Way, and Harrison Avenue that examine signal priority and right-of-way treatments to speed and protect transit from delay

Figure 4-1 Olympia Community Transit Network



Intercity Transit Market Segmentation Study, 2015

The Market Segmentation Study was conducted in 2015, comparing telephone survey results from 2004 and 2008 in order to identify changes in the Intercity Transit rider market, within the context of changes in economic and service conditions in that eight year period. The survey states that between 2002 and 2008, gas prices rose rapidly, reaching a peak of over $4.00 per gallon, and simultaneously Intercity Transit implemented major service improvements and increased annual revenue service hours. Gas prices fell sharply in 2009, but increased again t0 $4.15 in 2012. During this time period, boardings per month remained at or above 380,000. These conditions together spurred an increase in ridership. The following summarizes the findings and recommendations from the study.

- Intercity Transit's market share decreased slightly from a 2008 high of 19% to 14% in 2015. Concurrently, the potential rider segment grew from 33% to 40%. Many of the previous riders are now potential riders; however the ranks of the staunch non-riders appear to have shrunk slightly.
- The economy appears to have two impacts that influence transit potential. The percent of households with no vehicle available on most days rose from 8% to 11%, suggesting that some residents are economizing by having fewer vehicles. Additionally, 37% of people who indicated that they ride the bus regularly indicated that they do not have a car available. This number decreases to 10% for potential riders and 4% for non-riders.
- The number of people who say they need their car while at work has declined.
- Since 2005, Intercity Transit has made significant service enhancements, including increasing frequencies and adding shelters at many stops. While these changes have clearly generated increased ridership, they are still unknown to many potential riders. This indicates that it is possible to capitalize further on these improvements by broadening knowledge of them among potential commuting and non-commuting segments by
  - Promoting the cost effectiveness of transit, specifically in relation to gas prices.
  - Promoting the enhanced services and incentives that are already in place such as the guaranteed ride home program, new shelters, and higher frequency service.

Intercity Transit Customer Satisfaction Study, 2015

A customer satisfaction survey of Intercity Transit passengers was conducted in 2015. Results from the study were compared to the results from a similar study conducted in 2004 and 2008 in order to track the progress of Intercity Transit services. While customer ratings did not change dramatically, the following are some notable changes:

- The percentage of respondents rating Intercity Transit service as "excellent" fell from 43% in 2008 back to 39%, the same rating as 2004.
- Customer satisfaction with cleanliness, comfort, and usefulness of rider info at bus stops and shelters rose from 2004 to 2015.
- The top two service elements to improve were extending evening hours and on-time performance.

Customer perception of service quality has declined in most areas. The following findings indicate perceived need for improvement:

- People are less satisfied with on-time performance in the 2015 survey, with satisfaction on this measure declining from 60% in 2004 to 45% in 2015.
- The percentage of respondents rating frequency of service as excellent fell from 44% to 39%.
- The percent rating of driver courtesy as excellent fell from 61% to 52%.
- 35% of respondents ranked the transfer connections among Intercity Transit buses as excellent, indicating that many people would like easier transfers.
- Fewer respondents rated the total travel time for taking the bus as excellent in 2015 (39%) than in 2008 (41%) or 2004 (43%).

5 DEMOGRAPHIC CHARACTERISTICS

This chapter presents demographic characteristics relevant to transit ridership in Thurston County. Maps are available below (Figure 5-1 through Figure 5-10), for reference. The demographic characteristics include:

- Population and employment density
- Seniors (65 years and over)
- Youth (10-17 years)
- Low-income households
- Zero-vehicle households
- Renters
- People with disabilities
- Transit Propensity Index

POPULATION AND EMPLOYMENT DENSITY

Population density based on the 2010 Census is shown in Figure 5-1. The majority of the PTBA has a population density of below 10 persons per acre. Pockets of more dense population are spread throughout the Intercity Transit service area, but somewhat concentrated in each of the four cities, Olympia, Lacey, Tumwater, and Yelm. At the southern edge of Lacey on Balustrade Boulevard there is a fairly large area with population density exceeding 20 persons per acre. Northeast Lacey, off of Marvin Road, also has areas of moderate to high population density. Additionally, there are pockets of high population density directly east of Capital Mall and northeast of Evergreen State College in Olympia. Outside of Lacey, off Mullen Road between Marvin and Carpenter, there is a high density housing development that is not currently served by transit.

Employment density (the number of jobs per acre by census block) is shown in Figure 5-2. Jobs data is from the 2014 U.S. Census Longitudinal Employer-Household Dynamics (LEHD) survey. Central Olympia and Lacey have the highest density of jobs per acre, along with areas of Tumwater and Dupont. The combined densities of jobs and residents in the area is shown in Figure 5-3. Overall, most of the high job and residential density areas of the PTBA are within reasonable distance of existing transit coverage.

SENIORS

Density of senior citizens (persons 65 and older) based on the 2010 Census is shown in Figure 5-4. The areas with the highest density of seniors (more than three per acre) include Panorama in Lacey, the nursing home just south of Kaiser Health Medical Center, assisted living just north of Corporate Center Drive, as well as the housing just east of Seven Oaks Elementary School. While most of the census blocks that exceed one senior per acre are adjacent to existing transit, NE Lacey's Jubilee Development, between Marvin Road and Willamette Drive, is not close to any fixed routes.

YOUTH

Density of youth between the ages of 10 and 17 based on the 2010 Census is shown in Figure 5-5. The majority of the PTBA has no more than two youth per acre. Census blocks exceeding this density more or less mirror areas of high population density, such as the housing development on Balustrade Boulevard.

LOW-INCOME HOUSEHOLDS

Figure 5-6 displays the density of households below the federal poverty line based on five-year estimates from the American Community Survey (2011–2015). Four areas stand out as having higher levels of households below poverty. Census block groups exceed 3.5 households per acre below poverty near Capital Mall, northeast of downtown Olympia, in Tumwater between Capitol Boulevard and I-5, and in Lacey in the residential areas surrounding the intersection of Lacey Boulevard and College Street. All of these areas are served by Intercity Transit routes.

ZERO VEHICLE HOUSEHOLDS

Figure 5-7 shows the density of households with zero vehicles based on five-year estimates from the American Community Survey (2011–2015). There are few areas where the density exceeds one household per acre without a vehicle. The densest area, with 1.4 household per acre without a vehicle, is east of Capital Mall. Additionally, areas north of Capital Mall and near Downtown Olympia and Lacey Town Center have higher densities of households without a vehicle.

RENTERS

The density of renter-occupied households is displayed in Figure 5-8 based on five-year estimates from the American Community Survey (2011–2015). Census block groups with the highest density of rental households (between 4.0 and 5.6 households per acre) are near Capital Mall, Lacey Town Center, and in Tumwater between Barnes Boulevard and I-5.

PEOPLE WITH DISABILITIES

The density of people with disabilities is displayed in Figure 5-9 based on five-year estimates from the American Community Survey (2011–2015). Census block groups with the highest density of people with disabilities (3 or more persons per acre) are in Lacey at the south end of Sleater-Kinney Road and in Tumwater between Capitol and I-5.

TRANSIT PROPENSITY INDEX

The transit propensity index combines six demographic characteristics into a single indicator that identifies areas in Thurston County with greater transit needs. The six indicators used in the transit propensity index are: low-income households, zero-vehicle households, renters, people with disabilities, seniors (ages 65 and older), and youth (ages 10-17). These demographics are mapped at the block group level. Based on the index, the areas with the greatest propensity for transit based on socio-economic factors include:

- The North Meadows neighborhood adjacent to and south of I-5 and north of Martin Way
- Neighborhoods in Central Lacey and Horizons, north of Yelm Highway as well as south Lacey
- Neighborhoods to the north and west of Capital Mall in Olympia, and northeast Olympia neighborhoods near Bigelow Avenue
- Tumwater between Barnes Boulevard and I-5

It should be noted that although the Transit Propensity Index anticipates demand for transit services based on certain demographic indicators, it does not account for trip generators such as employers, shopping, and entertainment. Service provision should not be based solely on the Transit Propensity Index – but should also consider population and employment density.

Figure 5-10Figure 5-10 presents the transit propensity index for Census block groups in Thurston County. In the map, existing transit routes are shown in blue.

Figure 5-1 Population Density, 2010

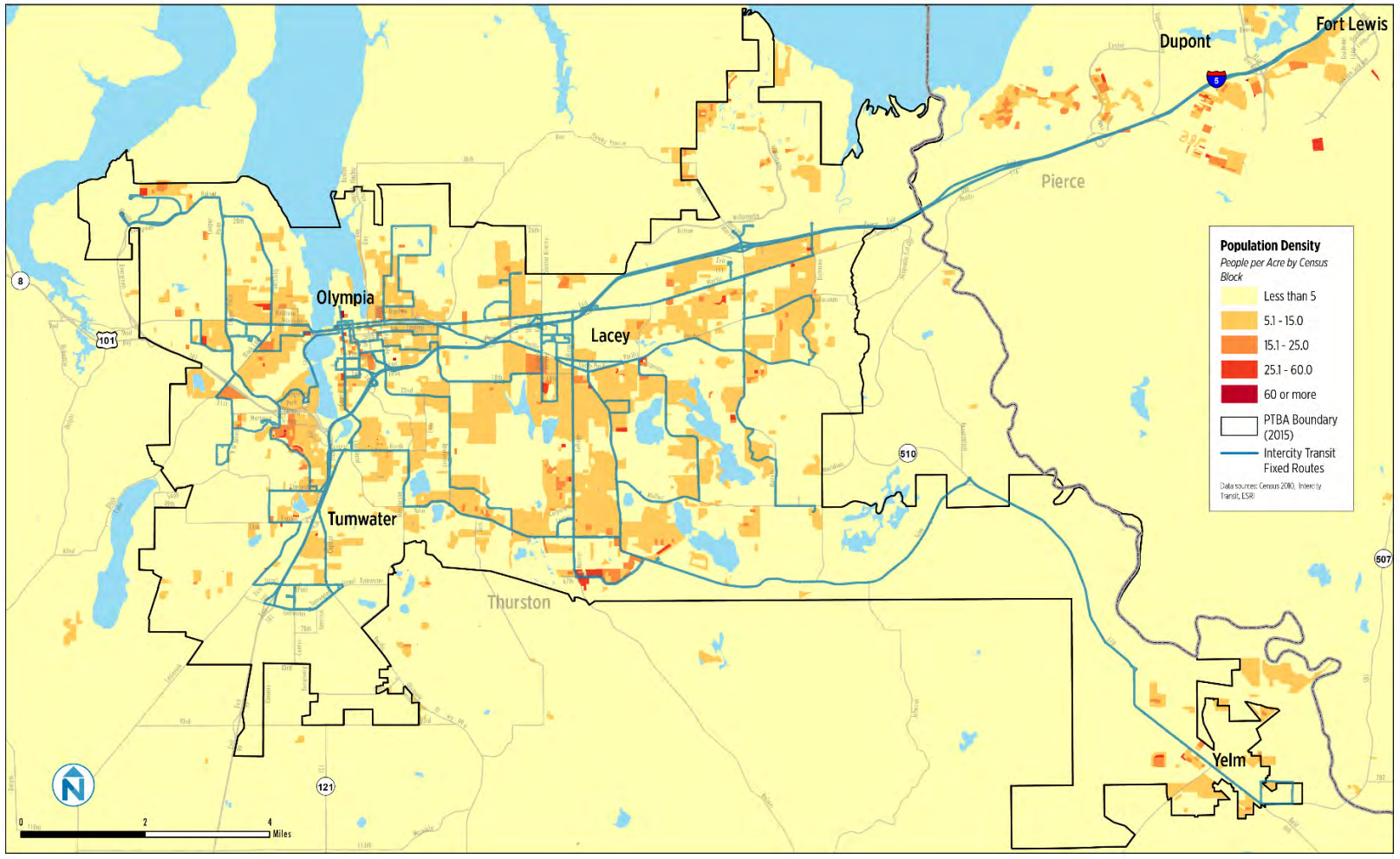


Figure 5-2 Employment Density, 2014

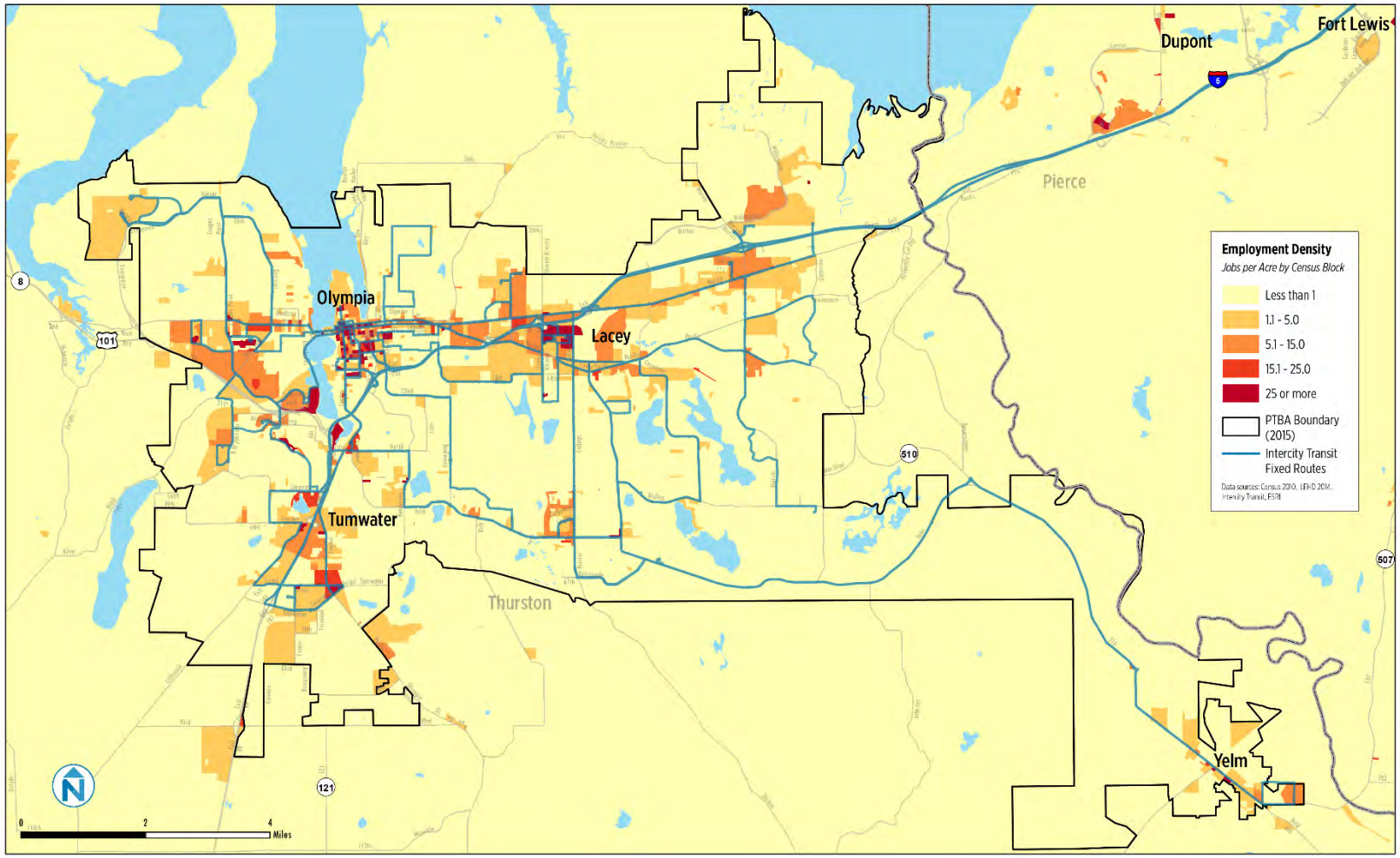


Figure 5-3 Population + Employment Density, 2014

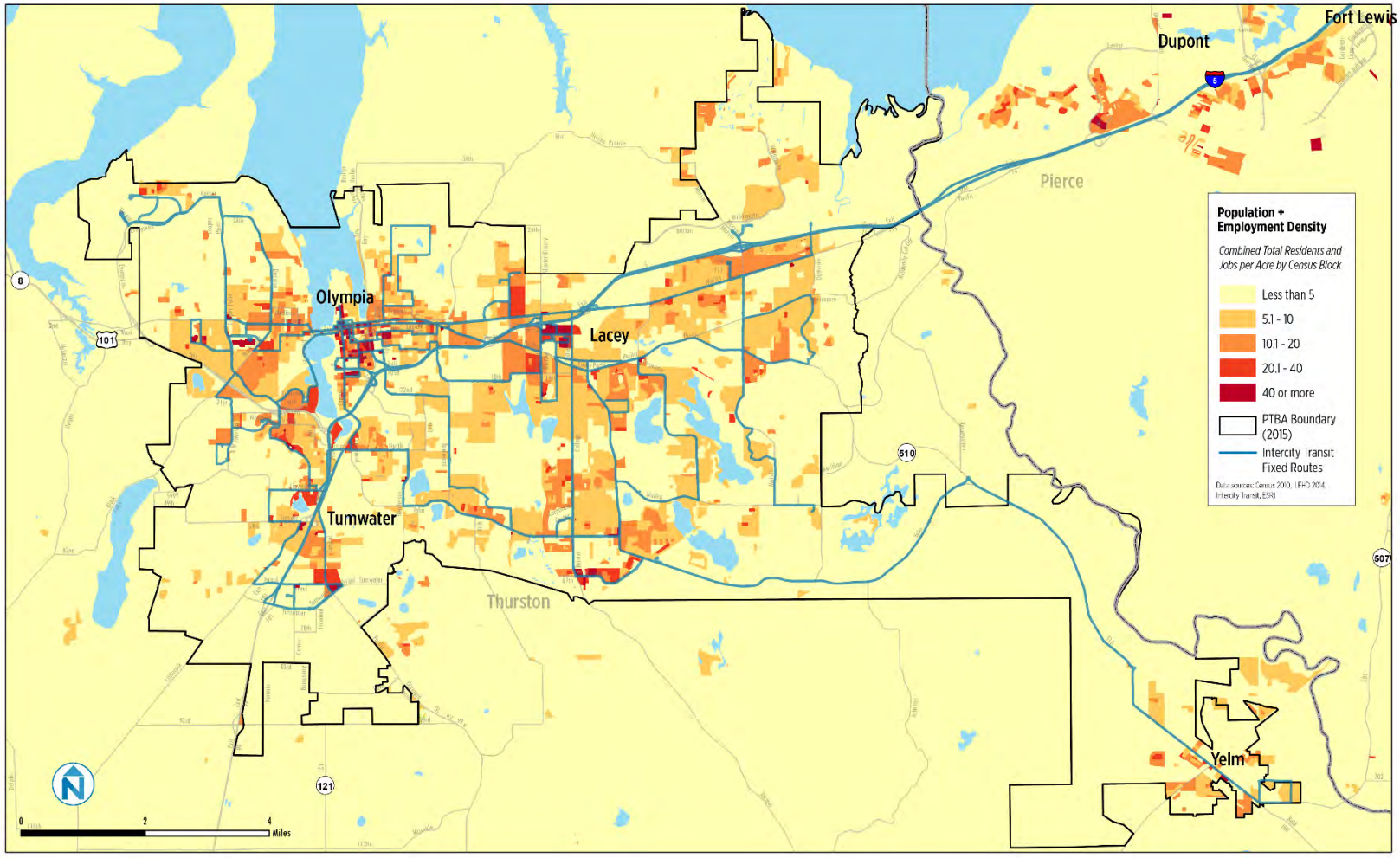


Figure 5-4 Senior Density, 2010

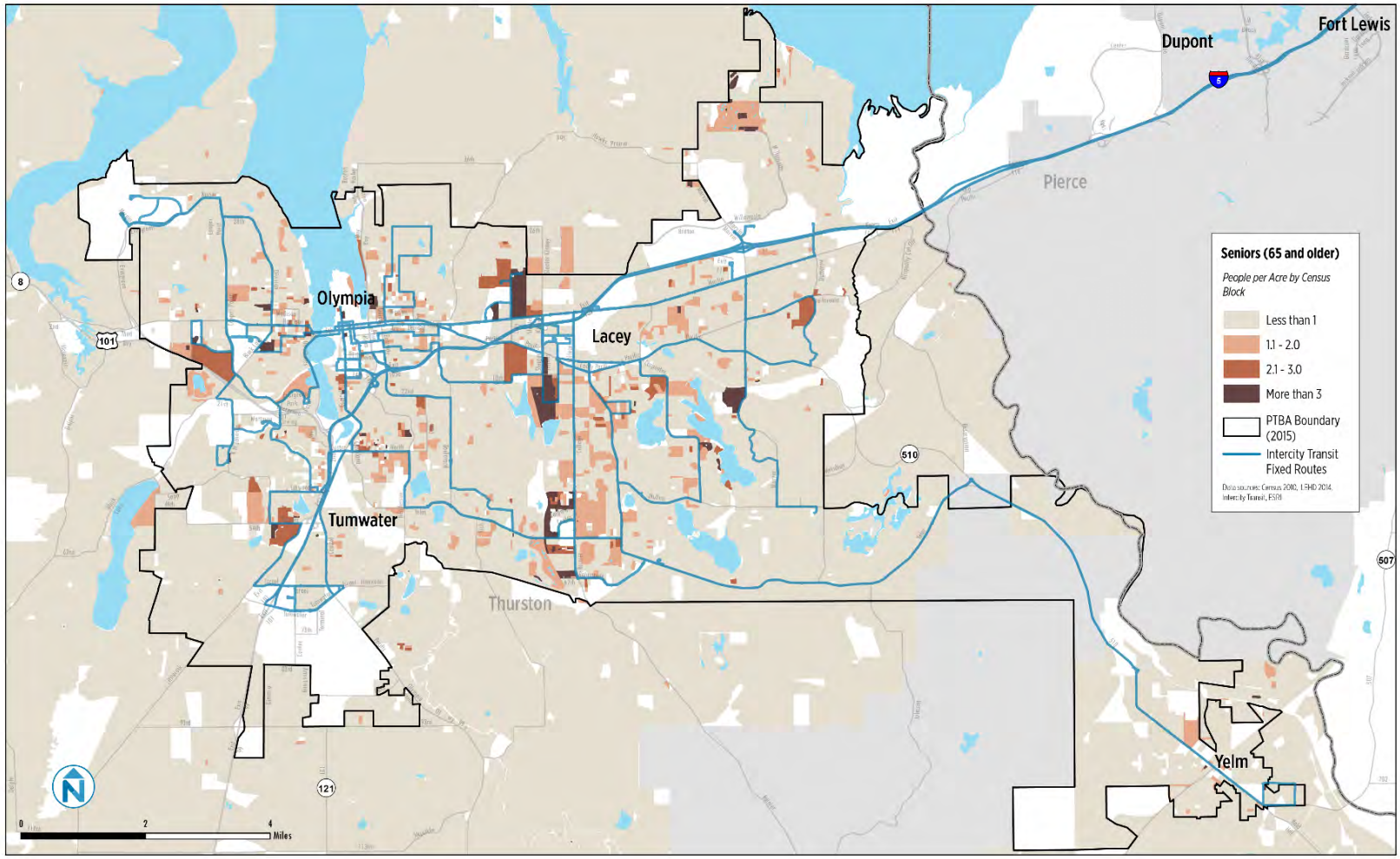


Figure 5-5 Youth Density, 2010

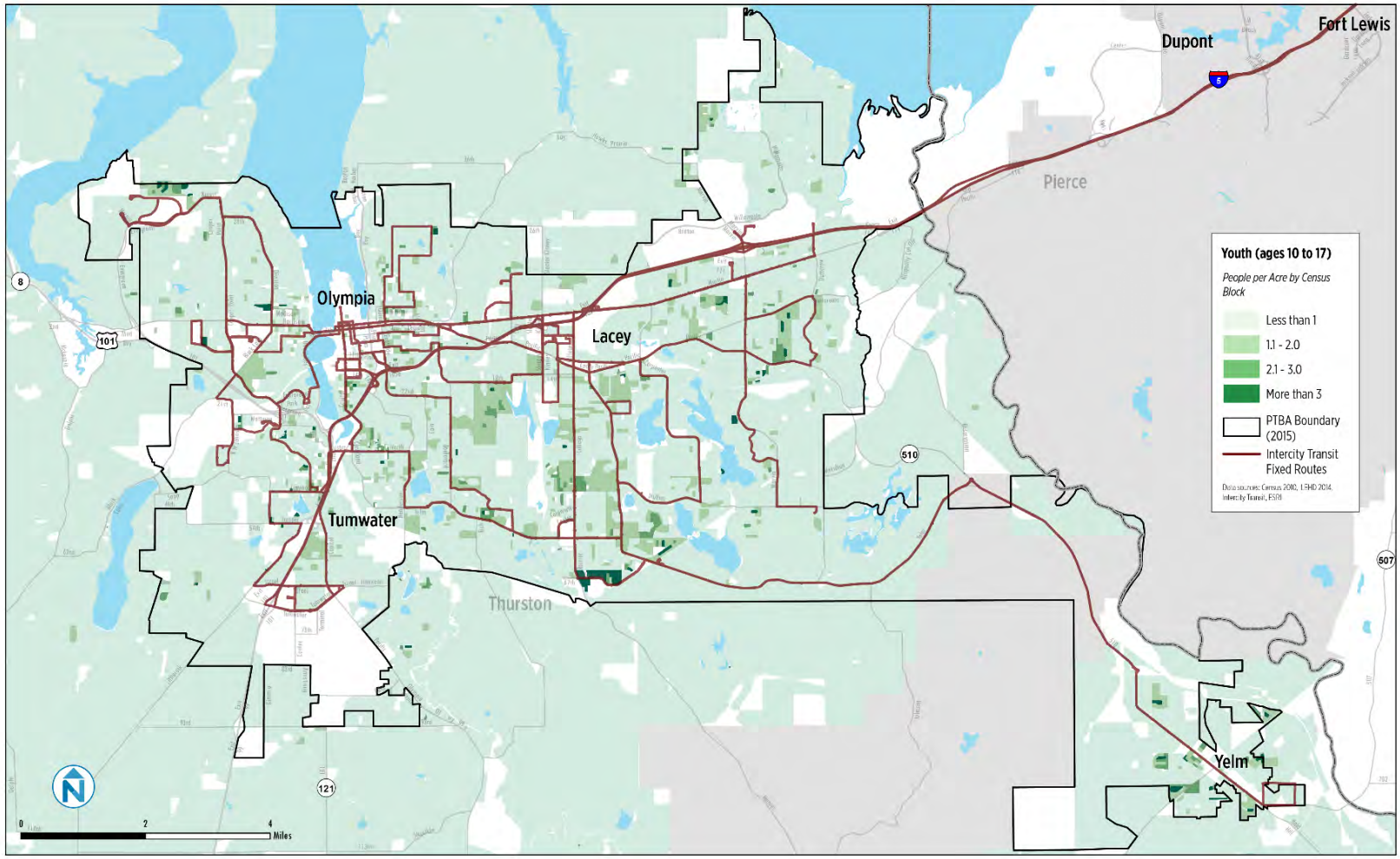


Figure 5-6 Density of Low-Income Household Income, 2015

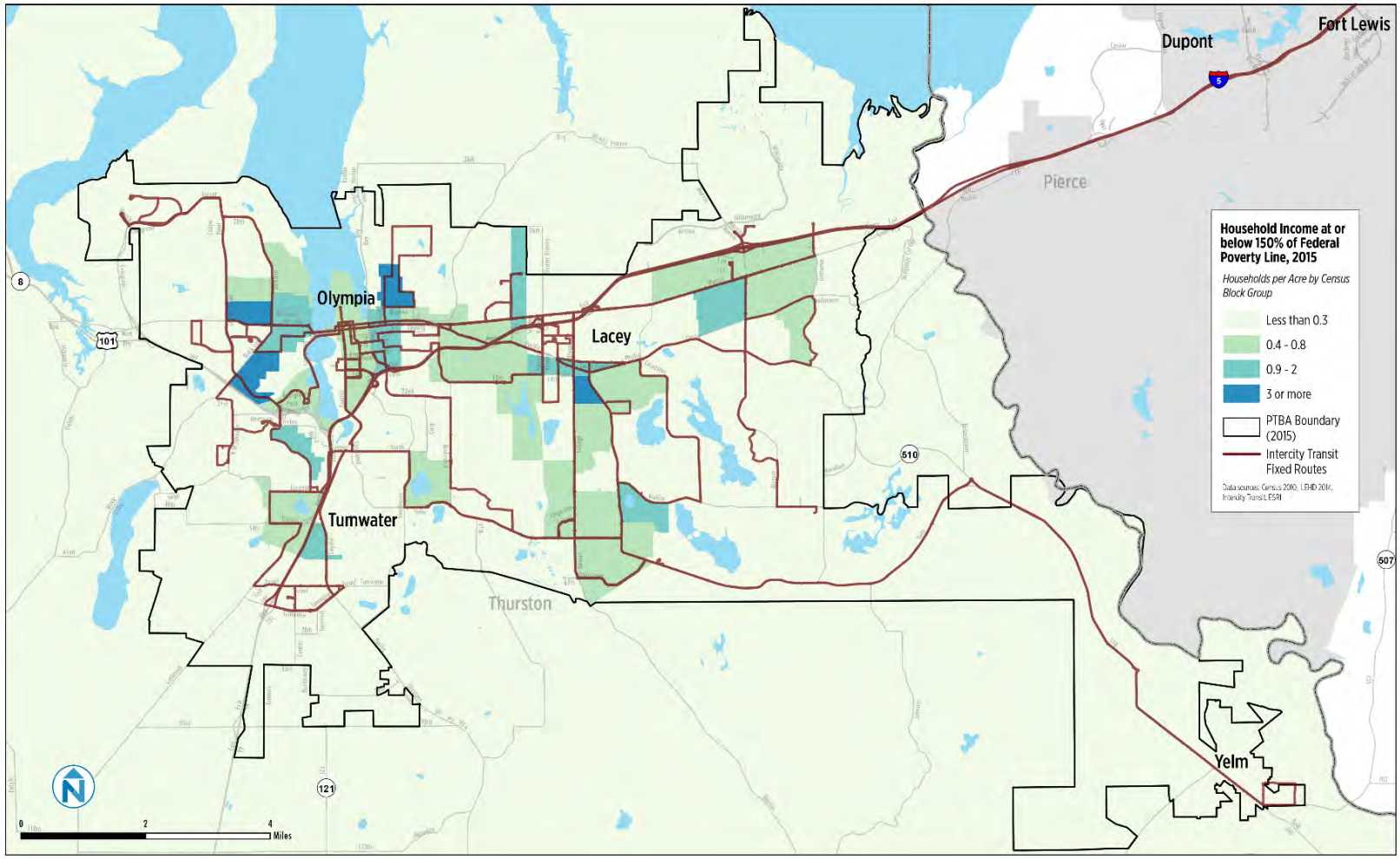


Figure 5-7 Density of Zero Vehicle Households, 2015

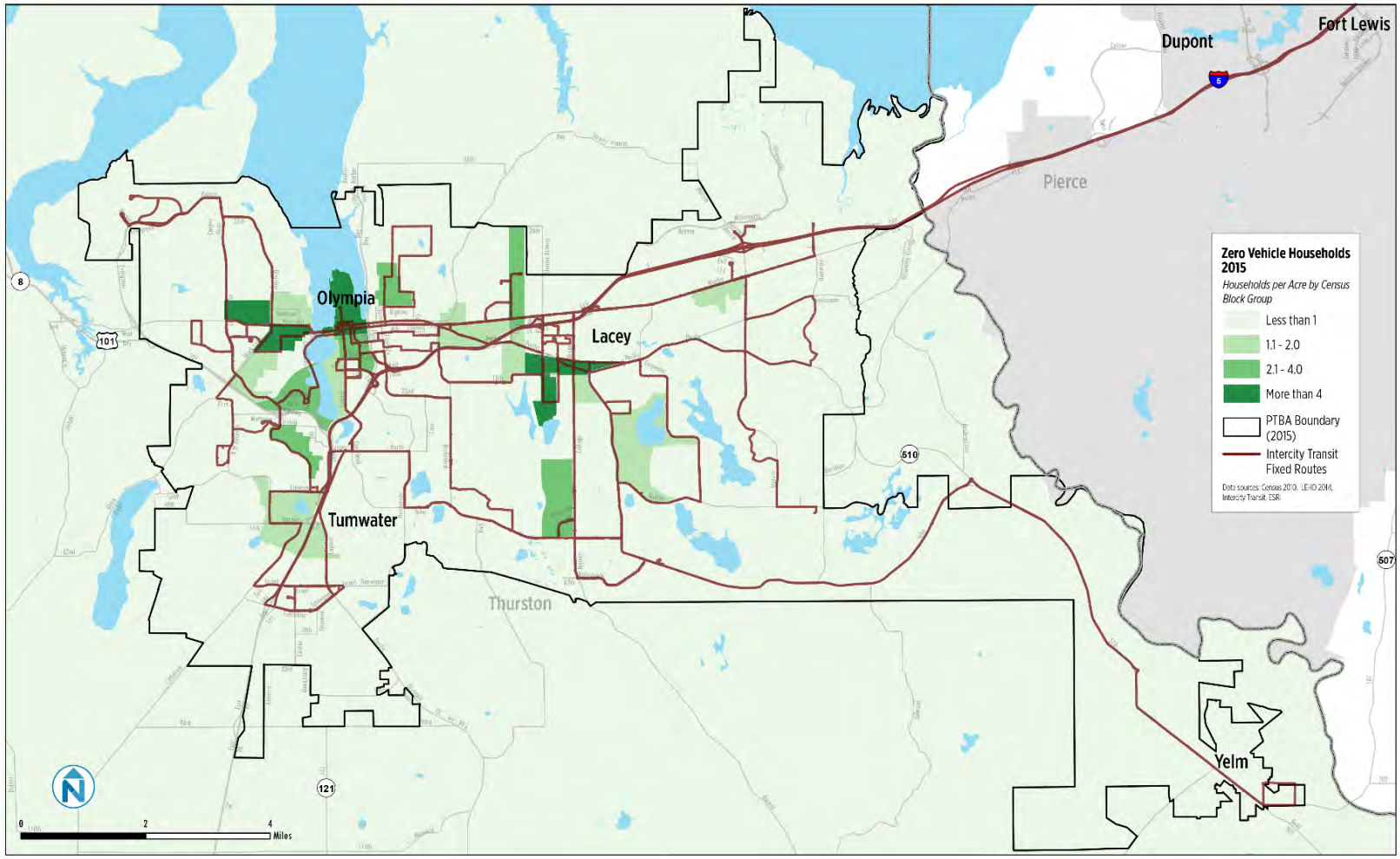


Figure 5-8 Density of Renter Occupied Households, 2015

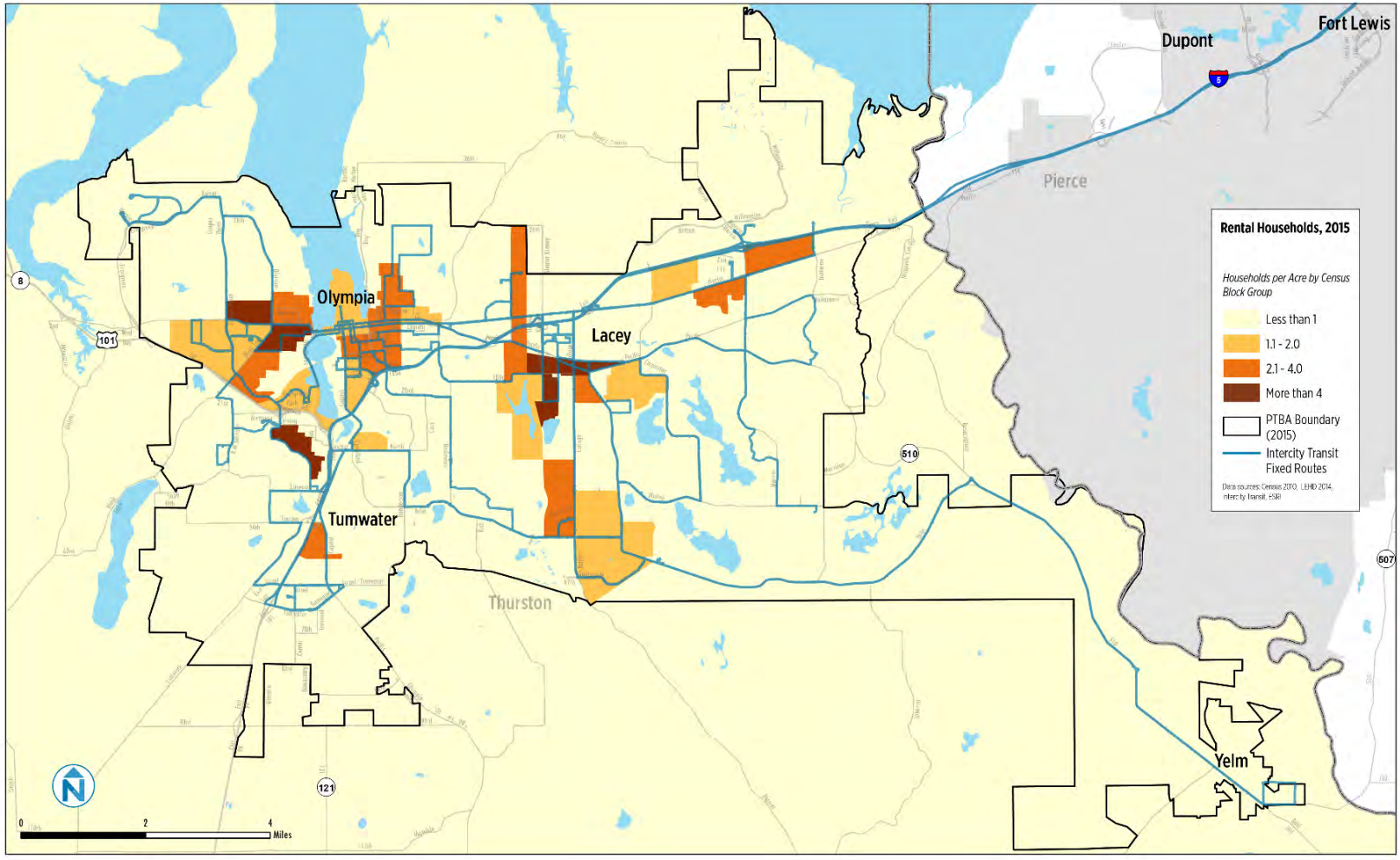


Figure 5-9 Density of People with Disabilities, 2010

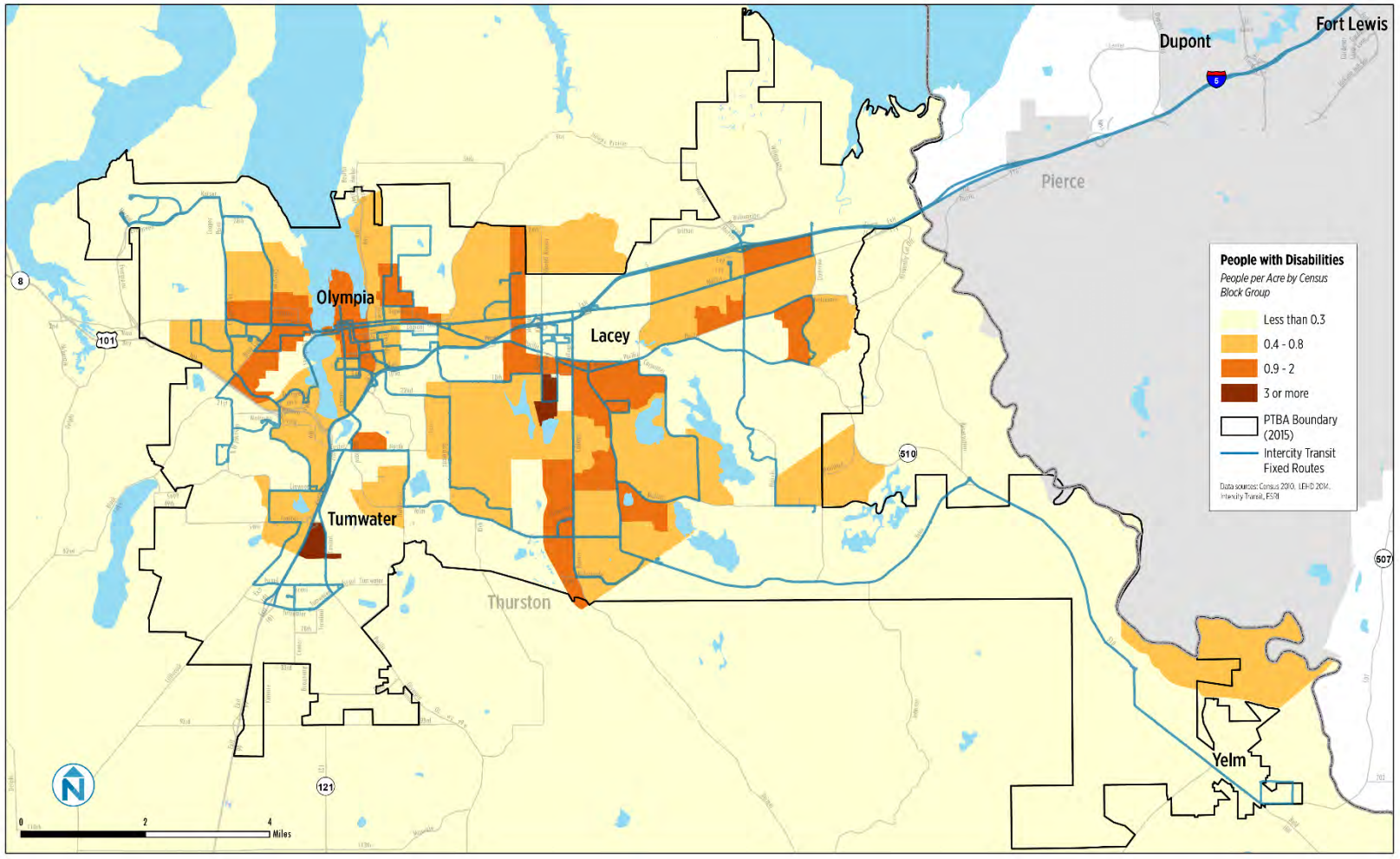
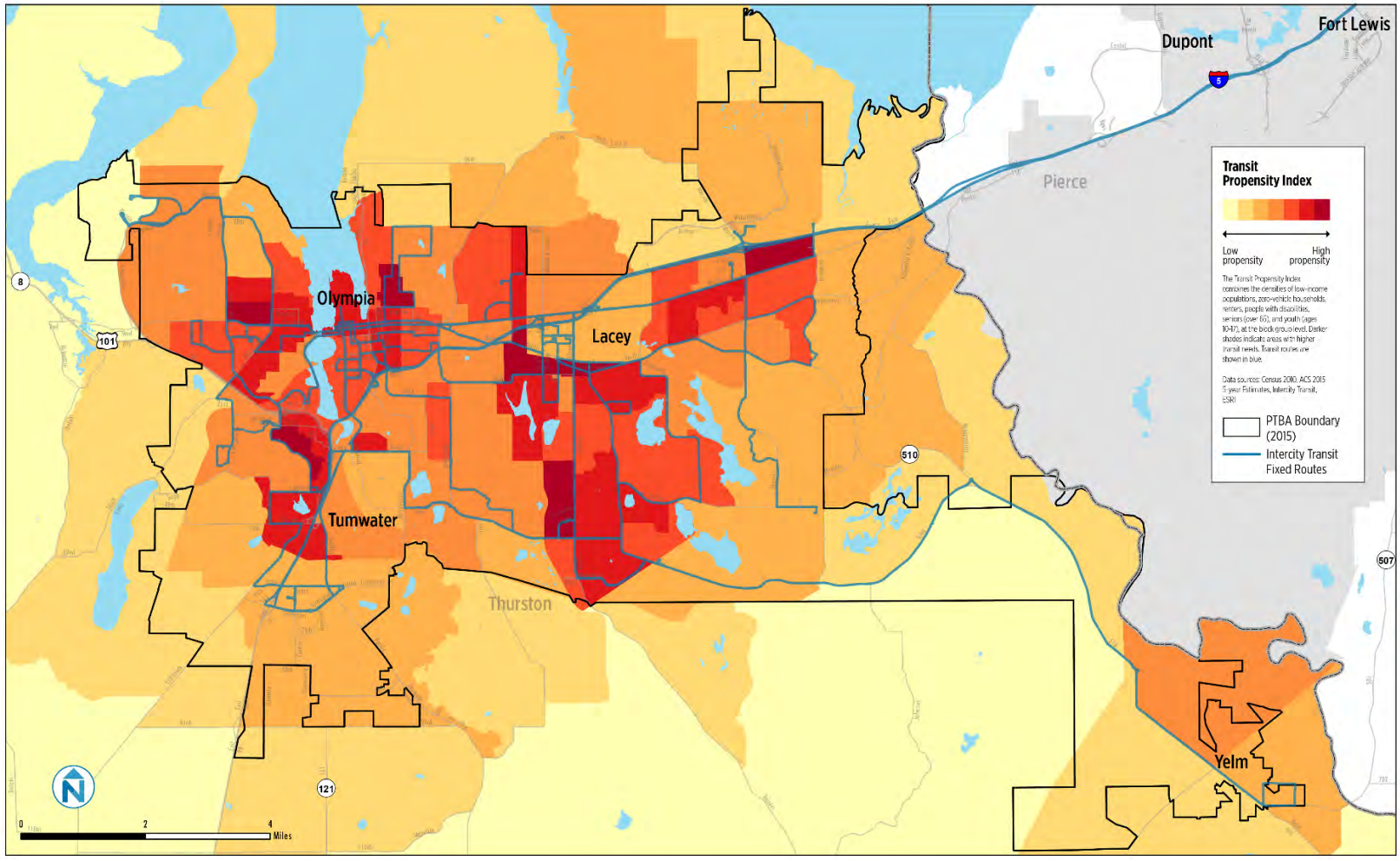


Figure 5-10 Transit Propensity Index



6 TRAVEL DEMAND ANALYSIS

This analysis of origin-destination travel demand illustrates major travel patterns within the Thurston County Public Transportation Benefit Area (PTBA). The analysis uses trip tables from the Thurston Regional Planning Council (TRPC) travel demand model for the year 2015 that include the following trip types: home-based work, school, college, home-based other, home-based shopping, other to other, and work to other. Maps are used to illustrate major point-to-point travel patterns for the following categories:

- **All trip types**
- **Non-commute trips**: home-based other + home-based shopping + other to other + work to other (78% of all trips)
- **Commute trips**: home-based work + school + college (22% of all trips)

A set of 28 districts were defined by aggregating traffic analysis zones (TAZs). Doing so simplifies the analysis, as it is not possible to analyze every individual point of travel. In viewing the travel demand maps, it is important to consider a few facts:

- Data are from the 2015 TRPC travel demand model, which is calibrated using actual travel counts but does not account for all nuances of real-life travel.
- Travel origin-destination pairs show travel in both directions for the entire day.
- Trips are not segregated by time of travel (i.e., peak vs. off-peak). In general, home-based work and school travel is heaviest in the traditional morning and evening peak periods. All other trips are spread more evenly throughout the day.
- Trips internal to districts are not illustrated (e.g., within Southwest Olympia).
- Trips beginning and ending outside of the PTBA district are not illustrated (e.g., from Southwest Olympia to downtown Tacoma).
- This point-to-point analysis does not illustrate how trips are assigned to available streets or transit routes. In viewing the data, it is helpful to think about how various point-to-point travel markets aggregate in actual travel corridors.

ALL TRIPS

- Figure 6-1 shows connections with at least 4,000 daily trips.
- The districts that produce and attract the most trips are Southwest Olympia, Central Olympia, Northwest Olympia, Northwest Thurston County, Central Lacey, and South Lacey. With the exception of Northwest Thurston County, these districts have relatively dense housing and/or employment. The Intercity Transit network is designed to feed into transit centers in these areas, which are well positioned within the service area to serve significant travel flows.

- Major east-west and north-south travel patterns both exist in the county. There is a band of travel that extends from the eastern part of the county across the communities along I-5 and through Olympia. These areas are the densest parts of the county. In addition, there are major north-south patterns between South Lacey and Central Lacey and between North Tumwater, Southwest Olympia, and Northwest Olympia.
- The map shows that the most significant travel patterns are generally short distance between adjacent zones. However, there are also significant long-distance connections, such as Central Lacey to Southwest Olympia, Southwest Tumwater to Central Thurston County, and Yelm to Southeast Thurston County.
- In general, the Intercity Transit route network serves the major travel connections highlighted on the map, although some trips require a transfer, such as Southeast Tumwater to Southwest Olympia.
- There are a few major travel patterns that travel outside the boundary of the PTBA and are therefore not served by Intercity Transit. These are: east-west between Southwest Olympia and Northwest Thurston County, east-west between Southeast Tumwater and Central Thurston County, and north-south between Yelm and Southeast Thurston County.

NON-COMMUTE TRIPS

- Figure 6-2 shows connections with at least 3,000 daily non-commute trips.
- In general, the map is very similar to the all trips map because non-commute trips make up about three quarters of total trips.
- The largest number of non-commute trips is made between Southwest Olympia and Central Olympia.
- There are also significant non-commute travel patterns between Central and South Lacey, Southwest and Northwest Olympia, Southwest Olympia and North Tumwater, and Southwest Olympia and Northwest Thurston County.
- Trips are primarily short-distance in nature, with some long-distance travel as well.

COMMUTE TRIPS

- Figure 6-3 shows connections with at least 1,000 daily commute trips.
- Employment travel is dispersed throughout the county. Southwest Olympia (Capital Mall, Capital Medical Center), Northwest Olympia (Evergreen State College), Northwest Thurston County, Central Lacey (retail and state government offices), and South Lacey I and II all produce and attract significant amounts of commute trips.
- There are also a high number of commute trips between Yelm and Southeast Thurston County, and between Central Olympia (Washington State Capitol campus) and Southwest Olympia.

Figure 6-1 Major Travel Patterns – All Trip Types, 2015

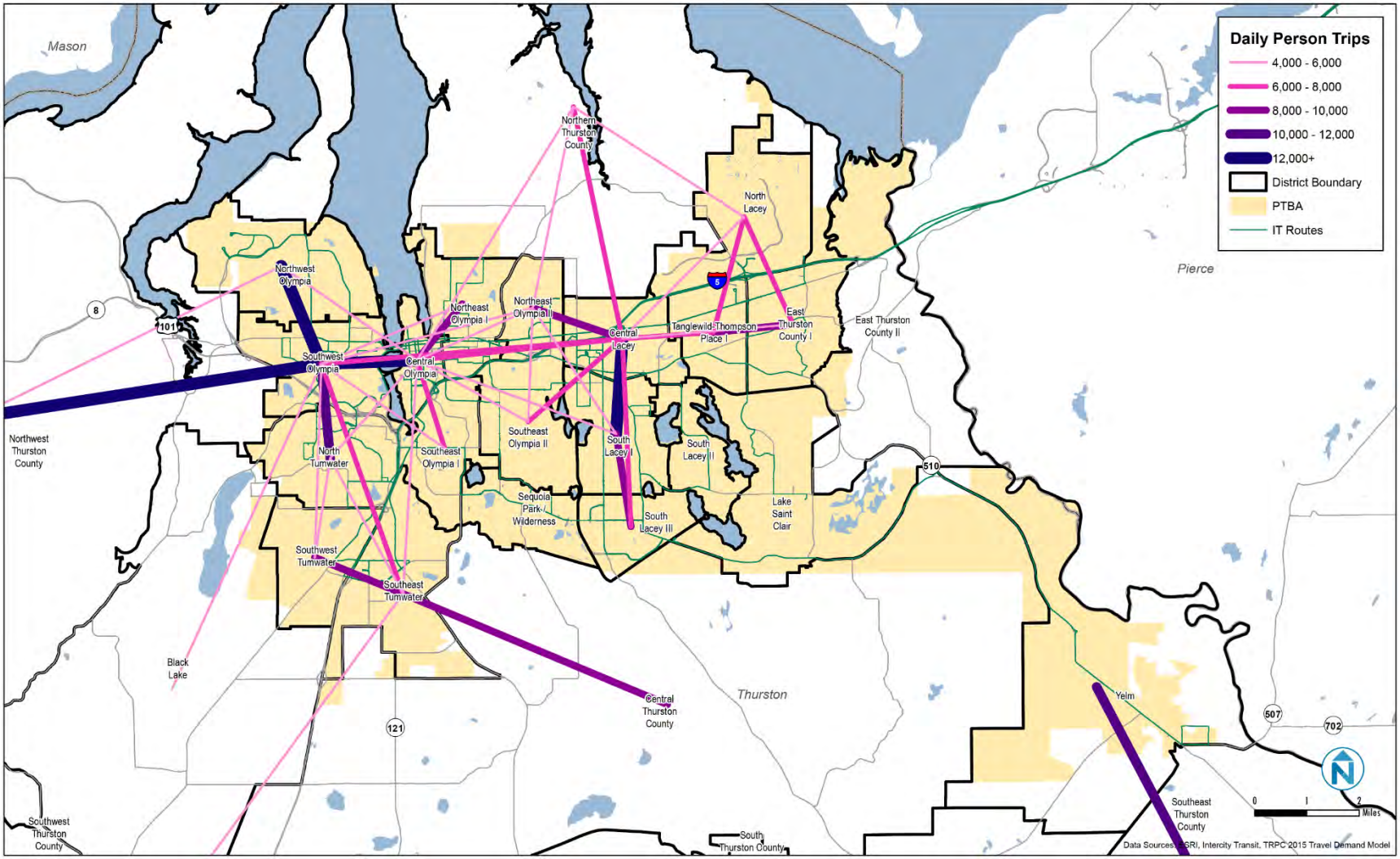


Figure 6-2 Major Travel Patterns – Home-Based Other/Shopping, Other to Other, and Work to Other Trips, 2015

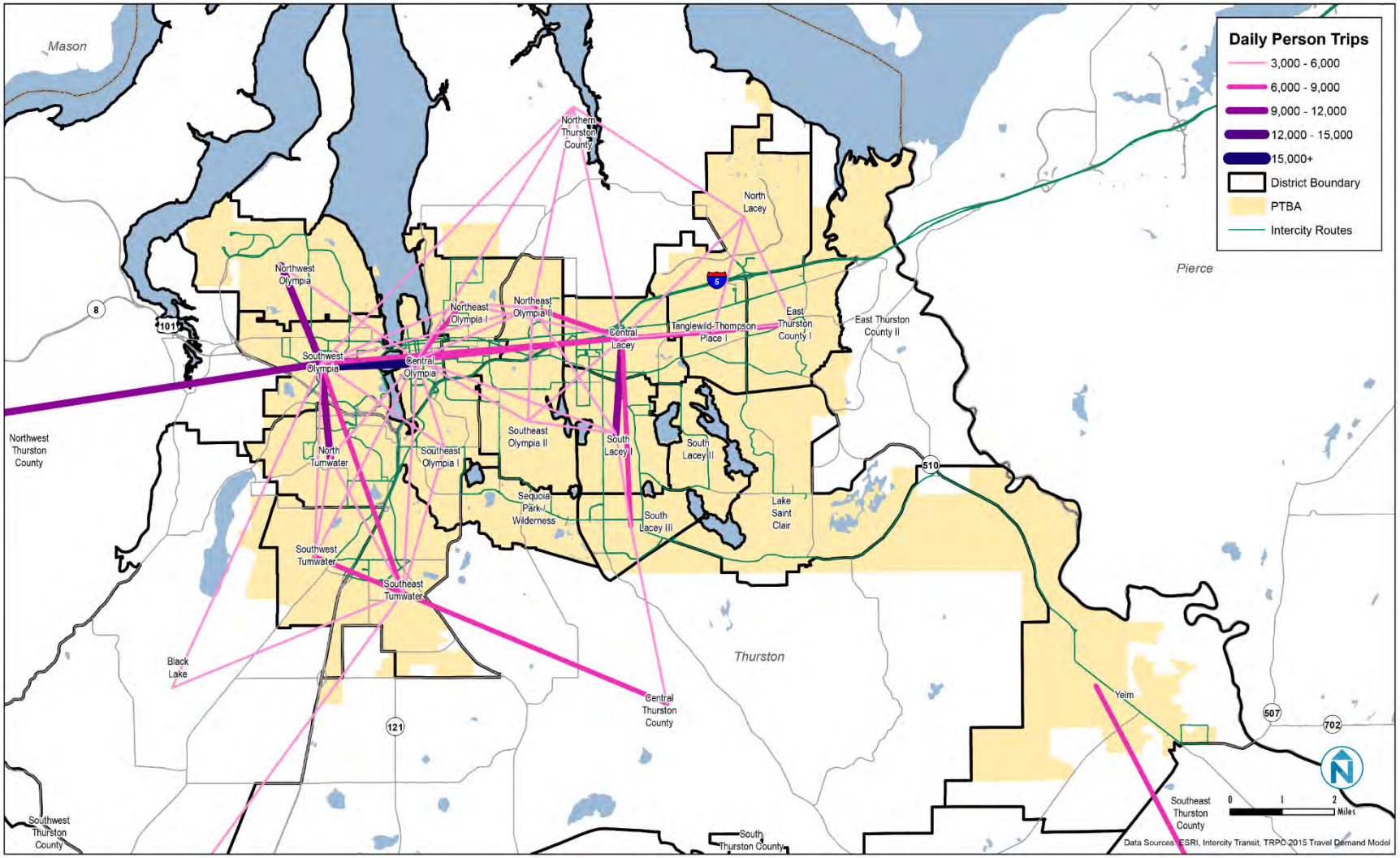
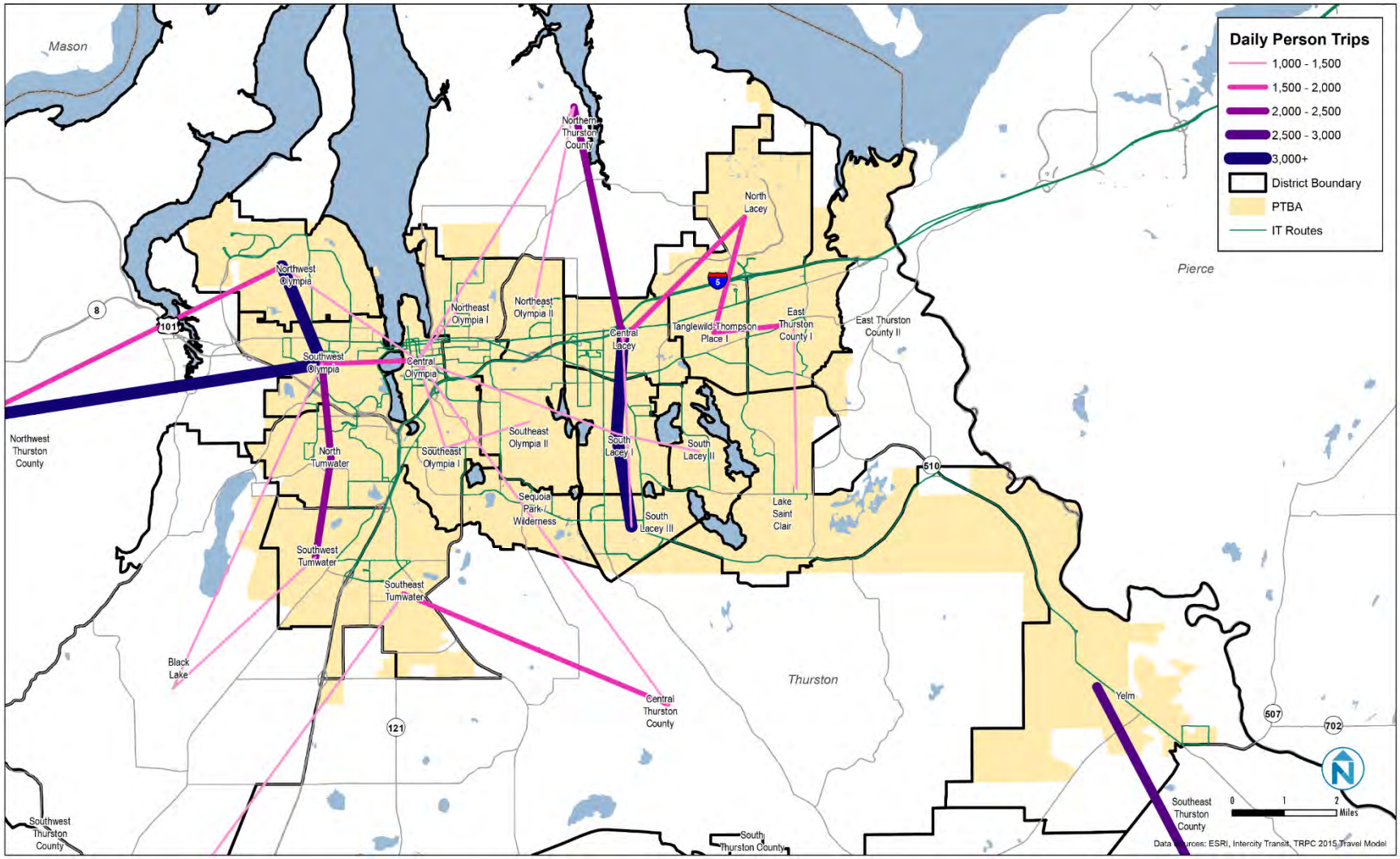


Figure 6-3 Major Travel Patterns – Home-Based Work, School, and College Trips, 2015



TRAVEL FROM EXTERNAL COUNTIES

The previous figures show travel patterns within Thurston County. A significant commute market also exists both to and from Thurston County. The U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data was used to determine the number of workers commuting between Thurston County and other counties in the region.

As shown in Figure 6-4, Pierce County has the highest number of commuters to Thurston County, with 10% of all Thurston County workers living in Pierce County. The most common outside work destination for people who live in Thurston County is Pierce County, with 13,371 workers, as shown in Figure 6-5. The majority of workers travelling between Pierce, King, and Thurston Counties are using I-5.

Figure 6-4 Home Locations of Thurston County Workers, 2014

County	Number of Workers	Percentage
Thurston	53,252	56%
Pierce	9,875	10.4%
King	7,280	7.7%
Lewis	4,231	4.5%
Other	20,423	21%
Total	95,061	100%

Figure 6-5 Work Locations of Thurston County Residents, 2014

County	Number of Workers	Percentage
Thurston	53,252	56.4%
Pierce	13,371	14.2%
King	12,872	13.6%
Lewis	2,671	2.8%
Snohomish	2,068	2.2%
Other	10,209	10.8%
Total	94,443	100%

7 ROUTE SUMMARIES

This chapter presents bus route summary information for all Intercity Transit routes operating in late 2016. The summaries include operating characteristics, major destinations, and an assessment of strengths and weaknesses.

Ridership and productivity by segment and time of day are based on Intercity Transit's APC data sampled in 2016. On-time performance data presented here uses weekday CAD/AVL data sampled in July 2017. Arrivals or departures one or more seconds before the scheduled time are considered early, and arrivals or departures later than 5 minutes beyond the scheduled time are considered late. Systemwide, approximately 10% of trips run late and about 6% of trips run early. This report reflects existing conditions for the 2016 service period.

The route summaries presented in this chapter include:

- Route 12: Labor & Industries, West Tumwater, Downtown Olympia
- Route 13: Labor & Industries, East Tumwater, Downtown Olympia
- Route 21: Bethel Street, North Central Street, Downtown Olympia
- Route 41: The Evergreen State College, Downtown Olympia
- Route 42: Family Court, SPSCC
- Route 43: Thurston Courthouse, SPSCC, Tumwater Square, Downtown Olympia
- Route 44: Capital Mall, SPSCC, Downtown Olympia
- Route 45: Capital Mall, Conger, Downtown Olympia
- Route 47: Capital Medical Center, Capital Mall, Downtown Olympia
- Route 48: The Evergreen State College, Capital Mall, Downtown Olympia
- Route 60: Kaiser Permanente, Panorama City, Downtown Olympia
- Route 62A/B: Lacey, Meridian / The Meadows, Downtown Olympia
- Route 64: Lacey, Amtrak, College Street, Downtown Olympia
- Route 66: Lacey, Ruddell Road, Downtown Olympia
- Route 67: Lacey, Tri Lake
- Route 68: Lacey, Tumwater Square, Downtown Olympia
- Route 94: Lacey Corporate Center, Yelm, Downtown Olympia
- Route 101/Dash: Downtown Olympia Shuttle
- Route 603: Olympia/Lacey and Lakewood/Tacoma
- Route 605: Olympia/Lacey and Lakewood/Tacoma
- Route 609: Tumwater/Lacey/Lakewood
- Route 612: Olympia/Lacey and Lakewood/Tacoma

Route 12 Labor & Industries, West Tumwater, Downtown Olympia

Description

At a Glance		
Weekday Boardings		422
Weekday Revenue Hours		25.5
Weekday Boardings per Hour		16.5
Saturday Boardings		336
Saturday Revenue Hours		14.2
Saturday Boardings per Hour		23.6
Sunday Boardings		196
Sunday Revenue Hours		11.9
Sunday Boardings per Hour		16.5
Weekday Schedule Adherence	On Time	87%
	Early	1%
	Late	12%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
	Sun	60
Span	Mon-Fri	6:03 AM-11:15 PM
	Sat	8:15 AM-10:50 PM
	Sun	9:10 AM-8:40 PM

Route 12 operates between the Olympia Transit Center and the Washington State Department of Labor and Industries (L&I) building in Tumwater. Route 12 serves downtown Olympia, the State Capitol, and the South Capitol neighborhood Tumwater Square. After passing over Interstate 5, Route 12 travels on 2nd Avenue, Linwood, Rural Road and Trosper Road. Route 12 serves Fred Meyer, Costco, Wal-Mart, and Tumwater Middle School on Little Rock Road, then operates in a loop via Israel Road, Bonniewood Drive, Tumwater Boulevard, and Linderson Way to the L&I Building. Route 12 is interlined with Route 45 at the Olympia Transit Center on weekdays. On weekend trips in the outbound direction, Route 12 continues from L&I as Route 13. On inbound weekend trips, Route 12 continues as Route 45 or Route 13 from the Olympia Transit Center.

Route 12 operates every 30 minutes during peak times and every 60 minutes during off peak times and on weekends. Route 12 overlaps Routes 13 and 68 between Tumwater Square and the Olympia Transit Center. Between the three routes, up to eight buses per hour serve this segment. In the southbound direction, Routes 12, 13, and 68 are scheduled to leave within 5 minutes of each other during peak hours. In the northbound direction, Routes 12 closely follows Route 13, departing Tumwater Square within two minutes of Route 13.

Ridership by Stop and Trip

Route 12 has below average productivity, with 16.5 boardings per revenue hour. Route segments between Olympia Transit Center and the State Capitol as well as between Tumwater Middle School on Littlerock and the elementary school on Linwood have higher productivity than other segments of the route. On Saturdays, Route 12 performs better in comparison to other routes, with 23.6 boardings per revenue hour, slightly above average. On Sundays, productivity is the same as weekday productivity, with 16.5 passengers per revenue hour. Tumwater Square is the highest ridership stop besides the Olympia Transit Center, with 41 boardings per day on average.

On-Time Performance

Route 12 has the second-highest incidence of late arrivals (12%) compared to other secondary and trunk routes in the system and a low rate of early arrivals. Late arrivals are more common in the inbound (northbound) direction, particularly during midday and PM Peak trips. Despite a high incidence of late running, more than 95% of trips arrive on time to major transfer points Olympia Transit Center and Tumwater Square. It should be noted that when this data was collected, Route 12 has been on detour due to road construction.

Route 13 Labor & Industries, East Tumwater, Downtown Olympia

Description

Route 13 operates between the Olympia Transit Center and the Washington State Department of Labor and Industries building in Tumwater. The majority of the route operates on Capitol Way through downtown Olympia, the State Capitol, and South Capitol neighborhood. It serves Tumwater Square and then continues on Capitol Way, and then travels in a loop via Tumwater Boulevard and Linderson Way, and Israel Road. Major destinations include Washington State Department of Transportation, Tumwater Square, Tumwater High School, and the Timberland Library. Route 13 is interlined at the Olympia Transit Center alternating with Routes 41 and 66 on weekdays, and with Routes 12 (outbound) and 64 (inbound) on weekends.

Route 13 operates every 15 minutes during weekdays until 6:00 p.m., every half hour on weekday evenings, and hourly on weekday nights, Saturdays, and Sundays. Route 13 allows transfers to Routes 12, 43, and 68 at Tumwater Square and to almost all other routes at Olympia Transit Center.

At a Glance		
Weekday Boardings		1,179
Weekday Revenue Hours		52.4
Weekday Boardings per Hour		22.5
Saturday Boardings		316
Saturday Revenue Hours		12.5
Saturday Boardings per Hour		25.2
Sunday Boardings		279
Sunday Revenue Hours		11.5
Sunday Boardings per Hour		24.2
Weekday Schedule Adherence	On Time	93%
	Early	0%
	Late	7%
Frequency (minutes)	Mon-Fri	15-60
	Sat	60
	Sun	60
Span	Mon-Fri	6:10 AM-10:50 PM
	Sat	8:42 AM-10:50 PM
	Sun	8:42 AM- 8:10 PM

Between Tumwater Square and the Olympia Transit Center, Route 13's alignment is shared by Routes 12 and 68, with 8 buses per hour serving this segment in each direction during the peak hour. In the southbound direction, Routes 12, 13, and 68 are scheduled to leave within 5 minutes of each other during peak hours. In the northbound direction, Routes 12, 13, and 68 trips are scheduled to follow each other back to back between Tumwater Square and Downtown Olympia.

Ridership by Stop and Trip

Route 13 shares a large portion of its alignment on Capitol Way, Israel Road, and Tumwater Boulevard with Route 12. However, Route 13 operates more frequently and more directly, and consequently has much higher ridership than Route 12. With 22.5 boardings per revenue hour on weekdays, Route 13 has above average productivity. On Saturdays and Sundays, Route 13 performs above average as well. The highest ridership stop besides the Olympia Transit Center is Tumwater Square, with 133 boardings on average, indicating transfer activity.

On-Time Performance

Route 13 has above average on time performance, with 93% of trips arriving on time. There is no reported early running on Route 13, with only a few (7%) of all trips arriving late. Late running occurs primarily in the inbound (northbound) direction.

Route 21 Bethel Street, North Central Street, Downtown Olympia

Description

Route 21 operates in a counterclockwise loop between the Olympia Transit Center and the Northeast Olympia neighborhood. In the outbound direction, Route 21 operates on 4th Avenue, and then weaves through residential areas via Puget, Bigelow, Fir, Pine, Central, Miller, and Friendly Grove. Route 21 then turns onto 26th Avenue, serving John Rodgers Elementary School, and travels back to the Olympia Transit Center via Bethel, San Francisco (where it serves Roosevelt Elementary), Puget, and State. The one-way loop causes out-of-direction travel, but it also provides coverage to larger portions of the neighborhood.

Route 21 is interlined with Route 60 at the Olympia Transit Center on weekdays and weekends. The 7:00 PM trip on Saturdays continues as Route 44 from the Olympia Transit Center.

Service operates every 30 minutes during peak times and every 60 minutes during off peak times and on weekends.

At a Glance		
Weekday Boardings		250
Weekday Revenue Hours		10.2
Weekday Boardings per Hour		24.6
Saturday Boardings		137
Saturday Revenue Hours		5.8
Saturday Boardings per Hour		23.4
Sunday Boardings		108
Sunday Revenue Hours		5.8
Sunday Boardings per Hour		18.4
Weekday Schedule Adherence	On Time	92%
	Early	1%
	Late	7%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
	Sun	60
Span	Mon-Fri	6:30 AM-8:25 PM
	Sat	9:00 AM-8:25 PM
	Sun	9:00 AM-8:25 PM

Ridership by Stop and Trip

Route 21 has above average productivity on weekdays and Saturdays, with 24.6 and 23.4 boardings per revenue hour, respectively. On Sundays, productivity is below average, with 18.4 boardings per revenue hour. Productivity by segment varies widely, with 7.4 boardings per service hour between Bigelow/Central and Friendly Grove/26th and 75.5 boardings per service hour between the Olympia Transit Center and Bigelow/Central. The majority of boardings occur at the Olympia Transit Center.

On-Time Performance

Route 21 has average on-time performance on weekdays, with 92% of trips operating on time, only 1% of trips operating early, and 7% of trips arriving late to scheduled time points. On-time performance is better in the northbound direction; southbound (inbound) there are more late running trips.

Route 41 The Evergreen State College, Downtown Olympia

Description

Route 41 operates between the Olympia Transit Center and The Evergreen State College via Evergreen Parkway, Kaiser Road, Cooper Point Road, 28th Avenue, Division Street, Harrison Avenue, and 4th Avenue. In the outbound direction, Route 41 deviates off Evergreen Parkway onto Driftwood Road to serve the college dormitories, and then travels via Overhulse Place to the main college campus. Much of the route travels through residential areas of West Olympia, serving key destinations such as Capital High School, Jefferson Middle School, and Grocery Outlet. Outside of the Olympia Transit Center, transfers are available to Routes 45 and 48. Route 41 is interlined with Route 13 at the Olympia Transit Center on weekday trips until 5:25 PM.

At a Glance		
Weekday Boardings		1,442
Weekday Revenue Hours		40.2
Weekday Boardings per Hour		35.8
Saturday Boardings		909
Saturday Revenue Hours		30.4
Saturday Boardings per Hour		29.9
Sunday Boardings		782
Sunday Revenue Hours		23.3
Sunday Boardings per Hour		33.6
Weekday Schedule Adherence	On Time	95%
	Early	0%
	Late	5%
Frequency (minutes)	Mon-Fri	15-30
	Sat	30
	Sun	30
Span	Mon-Fri	6:00 AM-11:55 PM
	Sat	8:30 AM-11:55 PM
	Sun	9:03 AM- 8:55 PM

Service operates seven days a week, every 15 minutes during weekday peak times when The Evergreen State College is in session, and every 30 minutes at all other times on weekdays. Together, Route 48 and Route 41 provide 15 minute service all day on Saturdays and off-peak weekdays between the Olympia Transit Center and Evergreen. Route 48 does not run on Sundays, leaving Route 41 to provide half-hour service between Olympia Transit Center and Evergreen.

Ridership by Stop and Trip

Route 41 has the second-highest weekday productivity systemwide, with 35.8 boardings per revenue hour. On weekends productivity drops to about 31 boardings per revenue hour. Ridership is primarily driven by The Evergreen State College, with 440 daily boardings on average on weekdays. Ridership is also high on the deviation with 198 average daily boardings at the dormitories and over 25 daily boardings at stops along Driftwood Road. Midday, PM Peak, and Evening time periods experience more ridership than AM peak and Night time periods, which is typical for campuses.

On-Time Performance

Route 41 has above average on-time performance with no early running and 95% of timepoint arrivals occurring on time. Late running occurs most often on outbound trips toward The Evergreen State College.

Route 42 Family Court, SPSCC

Description

Route 42 operates on weekdays in a clockwise loop, serving South Puget Sound Community College (SPSCC), Thurston County's Juvenile Court, Accountability, and Restitution Center, Black Lake Apartments, and Haggen Food & Pharmacy. Transfers are available to Route 43 at SPSCC as well as Route 44 along Cooper Point Road. Service operates every 30 minutes from 7:15 AM to 6:20 PM, with a service gap between 9 AM and noon.

At a Glance		
Weekday Boardings		44
Weekday Revenue Hours		7.0
Weekday Boardings per Hour		6.2
Weekday Schedule Adherence	On Time	99%
	Early	0%
	Late	0%
Frequency (minutes)	Mon-Fri	30
Span	Mon-Fri	7:15 AM-9:05 AM Noon - 6:20 PM

Ridership by Stop and Trip

Route 42 has the lowest productivity of all routes systemwide with 6.2 boardings per revenue hour. The level of ridership is generally insufficient to support fixed-route transit with only 44 boardings per day on average.

SPSCC generates nearly all of Route 42's ridership, with 28 average daily boardings. All other stops have fewer than four boardings per day on average, and only four trips average more than three boardings.

One-way circulators provide coverage, but they are inconvenient, as they introduce out-of-direction travel. Route 42's ridership is hampered by difficult land use patterns (the area is mostly zoned industrial), a one-way loop, lack of residential density, and peak-only operating service geared toward the County's corrections facilities.

On-Time Performance

Route 42 has above average on-time performance at 99%, with negligible instances of late and early running.

Route 43 Thurston Courthouse, SPSCC, Tumwater Square, Downtown Olympia

Description

Route 43 operates between the Olympia Transit Center and Tumwater Square via SPSCC. From the Olympia Transit Center, Route 43 operates along 5th Avenue, turning onto Deschutes Parkway and then Lakeridge Drive, where it serves the County Courthouse. Route 43 then travels via Evergreen Park Drive and Crosby Boulevard to SPSCC. It continues on Barnes Boulevard, Linwood Avenue, and Capitol Boulevard to Tumwater Square. Transfers are Available to Routes 12, 13, and 68 at Tumwater Square as well as Route 42 at SPSCC.

Route 43 is interlined with Route 62A on weekdays, continuing as 62A from the Olympia Transit Center.

Service operates on weekdays every 30 minutes and hourly on Saturdays. Together Routes 43 and 44 provide 15-minute service between the Olympia Transit Center, the Courthouse, and SPSCC on weekdays.

At a Glance		
Weekday Boardings		660
Weekday Revenue Hours		26.9
Weekday Boardings per Hour		24.6
Saturday Boardings		67.0
Saturday Revenue Hours		11
Saturday Boardings per Hour		6.4
Weekday Schedule Adherence	On Time	93%
	Early	1%
	Late	6%
Frequency (minutes)	Mon-Fri	30
	Sat	60
Span	Mon-Fri	6:15 AM-7:40 PM
	Sat	8:43 AM-7:10 PM

Ridership by Stop and Trip

Route 43 has above-average weekday productivity with 24.6 boardings per revenue hour. On Saturdays, Route 43 is the least productive route with 6.4 boardings per revenue hour. Olympia Transit Center, SPSCC, and Tumwater Square drive most of the ridership on Route 43 with 74% of boardings occurring at those three locations. Productivity on the segment between Olympia Transit Center and SPSCC is roughly twice as high as on the segment between SPSCC and Tumwater Square.

On-Time Performance

Route 43 has above average on time performance, with 93% of trips running on time and very little early running. Late running occurs on 6% of trips, and is slightly more likely to occur on inbound trips.

Route 44 Capital Mall, SPSCC, Downtown Olympia

Description

Route 44 operates between the Olympia Transit Center and Capital Mall via SPSCC. Route 44 follows the same alignment as Route 43 to SPSCC, serving the County Courthouse. From SPSCC, Route 44 travels on Cooper Point Road, terminating in a counterclockwise loop around the Capital Mall via Mall Loop Drive, Kenyon, and Harrison. Trip generators include the Courthouse, SPSCC, apartments on Evergreen Park Drive, various retail locations on Cooper Point Drive, and retail near the Capital Mall.

Route 44 is interlined with Route 62B at the Olympia Transit Center on weekdays and weekends. Several trips on Saturday are interlined with Route 62A as well.

Route 44 operates every 30 minutes on weekdays and Saturdays, and every 60 minutes on Sundays. Together, Routes 43 and 44 provide 15-minute service on weekdays between downtown Olympia and SPSCC.

At a Glance		
Weekday Boardings		835
Weekday Revenue Hours		31.9
Weekday Boardings per Hour		26.2
Saturday Boardings		387
Saturday Revenue Hours		26.8
Saturday Boardings per Hour		14.4
Sunday Boardings		256
Sunday Revenue Hours		12.0
Sunday Boardings per Hour		21.4
Weekday Schedule Adherence	On Time	93%
	Early	0%
	Late	6%
Frequency (minutes)	Mon-Fri	30
	Sat	30
	Sun	60
Span	Mon-Fri	5:58 AM-10:25 PM
	Sat	8:30 AM-10:25 PM
	Sun	8:30 AM-8:25 PM

Ridership by Stop and Trip

Route 44 has above average productivity on weekdays with 26.2 boardings per revenue hour. On Saturdays, Route 44 has below average productivity, with 14.4 boardings per revenue hour. Sunday productivity is average at 21.4 boardings per revenue hour.

Most ridership activity occurs between the Capital Mall and the County Courthouse in both directions, with very little activity along Deschutes Parkway. SPSCC has the most ridership outside of the Olympia Transit Center, followed by the Capital Mall. Midday and PM trips have higher ridership and productivity than the early mornings and the evenings.

On-Time Performance

Route 44 has average on-time performance with 93% of trips operating on time, 0% operating early, and 6% operating late. Inbound trips are more likely to be late than outbound trips and have no early running.

Route 45 Capital Mall, Conger, Downtown Olympia

Description

Route 45 operates between the Olympia Transit Center and Capital Mall via residential areas of West Olympia. Route 45 leaves the Olympia Transit Center, first traveling to and from the Farmers Market (outbound direction only) via Capitol Way. Route 45 travels via 4th Avenue, continues on Harrison, and turns into the Northwest Olympia neighborhood via Rogers, Bowman, and Conger, serving Capital High School. The route then travels to the Capital Mall via Cooper Point Road and Mall Loop Drive. Other key destinations include Jefferson Middle School and retail locations along Cooper Point Road.

Route 45 is interlined with Route 12 at the Olympia Transit Center on weekdays, and on inbound weekend trips.

At a Glance		
Weekday Boardings		167
Weekday Revenue Hours		14.8
Weekday Boardings per Hour		11.2
Saturday Boardings		137
Saturday Revenue Hours		11.5
Saturday Boardings per Hour		11.9
Weekday Schedule Adherence	On Time	94%
	Early	0%
	Late	5%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
Span	Mon-Fri	6:35 AM-7:55 PM
	Sat	8:18 AM-7:40 PM

Route 45 operates on weekdays and Saturdays, running every 30 minutes during weekday peak periods and hourly at all other times.

Ridership by Stop and Trip

Route 45 has below average productivity with 11.2 boardings per revenue hour on weekdays and 11.9 boardings per revenue hour on Saturdays. The 2:15 PM outbound trip experiences the most ridership, from the end of the school day at Capital High School.

Less than five passengers use the service to the Farmers Market. The deviation adds several minutes travel time for approximately 70 passengers. Deleting this segment would shorten the length of the trip, and make the route easier for riders to use. However, this segment also serves the senior housing on Capitol Way for grocery shopping trips on 4th Avenue (Bayview). Another deviation, a small loop off of Rogers serving Garfield Elementary School on inbound trips, also has less than five daily boardings. This deviation allows buses to use the traffic light at Perry Avenue and Harrison Avenue to make a left turn onto Harrison Avenue.

With the exception of Capital High School and the Food Co-op, Route 45 does not have a unique market, with more frequent service available on routes 41, 47, and 48. Even the route's unique segments along Conger, Bowman, and Rogers are all within 1/3 mile of more frequent service. The lower ridership and productivity of Route 45 compared to other nearby service suggests that transit patrons are walking further to more-frequent routes instead of taking Route 45.

On-Time Performance

Route 45 has average on-time performance with 94% of trips arriving on time to scheduled time points and 5% late running. Late running occurs in both directions, with inbound trips running one minute late on average and outbound trips running two minutes late on average.

Route 47 Capital Medical Center, Capital Mall, Downtown Olympia

Description

Route 47 operates between the Olympia Transit Center and Capital Medical Center via the Capital Village Shopping Center and Capital Mall. Route 47 leaves downtown Olympia via 4th Avenue, and serves the South Westside via Sherman, 5th Avenue, Decatur, and 9th Avenue. Route 47 travels along the east side of the mall via Black Lake Boulevard, accessing the mall transit center via 4th Avenue, and then looping around the Capital Village shopping center and continuing on Cooper Point Drive and Capital Mall Drive to Capital Medical Center.

Route 47's alignment between the Capital Medical Center and Capital Mall is different in the inbound and outbound directions. Outbound, Route 47 serves the Safeway on Cooper Point Road. It does not serve Safeway in the inbound direction. Route 47 is interlined with Route 68 on weekdays and with Route 21 on Saturdays at the Olympia Transit Center.

Route 47 operates every 30 minutes on weekdays and hourly on weekends.

At a Glance		
Weekday Boardings		617
Weekday Revenue Hours		27.2
Weekday Boardings per Hour		22.7
Saturday Boardings		283
Saturday Revenue Hours		11.6
Saturday Boardings per Hour		24.4
Sunday Boardings		255
Sunday Revenue Hours		11.6
Sunday Boardings per Hour		22.0
Weekday Schedule Adherence	On Time	91%
	Early	1%
	Late	8%
Frequency (minutes)	Mon-Fri	30
	Sat	60
	Sun	60
Span	Mon-Fri	6:25 AM-7:55 PM
	Sat	8:25 AM-7:55 PM
	Sun	8:25 AM-7:55 PM

Ridership by Stop and Trip

Weekday productivity is just above average with 22.7 boardings per revenue hour. On Saturdays and Sundays, Route 47 performs above average. Ridership is about 10 boardings per trip throughout the day in the inbound direction. In the outbound direction, ridership grows steadily throughout the day, starting with less than ten boardings in the morning and reaching its maximum (26 boardings) around 3:00 PM before decreasing to 13 boardings in the evening. Ridership is lower in the segments between Capital Medical Center and Capital Mall and in the smaller, less dense Westside neighborhood. Still, there are major stops in these neighborhoods, such as the apartment complexes near 9th/Fern. The Capital Mall is the highest ridership stop besides the Olympia Transit Center.

On-Time Performance

Route 47 has average on-time performance with 91% of trips operating on time, and 8% of trips arriving late. Late running occurs in both directions, though predominately in the inbound direction, with 11% of inbound trips arriving late. Route 47 arrives late to Capital Mall, a major transfer point, on 10% of all trips.

Route 48 The Evergreen State College, Capital Mall, Downtown Olympia

Description

Route 48 operates between the Olympia Transit Center and The Evergreen State College via the Capital Mall. Its alignment is similar to that of Route 41, except it continues on Harrison past Division to the Capital Mall, and then travels north/south on Cooper Point Road to Kaiser Road. Like Route 41, Route 48 travels on Evergreen Parkway to the college, but does not serve the student residences on Driftwood.

At a Glance		
Weekday Boardings		1,105
Weekday Revenue Hours		30.7
Weekday Boardings per Hour		36.0
Saturday Boardings		867
Saturday Revenue Hours		26.8
Saturday Boardings per Hour		32.3
Weekday Schedule Adherence	On Time	95%
	Early	1%
	Late	4%
Frequency (minutes)	Mon-Fri	30
	Sat	30
Span	Mon-Fri	6:43 AM-10:13 PM
	Sat	8:43 AM-10:13 PM

Route 48 operates every 30 minutes Monday through Saturday. Together, Route 48 and Route 41 provide 15-minute service between Evergreen and the Olympia Transit center on weekdays and Saturdays. Key destinations include Grocery Outlet, the Capital Mall and surrounding retail, and The Evergreen State College.

Route 48 is interlined with Route 94 at the Olympia Transit Center on every other trip (:10 after the hour) on weekdays, and on every trip with Route 66 on Saturdays.

Route 48 does not operate on Sundays. A truncated version of Route 48, which is called Route 49, serves the Olympia Transit Center to Capital Mall on Sundays with 30-minute service.

Ridership by Stop and Trip

Route 48 has the highest productivity in the system with 36 boardings per revenue hour on weekdays and 32.3 boardings per revenue hour on Saturdays. Route productivity is lower in the morning (26 passengers per service hour), but still good. Route 48 is similarly productive as Route 41, its counterpart serving Evergreen, but provides access to the Mall and grocery stores for students.

On-Time Performance

Route 48 has above average on time performance with 95% of trips operating on time. Late running occurs on 4% of trips, with outbound trips to the Olympia Transit Center more likely to be late running than inbound trips.

Route 60 Kaiser Permanente, Panorama City, Downtown Olympia

Description

Route 60 operates between the Olympia Transit Center and the Lacey Transit Center via St. Peter Hospital and Kaiser Permanente (formerly Group Health). From the Olympia Transit Center, Route 60 travels on Franklin to the Olympia Courthouse, then turns onto 8th Avenue, traveling through the Eastside neighborhood via Legion Way and 7th Avenue, and then continues to Martin Way via Boulevard Road, Pacific Avenue, and Phoenix Street. From Martin Way, Route 60 deviates north via Ensign Road and Lilly Road, serving Kaiser Permanente and several other medical facilities, and then returns to Martin Way. Route 60 travels on Sleater-Kinney Road, serving the Lacey Transit Center via 7th Avenue, and then continues down Golf Club Rd., taking a clockwise loop via 21st to Sleater-Kinney Road to serve Panorama Senior Living Facility. Route 60 is interlined with Route 21 on weekdays and with Route 47 on weekends at the Olympia Transit Center.

At a Glance		
Weekday Boardings		439
Weekday Revenue Hours		28.2
Weekday Boardings per Hour		15.6
Saturday Boardings		194
Saturday Revenue Hours		17.1
Saturday Boardings per Hour		11.3
Sunday Boardings		153
Sunday Revenue Hours		16.4
Sunday Boardings per Hour		9.3
Weekday Schedule Adherence	On Time	80%
	Early	11%
	Late	9%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
	Sun	60
Span	Mon-Fri	6:20 AM-7:55 PM
	Sat	8:20 AM-7:55 PM
	Sun	8:30 AM-7:55 PM

Route 60 operates seven days a week, every 30 minutes during peak times on weekdays, and every 60 minutes at all other times. Transfers to Routes 62, 64, and 66 are available at the Lacey Transit Center, and almost all other routes at the Olympia Transit Center.

Ridership by Stop and Trip

Route 60 has below average ridership with 15.6 boardings per revenue hour on weekdays and 11.3 boardings per revenue hour on Saturdays. Route 60 has the second lowest productivity systemwide on Sundays, with 9.3 boardings per revenue hour. The portions of the route between the Boulevard and Lilly and along Martin are less productive than the rest of the route. In particular, the area south of the Lacey Transit Center, with the exception of Panorama City, generates little ridership. The deviation to the medical facilities on Lilly Road is relatively productive, but the deviation to Providence St. Francis House, a low-income housing facility, carries less than 3 passengers/day.

On-Time Performance

Route 60 operates on time just 80% of the time with the remaining trips split between early and late. Route 60 has the highest incidence of early running of any route in the system; nearly all outbound trips are recorded as early at the Lacey Transit Center timepoint. From there, Route 60 continues to Panorama Center (a five minute journey) where it is consistently recorded as arriving late by an average of 3 minutes.

It should be noted that Route 60 is specifically designed to better connect areas with greater senior concentrations to medical facilities. As a result, it carries significant numbers of

wheelchairs, which can have an impact on on-time performance. During 2012 operator interviews, operators noted that Route 60 had on time performance issues often due to the impacts of multiple wheelchair passengers using the route.

Route 62A/B Lacey, Meridian / The Meadows, Downtown Olympia

Description

Route 62A/B operates along the Martin Way corridor between Lacey and the Olympia Transit Center. Buses operate along 4th Avenue in the eastbound direction and State Avenue in the westbound direction between Pacific Avenue and the Olympia Transit Center. Between Pacific and Marvin Road, Route 62 operates on Martin Way, deviating on Sleater-Kinney Road to serve the Lacey Transit Center. The two variants of Route 62—62A and 62B—alternate each trip. Route 62A serves the Wal-Mart just before Marvin Road and then continues on Martin Way to Meridian, where it turns around. 62B does not serve Wal-Mart, and turns off of Martin Way at Marvin Road, where it completes a clockwise loop past Meadows Elementary School via Steilacoom, Deerbrush, Rockcress, and Pacific.

At a Glance			
		62A	62B
Weekday Boardings		1,231	1,158
Weekday Revenue Hours		43.3	46.8
Weekday Boardings per Hour		28.4	24.8
Saturday Boardings		809.4	831.8
Saturday Revenue Hours		31.3	35.9
Saturday Boardings per Hour		25.8	23.2
Sunday Boardings		513.9	514.7
Sunday Revenue Hours		18.1	17.9
Sunday Boardings per Hour		28.5	28.7
Weekday Schedule Adherence	On Time	82%	83%
	Early	1%	1%
	Late	17%	16%
Frequency (minutes)	Mon-Fri	30-60	30-60
	Sat	30-60	30-60
	Sun	60	60
Span	Mon-Fri	5:41 AM - 9:25 PM	6:00 AM - 12:05 AM
	Sat	8:33 AM - 9:25 PM	8:16 AM - 12:05 AM
	Sun	8:33 AM - 8:41 PM	8:30 AM - 8:55 PM

Route 62A is interlined with Route 44 at the Olympia Transit Center on weekday and weekend trips. Route 62B is interlined with Route 43 at the Olympia Transit Center on weekday trips, and with Route 44 on early morning and late evening weekday trips. On weekends, Route 62B continues as Route 62A from the Olympia Transit Center.

Between Olympia and Marvin Road, Route 62 operates every 15 minutes until 6:30 PM on weekdays and until 5:30 PM on Saturdays. Frequencies reduce to every 30 minutes in the evenings and hourly after 9:00 PM. On Sundays, service operates every 30 minutes.

Ridership by Stop and Trip

Routes 62A and 62B have above average productivity. Ridership is highest on the trunk of the route, in the segment between the Olympia Transit Center and Lacey Transit Center.

On inbound trips, the Meridian branch (62A) averages nearly double the passengers per trip as the Meadows branch (62B)—around 25 passengers per trip compared to 14 passengers per trip, respectively. On outbound trips there is little difference between the two routes—most trips average at least 20 passengers. Because 62A also serves the Wal-Mart, which is a fairly high ridership stop, overall it has higher ridership and productivity on weekdays. The deviation from Martin Way to serve the Lacey Transit Center adds significant travel time and exposure to delays to anyone riding east-west, although ridership activity at the Lacey Transit Center is high.

On-Time Performance

Route 62A/B has below average on time performance with 82-83% of trips operating on time, 1% running early, and 16-17% running late.

On Route 62A, late running tends to occur more often in the inbound direction and during midday and PM Peak trips. This late running frequently occurs along the eastern segment of the route at Martin Way and Carpenter, Martin Way and Meridian Way, and Martin Way and Marvin Way timepoints. In the outbound direction, Route 62A often arrives late at Martin Way and Marvin Way.

On Route 62B, some late running occurs inbound during the AM Peak, while the majority occurs in the outbound direction on PM Peak trips. Late running during outbound trips occurs most often at the Martin Way and Marvin Way and Pacific and Rockcress timepoints.

Route 62A/B has a high incidence of late running at Lacey Transit Center. The routes depart late from Lacey Transit Center most frequently on outbound trips during midday and PM Peak hours, and on inbound trips during the AM Peak. Additionally, Route 62A/B has issues with departing late from Olympia Transit Center, with more than 10% of PM Peak trips and 4-5% of midday trips leaving late. Despite the poor on-time performance along the route's ends, arrivals at Olympia Transit Center tend to be on time 95% of the time.

Additionally, Intercity Transit operators noted that an extra vehicle is often deployed during peak periods to allow Route 62 buses to continue on Martin Way without deviating into the Lacey Transit Center. As this vehicle is not reflected in the CAD/AVL data sample, on-time performance for the 62A/B is likely worse than the data suggests.

Route 64 Lacey, Amtrak, College Street, Downtown Olympia

Description

Route 64 operates between the Olympia Transit Center and Olympia-Lacey Centennial Station (Amtrak) via Lacey Transit Center. Route 64 travels through the Eastside Neighborhood of Olympia via 8th Avenue, Eastside Street, 10th Avenue, and Union Avenue, including Lions Park. It then travels to the Lacey Transit Center via Boulevard Road, 18th Avenue, Elizabeth, 14th Avenue, and Sleater-Kinney Road. From the Lacey Transit Center, Route 64 travels on 6th and then takes College Street and Balustrade Boulevard to Centennial Station. On College Street, Route 64 serves destinations such as Safeway, Lacey Corporate Center, Komachin Middle School, Horizons Elementary School, and Mountain View Elementary School.

Route 64 is a standalone route on weekdays, and is interlined with Route 12 on Sundays at the Olympia Transit Center.

Route 64 operates every 30 minutes during peak times on weekdays, and hourly at off peak times and Saturdays and Sundays.

At a Glance		
Weekday Boardings		677
Weekday Revenue Hours		42.0
Weekday Boardings per Hour		16.1
Saturday Boardings		379
Saturday Revenue Hours		24.8
Saturday Boardings per Hour		15.3
Sunday Boardings		308
Sunday Revenue Hours		22.9
Sunday Boardings per Hour		13.5
Weekday Schedule Adherence	On Time	96%
	Early	1%
	Late	3%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
	Sun	60
Span	Mon-Fri	5:48 AM - 9:10 PM
	Sat	8:18 AM - 9:10 PM
	Sun	8:42 AM - 8:10 PM

Ridership by Stop and Trip

Route 64 productivity is below average with 16.1 boardings per revenue hour on weekdays. The Olympia and Lacey Transit Centers are the highest ridership stops, with most other segments not having many high ridership stops. Ridership is somewhat commute and school trip oriented with higher ridership in the morning on inbound trips and higher ridership in the afternoon on outbound trips.

Ridership on Balustrade Boulevard is low, considering the housing density. The lack of a direct trip to downtown Olympia may be a contributing factor to this.

On-Time Performance

Route 64 has above average on time performance with 96% of trips operating on time, 3% operating late, and 1% operating early.

Route 66 Lacey, Ruddell Road, Downtown Olympia

Description

Route 66 connects the Olympia Transit Center and Lacey Transit Center via Pacific Avenue. Route 66 travels between the Lacey Transit Center and Lacey Corporate Center Transfer Center via College Street, Pacific Avenue, Ruddell Road, and Yelm Highway. In the outbound direction, Route 66 deviates to serve group home facilities and to a lesser extent the Lacey Elementary School. In the inbound direction after 9:00 PM, Route 66 operates on College Street instead of Ruddell Road.

Route 66 is interlined with Route 13 on weekdays at the Olympia Transit Center until 7:40 PM. On Saturdays, Route 66 continues from Olympia Transit Center as Route 48, and on Sundays, it continues as Route 49.

On weekdays and Saturdays, Route 66 operates at 30 minute frequencies until 8:15 PM, and then operates at 60 to 75 minute frequencies. On Sundays, Route 66 operates at 30 minute frequencies throughout the day.

At a Glance		
Weekday Boardings		1,016
Weekday Revenue Hours		47.0
Weekday Boardings per Hour		21.6
Saturday Boardings		809
Saturday Revenue Hours		40.0
Saturday Boardings per Hour		20.2
Sunday Boardings		622
Sunday Revenue Hours		35.6
Sunday Boardings per Hour		17.5
Weekday Schedule Adherence	On Time	93%
	Early	0%
	Late	7%
Frequency (minutes)	Mon-Fri	30-60
	Sat	30
	Sun	30
Span	Mon-Fri	5:56 AM-11:15 PM
	Sat	8:26 AM-11:15 PM
	Sun	8:26 AM-8:47 PM

Ridership by Stop and Trip

Route 66 has average productivity with 21.6 boardings per revenue hour on weekdays. Ridership is generally higher in the outbound direction than in the inbound direction. The three trips that operate on College Street in the inbound direction in the late evenings have little ridership on the College Street segment, averaging less than three boardings per service hour.

In the outbound direction only, Route 66 makes a deviation to 22nd Avenue, Lilac Street, and 25th Avenue. This loop serves the neighborhood that houses group home facilities as well as the Lacey Elementary School and has 34 daily riders.

The Lacey Transit Center is a major passenger generator, suggesting large transfer volumes at this location.

On-Time Performance

Route 66 operates on time 93% of the time; remaining 7% of trips tend to be late. Schedule adherence is the same in the inbound direction and outbound direction. Route 66 often arrives late to Lacey Transit Center, a major transfer point.

Route 67 Lacey, Tri Lake

Description

Route 67 operates between the Lacey Transit Center and Tri-Lake development off of Mullen Road. It serves neighborhoods along Marvin Road between Mullen Road and Pacific Avenue, including a deviation through another residential development on Lake Forest Drive. Between Marvin Road and the Lacey Transit Center, Route 67 operates on Pacific Avenue, serving apartment complexes and retail such as Safeway as well as St. Martin's University and the Lacey Senior and Community Center. In the outbound direction, Route 67 operates on Lacey Boulevard between the Lacey Transit Center and Pacific Avenue. Service operates hourly Monday through Saturday.

At a Glance		
Weekday Boardings		116
Weekday Revenue Hours		13.4
Weekday Boardings per Hour		8.6
Saturday Boardings		78
Saturday Revenue Hours		10.8
Saturday Boardings per Hour		7.3
Weekday Schedule Adherence	On Time	91%
	Early	1%
	Late	8%
Frequency (minutes)	Mon-Fri	60
	Sat	60
Span	Mon-Fri	6:10 AM-7:35 PM
	Sat	8:50 AM-7:35 PM

Ridership by Stop and Trip

Route 67 has the fourth and second lowest productivity systemwide on weekdays and Saturdays, respectively. Ridership is somewhat commute oriented, with inbound morning trips having higher ridership than evening trips, and outbound evening trips having higher ridership than morning trips. Besides the Lacey Transit Center, ridership activity is uniformly low.

There are no major destinations on this route east of the Lacey Transit Center. The route serves predominantly low-density residential areas, which is a contributing factor to the low ridership. One element that may add future ridership is a large residential development permitted to be built along Marvin Road.

On-Time Performance

Route 67 operates on time 91% of the time with 8% late running. Schedule adherence is better in the outbound direction than inbound. On-time performance data shows late running occurring midday, AM Peak, and PM Peak times at the Pacific and Bowker timepoint, the middle of the inbound route. However, arrivals and departures at Lacey Transit Center are 98% on time.

Route 68 Lacey, Tumwater Square, Downtown Olympia

Description

At a Glance		
Weekday Boardings		747
Weekday Revenue Hours		39.8
Weekday Boardings per Hour		18.8
Saturday Boardings		290
Saturday Revenue Hours		23.7
Saturday Boardings per Hour		12.2
Sunday Boardings		260
Sunday Revenue Hours		23.8
Sunday Boardings per Hour		10.9
Weekday Schedule Adherence	On Time	94%
	Early	1%
	Late	5%
Frequency (minutes)	Mon-Fri	30-60
	Sat	60
	Sun	60
Span	Mon-Fri	5:58 AM-8:28 PM
	Sat	8:33 AM-8:28 PM
	Sun	8:33 AM-8:28 PM

Route 68 operates between the Olympia Transit Center and the Lacey Transit Center via Tumwater Square and the Lacey Corporate Center. From the Olympia Transit Center, Route 68 travels on Capital Way to Tumwater Square, duplicating Routes 12 and 13. The alignment turns onto North Street, serving Olympia High School, and then travels via Henderson to Yelm Highway, serving the Briggs YMCA. From Yelm Highway, Route 68 serves the Lacey Corporate Center and then continues on Yelm Highway to Ruddell Road and Little Prairie Shopping Center. It then travels on Mullen Road (serving Timberline High School), Carpenter Road, Pacific Avenue, and then College Street to the Lacey Transit Center. The first trip of the day begins at the Lacey Corporate Center.

Route 68 is interlined with Route 47 at the Olympia Transit Center on weekdays.

Route 68 operates every 30 minutes during peak times and hourly at all other times, including Saturday and Sunday. Between Tumwater Square and the Olympia Transit Center, Route 68's alignment is shared by Routes 12 and 13. Combined schedules on Routes 12, 13, and 68 provide eight buses per hour during peak times on weekdays between Olympia and Tumwater Square. In the southbound direction, Routes 12, 13, and 68 are scheduled to leave within 5 minutes of each other during peak hours. In the northbound direction, Routes 12, 13, and 68 trips are scheduled in close proximity along Capitol Way between Tumwater Square and Downtown Olympia.

Ridership by Stop and Trip

Route 68 has average productivity with 18.8 boardings per revenue hour on weekdays. The route is long, traveling in a somewhat circuitous manner through the southern boundaries of Olympia, Tumwater, and Lacey. It provides coverage to neighborhoods on Carpenter Road and Yelm Highway, and also serves two high schools. The first trips of the day have little ridership, six boardings or fewer, but ridership per trip rises to at least 10 boardings for the remainder of the day. Ridership is high at all transfer locations along the route, including the Lacey Transit Center, Lacey Corporate Center, Tumwater Square, and the Olympia Transit Center.

On-Time Performance

Route 68 has above average on time performance with 94% of trips operating on time and 5% of trips operating late. Inbound and outbound directions have similar levels of late and early running.

Route 94 Lacey Corporate Center, Yelm, Downtown Olympia

Description

Route 94 travels between the Olympia Transit Center and Yelm (roughly 20 miles each way), serving neighborhoods of southeast Olympia via Union, Eastside, 22nd, and Boulevard Road (serving Washington Middle School). Just south of Olympia, Route 94 serves residential developments Wilderness Drive and Donnelly Drive, from which it travels the remainder of the alignment on Yelm Highway, deviating to the Lacey Corporate Center Transfer Station to facilitate transfers to Routes 64, 66, 68. It also serves Centennial Station (Amtrak).

Route 94 is interlined with Route 48 on weekdays at the Olympia Transit Center.

Route 94 operates every hour on Weekdays, every 60 to 75 minutes on Saturdays, just over every two hours on Sundays.

At a Glance		
Weekday Boardings		667
Weekday Revenue Hours		44.3
Weekday Boardings per Hour		15.0
Saturday Boardings		300
Saturday Revenue Hours		24.0
Saturday Boardings per Hour		12.5
Sunday Boardings		168
Sunday Revenue Hours		12.9
Sunday Boardings per Hour		13.1
Weekday Schedule Adherence	On Time	89%
	Early	3%
	Late	8%
Frequency (minutes)	Mon-Fri	60
	Sat	60-75
	Sun	135
Span	Mon-Fri	5:34 AM-9:45 PM
	Sat	8:08 AM-9:00 PM
	Sun	8:08 AM-9:00 PM

Ridership by Stop and Trip

Route 94 has below average productivity with 15.0 boardings per revenue hour on weekdays. Ridership is commute oriented with more riders on inbound trips in the morning and more riders on outbound trips in the evening. The highest ridership stop besides the Olympia Transit Center are the cluster of state agency offices along Eastside Street SE & 12th Avenue SE and Union Avenue SE.

On-Time Performance

Route 94 has below average on time performance with 89% of trips operating on time, 3% of trips arriving early to their timepoints and 8% of trips arriving late. Most late and early running occurs during PM Peak trips. Schedule adherence is nearly identical in the inbound and outbound directions. Route 94 has a high incidence (9%) of late running at Lacey Corporate Center, a major transfer point. Additionally, Route 94 has issues with departing late from Olympia Transit Center during PM Peak trips.

Route 101/Dash Downtown Olympia Shuttle

Description

Route 101 is a free circulator route that operates between the Farmer's Market at Capitol Way/Market Street and Washington State Department of Transportation on Maple Park Avenue/Franklin Street. Route 101, branded as the "Dash," operates on Capitol Way through downtown Olympia Sid Snyder Avenue in the State Capitol, where it loops past the legislative building on Cherry Lane, and then continues via 11th Avenue to the east campus via Jefferson Street, turning around on Maple Park Avenue. The Dash operates every 15 minutes on weekdays between 7:10 AM and 6:20PM. The route also operates on Saturdays from the first Saturday in April to Labor Day in September with ten-minute headways between 9:00 AM and 5:05 PM, and serves the west campus (legislative buildings). For the sake of this analysis; extra trips run during the legislative session (January to March/April) were excluded from the dataset.

At a Glance		
Weekday Boardings		204
Weekday Revenue Hours		18.3
Weekday Boardings per Hour		11.1
Saturday Boardings		184
Saturday Revenue Hours		15.8
Saturday Boardings per Hour		11.6
Weekday Schedule Adherence	On Time	96%
	Early	1%
	Late	4%
Frequency (minutes)	Mon-Fri	15
	Saturday	10
Span	Mon-Fri	7:10 AM- 6:20 PM
	Saturday	9:00 AM- 5:05 PM

Ridership by Stop and Trip

The Dash has below average productivity with 11.1 boardings per revenue hour. Midday trips, around the lunch hour, experience the most ridership. Generally, there are more riders in the outbound (towards Maple Park / Franklin) direction. Saturday has slightly better performance in productivity with 11.6 boardings per revenue hour.

Most of the ridership on the Dash is on Capitol Way, which connects the Farmers Market, downtown Olympia, and the Capitol Campus.

On-Time Performance

The Dash Shuttle has above average on time performance with 96% of trips operating on time and 4% of trips arriving late to their timepoints.

On-time performance indicates instances of late running occur more frequently in the inbound direction, as buses head toward the Farmers Market.

Route 603 Olympia/Lacey and Lakewood/Tacoma

Description

Route 603 operates weekday Express service from Tacoma to Olympia in the morning and in the reverse direction in the afternoons.

In downtown Tacoma, Route 603 serves Tacoma Dome Station and downtown Tacoma via Pacific Avenue to the Transit Center between South 11th and South 9th Streets. From Tacoma, Route 603 stops at SR512 Park & Ride and Lakewood Station Park & Ride along I-5. In Olympia, Route 603 serves Union Avenue, Jefferson Street, and Capitol Way Capital Campus via Maple Park Avenue.

At a Glance		
Weekday Boardings		335
Weekday Revenue Hours		20.3
Weekday Boardings per Trip		19.7
Weekday Schedule Adherence	On Time	77%
	Early	5%
	Late	19%
Frequency (minutes)	Mon-Fri	8 trips SB, 9 trips NB
Span	Mon-Fri	6:10AM-1:10PM (SB) 12:00PM-8:35PM (NB)

Route 603 makes eight trips in the morning and nine trips in the evening, operating more frequently in the most peak times (6:00AM – 7:30 AM, 4:00 PM – 5:30 PM).

There is duplication of routing for much of Route 603's alignment in Pierce County (Lakewood and Tacoma) with other express routes. Route 603 shares many stops with Routes 605 and 612. Three routes serve downtown Olympia. Additionally, Routes 603, 605, and 612 continue on to serve Tacoma.

Ridership by Stop and Trip

Route 603 averages 18 boardings per trip in the morning and 21 boardings per trip in the afternoon. In the morning, the 6:10 AM and the 7:05 AM trips have the highest ridership, with 26 boardings each. In the afternoon, the 5:05 PM trip has the highest level of ridership, with 29 daily boardings. All trips carry more than 10 passengers per trip.

About half of riders utilize Lakewood stops and the remaining half use downtown Tacoma stops. The location of the ridership activity suggests a combination of transfers from Pierce Transit's local service and Sound Transit express routes at park-and-ride access points.

On-Time Performance

Route 603 has below average schedule adherence with only 77% of trips arriving on time and 5% of trips arriving early. About 19% of trips arrive late to their destinations. Running times are scheduled to account for varying traffic conditions on I-5 during peak periods.

Route 605 Olympia/Lacey and Lakewood/Tacoma

Description

Route 605 operates weekday express service from Olympia to Tacoma in the mornings and in the reverse direction in the evenings. It complements Route 603 service, which operates in the opposite direction. Route 605 follows a similar alignment as Route 603 except that it does not serve the East Capitol campus but goes directly to I-5, serves the Lacey Transit Center and the Martin Way and Lakewood Park & Ride lots, and downtown Tacoma.

At a Glance		
Weekday Boardings		236
Weekday Revenue Hours		21.8
Weekday Boardings per Trip		12
Weekday Schedule Adherence	On Time	66%
	Early	3%
	Late	31%
Frequency (minutes)	Mon-Fri	8 trips NB, 10 trips SB
Span	Mon-Fri	5:15AM-11:40PM (NB) 1:25PM-10:00PM (SB)

Route 605 operates 8 trips in the northbound direction in the morning and 10 trips in the southbound direction in the afternoon. Routes 605 and Routes 603, and 612 all serve Lakewood Station Park & Ride, the Lakewood SR 512 Park & Ride, and downtown Olympia.

Ridership by Stop and Trip

Route 605 has an average of 12 boardings per trip for both morning and evening trips. However, the route's utilization by trip is highly variable. The 1:25 PM and 4:30 PM southbound trips both have 23 boardings per day. Trips later in the day have between 7 and 10 daily boardings. The pattern also holds for morning trips, where ridership is highest for trips after 7:30 AM. The 7:35 AM, 9:00 AM, and 10:30 AM trips have 23 boardings each. In comparison, the 5:15 AM short turn trip that departs northbound from the Martin Way Park & Ride has an average of two daily boardings, but its southbound trip has over 25 boardings daily.

The destination with highest ridership for this route is the Lakewood SR 512 Park-and-Ride, where passengers can transfer to either Sound Transit or Pierce Transit service.

On-Time Performance

Route 605 has below average on time performance with 66% of trips operating on time. Of the remainder of the trips, 34% run early, and 31% run late. Outbound trips have better schedule adherence than inbound. Late running occurs primarily during afternoon trips in the inbound direction including SR512 P&R and Lakewood Station timepoints, which suggests that variable I-5 traffic levels through Tacoma have an influence on the route's schedule adherence. Inbound trips arrive late to Olympia Transit Center 40% of the time. Route 605's schedule is predicated on I-5 traffic conditions, and as such, proceeds on arrival to the next timepoint. On-time performance should therefore only be considered at the route's terminals.

Route 609 Tumwater/Lacey/Lakewood

Route 609 was a demonstration route that terminated in July 2017; its description is still included in this report for evaluation and planning purposes.

Description

Route 609, a WSDOT grant funded route, operates weekday express service between Tumwater, Olympia, Hawks Prairie Park & Ride and the SR 512 Park & Ride in Lakewood. Trips are timed for commuter patterns between Thurston and Pierce counties.

Route 609 complements Route 605, although there are key differences. In the morning, the two routes do not overlap. However, in the afternoon, all Route 609 trips also stop at the downtown Capitol campus, providing an option for riders accessing service at the SR 512 Park & Ride to choose between Routes 605 and 609.

At a Glance		
Weekday Boardings		107
Weekday Revenue Hours		20.7
Weekday Boardings per Trip		5
Weekday Schedule Adherence*	On Time	41%
	Early	18%
	Late	41%
Frequency (minutes)	Mon-Fri	30-90
Span	Mon-Fri	5:00AM-7:30 PM
*Route 609 was eliminated in July 2017. Schedule adherence data shown here is from a February 2017 CAD/AVL sample.		

Service only operates during peak commute hours. Trips are spaced to not conflict with Route 603 and 605, with anywhere from 30 to 90 minutes between trips. Route 609 trips also fill schedule gaps left when Pierce Transit discontinued their Olympia express service in 2011.

Ridership by Stop and Trip

Route 609 has low ridership, with an average of six boardings per trip in the southbound direction and four boardings per trip in the northbound direction. This is one of the least productive routes in the system. Only three of the 21 trips operated by Route 609 carry more than 10 passengers a trip. Route 605, which serves a similar overall market, but stops in downtown Tacoma, Lacey, and in downtown Olympia has significantly better productivity, suggesting that the destinations served by Route 609 are not as popular.

The biggest destination in the southbound direction is the Capitol campus, and the biggest destination in the northbound direction is Lakewood Station/Park & Ride.

On-Time Performance

Route 609 has poor on time performance with 41% of trips operating on time. Of the remainder of the trips, 18% run early, and 41% run late. Late running occurs most frequently on inbound trips (to Thurston County). Early running occurs most frequently at the Hawk's Prairie Park & Ride. The schedule is designed for cases when traffic congestion is present on I-5.

Route 612 Olympia/Lacey and Lakewood/Tacoma

Description

Route 612 operates one southbound trip in the morning and one northbound trip in the afternoon between Olympia and Tacoma. Route 612 follows the same alignment as Route 605 serving the Lacey Transit Center and Martin Way Park & Ride, but operates in the opposite direction. It is designed to allow Pierce County residents to directly commute to the employment areas around the Lacey Transit Center.

At a Glance		
Weekday Boardings		29
Weekday Revenue Hours		2.4
Weekday Boardings per Trip		14.5
Weekday Schedule Adherence	On Time	58%
	Early	6%
	Late	35%
Frequency (minutes)	Mon-Fri	1 trip SB, 1 trip NB
Span	Mon-Fri	6:50AM-7:48PM (SB) 4:15PM-5:40PM (NB)

Ridership by Stop and Trip

The 6:50 AM southbound trip has an average passenger load of 13, and the 4:15 PM northbound trip ridership has an average passenger load of 16. This is comparable to ridership on Route 605.

Typically, one trip a day is insufficient to attract a strong market.

On-Time Performance

Route 612 is on time 58% of the time, with early running on 6% of trips and late running occurring on 35% of trips. Late running occurs in both directions, although Route 612 sometimes arrives early to mid-route timepoints including Lacey Transit Center on outbound trips and SR 512 Park & Ride on inbound trips. The schedule is designed for cases when traffic congestion is present on I-5.

PART II

Short-Range Plan

8 INTRODUCTION TO THE SHORT-RANGE PLAN

Early in 2018, Intercity Transit developed a Short-Range Plan based on findings from both the existing conditions analysis and priorities expressed during the public outreach process. The short-term recommendations provide important service benefits but require little or no new funding. They are the first steps toward achieving the county's long-term vision (chapters 10 through 14). Several of the short-term recommendations were successfully implemented in September 2018. There may be differences between what was implemented and what is in this plan – an additional round of public outreach helped refine the final set of recommendations.

The recommendations, listed in greater detail in Chapter 9, focus on (1) restructuring routes to improve system connectivity and route directness, and (2) improving frequency and span for on the restructured system. They address key goals and desired outcomes that emerged from existing conditions work and community engagement.

The remainder of this chapter lays out the goals and desired outcomes of the Short-Range Plan, and a summary of proposed short-term service changes.

GOALS AND DESIRED OUTCOMES

The following goals and desired outcomes were considered when creating short-term route recommendations for Intercity Transit.

- **Address on-time performance.** Several routes are consistently late on weekdays, weekends, or 7 days a week. Key routes experiencing on-time performance issues—less than 90% schedule adherence—include (in order of magnitude): Olympia Express Routes 612, 605, and 603, Route 60, Routes 62A/B, Route 12, and Route 94. The routes with on-time performance issues were also confirmed by IT operators. The short-term plan recommends immediate changes to address schedule adherence on these routes.
- **Provide service to NE Lacey.** Community feedback, operator interviews, and recent population and employment growth in NE Lacey all indicate a need to serve this growing area.
- **Direct Tumwater and Lacey service to SPSCC.** There is growing demand for direct service between Lacey and Tumwater and the South Puget Sound Community College (SPSCC) main campus in west Olympia. The short-term plan aims to provide more direct, frequent service to SPSCC.
- **Better connections to Family Court.** Accessing Family Court via transit (Route 42) requires multiple transfers from nearly all parts of the service area. Short-term recommendations seek to provide easier connections to Family Court with fewer transfers.

- **Reduce duplication of service to downtown.** The current transit network is a "hub-and-spoke" design with most routes starting and ending at one of five major transfer points. The majority of Intercity Transit routes start and end at Olympia Transit Center in downtown Olympia. While this system design allows for easy transfers, riders making a crosstown trip must pass through downtown, often adding to travel times. To make transit service more efficient and travel times more competitive with car travel, these recommendations seek to reduce duplication of routes serving downtown and better serve crosstown markets.
- **Minimize coverage losses.** Areas that currently have service are likely to have the highest needs. In addition, taking away service from anyone is a step that must be taken very carefully, as the impacts to individuals can be profound. Coverage reduction was only considered when ridership levels are exceptionally low and the corresponding cost per rider is high.
- **Align resources to be more in line with the demand.** Transit resources should be allocated so that multiple routes are not overlapping one another, which reduces ridership potential and increases costs. If routes do overlap, every effort should be made to schedule routes to leverage the overlap to create better corridor frequencies. Short-term recommendations seek to leverage overlap of freeway routes to strengthen the market for commuter services.
- **Reduce delays in buses going through downtown.** Over 20 of Intercity Transit's bus routes converge on the Olympia Transit Center in downtown Olympia. Traffic congestion and other issues create on-time performance challenges for buses going through downtown. Short-term recommendations for downtown operations seek to reduce delays for buses going through downtown.

SERVICE SUMMARY

This section summarizes the service changes resulting from the short-term recommendations. Figure 8-1 shows the existing Intercity Transit network (in 2016), and Figure 8-2 shows the proposed network based on the short-term recommendations.

One of the primary recommendations is to restructure service to South Puget Sound Community College and Tumwater. Three different routes serve SPSCC, and two of these routes overlap each other between SPSCC and downtown Olympia. Three different routes serve Tumwater with overlapping service on Capital Way. The recommended changes for SPSCC and Tumwater area service are designed to reduce overlap, redesign two routes (Routes 12 and 68) to operate more effectively as a connection between Tumwater, Lacey, SPSCC and Family Court, and improve frequency and span of service. Due to the overlapping alignment of Routes 42, 43, and 44 in this area, these routes are consolidated with restructured Routes 12 and 68.

Routes 62A/B connecting Olympia and Lacey are the highest productivity routes in the system and have been identified as a potential corridor for rapid bus services in the future. With this long-term vision for the corridor in mind, the recommended changes for Route 62A/B are designed to immediately address on-time performance issues and provide service to new areas of NE Lacey. In the short-term, an additional vehicle is added to the schedule for Route 62A/B to improve on-time performance. Route 62A is extended into NE Lacey to serve employment centers and avoid delay at the area's most congested intersections.

Recommendations for Olympia Express service seek to better align resources with demand and improve route speed, understanding, and markets served. Olympia Express routes are consolidated into one route with the same stops on each trip. Stops at Hawks Prairie Park-and-Ride and Lacey Transit Center, along with several stops in downtown Olympia are eliminated, providing a shorter, more efficient trip overall. The schedule is adjusted to provide service every 15 to 30 minutes during peak periods, and 60-90 minute service midday.

Twenty different routes converge on the Olympia Transit Center, including three commuter express routes. The recommended changes for downtown Olympia are designed to reduce delays in buses going through downtown by keeping buses on State Street rather than going into the Olympia Transit Center, and working with the City of Olympia on Franklin Street signal timing.

Finally, recommendations are made to improve the on-time performance Routes 94, 47, and 60. Schedule adjustments are recommended for the weekend schedule of Route 94 and alignment adjustments, where the route is shortened to keep a bus on-time, are made for Routes 47 and 60.

Figure 8-1 Existing System Map (early 2018)

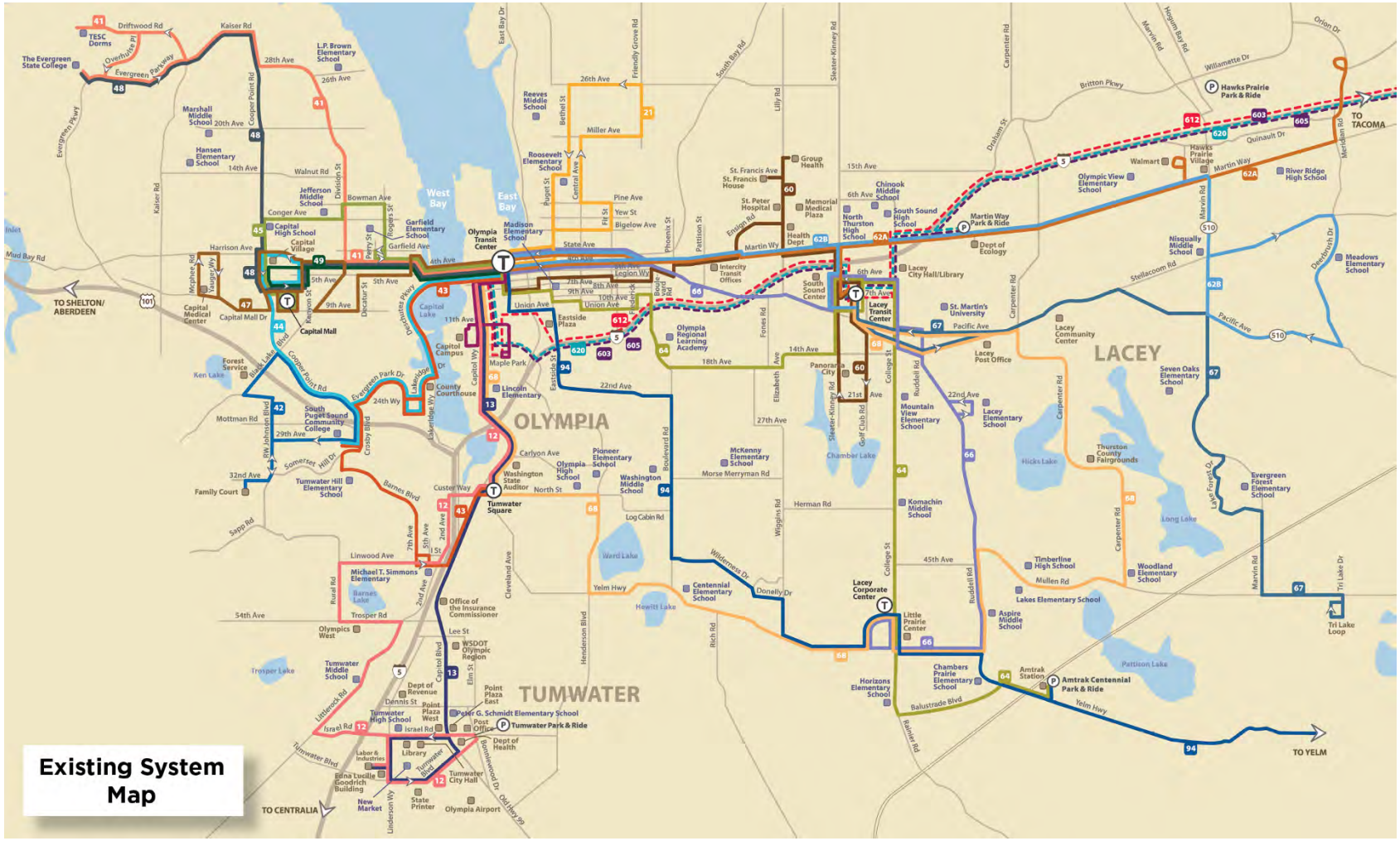
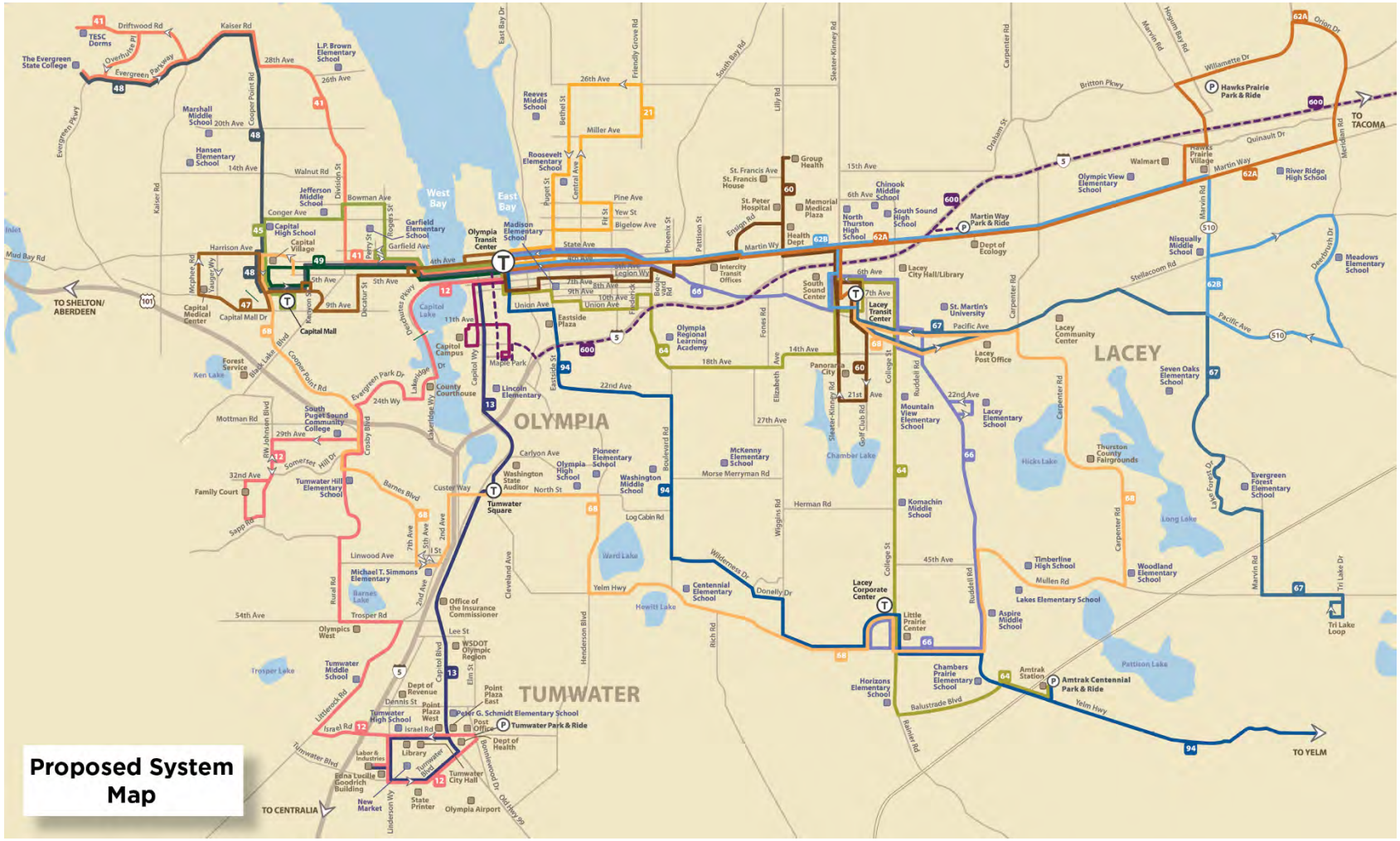


Figure 8-2 Proposed System Map



9 INDIVIDUAL ROUTE RECOMMENDATIONS

This section describes the individual route recommendations made in the Short-Range Plan. Routes without any route alignment changes are discussed first, followed by an in-depth description of each proposed route change.

Routes with No Change Recommended

Ten routes do not have any routing, frequency, or service span change recommended. Most of these routes did not have significant on-time performance issues and/or serve special markets. These routes include:

- Route 13
- Route 21
- Route 41
- Route 45
- Route 48
- Route 64
- Route 66
- Route 67
- Route 101
- Route 411

All other routes have some recommendations for routing, schedule, span, or frequency.

ROUTE 12

Route 12 has the second-highest incidence of late arrivals (12%) compared to other secondary and trunk routes in the system and a low rate of early arrivals. Late arrivals are more common in the inbound (northbound) direction, particularly during midday and PM Peak trips. Route 12 duplicates Route 13 and Route 68 between Tumwater Square and downtown Olympia.

Recommendations

Restructuring Route 12 is recommended to reduce duplication of service to downtown and to better connect Tumwater and SPSCC.

Route 12 continues to serve downtown Olympia and Tumwater via a new alignment. Rather than overlapping with Route 13 on Capitol Way, Route 12 Tumwater would operate to Tumwater via South Puget Sound Community College's (SPSCC) main campus. On alternating trips, Route 12 Family Court would operate to SPSCC and Family Court without continuing on to Tumwater.

Route 12 would provide 30-minute all day service to Tumwater and run every 30 minutes to Family Court, effectively creating frequent 15-minute weekday service between SPSCC and OTC. These two patterns would replace parts of Route 42, 43, and 44, which would be discontinued as part of this restructure.

Benefits and Impacts

- Permanently improves Route 12 schedule adherence
- Maintains 15-minute service between SPSCC and OTC
- More frequent midday and evening service along Trosper Road and Littlerock Road
- Direct connection between Tumwater and SPSCC
- Direct connection between Family Court and downtown Olympia
- Existing riders on Route 12 riders on Linwood Avenue and Route 42 riders on Black Lake Boulevard would have longer walks to service
- Revenue neutral

Existing and Proposed Weekday Frequency and Span

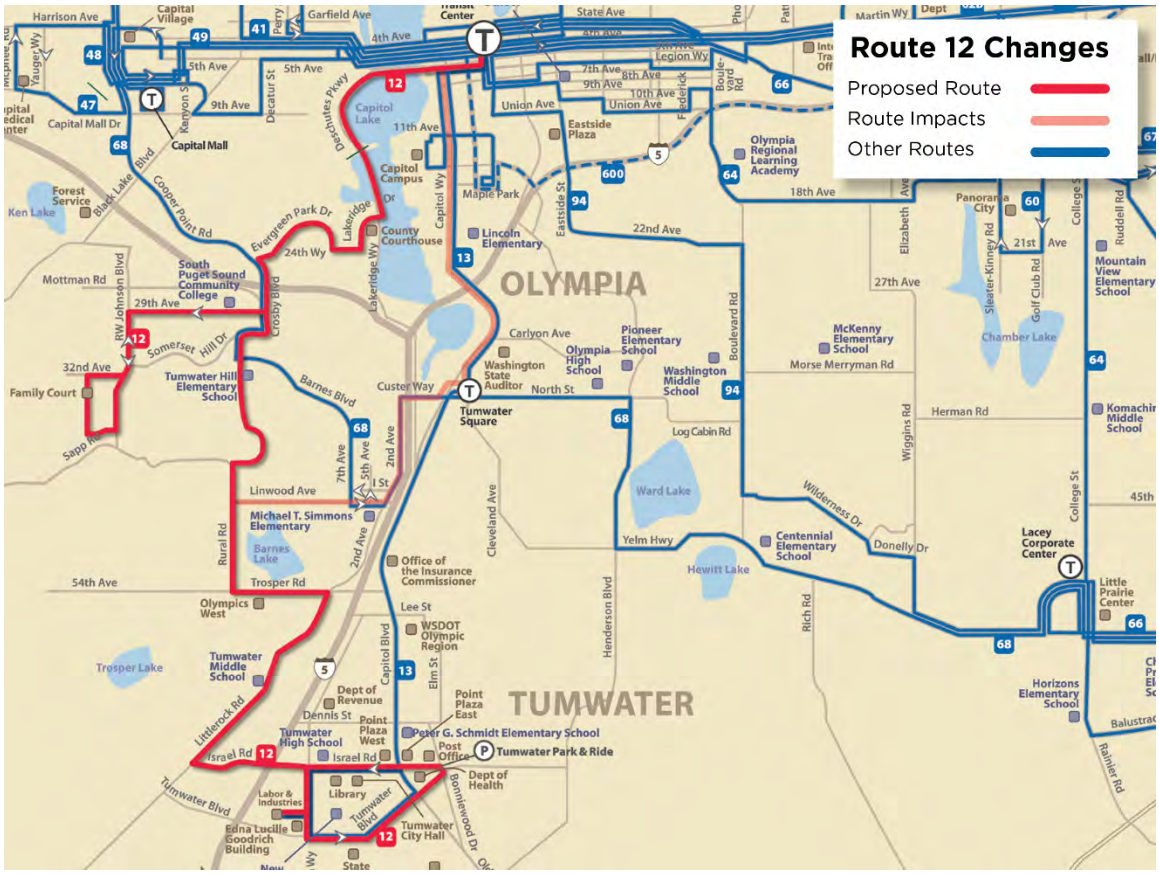
Recommended improvements to weekday route frequency and/or span are shown in **bold** in the table below.

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	60	60	60	6:03 AM to 11:15 PM
Proposed – Route 12 Tumwater	30	30	30	60	6:03 AM to 11:15 PM
Proposed – Route 12 Family Court	30	30	-	-	7:15 AM to 6:20 PM

Weekend service levels would operate hourly—Route 12 would continue to serve Tumwater via SPSCC. Service to Family Court does not run on weekends.

Route Map

Figure 9-1 Route 12 Changes



ROUTE 42

Accessing Family Court via transit on Route 42 requires multiple transfers from nearly all parts of the service area. It is one of the reasons that Route 42 productivity is so low. Route 42 is also a one-way circulator, which provides coverage, but they are inconvenient, as they introduce out-of-direction travel. Short-term recommendations seek to provide easier connections to Family Court with fewer transfers.

Recommendations

Route 42 is recommended for discontinuation and partial replacement by the restructured Route 12 Family Court and Route 68. Route 12 Family Court would directly connect the Olympia Transit Center, SPSCC, and Family Court every 30 minutes on weekdays

Route 68 would replace service along Cooper Point Road, providing a new connection between Capital Mall, Tumwater Square, and Lacey. Service along Black Lake Road and RW Johnson Boulevard would be discontinued.

Benefits and Impacts

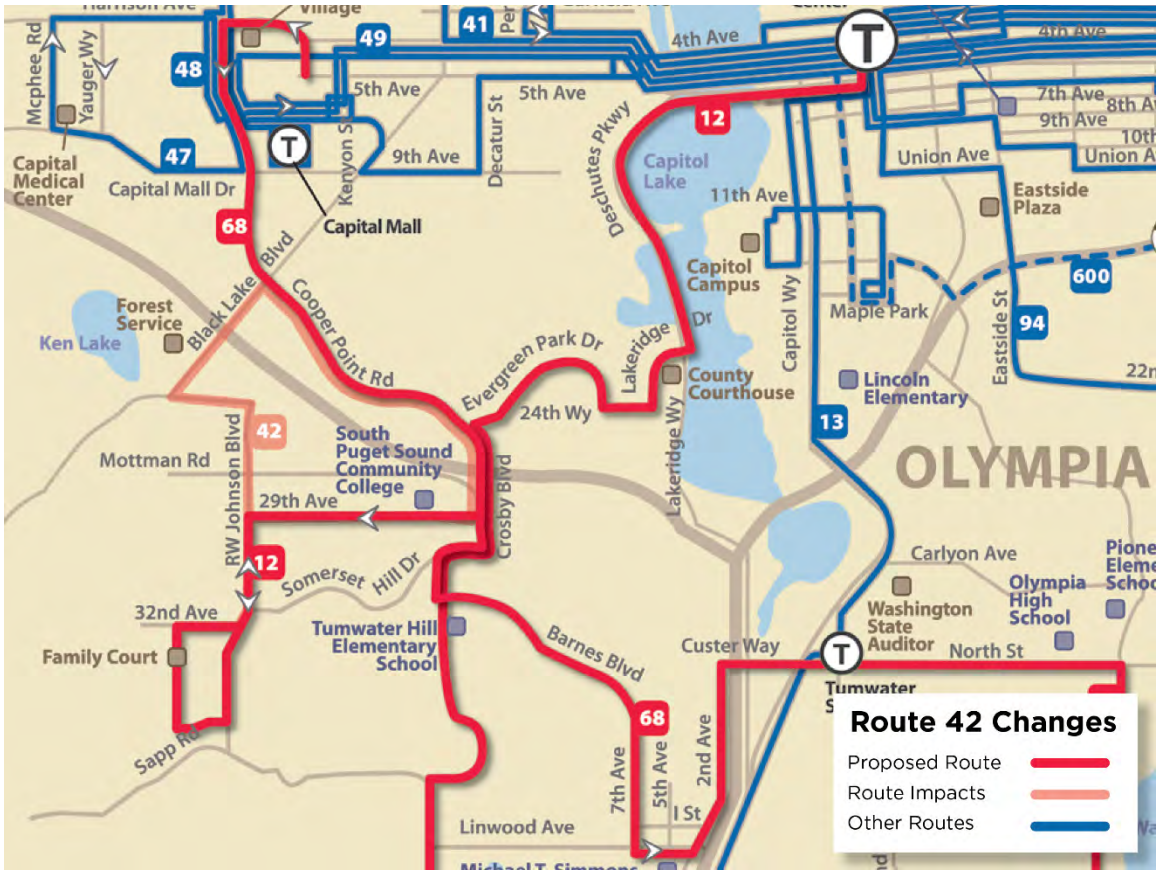
- Better connections to Family Court – without a second transfer
- Service along Black Lake Road and RW Johnson Boulevard would be discontinued; on an average weekday, these segments serve approximately 18 passengers.

Existing and Proposed Weekday Frequency and Span

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	30-60	-	-	7:15 AM to 6:20 PM
Proposed	-	-	-	-	-

Route Map

Figure 9-2 Route 42 Changes



ROUTES 43

Route 43 operates between the Olympia Transit Center and Tumwater Square via SPSCC. Together, Routes 43 and 44 provide 15-minute service between the Olympia Transit Center, the Courthouse, and SPSCC on weekdays.

Operators have reported that the intersection at Custer/Cleveland causes delays for Routes 12, 13, 43, and 68 during rush hour. Late running on Route 43 occurs on 6% of its trips, and is slightly more likely to occur on inbound trips.

Recommendations

Route 43 is recommended for discontinuation and replacement by the restructured Routes 12 and 68.

Service between Olympia Transit Center and SPSCC would be provided by Route 12, which would operate every 15-minutes between these two locations. The deviation to the Thurston County Courthouse on 24th Way SW off Evergreen Park would be eliminated.

Service between SPSCC and Tumwater Square would be replaced by Route 68, which would travel along Custer Way, 2nd Avenue, Linwood Avenue, 7th Avenue, and Barnes Boulevard. The modified alignment at Tumwater Square will provide a direct connection between Lacy and SPSCC, and also reduce vehicle delays through the congested Custer/Cleveland area.

Benefits and Impacts

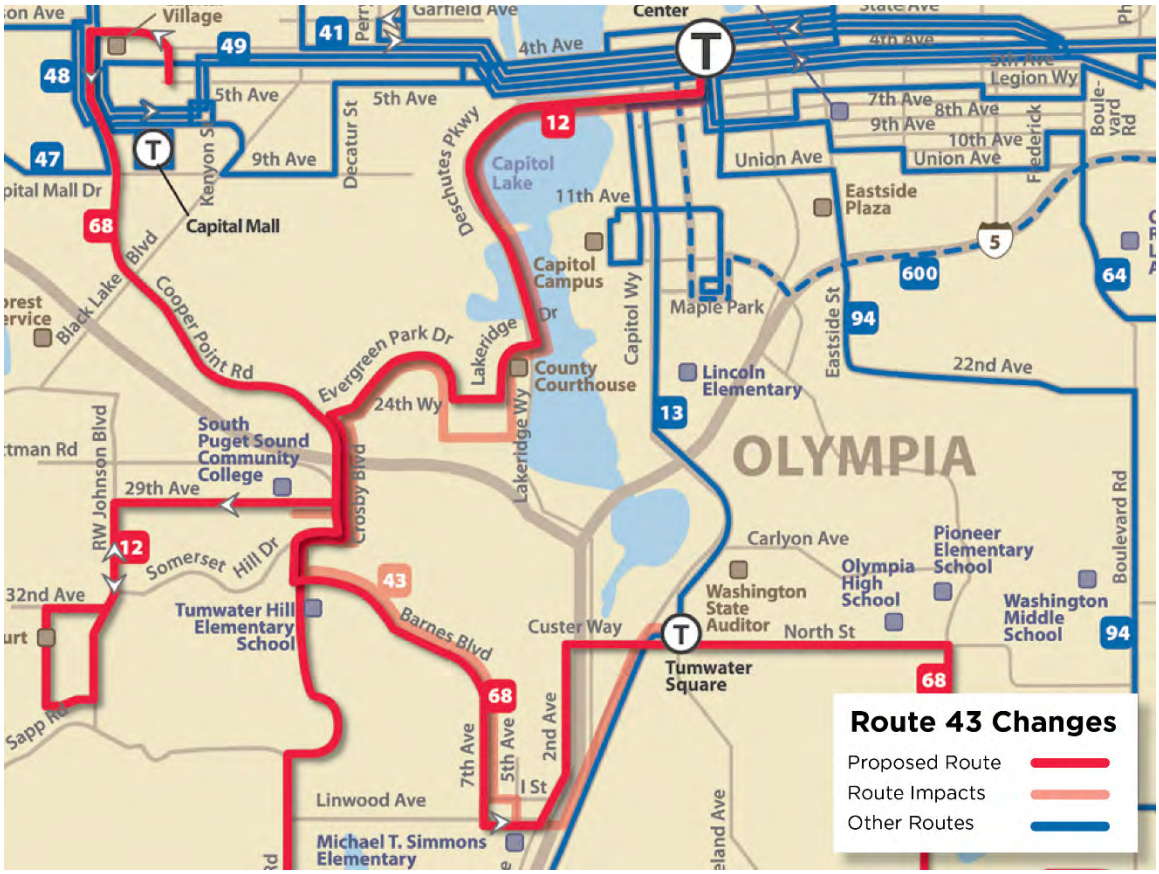
- Maintains 15-minute service frequency between SPSCC and OTC
- Reduces delays of routes at Custer/Cleveland
- Reduces duplication of service to downtown Olympia
- Service to the Thurston County Courthouse on 24th Way SW would be eliminated. On an average weekday, 25 passengers use these stops traveling from Olympia. Stops will be available one block away on Evergreen Park.

Existing and Proposed Weekday Frequency and Span

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	30	30	-	6:15 AM to 7:40 PM
Proposed	-	-	-	-	-

Route Map

Figure 9-3 Route 43 Changes



ROUTE 44

Route 44 operates between the Olympia Transit Center and Capital Mall via SPSCC. Route 44 follows the same alignment as Route 43 to SPSCC, serving the County Courthouse. Together, Routes 43 and 44 provide 15-minute service between the Olympia Transit Center, the Courthouse, and SPSCC on weekdays. Route 44 has above-average productivity on weekdays.

Recommendations

Route 44 is recommended for discontinuation and replacement by restructured Routes 12 and 68. Service between Olympia Transit Center and SPSCC would be provided by Route 12, which effectively offers 15-minute service between the two. The deviation to the Thurston County Courthouse on 24th Way SW off Evergreen Park would be eliminated. Service between SPSCC and Capital Mall would be replaced by Route 68.

Benefits and Impacts

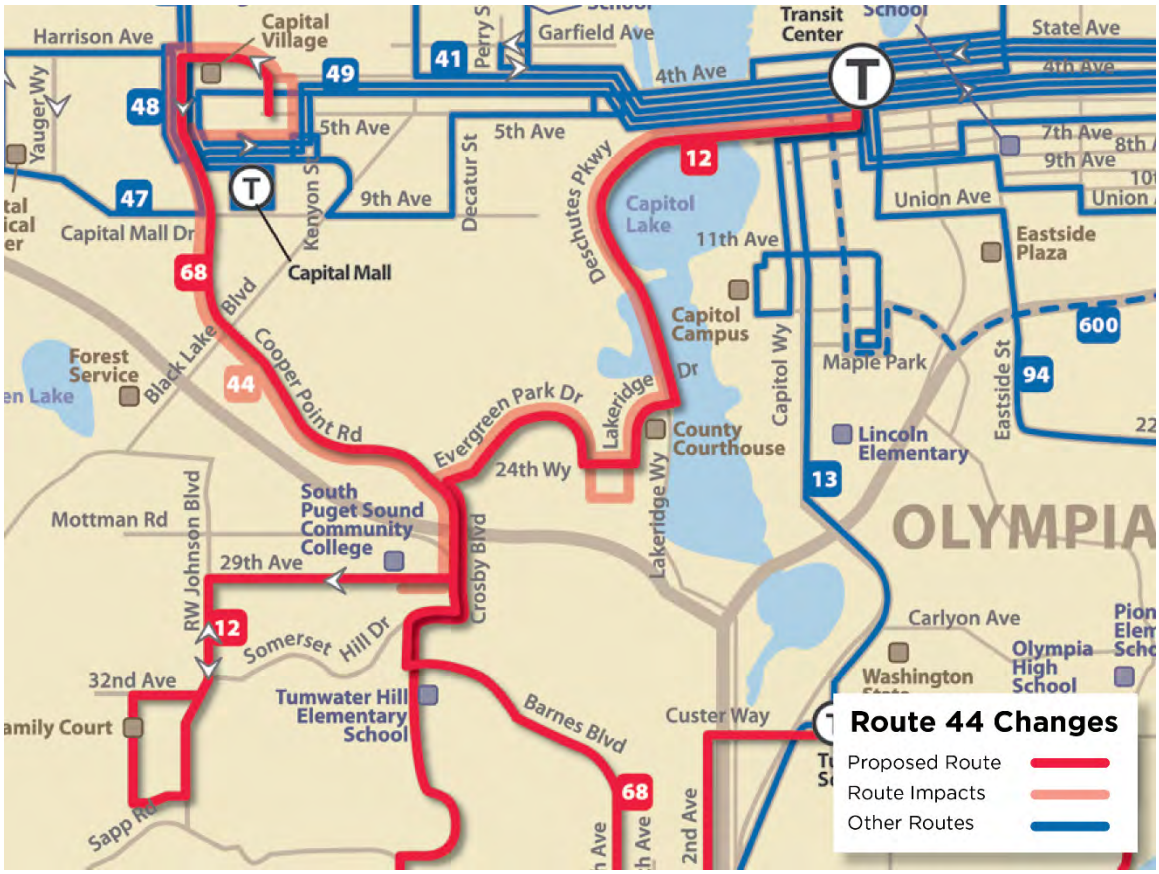
- Maintains 15-minute service frequency between SPSCC and OTC
- Reduces duplication of service to downtown Olympia
- Service to the Thurston County Courthouse on 24th Way SW would be eliminated. On an average weekday, 27 passengers use these stops traveling from Olympia. Stops will be available one block away on Evergreen Park.
- Existing riders on Cooper Point Road travelling to downtown Olympia would need to transfer.

Existing and Proposed Weekday Frequency and Span

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	30	30	30	5:58 AM to 10:25 PM
Proposed	-	-	-	-	-

Route Map

Figure 9-4 Route 44 Changes



ROUTE 47

Route 47 operates between the Olympia Transit Center and Capital Medical Center via the Capital Village Shopping Center and Capital Mall. The current alignment leaves downtown Olympia via 4th Avenue, and serves the South Westside via Sherman, 5th Avenue, Decatur, and 9th Avenue. Route 47 travels along the east side of the mall via Black Lake Boulevard, accessing the mall transit center via 4th Avenue, and then looping around the Capital Village shopping center and continuing on Cooper Point Drive and Capital Mall Drive to Capital Medical Center. Route 47's alignment is complicated, and difficult for a first-time user to understand.

Route 47 is consistently late on weekends. Moreover, it is interlined with Route 21 on Saturdays (and Route 68 on weekdays) at the Olympia Transit Center, which is also operating on a tight schedule.

Recommendations

Route 47 is streamlined to provide more direct service between downtown Olympia and Capital Medical Center. Deviation around Capital Mall is eliminated, along with segments of Harrison Avenue, Kenyon Street, and Black Lake Boulevard. The loop to McPhee is extended along Harrison Avenue to Cooper Point Road rather than returning along Yauger Way. Walking distance between existing stops on Mcphee Road and Yauger Way is 0.2 miles.

Frequency and span of service of Route 47 would remain as today.

Benefits and Impacts

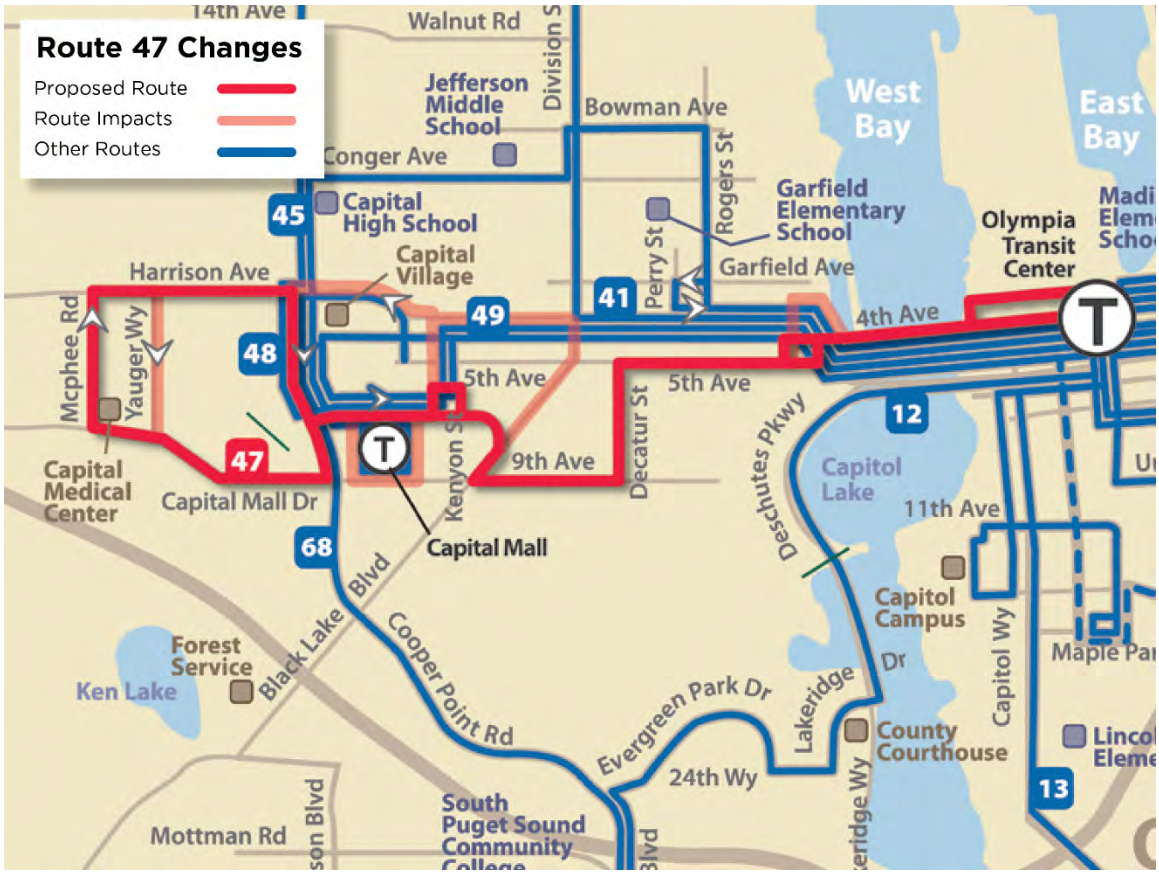
- Restructuring Route 47 streamlines the route, permanently fixing on-time performance for this route, seven days a week.
- The segment along Yauger Way will be eliminated, impacting an average of 50 passengers per weekday. Walking distance between Mcphee Road and Yauger Way is 0.2 miles.
- Deviation around Capital Mall is eliminated, along with segments of Harrison Avenue and Kenyon Street. These stops will continue to be served by Routes 48 and 49.
- Fewer than 10 passengers at existing Black Lake Boulevard stops would need to walk up to 0.2 miles further to access other routes.

Existing and Proposed Weekday Frequency and Span

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	30	30	-	6:25 AM to 7:55 PM
Proposed	30	30	30	-	6:25 AM to 7:55 PM

Route Map

Figure 9-5 Route 47 Changes



ROUTE 60

Route 60 is consistently late on weekdays. The route is designed to better connect areas with greater senior concentrations to medical facilities. As a result, it carries significant numbers of wheelchairs, which can have an impact on on-time performance. The deviation to the St. Francis House adds between three and five minutes to the route and often has zero passengers.

Recommendations

To address on-time performance issues along this route, it is recommended that the St. Francis House stop be discontinued. If this is not possible, then it is recommended that this stop is served on-demand only so that if there are no passengers, the bus does not go there.

Benefits and Impacts

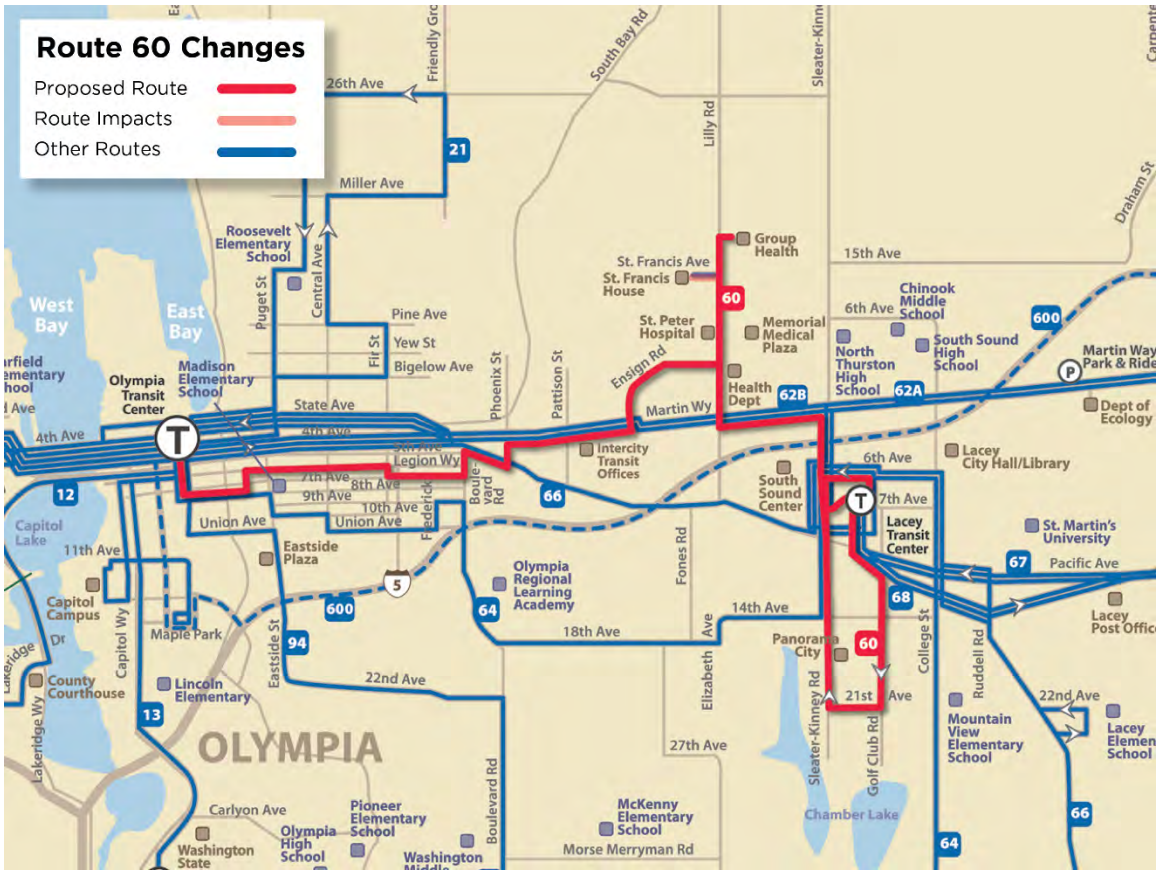
- St. Francis House stop is eliminated, causing approximately 3 passengers to need to walk to 800 feet to the bus stop on Lilly Road.
- Time savings of three to five minutes on each trip will result in improved on-time performance

Existing and Proposed Weekday Frequency and Span

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	60	60	-	6:20 AM to 7:55 PM
Proposed	30	60	60	-	6:20 AM to 7:55 PM

Route Map

Figure 9-6 Route 60 Changes



ROUTE 62A/B

Route 62 is the highest-performing route in the Intercity Transit system. This popularity, along with local traffic conditions along the route's primary corridors, contributes to Route 62A/B is consistently late 7 days a week, with an average of only 82-83% of weekday trips operating on time. Late running frequently occurs along the eastern segment of the route. To combat this issue, Intercity Transit often deploys additional unscheduled buses during rush hour to pick up waiting passengers.

Community feedback, operator interviews, and recent population and employment growth in NE Lacey all indicate a need to serve this growing area. Currently, Route 62A operates along Meridian to NE Lacey and turns around at Orion Drive NE.

Short-term recommendations seek to address on-time performance issues on Route 62A/B and restructure Route 62A to increase service coverage in NE Lacey.

Recommendations

Multiple recommendations are made to improve route reliability and markets served.

To address on-time performance on the route, short-term recommendations are to add a bus into the schedule on weekdays and weekends. This will increase the scheduled end-to-end running time to approximately 55 minutes each way. On weekdays, an additional bus is recommended from 10:30 a.m. to 7 p.m., and on weekends, an additional bus is recommended from 10:30 a.m. to 6:00 p.m. Adding a peak vehicle to the schedule will reduce delays and crowding on the route. This improvement is not revenue neutral; it will require additional capital funding to acquire a new vehicle, as well as increased operating costs.

Increasing service coverage in NE Lacey is a primary goal of the short-term recommendations. We recommend extending Route 62A from Meridian Way to Orion Drive, Willamette Drive, and Marvin Road, creating a counterclockwise loop. This alignment begins serving some of the rapidly growing employment sites in NE Lacey. It also allows the route to avoid difficult left turns onto from Martin Way onto Galaxy Drive, which are a common cause of delays. The extension of Route 62A into NE Lacey should happen in tandem with adding additional time during peak times on both Routes 62A/B, as discussed above.

Benefits and Impacts

- Addresses on-time performance issues on weekdays and weekends.
- Schedule improvements will require additional capital funding to acquire a new vehicle, as well as increased operating and maintenance costs.
- Improves service offerings to major employment centers in NE Lacey, including Home Depot, Providence, and others.
- Route 62A extension allows the route to avoid delays caused by left turn movement onto Galaxy.
- Existing route 62A riders on Martin Way east of Marvin Road could have longer travel times, due to transitioning from two-way service to a one-way loop.

Existing and Proposed Weekday Frequency and Span

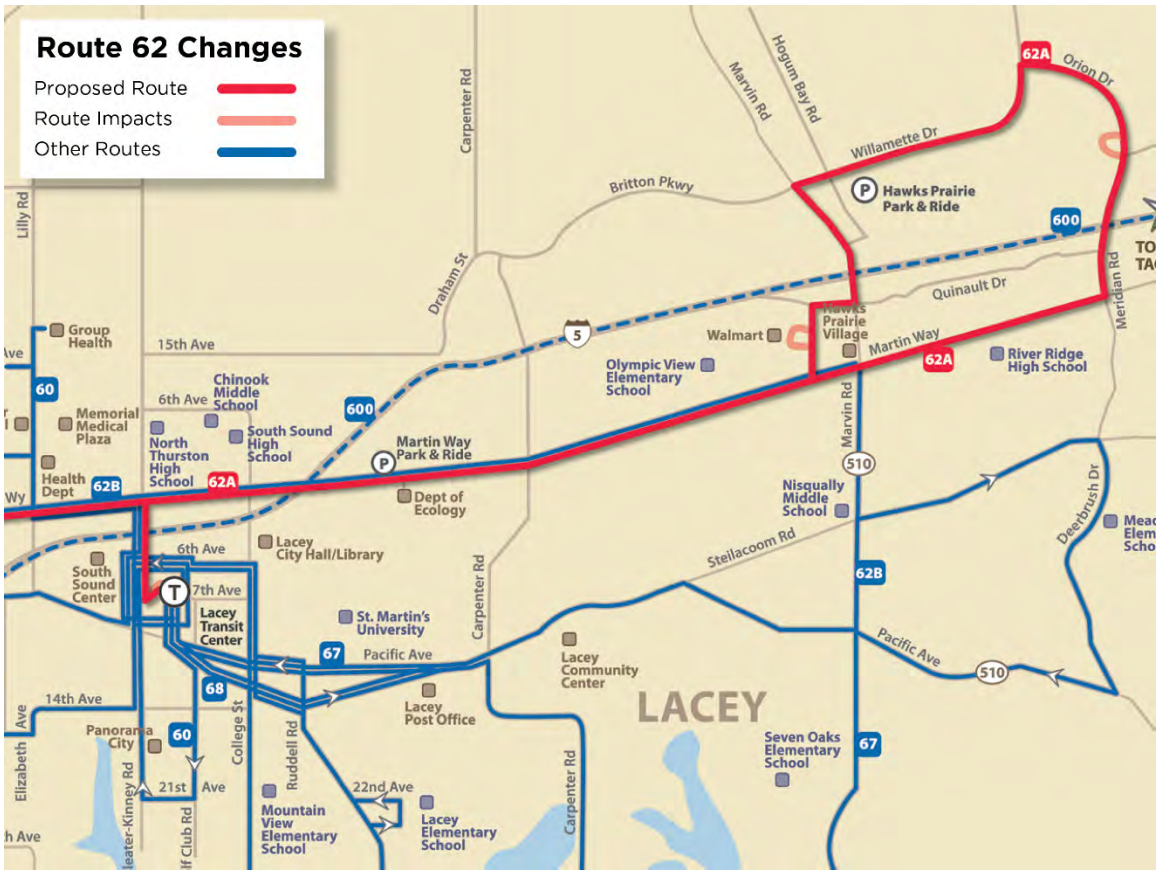
There are no proposed changes to the frequency or service span of Routes 62A/B.

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing 62A	30	30	60	-	5:41 AM to 9:25 PM
Proposed 62A	30	30	60	-	5:41 AM to 9:25 PM
Existing 62B	30	30	60	60	6:00 AM to 12:05 AM
Proposed 62B	30	30	60	60	6:00 AM to 12:05 AM

Weekend service levels would be comparable to today's service levels.

Route Map

Figure 9-7 Route 62A/B Changes



ROUTE 68

Route 68 currently operates between the Olympia Transit Center and the Lacey Transit Center via Tumwater Square and the Lacey Corporate Center. Service between Tumwater Square and Olympia Transit Center is duplicated by Routes 12 and 13.

Recommendations

Restructuring Route 68 is recommended to reduce duplication of service to downtown and provide direct service between Lacey, SPSCC, and the Capital Mall. Route 68 would replace parts of Route 43 and 44, which would be discontinued as part of this restructure.

Benefits and Impacts

- Improves midday frequency
- Provides direct crosstown connection between Lacey, Tumwater, and SPSCC
- Reduces duplication of service to downtown
- Revenue neutral
- Existing riders on Cooper Point Road between Capital Mall and SPSCC after 9:00 p.m. would no longer have service, which would affect six riders.
- Existing Route 68 riders wishing to travel to downtown Olympia would need to transfer.

Existing and Proposed Weekday Frequency and Span

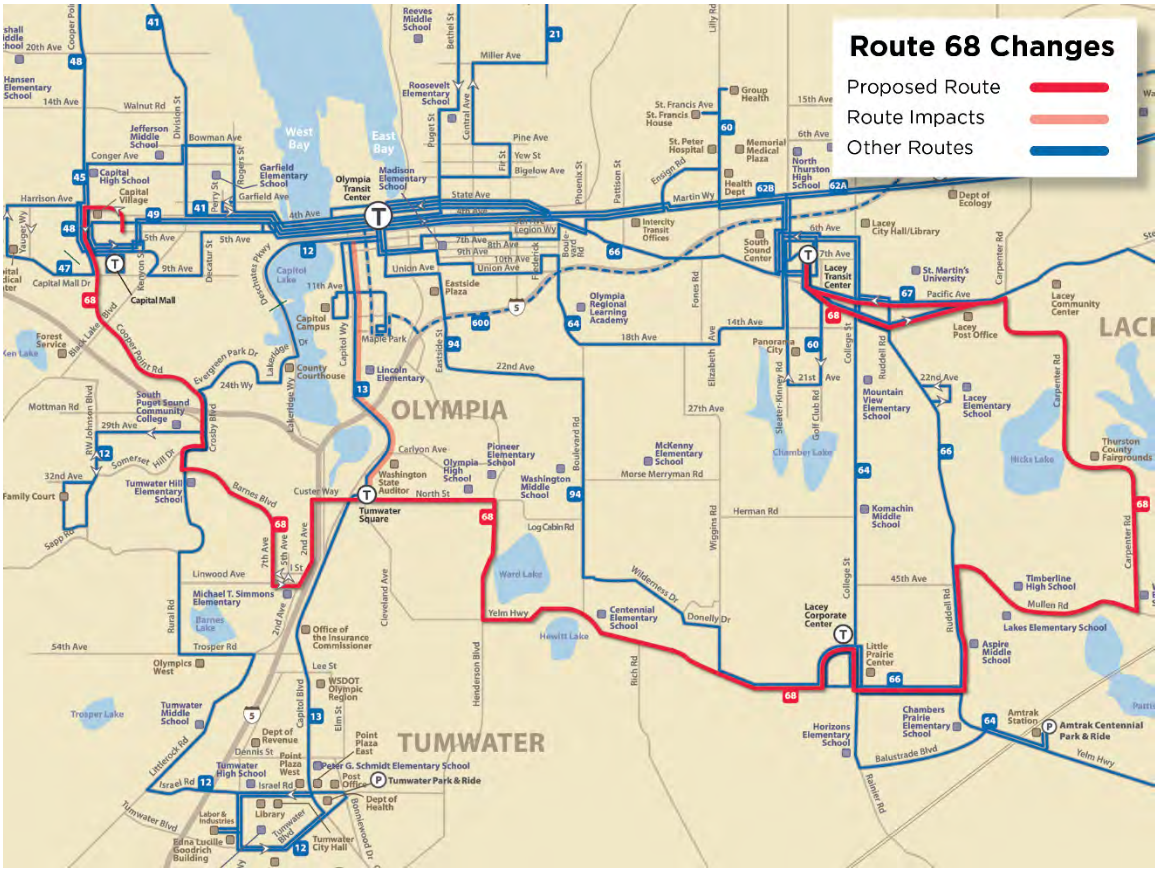
Recommended improvements to weekday route frequency and/or span are shown in **bold** in the table below.

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing	30	60	60	-	5:58 AM to 8:28 PM
Proposed	30	**30**	60	-	5:58 AM to **9:00 PM**

Weekend service levels would be comparable to today's service levels.

Route Map

Figure 9-8 Route 68 Changes



ROUTE 94

Weekend service on Route 94 is consistently late. On weekdays, fewer than 90% of weekday trips operate on time. During interviews in October 2017, operators noted that this route does not allow adequate breaks between trips on weekends.

Recommendations

Short-term recommendations are made to improve Saturday and Sunday on-time performance on Route 94. On weekends, 5 minutes should be added to the schedule in each direction. This will bring the total cycle time from 135 minutes to 145 minutes on weekends, equal to the cycle time assumed by the weekday schedule.

Benefits and Impacts

- Improves weekend on-time performance

Existing and Proposed Weekend Frequency and Span

No changes are proposed to weekday frequency or span.

Scenario	Weekend Frequency	Weekend Service Span
Existing	60-75	8:08 AM - 9:00 PM
Proposed	60-75	8:08 AM - 9:00 PM

Weekday service levels would be comparable to today's service levels.

OLYMPIA EXPRESS

Travel demand between Olympia, Lacey, and Pierce County continues to grow. However, ridership on the service designed to meet that market, the Olympia Express, is not growing. Several things may be depressing ridership on Olympia Express:

- **Olympia Express is slow and unreliable.** Travel times on Olympia Express are highly variable and dependent on traffic. There are no priority treatments for buses on I-5. In addition, there are multiple stops and local running on most trips that may add an access point, but increase travel times.
- **Olympia Express is complicated.** There are three different weekday variants, with a different schedule, stops, and alignment. There is an additional weekend alignment. The rationale for the multiple variants is to serve a particular market better, but ridership levels suggest that the ridership market is not responding to the nuances of the service variations.
- **The target market is unclear.** Markets that Olympia Express is currently trying to serve include commuter trips from Pierce County to Lacey and Olympia, commuter trips from Thurston County to Pierce County and connections to King County, as well as all-day connections for all trip purposes between Thurston and Pierce Counties.

Recommendations

Multiple recommendations are made to improve route speed, understanding, and markets served. On weekdays, Olympia Express should be consolidated into one route that serves the following stops on all trips:

- Olympia Transit Center
- Downtown Olympia stops on Union, Jefferson, and Maple Park
- Martin Way Park-and-Ride
- Lakewood Sounder Station
- SR 512 Park-and-Ride
- 10th/Commerce in Tacoma

Speed, frequency, and ease of understanding are the elements that differentiate this service design from today's conditions. The reduction in stops allows time to be added to the schedule to account for I-5 congestion, but also allows for a shorter overall trip.

The rationale for each segment is discussed below:

Lacey Stops

Currently, the Hawks Prairie Park-and-Ride, Lacey Transit Center, and Martin Way Park-and-Ride are all served. Ridership at none of these stops are high, and the travel time spent accessing multiple stops in Lacey detracts from the competitiveness of the service for Olympia-bound riders. Martin Way Park-and-Ride is the appropriate stop to serve, as it has capacity, frequent local service connections (Route 62A/B), and it is adjacent to the freeway, minimizing travel time impacts of a deviation.

Tacoma Stops

Currently, Olympia Express serves Tacoma Dome and stops along Pacific Avenue in downtown Tacoma. Every regional connection that is made at Tacoma Dome can be made at either the SR 512 Park-and-Ride or the Lakewood Sounder Station. Patrons parking at the Tacoma Dome lot that are accessing Olympia Express can continue to access the service at the Lakewood Sounder Station. In order to speed the regional connections, Olympia Express should access downtown Tacoma via I-705. This reduces travel times for Olympia Express by up to 10 minutes in each direction. Frequent streetcar and bus service connects 10th/Commerce with UW-Tacoma, Pacific Avenue, and the Tacoma Dome.

Schedule

The current schedule offers 30-minute service between most destinations, with variants on the end-to-end travel. During peak times, the base schedule should be 30-minute service, with southbound 15-minute service between 6:00 a.m. and 8:00 a.m. and corresponding northbound 15-minute service between 3:00 p.m. and 5:00 p.m. Midday service should be either hourly or every 90 minutes. The current schedule should be modified to assume an additional 6 minutes in both directions. Additionally, the schedule should be adjusted for an assumed 1% increase in travel time annually.

Benefits and Impacts

- Improves speed, frequency, and ease of understanding of Olympia Express service
- Better aligns resources with demand
- Existing riders at Tacoma Dome, Downtown Lacey, and Hawks Prairie Park-and-Ride would need to access Olympia Express at other locations

Existing and Proposed Weekday Frequency and Span

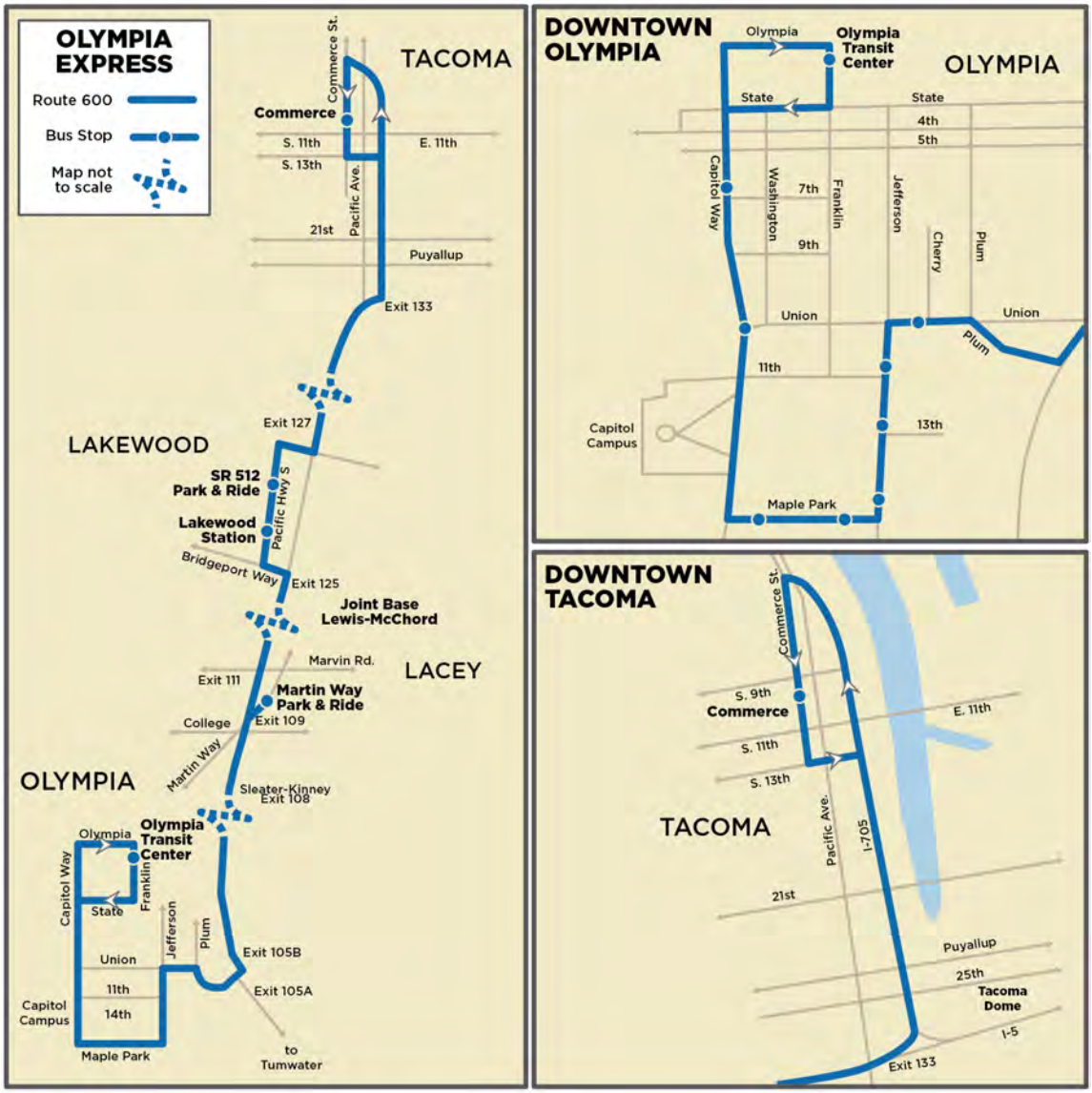
Recommended improvements to weekday route frequency and/or span are shown in **bold** in the table below.

Scenario	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Service Span
Existing – Route 603	8 AM trips	-	-	-	6:10 AM to 1:10 PM (SB)
	9 PM trips	-	-	-	12:00 PM to 8:35 PM (NB)
Existing – Route 605	8 AM trips	-	-	-	5:15 AM to 11:40 AM (NB)
	10 PM trips	-	-	-	1:25 PM to 10:00 PM (SB)
Existing – Route 612	5 AM trips	-	-	-	5:27 AM to 12:15 PM (SB)
	5 PM trips	-	-	-	12:40 to 6:15 PM (NB)
Proposed	15-30	60-90	-	-	5:15 AM to 9:00 PM

Weekend service levels would be comparable to today's service levels.

Route Map

Figure 9-9 Olympia Express Changes



DOWNTOWN CHANGES

Many routes arrive on time to the Olympia Transit Center, only to experience delays when pulling out onto city streets. Traffic and signal timing can lead to minutes of delay on every trip. With so many of Intercity Transit's routes starting and ending at OTC, these few minutes add up to significant issues with on-time performance systemwide. Short-term recommendations for downtown operations seek to reduce delays for buses going through downtown.

Recommendations

To address on-time performance issues in downtown Olympia, several recommendations are proposed.

Routes 62A/B westbound (inbound) should stay on State Avenue rather than pulling in to the Olympia Transit Center. Two new bus bays on State Avenue will need to be created. This change saves approximately two minutes of travel time. Routes 62A/B should also be interlined with the new Route 12, which will have a less tight schedule than the existing Routes 43 or 44.

Intercity Transit should also work with the City of Olympia to improve the ability of buses to turn left from Franklin onto 4th. This movement currently creates delays for Routes 21, 62A/B, and 66.

Benefits and Impacts

- Reduced delays in buses going through downtown

Figure 9-10 Downtown Olympia Street Map

SUMMARY OF SPAN AND FREQUENCY RECOMMENDATIONS

In the short-term recommendations, two routes have improved span and frequency. The short-term recommendations introduce 30-minute between 6 a.m. and 8 p.m. on the new Route 12 and 30-minute midday frequency on Route 68, as well as a slightly longer span of service until 9:00 PM on Route 68. Four routes have improved schedules. Recommended improvements to route frequency and/or span are shown in **bold** in the table below.

Figure 9-11 Proposed Weekday Span and Frequency Improvements

Route	Peak Frequency	Midday Frequency	Evening Frequency	Late Frequency	Weekday Span
12	30	**30**	**30**	60	6:03 AM to 11:15 PM
13	15	15	30	60	6:10 AM to 10:50 PM
21	30	60	60	-	6:30 AM to 8:25 PM
41	15*	30*	30*	30*	6:00 AM to 11:55 PM
42	-	-	-	-	-
43	-	-	-	-	-
44	-	-	-	-	-
45	30	60	60	-	6:35 AM to 7:55 PM
47	30	30	30	-	6:25 AM to 7:55 PM
48	30	30	30	30	6:43 AM to 10:13 PM
60	30	60	60	-	6:20 AM to 7:55 PM
62A	30	30	60	-	5:41 AM to 9:25 PM
62B	30	30	60	60	6:00 AM to 12:05 AM
64	30	60	60	-	5:48 AM to 9:10 PM
66	30	30	60	60	5:56 AM to 11:15 PM
67	60	60	60	-	6:10 AM to 7:35 PM
68	30	**30**	60	-	5:58 AM to **9:00 PM**
94	60	60	60	-	5:55 AM to 9:45 PM
101	15	15	-	-	7:10 AM to 6:20 PM
411**	-	-	-	60	11:46 PM to 3:18 AM
603	-	-	-	-	-
605	-	-	-	-	-
612	-	-	-	-	-
Olympia Express	15-30	60-90			5:15 AM to 9:00 PM

*Frequency drops 50% during summer

**Does not operate Mon-Thurs

ALIGNMENT WITH GOALS AND DESIRED OUTCOMES

The short-term recommendations were reviewed to ensure alignment with Intercity Transit's established goals and desired outcomes, as summarized in Figure 9-12. The short-term recommendations either improve or align with these goals.

Figure 9-12 Short-Term Recommendations and Goals/Desired Outcomes

Goal	Short-Term Recommendation Impacts	
Address On-Time Performance: Make immediate changes to address schedule adherence on problem routes.	Recommendations will improve schedule adherence on Routes 12, 60, 62A/B, 94, Olympia Express, and routes serving Olympia Transit Center.	✓
Provide service to NE Lacey: Community feedback, operator interviews, and recent population and employment growth in NE Lacey all indicate a need to serve this growing area.	Recommendations include extension of Route 62A to NE Lacey employment corridor.	✓
Provide direct Tumwater and Lacey service to SPSCC: Provide more direct, frequent service to SPSCC.	Restructure of Routes 12 and 68 provides direct service between SPSCC and Tumwater, Lacey, and Olympia.	✓
Better connections to Family Court: Provide easier connections to Family Court with fewer transfers.	Consolidation of Route 44 with restructured Route 12 provides easier connection to Family Court.	✓
Reduce duplication of service to downtown: Reduce overlap of routes serving downtown and better serve crosstown markets.	Restructure of Routes 12 and 68 and consolidation of Routes 42, 43, and 44 reduce duplication to downtown Olympia and create crosstown connections between Lacey, Tumwater, and SPSCC.	✓
Minimize coverage losses: Consider coverage reduction only when ridership levels are exceptionally low and corresponding costs per rider are high.	Eliminated segments of Routes 42, 43, 44, and 60 serve fewer than 20 passengers per average weekday. Most of these riders have a short walk to other routes.	✓
Align resources to be more in line with the demand: Allocate resources to minimize overlap and leverage any overlaps to strengthen the market.	Olympia Express recommendations simplify freeway services and better match the commuter market.	✓
Reduce downtown Olympia bus delays: Adjust operations to reduce delays for buses going through downtown.	Reducing buses pulling into the transit center and utilizing different downtown streets are considered.	✓

PART III

Long-Range Plan

10 INTRODUCTION TO THE LONG-RANGE PLAN

In 2018, Intercity Transit developed a Long-Range Plan: a long-term vision for transit in the four-city public transportation benefit area (PTBA). The plan includes chapters 10 through 14 of this document. The purpose of this chapter is threefold: (1) to explains how community input guided the plan, (2) to introduce the components of the plan, and (3) to list the overarching goals and desired outcomes.

COMMUNITY INPUT

In early 2018, Intercity Transit began a comprehensive outreach process, called the Intercity Transit Road Trip. The purpose of the Road Trip was to understand local transportation priorities, the vision for transit through 2040, and how to improve local bus service. Through a broad public outreach campaign, several themes emerged from the community including a strong desire for service to new areas, improving service reliability and frequency, improving bus stop amenities, and adding more service in the evenings and weekends. The primary goal of the Long-Range Transit Plan is to position Intercity Transit to provide and enhance mobility throughout the PTBA.

REPORT ORGANIZATION

This report is organized into four chapters after the introduction:

- **Chapter 11: Future Land Use** details future population and employment growth in the county that will influence where transit services will be most needed. It provides strategies and best practices for municipalities to promote transit-supportive land use in accordance with local and regional land use plans.
- **Chapter 12: Long-Range Recommendations** provides long-range recommendations that respond to community needs expressed during the planning process as well as projected growth in population and jobs in the county. Long-range recommendations focus on improving service quality and matching service levels to existing and future demand.
- **Chapter 13: Funding Strategies** outlines strategies used by transit agencies to pursue operational and capital funding that may be relevant to Intercity Transit.
- **Chapter 14: Financial Plan** details packages of long-range recommendations that fit within potential funding scenarios. This chapter also outlines a potential implementation schedule, costs, and agency budget for the preferred scenario.

GOALS AND DESIRED OUTCOMES

The following goals and desired outcomes were considered when creating long-range recommendations for Intercity Transit.

- **Improve speed and reliability**: Make changes to speed up buses and ensure schedule adherence.
- **Match service levels to demand**: Ensure services meet anticipated future demand, including for different times of day.
- **Attract new riders and retain existing riders**: Make changes that improve customer satisfaction and increase ridership.
- **Evaluate additional funding opportunities**: Look for innovative ways to fund operations in the future.
- **Provide service to growing areas**: New services should be provided to new and growing markets.

11 FUTURE LAND USE

A key component to long-range transit planning is land use. Although Intercity Transit does not control what land use may look like in the future, any future transit plans must consider the land use plans of the municipalities it serves. Understanding future land uses will help Intercity Transit understand where they need to be and what transit services will be supported in the future.

This chapter documents the future land use plans in Olympia, Lacey, Tumwater, and Yelm, as well as surrounding areas; reviews Thurston Regional Planning Council (TRPC) population and employment forecasts; and documents growth management strategies such as transportation demand management (TDM) and commute trip reduction (CTR). Using these sources, transit ridership potential is measured for current and future years based on population and employment forecasts. These scenarios help illustrate how transit can be part of the solution to traffic congestion in the future.

FUTURE LAND USE PLANS

Proposed land uses directly influence the potential market for transit. For instance, if an area includes a cluster of high-density housing and jobs, opportunities for quality transit will be greater. Similarly, whether a jurisdiction takes a "node" approach to development or a "corridor" approach has implications for the design of future transit service. This section documents future land use and transit plans adopted by municipalities within the Intercity Transit service area.

Sustainable Thurston

The Sustainable Thurston Plan (2013) *Creating Places -- Preserving Spaces: A Sustainable Development Plan for the Thurston Region* seeks to chart a course for a sustainable Thurston County by addressing social, economic, and environmental issues. The plan was developed by the Thurston Regional Planning Council, with broad community input and support from the Sustainable Thurston Task Force, for the horizon year of 2035.

The Sustainable Thurston Task Force developed a preferred land use scenario based on population and employment projections and current land use patterns. Initially, three scenarios were developed to support the plan's overall vision and goals. Community input and bold policy goals led to the creation of the preferred land use scenario. The scenario proposes reinvesting in existing job centers and transit corridors, seeking infill and redevelopment opportunities, creating "village" style neighborhoods, and protecting rural lands.

The scenario seeks to achieve two targets—by 2035, 72 percent of all households will be within a half-mile of an urban center, corridor, or neighborhood center, and 5 percent of new housing will locate in rural areas. Compared to the baseline, the preferred land use scenario will result in several outcomes relevant to future provision of transit service in the region:

- An increase in activity density (people plus jobs) in higher-frequency transit corridors approaching a level that may support a higher level of transit service.
- Forty-three percent of the population living within a quarter mile of transit service.

Olympia

The City of Olympia adopted the "Imagine Olympia" Comprehensive Plan in 2014, which addresses land use, transportation, parks, schools, utilities, and the local economy. The plan seeks to reduce automobile reliance through sustainable land use patterns and densities. The plan envisions gradually increasing densities in Olympia, with selected major streets becoming higher density corridors with frequent transit service. Streets designated for frequent transit service are illustrated in Figure 11-1. Major transit streets have three categories:

- **Urban corridors** are multimodal transportation corridors. These include State and 4th Avenues, Martin Way, and Pacific Avenue from downtown to the edge of the service area; Capital Way from the Capital Mall to Tumwater; and Harrison Avenue-Cooper Point Road-Black Lake Boulevard in the Capital Mall Area.
- **Strategy corridors** are corridors that require improvements for mobility, without road widening.
- **First priority bus corridors** are streets with high quality transit and include all of the urban corridors noted above. Other first priority bus corridors include Harrison Avenue; Capital Mall, 4th Avenue, and State Avenue in downtown Olympia; the medical services area of Lilly Road; Deschutes Parkway and Evergreen Park Drive; and Cooper Point Road-Crosby Boulevard to South Puget Sound Community College.

Detailed design guidelines to support walkable and transit-oriented streets are included in the Transportation Element of the comprehensive plan. The land use designation along these streets vary, as shown in Figure 11-2. Land uses are less intense on the fringes of each corridor and become more intense toward the downtown core.

Figure 11-1 City of Olympia Transportation Corridors

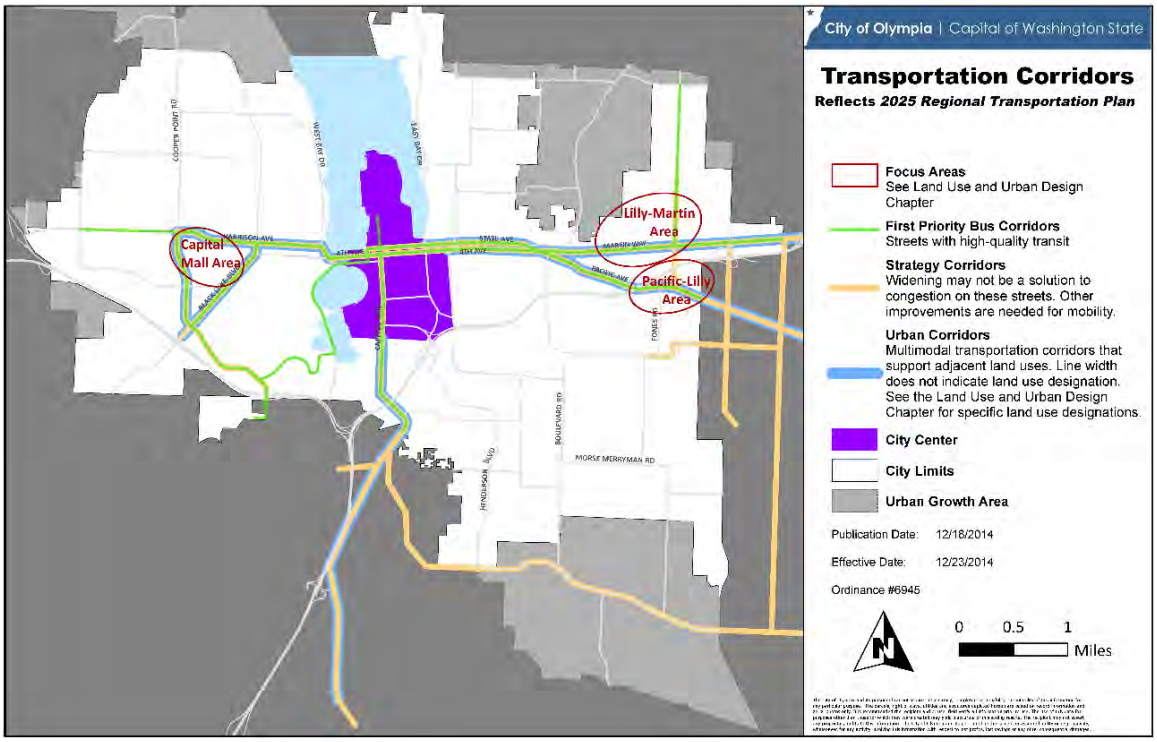
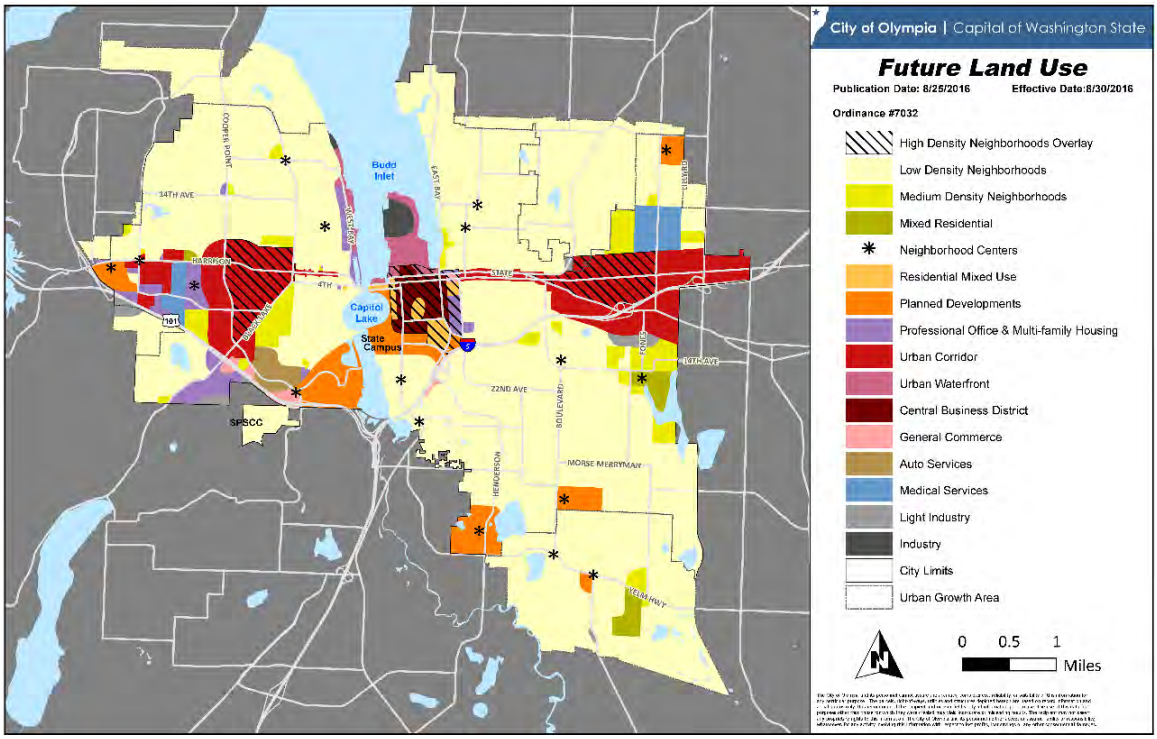


Figure 11-2 City of Olympia Future Land Use Map

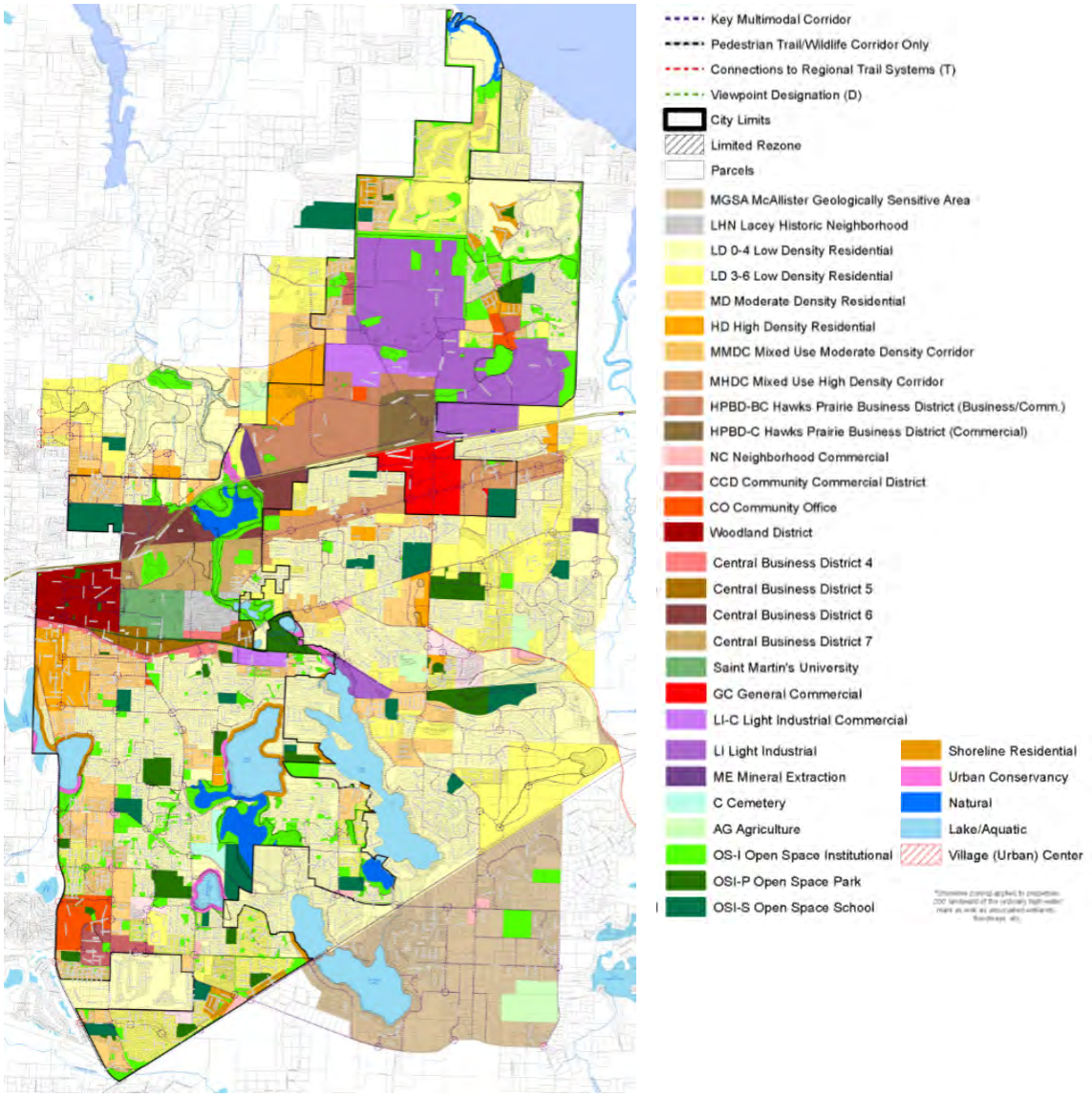


Lacey

The City of Lacey adopted a Comprehensive Plan in 2016 to provide a 20-year vision for the city's future. The City of Lacey's 2016 zoning map is shown in Figure 11-3. The plan encourages opportunities for compact, mixed-use development in the Woodland District (shown in Maroon), Lacey Gateway, and along mixed-use corridors. Martin Way is designated as a mixed-use high-density corridor (shown in light brown), while parts of Pacific Avenue and Sleater Kinney Road are designated as mixed-use moderate density zones (shown in dark yellow-brown).

Street standards to improve pedestrian and transit activity are included in the plan, along with support for complete streets concepts and intelligent transportation system (ITS) technologies. The plan also seeks to provide a greater range of transportation options to existing low-density areas to reduce reliance on automobiles. Future strategies to help the City of Lacey achieve its land use vision include updating land use standards and developing form-based zoning concepts.

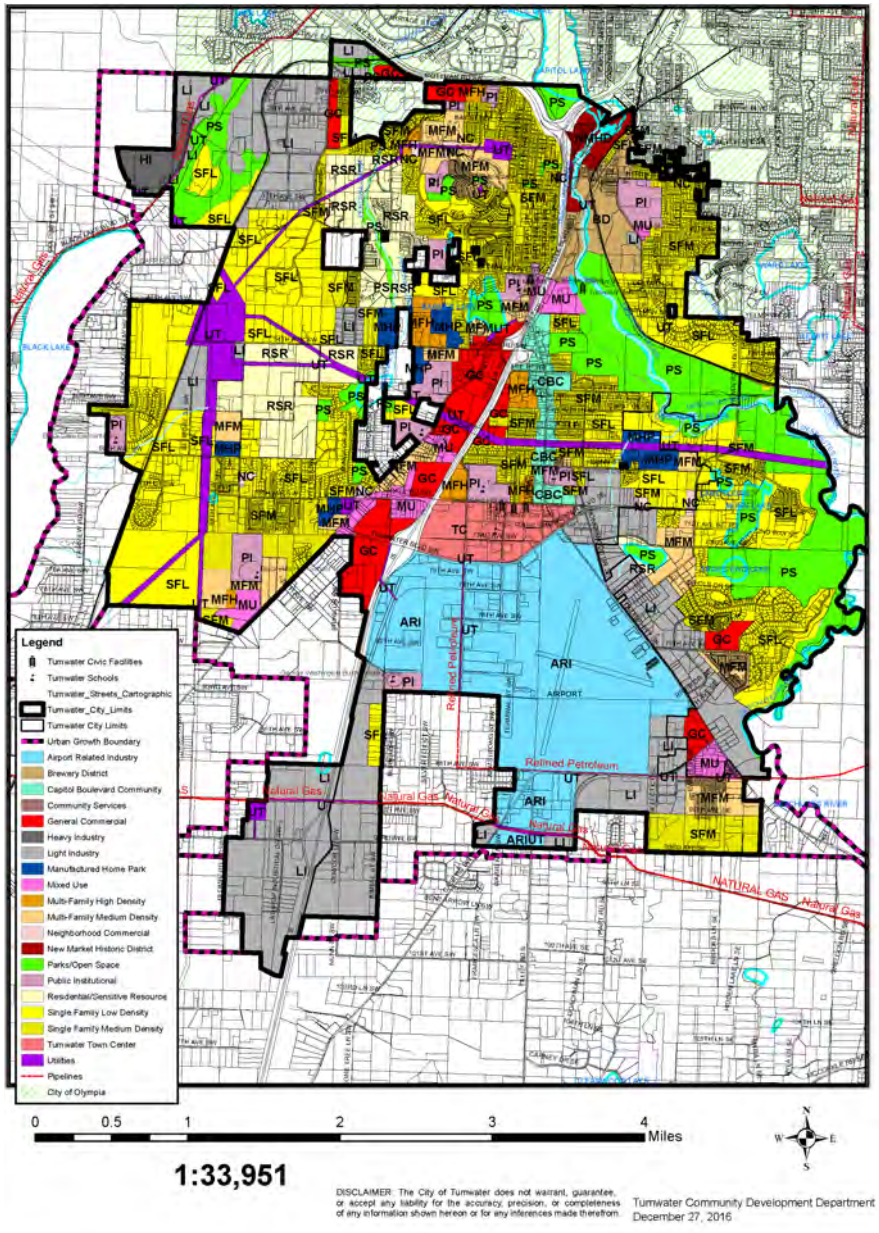
Figure 11-3 City of Lacey Urban Growth Area Zoning (2016)



Tumwater

The City of Tumwater's future land use map is shown in Figure 11-4. Land uses with the highest residential density (greater than 14 dwelling units per net acre) are: multi-family high density (shown in orange), mixed use (shown in bright pink), Capitol Boulevard Community (shown in bright blue), and Tumwater Town Center (shown in light pink). These areas can be seen to cluster around Capitol Boulevard and areas south of I-5. There are also several small pockets slated for mixed-use near Black Hills High School in southwest Tumwater, and along old Highway 99 in the Deschutes neighborhood in southeast Tumwater.

Figure 11-4 City of Tumwater Citywide Future Land Use Map



Yelm

The City of Yelm's existing land use maps is shown in Figure 11-5, and changes in the future are shown in Figure 11-6. The Central Business District (shown in dark red) and adjacent high density residential area (shown in orange) are the most likely areas to support transit service. There are no planned expansions of these areas in the future land use map. These maps come from Yelm's Comprehensive Plan, which was adopted jointly with Thurston County in 2017. Transit-supportive policies in the comprehensive plan include encouraging housing density, streetscape improvements in downtown Yelm, requiring new developments to address public transit or provide transit stops where applicable, and supporting any efforts by Intercity Transit to expand transit routes or increase service frequency.

Figure 11-5 City of Yelm 2017 Land Use Map

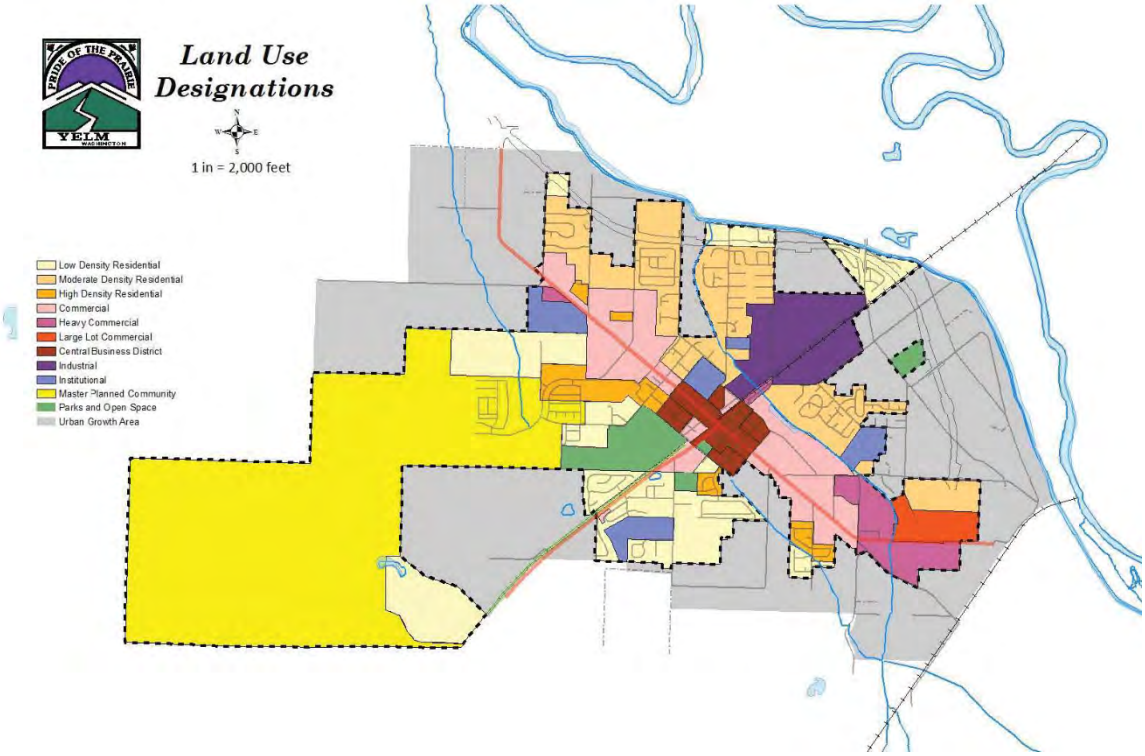
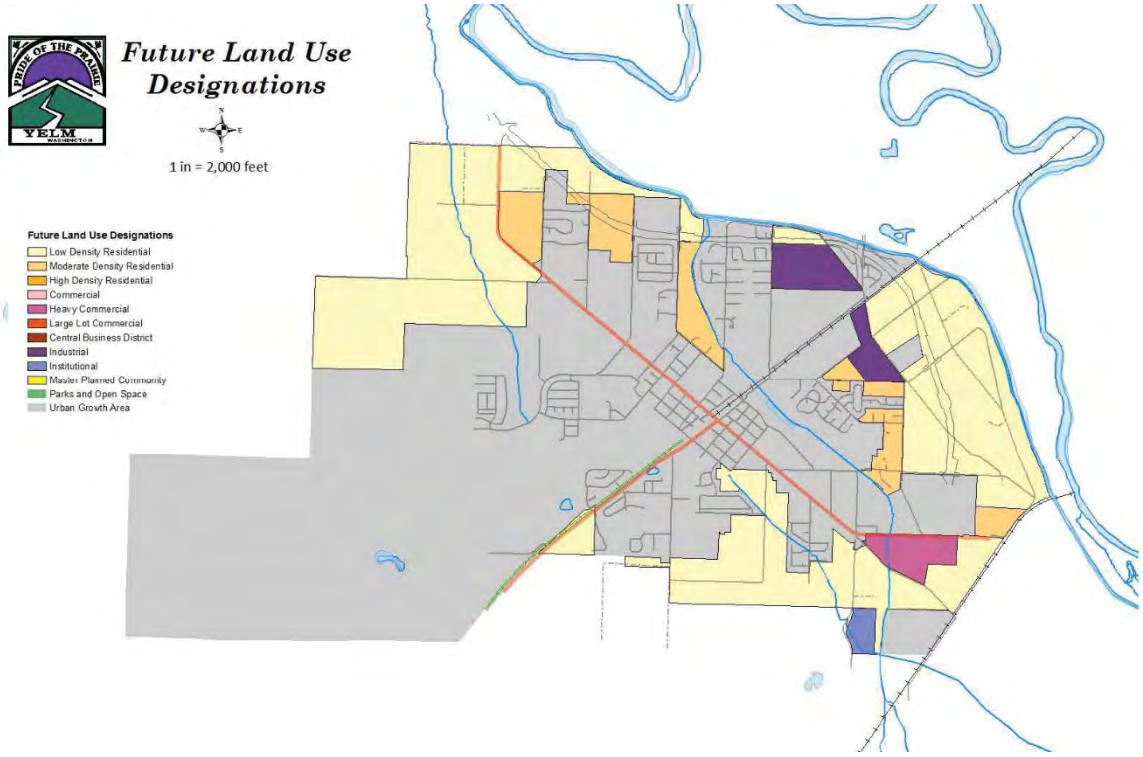


Figure 11-6 City of Yelm Future Land Use Map



COMMUTE TRIP REDUCTION

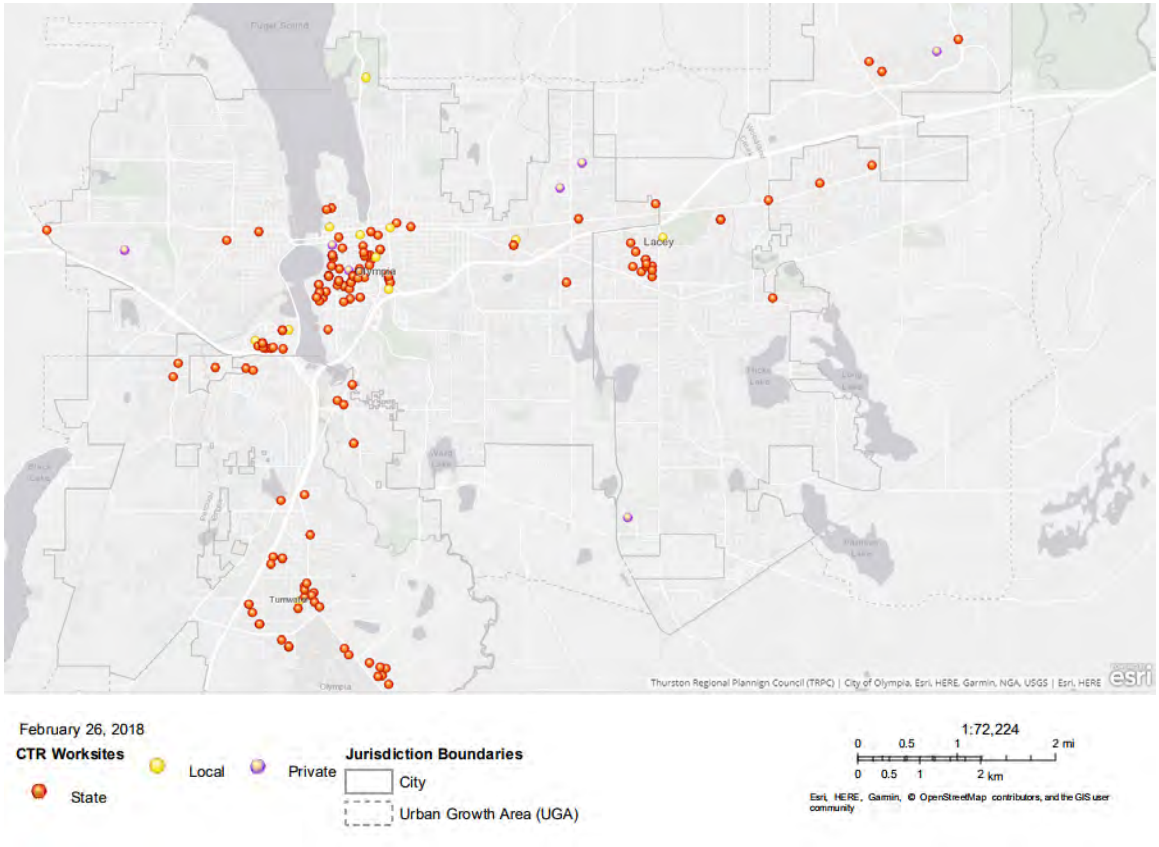
Commute Trip Reduction Worksites

The State of Washington requires state agencies of any size located in the urban growth areas of Olympia, Lacey, and Tumwater to participate in a "Joint Comprehensive Commute Trip Reduction (CTR) Plan." The CTR plan is designed to reduce commute drive alone trips and vehicle miles traveled (VMT) to state agency worksites. Goals of CTR are to increase the use of transportation alternatives for commute trips to 40% by 2019; reduce the state's annual VMT 18% by 2020; and reduce greenhouse gas emissions (GHG) by 18% by 2020 from 1990 levels.[1]

Figure 11-7 shows the locations of CTR worksites in Thurston County. Washington State Capitol campus area and downtown Olympia have the largest cluster of CTR worksites. There are also CTR worksites clustered in downtown Lacey, along Martin Way in Lacey, in Southwest Olympia, and in Tumwater. Each CTR worksite is required to survey their employees annually regarding commute habits, including public transit usage, providing ongoing data to track mode split of State employees over the years.

[1] TRPC http://www.trpc.org/611/Goals

Figure 11-7 Thurston County Commute Trip Reduction Worksites



Source: TRPC https://trpc.maps.arcgis.com/apps/Solutions/s2.html?appid=df31935b76254b83861ae7b5c2c6c355

STAR Pass Program

Intercity Transit participates in the State Agency Rider (STAR) Pass program in partnership with the State of Washington and part of the CTR program. The STAR program allows state employees to ride for free on Intercity Transit. Passes are paid for by the State, using parking fees, at no cost to the employee. The map of CTR worksites, above in Figure 11-7, indicates work destinations for state employees who may choose to take transit using the STAR pass. Worksites can be seen to cluster in Tumwater, downtown Lacey, along Martin Way corridor, and in downtown Olympia and State Capital Campus areas.

COMMUTE FLOWS TO OTHER COUNTIES

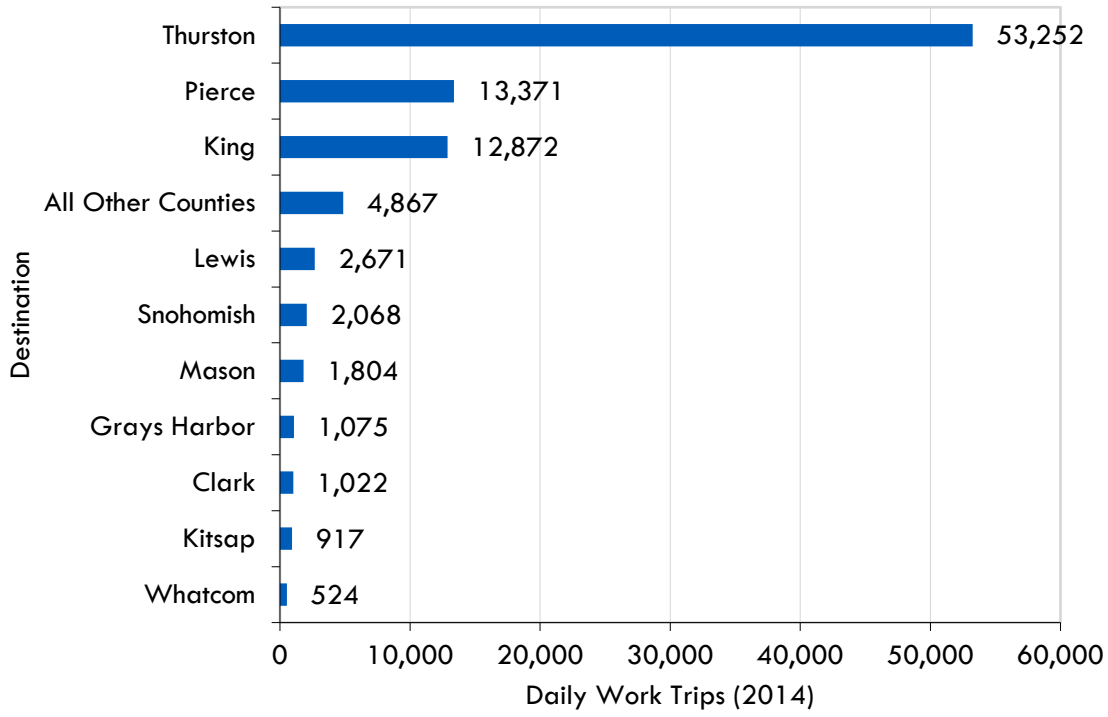
Increasing work travel to and from Thurston County from other counties indicates potential for a growing regional market for transit outside of the current Public Transportation Benefit Area (PTBA). Current and anticipated commute travel patterns indicate the regional markets outside of the PTBA to watch are NW Thurston County, Pierce County, and King County.

Work Travel from Thurston County

The share of daily work trips from Thurston County to Pierce and King Counties is expected to double in the next decade.

In 2014, a total of 94,443 daily work trips were taken from Thurston County, the majority of which were headed for other destinations within Thurston County. A sizeable number of those were taken from Thurston County to Pierce County (13,371) and King County (12, 277). The next largest destination was Lewis County (2,671), with the remaining trips distributed throughout the region. By 2025, the TRPC anticipates the number of commuters travelling out of Thurston County to work to grow to nearly 43,000.[2]

Figure 11-8 Work Trips from Thurston County (2014)



Source: LEHD 2014

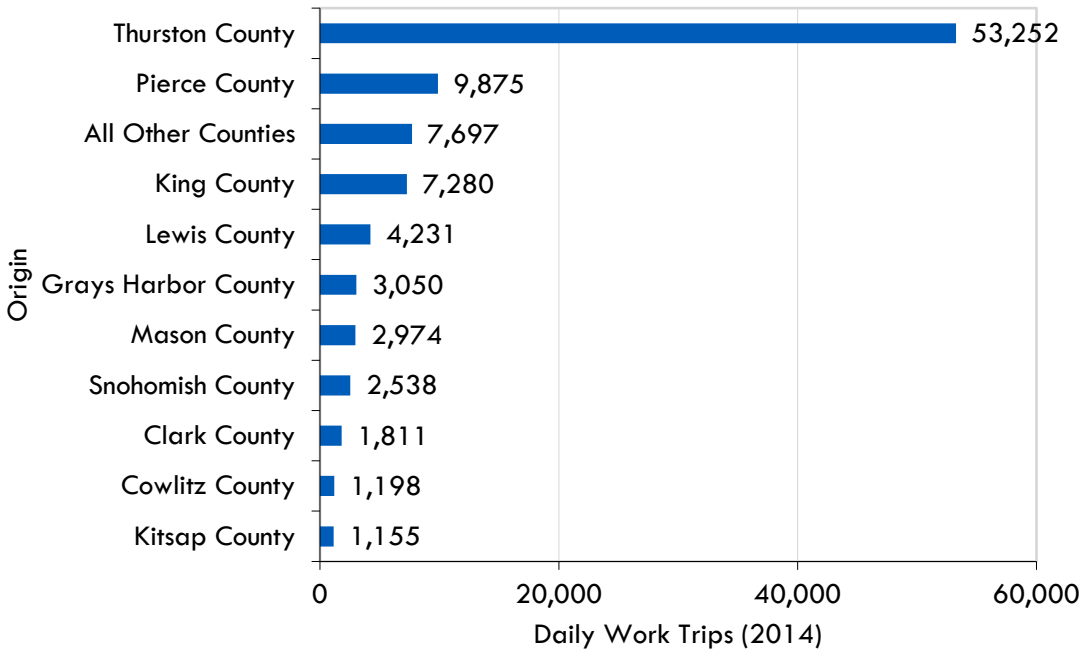
[2] TRPC Countywide Employment and Commute Forecast for Thurston County, 2018 https://www.trpc.org/DocumentCenter/View/5494/2017_PopFor_CountywideForecastMethodsSummary

Work Travel to Thurston County

The share of daily work trips to Thurston County from south and west locations is expected to increase by 2025.

A total of 95,061 daily work trips were taken to Thurston County worksites in 2014. Nearly 10,000 of those came from Pierce County. Another 7,000 originated in King County or other counties. By 2025, the TRPC anticipates the share of commuters travelling into Thurston County from south and west counties to increase.

Figure 11-9 Work Trips to Thurston County (2014)



Source: LEHD 2014

POPULATION AND EMPLOYMENT FORECASTS

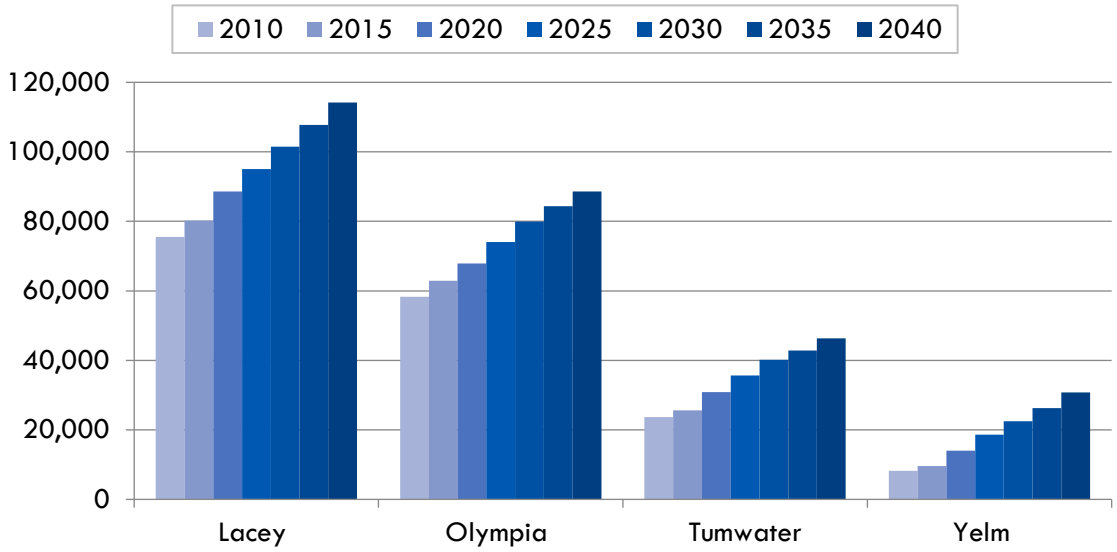
Future population and job growth in the region will indicate where Intercity Transit should operate in the future. The Thurston Regional Planning Council (TRPC) estimates that the county will add more than 100,000 new residents and 65,000 new jobs over the next 20+ years. This section discusses where these residents and jobs are expected to go in 2040. Key topics addressed are:

- Population Growth
- Employment Growth
- Combined Population and Employment Growth
- Mode Split Forecasts

Population Growth

Thurston County is expected to grow by over 100,000 residents by 2040. Figure 11-10 illustrates anticipated population growth for Lacey, Olympia, Tumwater, and Yelm from 2010 to 2040.

Figure 11-10 Population Forecast for Select Thurston County Cities, 2010-2040



Source: Thurston Regional Planning Council Small Area Population Estimates and Population and Employment Forecast Work Program, 2014

Maps comparing existing and projected population density in 2017 and 2040 are shown in Figure 11-11 and Figure 11-12, respectively. Population numbers are drawn from TRPC population estimates and forecasts for 2017 and 2040. Note that densities shown are based on the overall acreage of each census block group, and do not take into account developable areas, roadways, or open space. Actual population densities in some areas may therefore be higher than what is shown.

Areas with population density forecasted to be greater than ten people per acre are likely to support transit service in the future. Key areas that are forecast to achieve these densities over the next 20+ years include:

- Neighborhoods north and east of Capital Mall along Harrison Avenue and west of Black Lake Boulevard
- Neighborhoods along Barnes Boulevard
- Neighborhoods in central and south Lacey
- Neighborhoods north of I-5 along Lilly Road

Figure 11-11 2017 Population Density Forecast

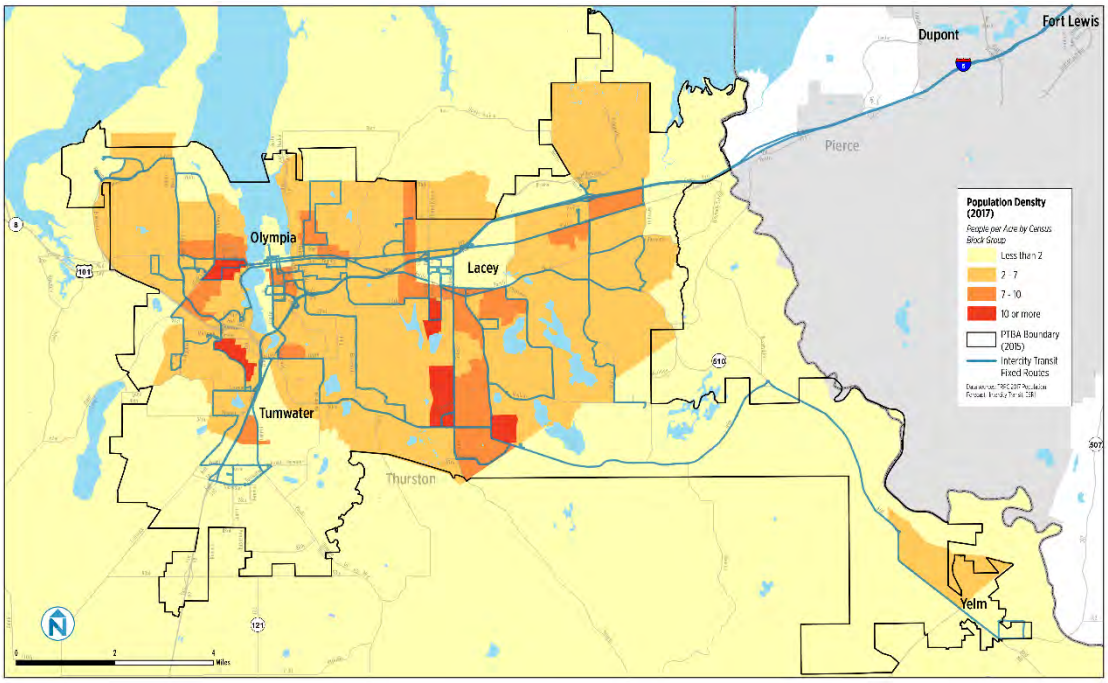
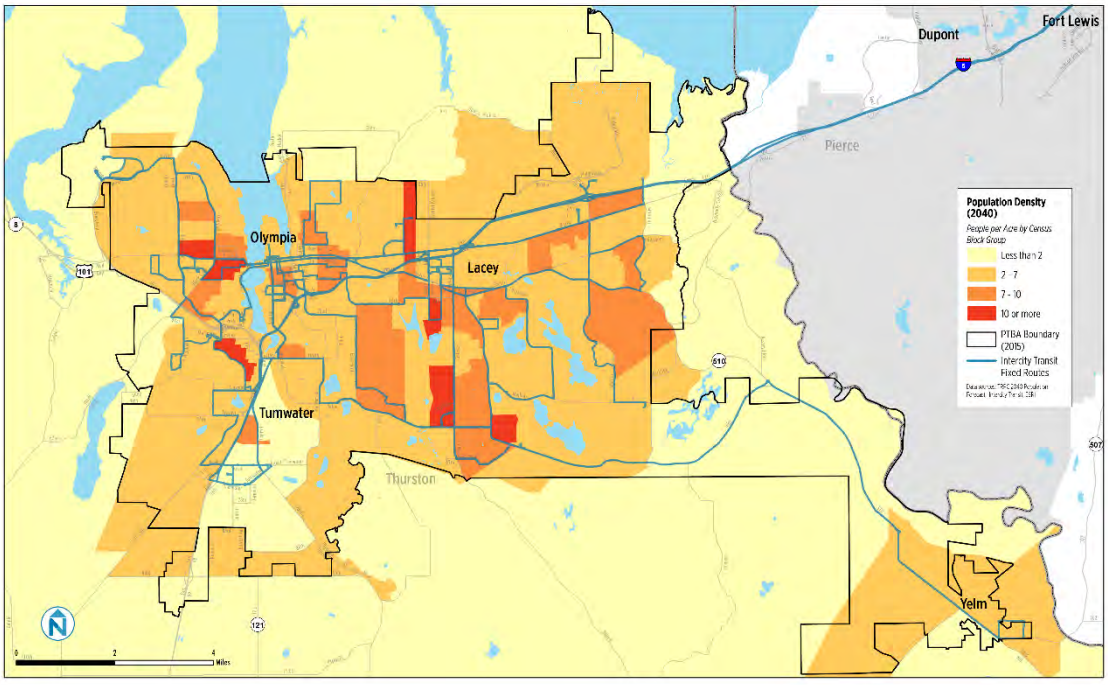


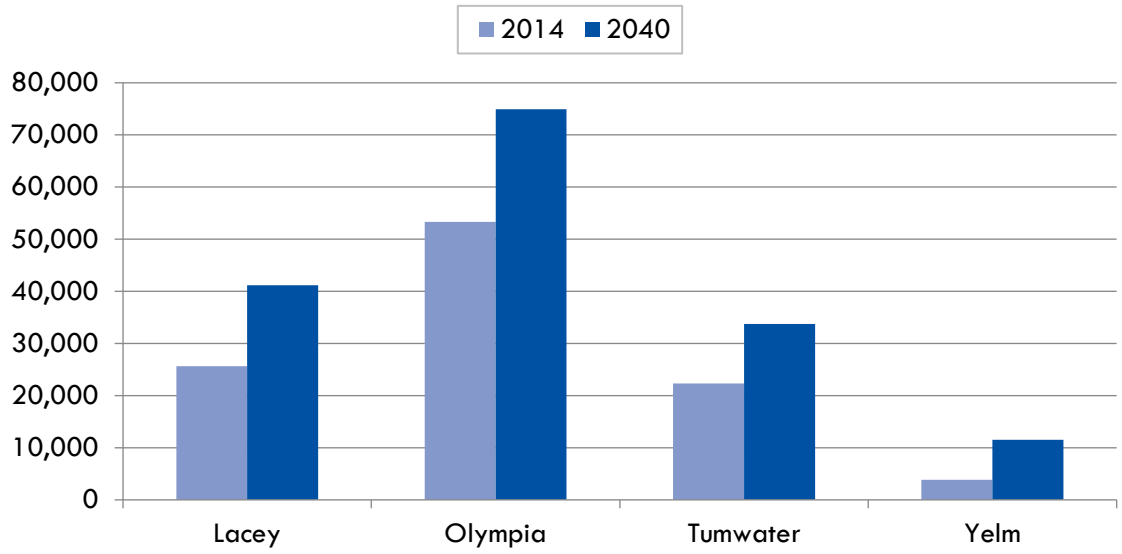
Figure 11-12 2040 Population Density Forecast



Employment Growth

Thurston County is expected to add 65,000 jobs by 2040. Employment forecasts for these cities for 2014-2040 are shown in Figure 11-13.

Figure 11-13 Employment Forecast for Select Thurston County Cities, 2014-2040



Source: Thurston Regional Planning Council Population and Employment Forecast (2015 Update)

Maps illustrating employment densities in 2014 and 2040 are shown in Figure 11-14 and Figure 11-15, respectively. Employment forecasts are from TRPC estimates. Similar to population densities, employment densities are shown by overall acreage of each block group and may be higher in some places depending on the presence of developable areas, roadways, and open space.

Areas with significant growth in jobs in 2040 are:

- Areas in west of Capital Mall
- Areas in Tumwater west of I-5
- Central and northwest Lacey
- Yelm

Figure 11-14 2014 Employment Density

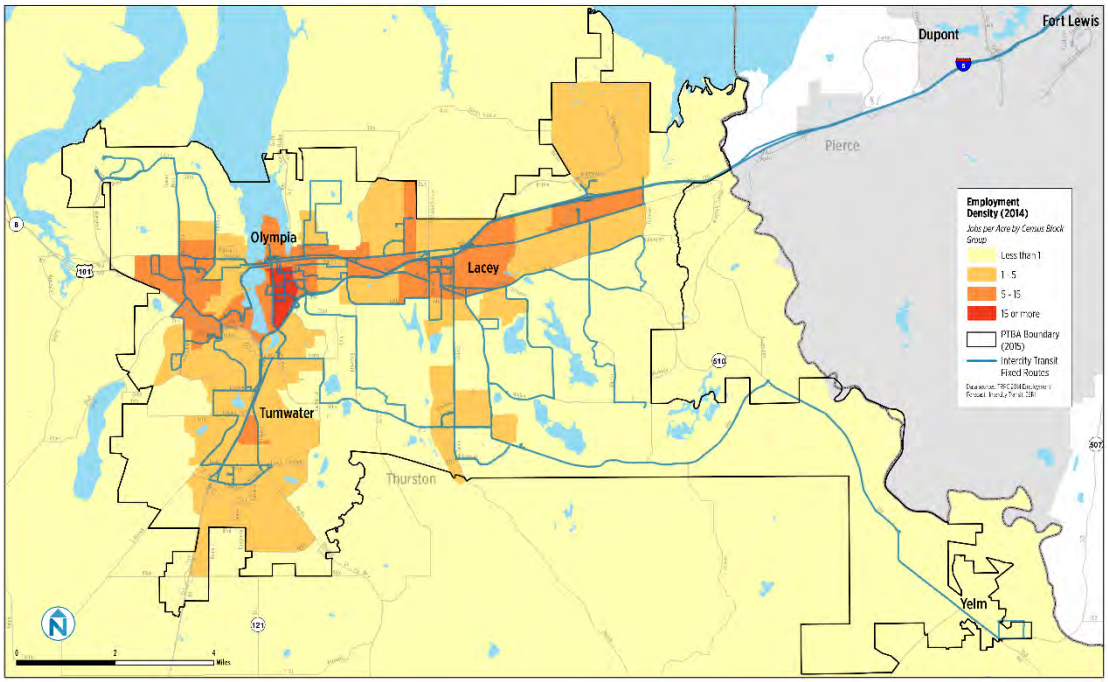
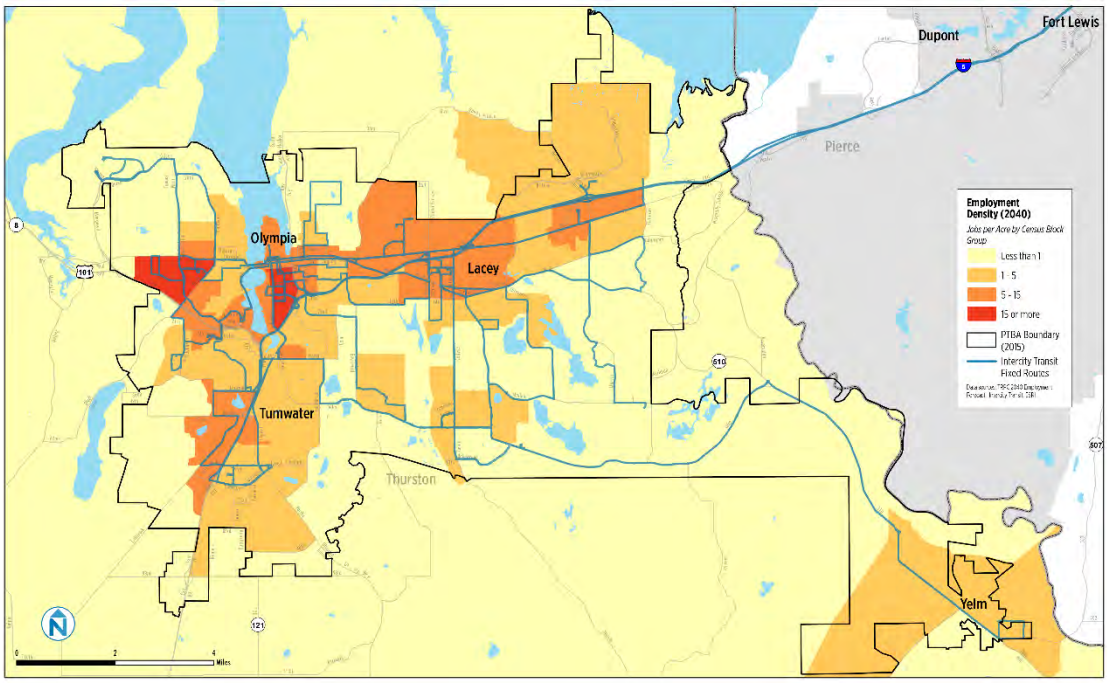


Figure 11-15 2040 Employment Density Forecast



Combined Population + Employment

Combined, Thurston County is expected to add 65,000 jobs and 100,000 residents by 2040. The following maps illustrate the combined densities of population and employment in the area.

Figure 11-16 2017 Combined Population and Employment Density

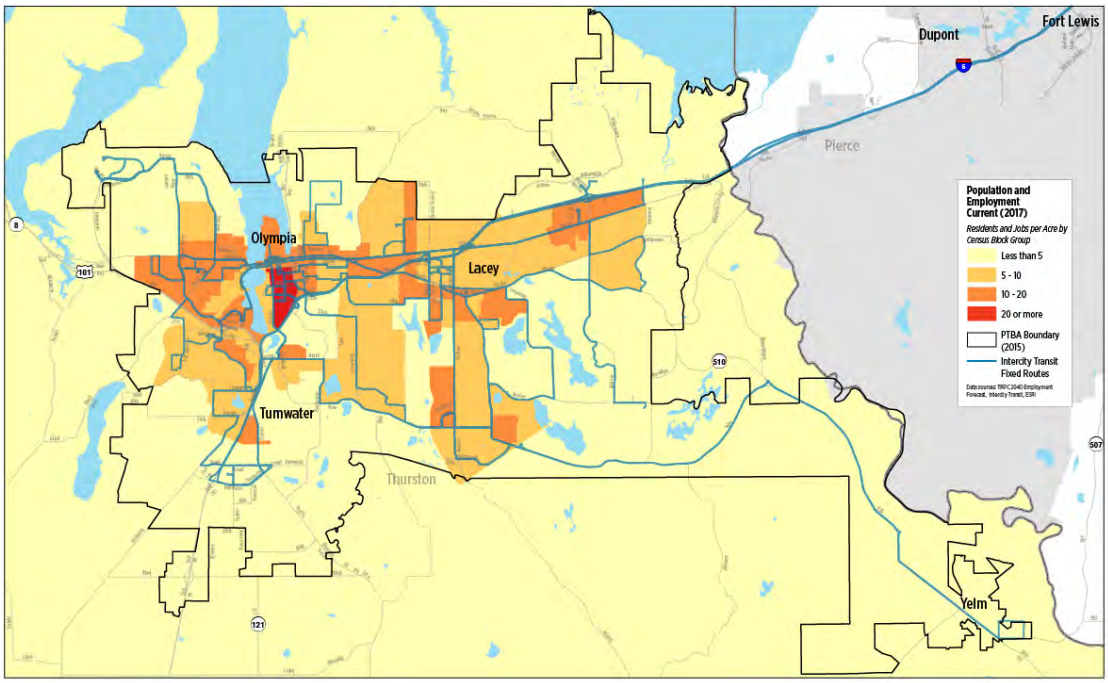
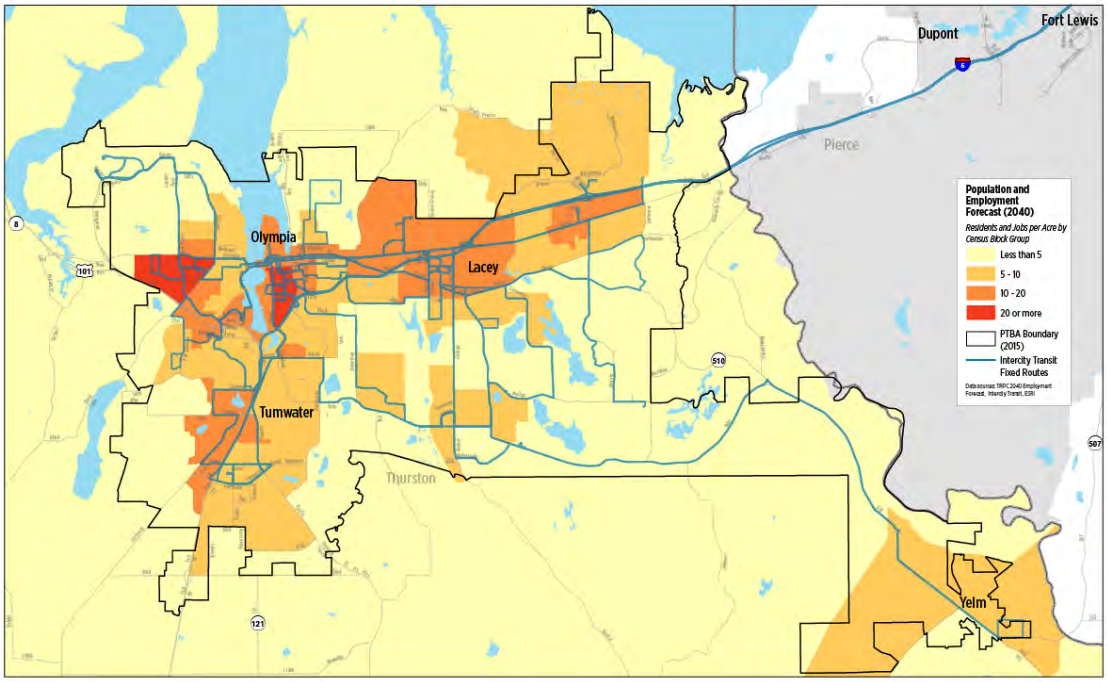


Figure 11-17 2040 Combined Population and Employment Density



MODE SPLIT FORECASTS

Mode split refers to the proportion of people using a mode of transportation—driving, taking transit, bicycling, walking, or carpooling. The TRPC's 2040 Regional Transportation Plan forecasts that walk, bicycle, and transit trips will increase slightly in Thurston County by 2040, and that drive alone rates will remain the same. The TRPC forecast does not include other variables that may impact mode split, such as emerging technologies, travel demand management strategies, or implementing the Sustainable Thurston Plan, which calls for more compact growth around frequent transit service.

The TRPC 2040 plan estimates mode splits for 2015 and 2040 by area type.

- **Urban Centers and Corridors** are the urban centers and connecting corridors of Lacey, Olympia, and Tumwater. These areas reflect the greatest concentration of jobs and housing within the county. Residents living in these areas tend to walk, bicycle, and use transit more than those in other regions of the county. Frequent transit service (every 15 minutes or better) is assumed in urban corridors and centers.
- **North County Urban Areas** are the remaining neighborhoods within the Lacey, Olympia, and Tumwater urban growth areas. People in these neighborhoods tend to walk, bicycle, and use transit less than center and corridor residents, but more than rural residents. Transit is assumed to be available in many of the neighborhoods, but is generally half-hour to hourly service.
- **South County Urban Areas** are Bucoda, Rainier, Tenino, Yelm, and Grand Mound urban growth area.
- **Rural Areas** are all other parts of Thurston County outside of any urban growth areas.

Figure 11-18 summarizes the existing mode split and TRPC 2040 forecast mode split by area type.

Figure 11-18 Thurston County Mode Split by Area Type, 2015 and 2040

Area Type	Mode	2015	2040
Urban Centers and Corridors	Walk	12.7%	13.0%
	Bicycle	1.1%	1.1%
	Transit	6.8%	8.9%
	Drive alone	49.2%	49.6%
	Other shared rides	30.2%	27.3%
Thurston County Average	Walk	8.0%	8.3%
	Bicycle	1.4%	1.4%
	Transit	2.2%	2.8%
	Drive alone	50.6%	50.7%
	Other shared rides	37.9%	36.8%

TRANSIT-SUPPORTIVE LAND USE STRATEGIES

The Sustainable Thurston plan and several of the municipal comprehensive plans that assume denser land uses, and improved access to transit. This section discusses characteristics of Transit-Oriented Development (TOD), with applicable takeaways for Thurston County. Case studies provide real examples of implementation of TOD concepts in land use policies and development practices in the Northwest. An explanation of Transit Overlay Zoning outlines an efficient zoning method Thurston County may choose to employ to encourage TOD.

Opportunities for Thurston County: Transit-Oriented Development

Transit-Oriented Development, or TOD, refers to the design and construction of commercial and residential centers that encourage the use of transit and other non-motorized transportation modes. Some municipalities put into place zoning codes, parking requirements, and design guidelines aimed at encouraging TOD. Land use strategies are a key component of TOD. Six pillars of transit-supportive land use, known as the "6 Ds" (Figure 11-19) are destinations, distance, density, diversity, design, and demand.

Figure 11-19 6 Ds of Transit-Supportive Land Use

6 Ds	Characteristics	Example: City of Seattle Policy Language
 ***Destinations***	Major destinations located in transit-accessible areas	Policy ToN1.1: "Locate transit intensive land uses in urban villages and along priority transit corridors so they can be efficiently served by frequent transit."
 ***Distance***	Infrastructure designed for shorter, direct connections for people on foot, bicycle, or in transit vehicles	Policy ToN2.1: "Provide a fine-grained pedestrian and bicycle network that connects to transit."
 ***Density***	Residential and commercial density	Policy ToN3.1: "Use zoning to focus the highest densities closest to transit corridors and nodes."
 ***Diversity***	Mixed land uses so residents can work, shop, and spend leisure time locally	Policy ToN4.1: "Mix residential, employment, recreation, and commercial uses in station areas and along the FTN (frequent transit network)."
 ***Design***	People-friendly, safe, and interesting streets	Policy ToN5.3: "Use design review to encourage off-street parking facilities that minimize the impact of parking on the pedestrian realm."
 ***Demand***	Incentives and disincentives to decrease single-occupancy vehicle trips	Policy ToN6.2: "Reduce auto-dependency by providing transit supportive services and programs."

Considering these principles on different scales can help guide effective TOD. Density and diversity may apply most congruently to neighborhoods, while other principles may be applicable on a micro or macro scale. Local cities, including Vancouver BC, Seattle, and Tacoma have implemented strategies based on the 6Ds with success.

Case Study: Collingwood Village in Vancouver, BC

Collingwood Village, a development in the greater Vancouver area completed in 2006, exemplifies several characteristics of the 6Ds. A SkyTrain station brings Rapid Transit, with the local station seeing an average weekday ridership of 10,800 as far back as 2005. With a gross residential density of 239 units per hectare, a grocery store, drug store, elementary school, community center, and other retail shops, the development has plenty of residential and retail density and a diverse array of land uses. Built for people to access transit on foot, the blocks are small with mid-block connections and pedestrian bulbs at intersections to shorten crosswalk distances. The community exemplifies people-friendly design, with trees, enough people around to encourage a feeling of safety, and a lively central street lined with major buildings and parks. Finally, thanks to good connectivity, local amenities, and smaller housing units, car ownership is lower than other parts of Vancouver. Seventy-seven percent of residents in Collingwood Village own at least one car, compared to 84% in Vancouver as a whole. Reduced residential parking requirements also contribute to the lower car ownership rates. The developer and City engineering department negotiated the requirement down to 1.35 spaces per unit, rather than the local standard of 1.75. Bicycle parking spaces outnumber car parking spaces.

Opportunities for Thurston County: Transit Overlay Zoning

Thurston County laid out priorities for future land use in the 2013 Sustainable Thurston Land Use Scenario. This report suggests creating or enhancing walkable urban city and town centers in Bucoda, Grand Mound, Lacey, Olympia, Rainier, Tenino, Tumwater, and Yelm. One way to follow through on these goals with transit-supportive land use in mind is through Transit Overlay Zoning. Transit Overlay Zoning provides a more bureaucratically efficient option than a full zoning update and can pinpoint development rules that match the needs of a hyper-specific area.

This zoning strategy involves placing transit-friendly zoning regulations on a particular overlay district. This overlay district can share borders with existing zones or can span portions of multiple existing zones. An effective Transit Overlay Zone might focus on a special area within a set radius of a transit hub or along a transit corridor.

Case Study: Northgate Neighborhood in Seattle, WA

In North Seattle, the neighborhood of Northgate has been historically auto-oriented, built with so-called "super blocks," or city blocks with lengths exceeding 800 feet that make it difficult for people to walk comfortably and easily from place to place. The City of Seattle is undergoing efforts to transition Northgate into a more transit-oriented community, as evidenced in part by the construction of a Northgate light rail station. Due for completion in 2021, Sound Transit expects the station to see 15,000 daily boardings by 2030.

In step with the transit access upgrades, the city has built design guidelines for a special Northgate Urban Center and Overlay District including the Northgate core and adjacent areas. Design guides for this special overlay district range from streetscape design for

pedestrian right-of-way to sidewalk widening to tucking parking behind buildings, allowing interesting street features in front, to creation of attractive open spaces for people to relax.

A quintessential example of TOD, a surface parking lot abutting the Northgate Mall was converted into a mixed-use development called Thornton Place in 2009. Thornton Place integrates a community park, a movie theater, retail space, and 387 condominiums and apartments, including affordable units.

12 LONG-RANGE RECOMMENDATIONS

This chapter provides a menu of long-range service improvements and recommendations for Intercity Transit's Long-Range Plan. Public sentiment and market trends both suggest that expansion of services in the region can help the region achieve its transportation and livability goals. The primary goal of the Long-Range Transit Plan is to position Intercity Transit to provide and enhance mobility throughout the four-city PTBA, and to support the land use and travel demand assumptions outlined in the previous chapters. This chapter provides an in-depth description of each long-range service improvement, including approximate order of magnitude costs.

Figure 12-1 summarizes the long-range service improvements. Annual operating costs and capital costs are estimated using 2018 dollars, and should be considered planning estimates. None of the estimated capital or operating costs assume matching federal or local grants.

A full description of the assumptions of each of the recommendations follows Figure 12-1.

Figure 12-1 Long-Range Recommendations Summary Table

Service Improvement	Recommendations	Annual Operating Costs	Estimated Capital Costs
 Bus Rapid Transit	▪ Provide BRT on Martin Way ▪ Expand to additional corridors in the future	$2,500,000	$23,000,000-$30,000,000
 Improved Frequency of Service	▪ Expand frequent transit network to operate 7 days a week ▪ Provide 30-minute all-day service on remaining network, 7 days a week	$4,500,000	Two new vehicles
 Improved Span of Service	▪ Provide service until 11:00 p.m. daily	$1,650,000	None
 Keep Buses On Time	▪ Set aside 0.5% of the operating budget for schedule maintenance ▪ Adjust schedules and increase service levels one to two times per year	0.5% per year	None

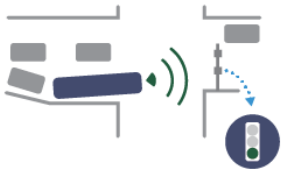
Service Improvement	Recommendations	Annual Operating Costs	Estimated Capital Costs
 Expand Service to NE Lacey	▪ Create a stand-alone NE Lacey route	$700,000	Two new vehicles
 Limited Express Service to Yelm	▪ Create a commute-oriented limited express service between Lacey Transit Center and Yelm	$400,000	Two new vehicles
 Innovative Service Zones	▪ Consider replacing low-ridership routes or extending IT service in growing areas with flex services	$500,000 per zone	None
 Night Owl Service	▪ Create a night-owl service in downtown Olympia on weekends	$400,000	None
 Enhanced Commuter Service	▪ Simplify service by consolidating express routes ▪ Increase service levels to reflect projected increased demand ▪ Improve speed and reliability by assisting WSDOT implementation of dedicated lanes (HOV or shoulder) on I-5 ▪ Upgrade to “over-the-road” coaches	$1,000,000	Six new vehicles
 Enhanced Capital Facilities Program	▪ Define hierarchy of bus stops ▪ Enhance bus stops with lighting, shelters, and benches based on hierarchy ▪ Double spending on passenger capital facilities	None	$260,000 per year
 Mobile Ticketing	▪ Evaluate opportunities to offer riders a mobile ticketing option	Varies (10% of all sales to $70,000)	Varies ($0-$164,000)
 Alternative Fare Structure	▪ Evaluate opportunities to transition from on-vehicle fare payment to pre-paid fares ▪ Partnerships would be needed to fund the pre-paid fare program	$1,000,000-$2,000,000	None

BUS RAPID TRANSIT

Bus Rapid Transit (BRT) refers to enhanced bus service with features that help reduce dwell times at bus stops, bypass traffic congestion, and provide a more comfortable and convenient service for passengers. BRT is a popular transit choice in municipalities looking for a way to provide service that is faster, more convenient, more comfortable, and more attractive than regular bus service, without the level of investment required by rail. Investments in high-quality bus transit can support economic development and lead to increased ridership.

The level of investment for each BRT system can vary, and it is possible to achieve better service and increased ridership without implementing all of the common BRT features. Dedicated running ways, in particular, are often not found in BRT systems.

Common BRT features include the following elements:



Transit Signal Priority

Transit signal priority (TSP) gives buses and trains earlier and/or longer green lights, allowing transit to bypass traffic. Implementation of TSP involves installation of a variety of software and hardware. By changing signals to green early or extending green signals until the bus passes through, TSP can reduce signal delays by 10%.

Intercity Transit is in process to implement and test its first TSP application. In the fall of 2017, Intercity Transit and the City of Olympia signed an agreement to allow the deployment of transit signal priority at city traffic signals, building on the Smart Corridors Initiative. Phase II of the Smart Corridors project includes building out TSP along the Martin Way corridor from Lowes to Pacific Avenue and Capitol Way/Capitol Boulevard south of I-5 to Tumwater Boulevard. Phase III extends TSP along the remainder of Martin Way.

Unique BRT Branding

Unique branding can bring attention to BRT buses, increasing public awareness of the service and boosting ridership. Strong branding also differentiates BRT vehicles from standard buses. Basic BRT branding consists of logos, color schemes, vehicle designs and wraps. Branding efforts might focus on outreach, marketing campaigns, brochures, signage, and online presence. Building a strong BRT brand helps attract and retain riders and can help agencies put their best foot forward when seeking funding from government agencies.

In the past, Intercity Transit created unique branding with the Dash shuttle. A similar process for BRT could build public recognition of the project, resulting in increased rider service expectations and subsequent higher ridership.

Enhanced Stops

Enhanced stops can include real-time arrival information, off-board fare payment, benches and shelters, and other elements that improve rider comfort and experience. Strong BRT stop design can attract riders, improve safety and accessibility, and decrease dwell time with off-board fare payment.

Intercity Transit currently has bus stop improvements on the docket for implementation into 2021. Most recently, on March 5th, the City of Tumwater and Intercity Transit began installing curb extensions and benches at Tumwater Square Station. Enhanced stops along Martin Way could include standard upgrades such as benches and lighting in addition to other BRT stop elements like real-time arrival information and off-board fare payment.

Real-Time Arrival

Real-time arrival information involves outfitting stops with dynamic messaging signs. One University of Washington study found that access to real-time arrival information decreased perceived wait times for riders. Many riders served by Intercity Transit already have access to real-time bus tracking via the OneBusAway app, but dynamic messaging signs serve those who cannot afford smart phones with internet data plans.

In addition to basic stop enhancements, some BRT programs convert their stops into full BRT stations by building raised platforms along a BRT route.

Off-Board Fare Collection Systems

Off-board fare collection occurs with ticket vending machines located at an enhanced BRT stop, dispensing proof of purchase for riders to bring onboard. This process reduces dwell time and improves on time performance by minimizing bottlenecks with the onboarding process.

Additional information about off-board fare collection including fare enforcement options can be found in the "Speeding Up Service" section of this report.

Specialized Vehicles

Specialized vehicles outfitted with branded elements reinforce the unique identity of BRT service when compared to standard bus service. BRT buses commonly have low floor boarding and wide doors, both of which lead to faster boarding and alighting. Additionally, larger vehicle capacities found with most BRT vehicles help meet the needs of more riders efficiently.

Dedicated Running Ways/Bus Lanes

Dedicated running ways involve isolating transit from other traffic by creating bus-only lanes. Some BRT programs, like the Eugene EMX, build out fixed guideways to separate buses from traffic even further, bringing the BRT service standards closer in line with rail. For a less infrastructure-intensive approach, bus lanes can be shared for other uses, such as taxis, or curb lanes can be designated as bus lanes during peak hours and parking or mixed use during off-peak hours. Transit agencies can also implement different bus lane options selectively along certain portions of a corridor to meet local needs. Seattle's RapidRide program features a combination of shared and managed lanes.

Recommendations

The long-range recommendation is to provide BRT on Martin Way between downtown Olympia and Marvin Road in Lacey. Route 62 is the most productive route in the system and the Martin Way corridor has been identified in several planning documents as a candidate for high-capacity transit in the future. As the number of jobs and residents along the corridor grows, so does traffic congestion. Providing bus rapid transit elements along this corridor will improve reliability and speed travel times. Investments in rapid transit can promote economic development and lead to increased ridership.

Potential service elements of BRT would include:

- Half mile bus stop spacing to speed service.
- Off-board fare-payment to speed service.
- Transit signal priority to speed buses through congested intersections.

- Enhanced customer experience, including stations with shelters, real time information, and level platforms.
- Improved frequency seven days a week over today's service levels. Service would operate a minimum of every 10 minutes during peak times and at least every 15 minutes seven days a week.
- No dedicated lanes are assumed, despite their contributions to improved speed and reliability, as these can dramatically increase implementation costs.

A Martin Way BRT would require approximately 43,000 annual service hours. Underlying service on Routes 62A/B would be reduced accordingly, resulting in a net increase of 23,000 hours. At this level, BRT on Martin Way would result in an additional $2,500,000 in operating costs annually.

Capital costs vary depending on the design of the service and what improvements are included. For Martin Way, a moderate cost of three to five million dollars per mile was assumed, presuming that there are no dedicated lanes. Capital costs are anticipated to be between $23M and $30M.

Initiating a Small Starts Federal planning process would be the first step in developing a BRT project. Small Starts grants are anticipated to provide federal funding that typically cover up to 50% of the anticipated capital investments. A multi-year project development process (formerly called an "Alternatives Analysis") is required to be eligible for Small Starts funding. Typically, there are at least 5 years between planning inception and service initiation, with 7 years being a common planning/construction period.

Speeding Up Service

Intercity Transit, and their passengers, are interested in speeding up bus service. Speeding up bus service is a key part of improving community members' mobility. By reducing the time it takes for passengers to get from their trip origin to destination, transit agencies make their services a more attractive option—especially in communities where auto travel is perceived to be faster and more efficient than the bus. This section presents several tried-and-true strategies for speeding up bus service that Intercity Transit could consider implementing.

All-Door Boarding

Requiring passengers to board a bus through a single door creates a bottleneck that slows down boarding times and increases dwell times, thus extending the amount of time it takes a bus to complete its route. This is especially so if a large number of cash fares need to be processed. All-door boarding allows passengers to board from the front and rear doors, which drastically reduces boardings times.

Because Intercity Transit vehicles are only equipped with front door fareboxes, implementation of all-door boarding would need to be a part of a transition to off-board fare payment and a proof-of-payment validation system. This is discussed in the Off-Board Fare Payment section below. In 2012, SFMTA transitioned to all-door boarding on all its services, reducing average dwell times by 38% and increasing transit system speed by 2%. Revenue impacts were also positive.[1]

[1] *All-Door Boarding Evaluation Final Report*. San Francisco: SFMTA, 2014. <https://www.sfmta.com/sites/default/files/agendaitems/2014/12-2-14%20Item%2014%20All%20Door%20Boarding%20Report.pdf> (accessed 3/28/18)

All-door boarding in San Francisco

Off-Board Fare Payment

For Intercity Transit, all-door boarding on high-volume routes would need to be coordinated with the introduction of off-board fare payment. Intercity Transit could implement off-board fare payment using ticket vending machines and/or mobile ticketing options. Ticket vending machines would be located at transit stations and major bus stops to dispense paper tickets that riders retain as proof of payment. A mobile ticketing option would allow passengers to purchase tickets using their smartphone. By transitioning to off-board fare payment, bottlenecks caused by riders using the onboard farebox are eliminated. This tactic for speeding up service would need to be implemented with fare evasion-prevention procedures, which could include proof-of-payment spot-checks by fare enforcement officers.

In the Puget Sound region, both Community Transit (CT) and King County Metro (KCM) currently utilize off-board fare payment for high-volume routes. CT's Swift Line and KCM's RapidRide Lines allow passengers to pay at their stop and board through either the front or back door. On RapidRide routes, the introduction of fare enforcement officers is credited with reducing fare evasion rates from 3.2% to 2.2%.2

Incentivizing Pass Payments over Cash

Cash is the slowest form of fare payment on buses. Inserting coins and bills into the farebox can be slowed further by riders with damaged bills, lack of familiarity with the currency (e.g. tourists), impaired fine motor skills, or questions about pricing. Incentivizing riders to use passes instead of cash can make a tremendous difference in reducing dwell times, thus speeding overall bus travel times. Tactics for making passes more readily available include marketing and advertising, outreach to major area employers, pass retail at high-volume stops or transit centers, and adopting new technologies such as Mobile Ticketing (discussed later in this chapter).

Level Boarding

Getting on and off a bus takes significantly more time if it involves navigating steps up and down to the sidewalk, especially during periods of inclement weather. Passengers with

[2] *Fare Evasion on RapidRide, Comparing 2010 Evasion Survey (Pre-RapidRide) to 2014 RapidRide Evasion Data*, Seattle: King County Metro, 2014.

disabilities can require wheelchair lifts or other assistance, dramatically increasing dwell times at stops. Operating buses with level floors significantly reduces boarding and alighting time. The majority of Intercity Transit vehicles are already level-floor types, representing a purchasing pattern that should be continued.

Stop Spacing/Stop Consolidation

Properly spacing bus stops is a balancing act between passenger access and the speed and reliability of services. Stops that are spaced closer together make it easier for passengers to get to transit but also degrade service speed and reliability. By reducing the number of stops on a route, and ensuring proper spacing between them, transit agencies can dramatically increase bus speed and reliability. Riders are often glad to trade a faster trip for a slightly longer walk to their bus stop. In Portland, Oregon, a bus stop consolidation project called Streamline was found to have produced a 6% reduction in running time for buses, without sacrificing ridership.[3]

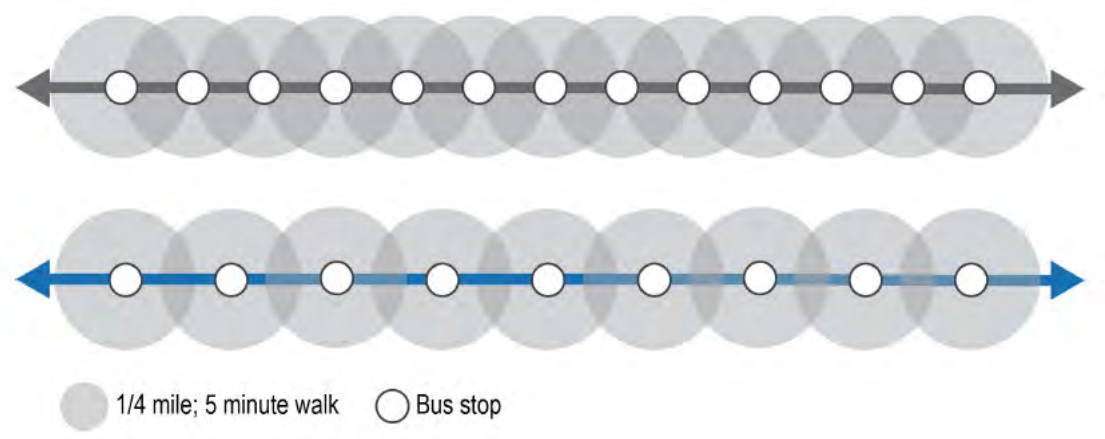


Diagram illustrating stop consolidation

In-Lane Stops

While there are advantages to pull-out and pull-in bus stops, the amount of time the vehicle needs to turn into and out of the stop zone is considerable. Further, these turning movements can sometimes pose hazards to other road users, such as people biking. By replacing pull-out stops with in-lane zones, transit agencies can reduce dwell times, decrease levels of conflict with cyclists, reduce wear on the roadway, and create additional sidewalk space.

In Oakland, AC Transit buses have begun stopping at 'tactical urbanism'-style hard plastic bus islands, which effectively convert pull-out stop zones into in-lane stops, while simultaneously allowing for cyclists to travel safely past the stop in a protected lane.

[3] *Effects of Bus Stop Consolidation on Passenger Activity and Transit Operations*. El-Geneidy, Stratham, Kimpel & Crout. 2005.
<https://www.researchgate.net/publication/228760415_Effects_of_Bus_Stop_Consolidation_on_Passenger_Activity_and_Transit_Operations> (accessed 3/28/18)

IMPROVE FREQUENCY OF SERVICE

Improving frequency means providing Intercity Transit service that comes more often. More frequent service is more convenient, and therefore attracts and retains more riders. Currently, several of Intercity Transit's services operate with reduced frequency during off-peak hours or weekends, reducing the attractiveness of the service. Most secondary routes operate hourly at some point, which will not attract many discretionary riders. Frequent service corridors provide service every 15 minutes all day on weekdays, yet are not as frequent on weekends. Improving frequency will improve service for existing riders and help attract new riders.

Recommendations

Two improvements are recommended. Proposed improvements to service frequencies results in a service increase of 21% over current conditions.

- **Expand frequent transit network to operate 7 days a week.** This is achieved by increasing frequency on Saturdays and Sundays on routes that are part of the frequent transit network—Routes 13, 41, and 62A/B. These routes would operate every 15 minutes seven days a week.
- **Provide 30-minute all-day service on remaining network, 7 days a week.** This is achieved by adding trips during midday, off-peak, and weekends to create a more robust network.

Increasing the frequency on the high frequency network on weekends and providing 30-minute service all day results in an additional 41,000 estimated annual service hours, equal to a 21% increase in service over 2017 levels. Note that frequency costs do not reflect proposed span improvements. Two new vehicles would be required for Routes 67 and 94, which currently both operate at 60-minute headways. Annual operating cost estimates are based on an assumed cost of $110 per service hour. Annual operating costs for this recommendation are roughly $4.5M.

Proposed changes to weekday, Saturday, and Sunday frequency are indicated in **bold** in the tables below. Note that special services and express routes are not included.

Figure 12-2 Proposed Weekday Frequencies

Route	Existing Peak Frequency	Existing Off-Peak Frequency	Proposed All Day Frequency
12	30	60	30
13	15	30	15
21	30	60	30
41	15	30	15
42	30	30	30
43	30	30	30
44	30	30	30
45	30	60	30

Route	Existing Peak Frequency	Existing Off-Peak Frequency	Proposed All Day Frequency
47	30	30	30
48	30	30	30
60	30	60	30
62A	30	60	30
62B	30	60	30
64	30	60	30
66	30	30	30
67	60	60	30
68	30	60	30
94	60	60	30

Figure 12-3 Proposed Saturday Frequencies

Route	Existing Peak Frequency	Existing Off-Peak Frequency	Proposed All Day Frequency
12	60	60	30
13	60	60	15
21	60	60	30
41	30	30	15
43	60	60	30
44	30	30	30
45	60	60	30
47	60	60	30
48	30	30	30
60	60	60	30
62A	30	60	30
62B	30	60	30
64	60	60	30
66	30	30	30
67	60	60	30
68	60	60	30
94	60	75	30
101	10	10	10

Figure 12-4 Proposed Sunday Frequencies

Route	Existing Peak Frequency	Existing Off-Peak Frequency	Proposed All Day Frequency
12	120	120	30
13	60	60	15
21	60	60	30
41	60	60	15
44	60	60	30
47	60	60	30
49	30	30	30
60	60	60	30
62A	60	60	30
62B	60	60	30
64	60	60	30
66	30	30	30
68	60	60	30
94	135	135	30

IMPROVE SPAN OF SERVICE

Improving span of service means extending Intercity Transit's operating hours during mornings, evenings, and on weekends. An extended span of service will help IT serve all employment types and tap into new markets. Earlier and later services will provide mobility for non-commute trips and people with different work schedules, and provide customers the ability to utilize Intercity Transit for non-work evening purposes.

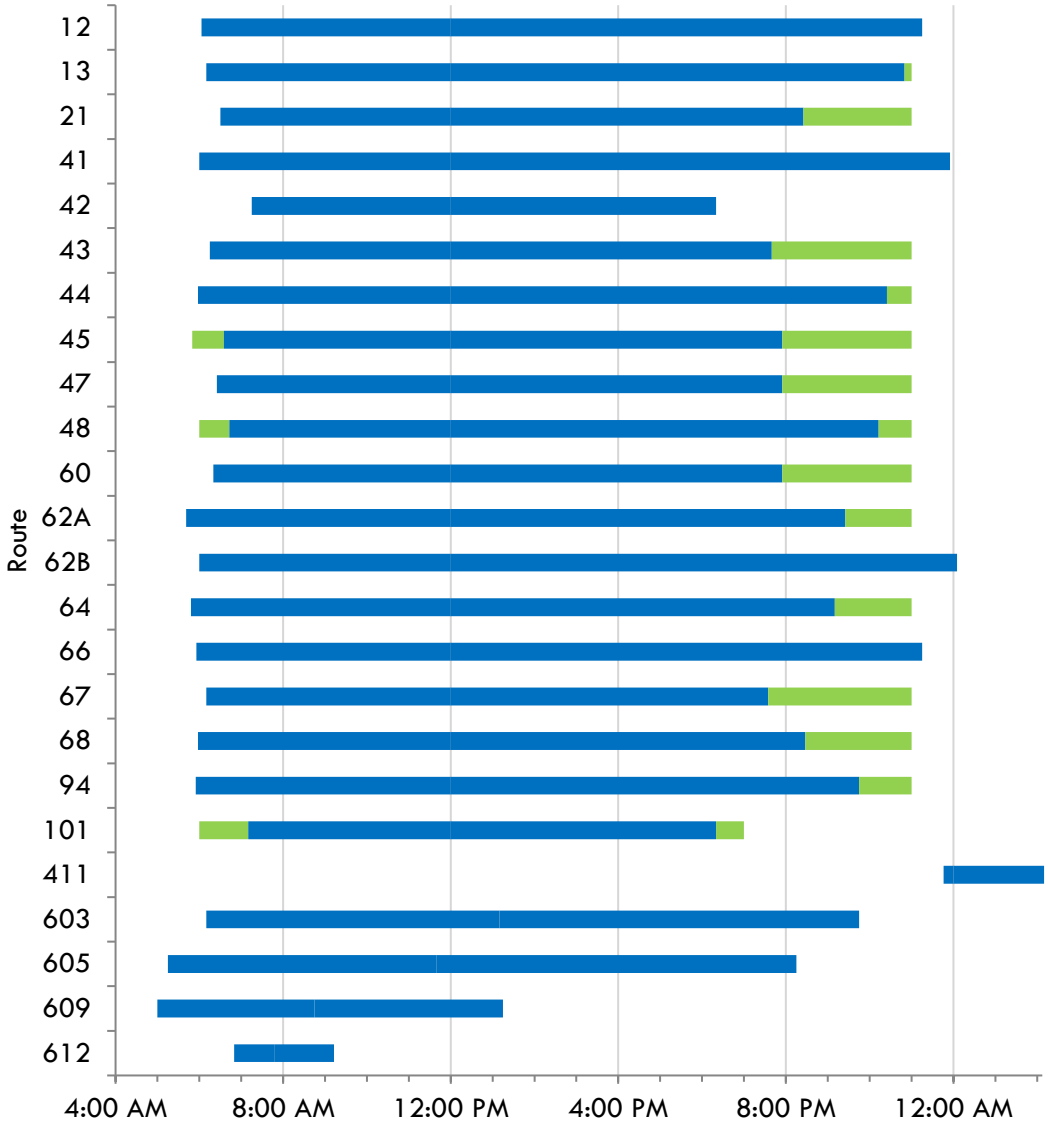
The current span of service provided by Intercity Transit is oriented to serve peak-hour commute trips and does not support all employment types and potential trip markets. There is strong public support for improving span of service. During the Intercity Road Trip community outreach process, adding service during evenings, weekends, and mornings were among the top community priorities.

Recommendations

The primary long-range recommendation is to operate all trunk and secondary routes until 11:00 p.m. daily. Only four weekday and Saturday routes currently operate until 11:00 p.m.—Routes 12, 41, 62B, and 66—and most routes end by 8:00 p.m. In the figures below, new operating hours are illustrated in green and current hours are shown in blue.

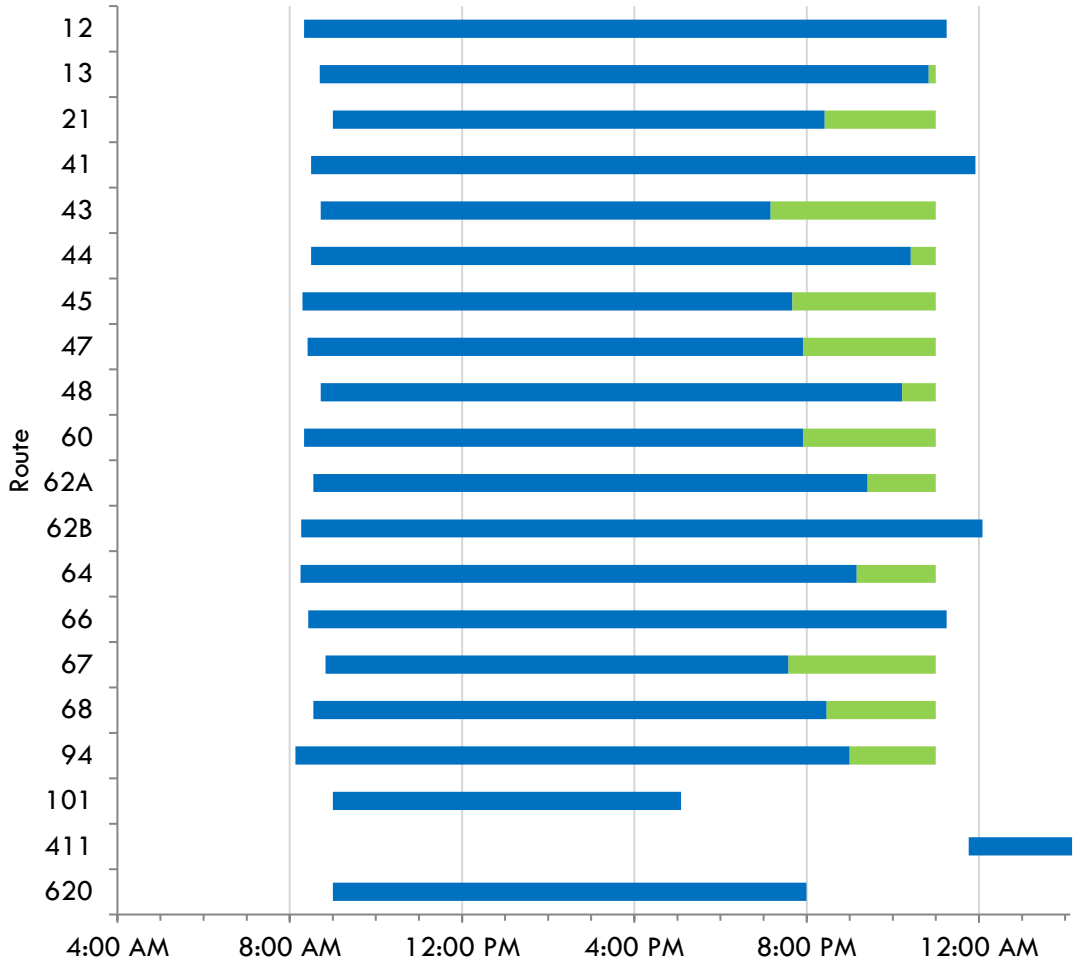
Increasing the span of service on weekdays, Saturdays, and Sundays results in an additional 14,800 estimated annual service hours, equal to a 7% increase in service over 2017 levels. Annual operating cost estimates are $1.6M, based on an assumed cost of $110 per service hour. There are no additional capital costs associated with these improvements.

Figure 12-5 Proposed Weekday Span



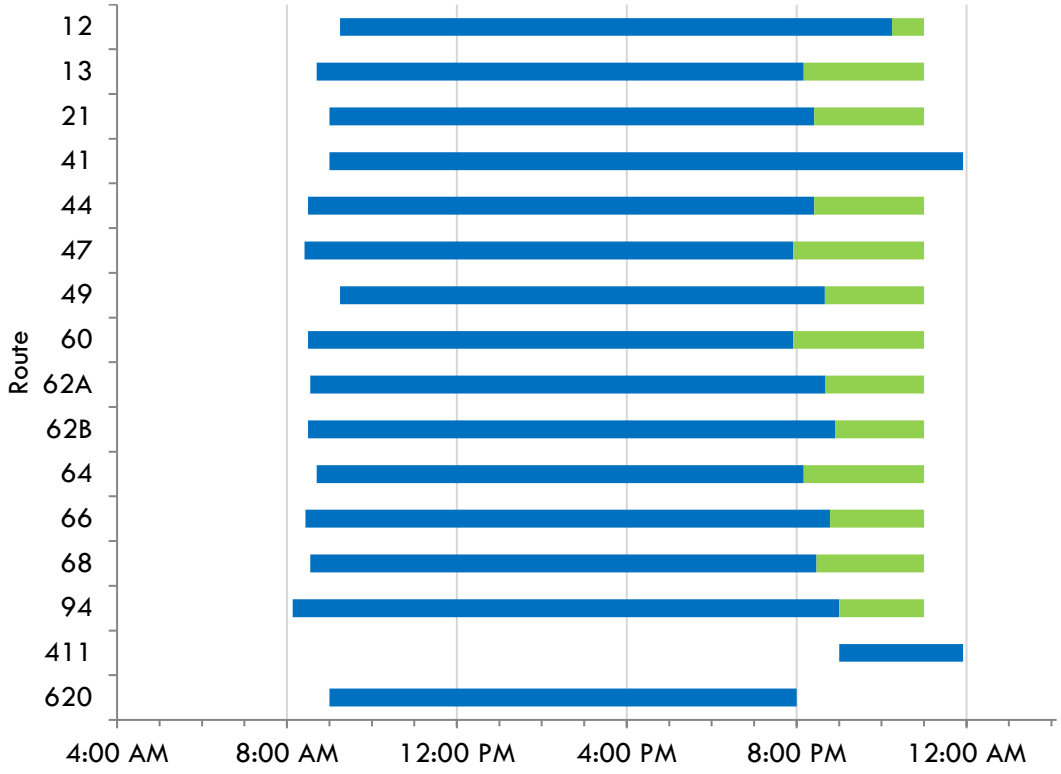
New operating hours are illustrated in green and current hours are shown in blue.

Figure 12-6 Proposed Saturday Span



New operating hours are illustrated in green and current hours are shown in blue.

Figure 12-7 Proposed Sunday Span



New operating hours are illustrated in green and current hours are shown in blue.

KEEP BUSES ON TIME

In an environment of worsening traffic congestion, agencies must actively plan for increases in travel times, as increased travel times can require additional resources. A schedule maintenance budget means setting aside a specified percentage of the operating budget each year in anticipating of one or two schedule adjustments annually.

Increasing traffic congestion in the future will lead to increasing delays for transit vehicles. Intercity Transit can plan ahead for growing travel times by budgeting for annual schedule maintenance.

Recommendations

It is recommended that Intercity Transit budget 0.5% of their annual operating budget for schedule maintenance. This will allow IT to adjust schedules and increase service levels one to two times per year. Planning ahead for schedule maintenance will encourage fiscal sustainability while providing flexibility in the operating budget for changing operating conditions. There are no capital costs associated with this recommendation.

SERVICE TO NEW AREAS

Growth is adding new destinations that are unserved by the current transit network. Two new areas have been identified for potential services in the long-range plan:

- NE Lacey in particular has experienced rapid residential and employment growth, and is unserved by Intercity Transit. Projected population and job densities for 2040 indicate that NE Lacey will have between 5 and 10 people and jobs per acre, with concentrations along major roads.
- Yelm is a growing city within the PTBA. Current service between Yelm and Lacey is indirect and does not provide a direct connection to the Lacey Transit Center. A direct connection from Yelm to central Lacey was a priority for Yelm residents.

Recommendations

Two new routes are recommended as part of the long-range plan:

Create a stand-alone route that connects NE Lacey job centers with the transit network at Lacey Transit Center. Short-range plan recommendations included a temporary solution to providing transit service to NE Lacey employment centers by extending Route 62A. In the long term, as the number of residents and jobs increases in NE Lacey, a stand-alone route between the Lacey Transit Center and NE Lacey job centers is recommended.

As illustrated in Figure 12-8, a possible alignment would travel on Sleater-Kinney Road, 15th Ave SE, Britton Parkway, and complete a one-way loop on Willamette Drive, 41st Ave, and Marvin Rd. The proposed route would operate every 30 minutes seven days a week between 6 a.m. and 6 p.m. and hourly between 6 p.m. and 8 p.m. This route would connect to emerging residential and job centers in NE Lacey, including currently unserved residential areas on 15th Avenue NE and growing commercial areas on Britton Parkway, while avoiding traffic congestion on Martin Way.

The proposed NE Lacey loop would increase annual service hours by roughly 6,300 hours. The operating costs, assuming $110 per service hour, would be approximately $700,000. To provide 30-minute headways, two new vehicles would be required.

Create a limited express route between Yelm and Lacey Transit Center. As the number of residents in Yelm grows, providing a commuter-type service to Lacey and an easy connection to the transit network becomes more crucial. As illustrated in Figure 12-9, a potential alignment would provide express service along Highway 520 and Pacific Boulevard between the Yelm Walmart and Lacey Transit Center. The proposed route would operate hourly on weekdays, providing three trips in the morning and three trips during the PM peak. This route would better connect Yelm residents with jobs in Lacey and transit connections at Lacey Transit Center.

The proposed Yelm Express would increase annual service hours by roughly 3,600 hours. Operating costs are $400,000 annually, based on an assumed $110 per service hour. To provide 60-minute headways, two new vehicles would be required.

Impacts on ADA Complementary Paratransit Service

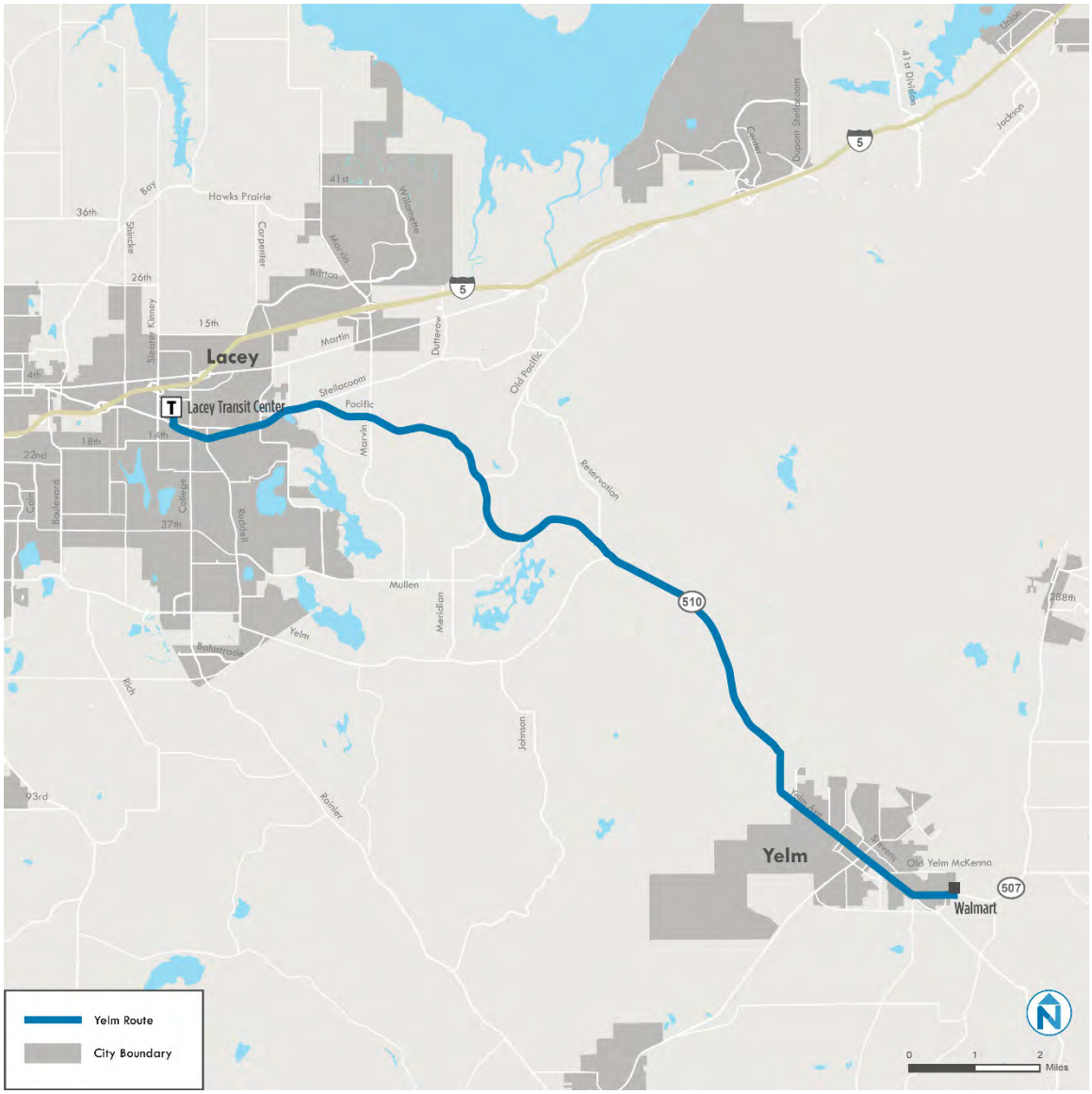
The Americans with Disabilities Act of 1990 mandates complementary paratransit service for passengers who are unable to navigate or access fixed-route bus service. Complementary paratransit service must be provided within ¾ of a mile of local bus routes.

Creating new local bus routes often expands the service area that must be served by complementary paratransit. If this is the case, then additional paratransit costs are likely to be incurred.

The proposed new route connecting the Lacey Transit Center and NE Lacey will expand Intercity Transit's complementary paratransit service area. Intercity Transit could mitigate some of the potential new demand by leveraging innovative service zones (Figure 12-13), which can meet the needs of the general public, seniors, and the ambulatory disabled population. Innovative service zones can extend beyond the ADA-mandated ¾ mile boundary.

Figure 12-8 Proposed NE Lacey Route

Figure 12-9 Proposed Yelm Express Route



INNOVATIVE SERVICE ZONES

Innovative service zones, sometimes called flex zones, use online platforms to dynamically generate on-demand routes. They can be operated by the transit agency, third party operators, or private companies such as Lyft and Uber. The services can vary, and may include demand-response shuttles, seasonal or special event shuttles, or mobility software. Benefits of these innovative service zones include

- Maintain or enhance mobility in low-density areas
- Improve transit ridership and reduce drive-alone trips
- Enhance travel options during hours when transit service is limited
- First/last mile supplement can extend the reach of fixed route transit service
- Can lower the cost per trip

Recommendations

Two options for innovative service zones are recommended.

The first recommendation focuses on service efficiency. **The Efficiency option replaces low-ridership routes with innovative service zones.** The illustration in Figure 12-10 shows potential areas where low-ridership fixed-routes could be replaced by innovative service zones, including areas of NE Lacey, Central Lacey, and east Lacey. Fixed-route operating dollars could be reallocated to operate innovative service zones, with no net increase in overall budget. Route 67 is a candidate for this type of transition.

Illustration of Replacing a Low Ridership Route with Innovative Service Zones

Route 67 could be replaced by an innovative service zone, which provides on-demand service that would be better service than the existing hourly service and also allow for easier access in a low-density environment, as the on-demand service can deviate from the main roadways.

The second option focuses on service expansion. **The Expansion option extends IT service into growing areas by providing innovative service zones in those areas.** As new markets emerge, Intercity Transit could expand innovative service zones to those areas until demand is large enough to warrant fixed-route services. The illustration in Figure 12-11 shows seven potential growth areas for innovative services, including West Olympia, NW Lacey, NE Lacey, East Lacey, South Tumwater, West Tumwater, and West Yelm.

The cost to provide innovative service varies based on the number and size of zones and who is operating the service. Annual operating costs are estimated to be $500,000 per flex zone. Capital costs would only be accrued for new vehicles if the service were to be agency-operated.

Three new innovative service zones are recommended, which will require approximately $1.5M annually to operate.

Figure 12-10 Proposed Innovative Service Zones – Efficiency

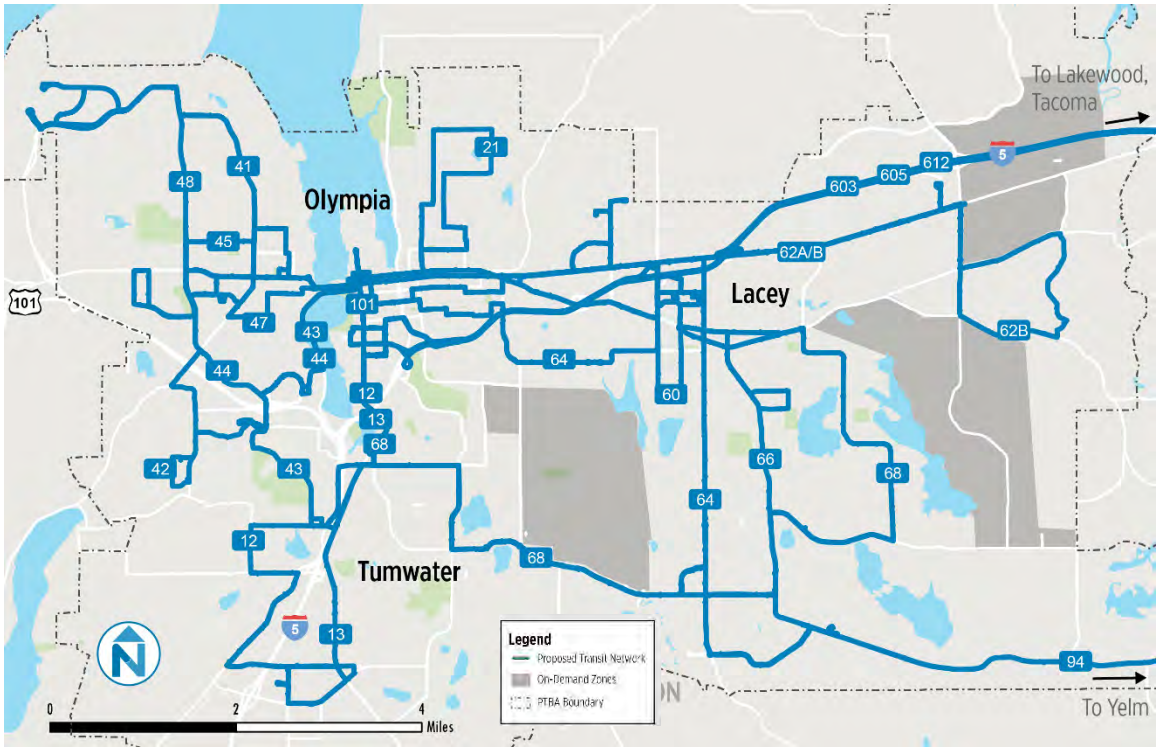
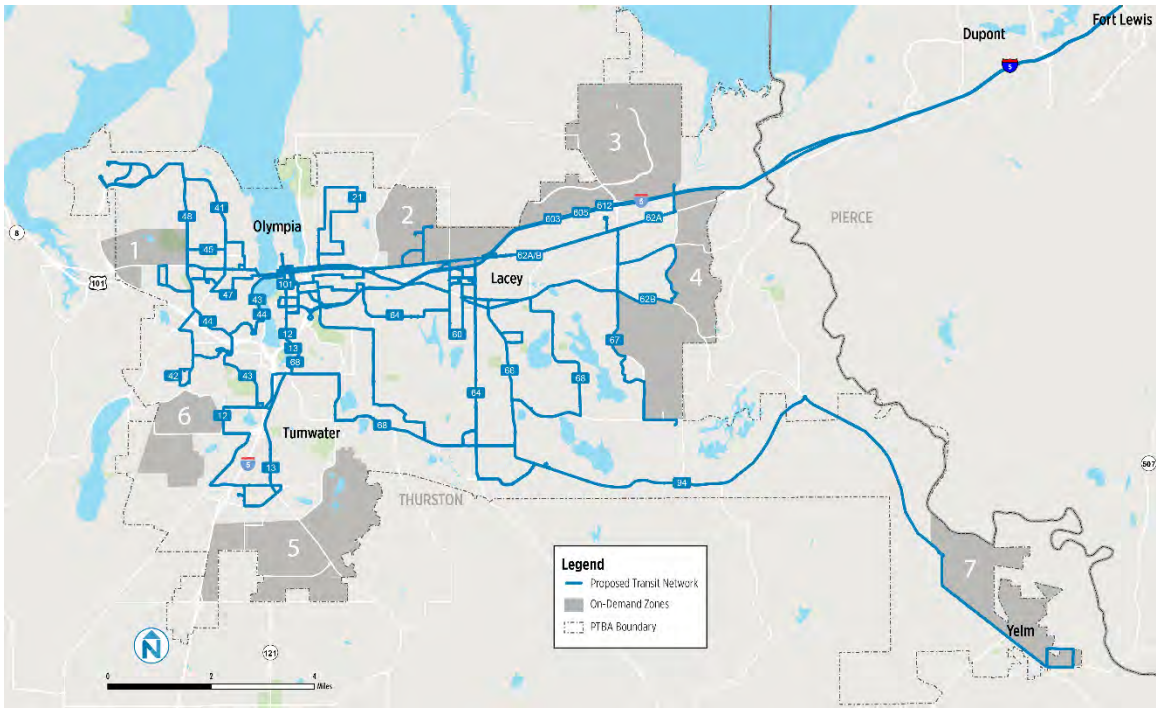


Figure 12-11 Proposed Innovative Service Zones – Expansion



NIGHT OWL SERVICE

Currently, Intercity Transit only provides late night service to Evergreen State College. Another late-night service for residents will allow the system to attract riders for more trip purposes.

Recommendations

Create a Night Owl route on weekends. Night Owl service would be on-demand, and would be operated with three different small buses leaving the Olympia Transit Center hourly. Each small bus would cover a zone that reaches up to 3 miles away from downtown Olympia, and make pickups and drop-offs in that zone. A West Olympia, East Olympia, and South Olympia/north Tumwater zone are anticipated. Night Owl service does not replace the existing weekend service to Evergreen State.

Night Owl service would provide late night transit service in downtown Olympia on Thursday, Friday, Saturday, and Sunday nights, providing a safe ride downtown and back from west Olympia between 9:00 p.m. and 3:00 a.m. on Thursdays, Fridays, and Saturdays, and from 6:00 p.m. to 10:00 p.m. on Sundays. This service will encourage new trip purposes, such as employment during peak "entertainment" times, and promote safety.

The proposed Night Owl would increase annual service hours by roughly 3,700 hours, equal to a 2% increase in service compared with today's service levels. Operating costs are $400,000, based on an assumed $110 per service hour. While three vehicles would be required to provide this service, no new peak vehicles or capital costs are assumed, as this service does not operate during the peak times.

ENHANCED COMMUTER SERVICE

Commuter service is fast service over long distances, designed to transport suburban workers to downtown jobs. This service is often provided with "over-the-road" coach buses that provide a more comfortable passenger experience for the long distance. Intercity Transit currently operates four express routes providing connections between Olympia, Lacey, Lakewood, and Tacoma. Enhancing commuter service in the long-range is recommended.

Enhanced commuter service is being considered for several reasons:

- **Regional demand is increasing**. The Thurston Regional Planning Council (TRPC) anticipates approximately 43,000 commuters travelling out of Thurston County to work by 2025, an increase of 22%[4]. The majority of these commuters will be going to Pierce and King Counties.
- **Freeway congestion is correspondingly increasing**. Express route schedules are designed for cases when traffic congestion is present on I-5. Despite this cushion, many routes arrive late at their endpoints, particularly inbound trips during the PM Peak.
- **Public support for additional service on I-5 North in particular**. Expanding express service further north to Seattle was a common theme that emerged from the Intercity Transit Road Trip online survey.

[4] Thurston Regional Planning Council Countywide Employment and Commute Forecast, January 2018

Recommendations

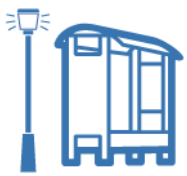
Four changes are recommended to enhance Intercity Transit's commuter services. These changes will help address regional congestion while enhancing the transit passenger experience. Additionally, over-the-road coaches are more efficient.

- **Simplify service by consolidating express routes.** This recommendation is included in the short-term recommendations package.
- **Increase service levels to reflect projected increased demand.** Over time, service levels should be raised to meet the projected increase in work trips out of Thurston County.
- **Improve speed and reliability by assisting WSDOT implementation of dedicated lanes (HOV or shoulder) on I-5.** The commuter market between Pierce and Thurston Counties is negatively impacted by the inability to provide reliable service in this corridor due to variable travel times.
- **Upgrade to "over-the-road" coaches.** Over-the-road coaches provide a smoother ride than regular transit buses, the seats are more comfortable, and mileage is better. Based on current schedules, up to 11 coaches should be upgraded to provide enhanced commuter service. An additional six coaches would be necessary to keep in line with anticipated travel demand between Pierce and Thurston Counties.

Annual operating costs are $1.0M based on an assumed operating cost of $110 per service hour. Over the road coaches are expected to cost roughly $500,000 apiece. Capital costs of $3.0M assume six new coaches will be needed. Replacement of the existing fleet (11 coaches) is already accounted for in the budget.

ENHANCE PASSENGER CAPITAL FACILITIES PROGRAM

Enhanced passenger capital facilities at bus stops—shelters, benches, lighting etc.—improve the experience for passengers. During the Intercity Road Trip public outreach process, improved stop amenities were a high public priority. Better amenities improves the passenger experience and helps attract and retain riders.



Recommendations

It is recommended that Intercity Transit **define a hierarchy of bus stops, and enhance bus stops with lighting, shelters, and benches based on hierarchy.** Bus stops should be classified into categories such as transit center, park and ride, premium stops, and regular stops. Not all bus stops warrant the same level of investment. Priority investment should be given to higher-use stops. Intercity Transit should also conduct analysis to ensure equitable investments are made in PTBA communities.

To improve capital facilities, it is recommended that Intercity Transit double spending on passenger capital facilities. The current 10-year budget calls for $130,000 per year in spending on bus stops and other capital facilities. Capital costs should be doubled from the existing budget, to $260,000 per year. There are no assumed operating costs for this program.

MOBILE TICKETING

During the public outreach process, many people suggested that Intercity Transit join the ORCA smartcard program. While adopting a smartcard or ORCA program presents several advantages for Intercity Transit and passengers, adopting a smartcard system would be expensive.

Adopting a smartcard program would have several advantages for Intercity Transit and passengers—these include facilitating interagency transfers, faster boarding times, and an option for stored-value. Despite these benefits, adoption of a smartcard or ORCA card presents numerous challenges. One significant challenge is the need for elaborate back-end systems to manage accounts and balances associated with smartcards to ensure a distribution network for loading/reloading. Farebox equipment may require retrofit or replacement to accept smartcard payments. Finally, fare reconciliation among participating agencies would require staff time and coordination.

Mobile ticketing is payment for transit using a smartphone. There are three methods for validating mobile tickets onboard buses—mobile flashpass, mobile validation, and mobile contactless. While not an option for every rider, mobile ticketing can be a convenient option for many riders and can help to attract millennials to the system. Customers can purchase fare products at any time, and any location. As mentioned previously, mobile ticketing can reduce cash payments, leading to faster boarding times and operational savings for the agency.

Mobile ticketing offers an increase in customer convenience over paper or smartcard payment system as well as potential operational savings for Intercity Transit. Smartphone payments eliminate the need for customers to procure and carry a physical fare payment media, may reduce delay in fare payment (by reducing cash in the system), and reduce the volume of passes that must be processed by the farebox (potentially lowering maintenance costs). Unlike other fare technology options, smartphone payments typically require users to have a linked credit card or banking account.

Mobile ticketing has many benefits, including system efficiency, passenger convenience, and long term operational and administrative cost savings. While payment via smartphone offers several advantages, mobile ticketing is not a viable option for all riders. Not all bus riders own a smart phone. In addition, the use of a mobile fare payment option relies on customers to enter their bank account information, credit card, or debit card information, which is not an option for customers who rely on cash or are unbanked. While this market share is growing, smartphone payment options only can serve as a supplement to an existing fare collection system.

Barriers to widespread adoption of mobile ticketing include:

- **Complexity:** Custom white label software with custom tie-in to back-end systems.
- **Cost:** Software development is never cheap.
- **Equity:** Many people are still cash dependent, lack smartphones or bankcards.
- **Politics:** Widespread adoption requires cooperation and leadership across various agencies and levels of government, including negotiating with labor unions.
- **Technology Failures:** Innovations may be prone to repeated maintenance.

Currently, several vendors exist that provide mobile ticketing technology including Token Transit, HopThru, Transit Go, Masabi, Moovel (formerly GlobeSherpa), and Unwire.

Recommendations

Implementation of mobile ticketing will require additional evaluation and is not included in this plan's final package of improvements. **It is recommended that Intercity Transit continue to evaluate opportunities to provide additional fare payment options to riders.**

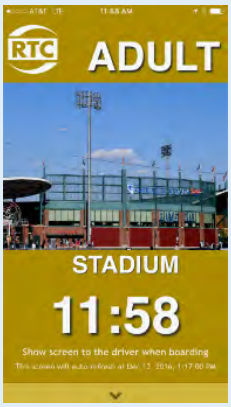
Implementation costs—both capital and ongoing operations—would vary depending on the type of mobile ticketing platform and level of integration with existing farebox technology.

On the operational side, some vendors charge a fee per transaction, for example, 10% of each sale, while others charge a hosting/maintenance fee (around $50-70,000 per year) that includes periodic updates and technical support.

On the capital side, some vendors do not charge for development of the initial mobile application while others may charge as much as $150,000 to develop a custom application. Installing new hardware can cost between $300 (Bluetooth beacons) to $14,000 (new fareboxes) per vehicle. Mobile ticketing that uses a flash pass option does not incur any hardware costs.

Case Study: Token Transit App (Reno, NV)

Smartphone payment app



RTC Ride is the public transportation system for the greater Reno/Sparks region of Nevada. In 2016, RTC Ride began offering a smartphone mobile app for fare payments. The agency did not want to invest in new equipment, but wanted to expand opportunities for customers to purchase and use fares. The flash pass feature on a smartphone is a relatively easy, low-cost solution, especially with increased growth in smartphone ownership.

The app was developed by Token Transit based in California. RTC Ride released a request for proposals to develop the app and considered bids from Xerox, Passport, and Masabi. Both Passport and Masabi include a fixed monthly cost if fare revenues fail to meet a certain level. Token Transit charges RTC Ride a fee for each transaction. Wrapped into the fee is the cost of developing the app. Token Transit also provides customer support for any issues with the app, such as a customer hitting the wrong fare product type. Token Transit partners with Stripe to handle payment details.

The app simulates the features of a ticket vending machine, and allows customers to purchase all fares and rider categories. Once purchased, the passes are saved in a 'wallet' within the app. The customer then clicks the pass to activate. The app allows the agency to send out alerts letting customers know about free ride days or other discounts. Passes can also be purchased for other people and sent to their smartphone using their phone number (the recipient must download the app). This feature has been used as a promotion for conference attendees in the region and by social service agencies for their clients.

Upon boarding, the driver visually validates the tickets. The tickets have three security features to prevent fraudulent use: an image that changes daily (highlighting local landmarks), a background color that changes daily, and a moving image that shows the current time.

Within six months after launching, the application was being used to pay fares on 5% of all trips, including all fare types and categories.

ALTERNATIVE OR 'PRE-PAID' FARE STRUCTURE

An alternative fare structure could include "pre-paid" transit that is funded by other means than collected fare.

Charging a fare—or not charging a fare—encompasses a wide range of costs and benefits. Some of the key benefits associated with collecting a fare include generating revenue, reducing reliance on federal and state funding, and supporting the perception that the public helps pay for public transportation services.

At the same time, there are costs associated with charging a fare. Operating fare free is less complex because it simplifies accounting systems and reduces the need for secure storage of cash; additionally, management and distribution of fare media are not required. Additional benefits include the potential for increased ridership and enhanced operating efficiency.

Success with alternative fare structures in Corvallis, Mason County, Chapel Hill, and Missoula indicate that pre-paid fares can be a transformative way to increase public transit use. Systems that operate alternative fare structures are seen as a community benefit, similar to libraries and parks. Finally, using a pre-paid format is a lower cost alternative to investments in smartcard or ORCA.

Alternative or 'pre-paid' fare structures have been seen in other systems to offer the following benefits:

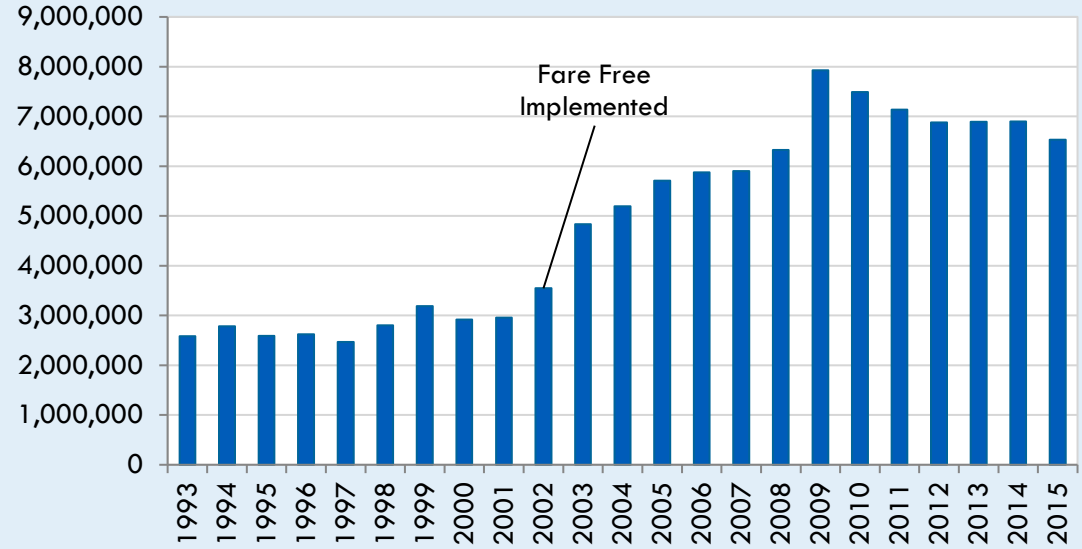
- Increase ridership between 30-40%; 'pre-paid' fares incentivize more people to try transit for more types of trip
- Improves speed and reliability; travel times can be improved by 3-7% due to reduced stop dwell times
- Reduces administrative costs of fare accounting and cash handling
- Eliminates cost to maintain, upgrade fareboxes; Intercity Transit spent $1.5M on fareboxes in 2017
- Reduces fare disputes between operators and passengers at the farebox
- Supports community livability and regional goals such as carbon reduction, less parking necessary, and enhanced community mobility, by encouraging increased transit use

Alternative Fare Structure Case Studies

Chapel Hill Transit (Chapel Hill, NC)

Chapel Hill Transit (CHT) transitioned from charging fares to operating fare free in 2002. Shortly after this change, annual ridership began to increase and ultimately grew from approximately 3.5 million to nearly 7 million between 2002 and 2012. CHT credits this growth—in part—to its decision to operate fare free. Chapel Hill's ridership increased dramatically between 2002 and 2003 when fare free was implemented, and continued to increase steadily in the years following the switch to fare free.

Figure 12-12 Chapel Hill Transit Ridership Trends (1995-2015)



Source: NTD 1993-2015

Missoula Urban Transportation District (Mountain Line), Missoula, MT

In January of 2015, all fares on Mountain Line were eliminated for a three-year Zero-fare demonstration project. Prior to the Zero-fare demonstration project, fixed-route regular fare was $1, and the agency contracted with University of Montana to provide free rides to students, faculty, and staff. Community investment from numerous partners, along with the City of Missoula, replaced the majority of fare revenue. The growing list of community partners includes public schools, senior services organizations, government organizations, downtown associations, and medical centers. After community investment replaced fare revenue, and fares were eliminated, ridership has increased about 30-40%. The agency continues to gather data and study the benefits and challenges of the Zero-fare demonstration project.

Case Study: Cache Valley Transit District, Logan, UT

The Cache Valley Transit District (CVTD) has operated a fare-free system for more than two decades in Logan, UT and the surrounding region. However, CVTD leadership faces some pressure from members of the public to charge a fare. Many of CVTD's riders are students at Utah State University and there is a perception by some community members that the public dollars used to fund transit are benefitting only a portion of the population. In 2014, CVTD considered proposing a tax increase to fund transit operations but ultimately decided not to put it on the ballot. Though not necessarily the determining factor in whether to put the tax levy on the ballot, the fare-free system was brought up by members of the public in opposition to the levy, arguing that CVTD should charge a fare before asking the community to contribute more tax dollars. Though public opposition to the fare free system has had some impact on CVTD's ability to be supported by the community, CVTD is overall an efficient and effective system, which may be related to the benefits of a fare free system.

Case Study: Corvallis Transit System, Corvallis, OR

Corvallis went fare free in 2011, resulting in a 43% increase in ridership within the first two months, with no increase in service hours. Oregon State University make up a large share of

system ridership. The idea was promoted by the Corvallis Sustainability Coalition as a strategy to make the city more livable. Farebox revenues were replaced by a city services fee to Corvallis Utility customers; Oregon law allows transit to be taxed and treated as a public utility.

Case Study: Capital Metropolitan Transit Authority, Austin, TX

In 1989-1990, Austin, Texas conducted a fare free demonstration study. The switch to fare free was credited with increasing ridership by 30-75%. The change also resulted in complaints of disruptive teenagers that led to onboard safety issues and driver dissatisfaction. The fare free experiment in Austin was ultimately cancelled for these reasons, despite its success in promoting ridership.

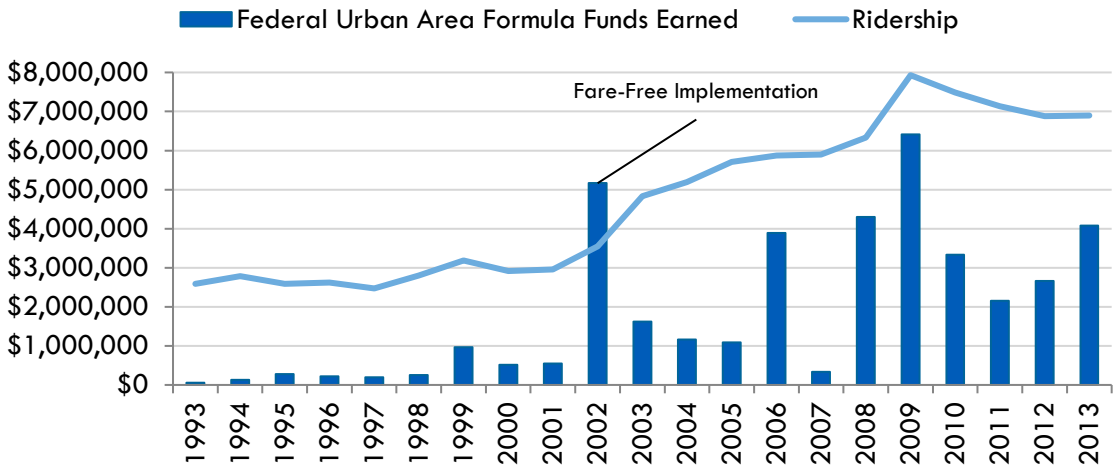
Paratransit and Fare Free Systems

Agencies studying going fare-free are often concerned that paratransit costs could increase due to increased demand for free service. By law, 100% of demand for paratransit service must be met, regardless of cost. In a fare-free system, this can result in high costs to the transit provider. Fare-free paratransit is attractive and can become costly to provide. Chapel Hill Transit implemented a systemwide fare free structure in 2002. Chapel Hill Transit experienced a 20% increase in demand response ridership from 2002 to 2003 when fare free was introduced. However, demand response ridership is currently declining—the trend shows a 0.6% average annual decline in demand response ridership from 2003 to 2015.

Federal Funds and Fare Free Systems

Moving to a fare free system has the potential to increase ridership, and in turn, increase federal funds. Chapel Hill went fare-free in 2002, resulting in a steep increase in both ridership and federal formula funds earned. However, federal formula funds reported to NTD have been uneven. Figure 12-13 shows 20-year trends in ridership and federal formula funds earned at Chapel Hill Transit.

Figure 12-13 Chapel Hill Transit Federal Formula Funds and Ridership Trends (1993-2003)



Recommendations

An alternative fare structure is the most cost effective mechanism to increase Intercity Transit's ridership by up to 40%. However, implementation of an alternative fare structure will require significant policy discussions and is therefore not included in this plan's final package of improvements. **It is recommended that Intercity Transit continue to evaluate opportunities to deploy an alternative fare structure in the future.**

Developing partnerships can help fund "pre-paid" transit. Partnerships with local jurisdictions, colleges, and major employers are a strategy to recoup lost farebox revenues.

It is anticipated that an alternative fare structure for Intercity Transit would result in between $1 and $2 million in lost cash revenues. Intercity Transit can regenerate these operating funds through partnerships with local jurisdictions, colleges, and large employers who will benefit from having this commute option. Additionally, there are significant capital cost savings each year in reduced maintenance and accounting. Currently, Intercity Transit spends $300,000 per year in annual farebox maintenance.

ALIGNMENT WITH GOALS AND DESIRED OUTCOMES

The long-range recommendations were reviewed to ensure alignment with Intercity Transit's established goals and desired outcomes, as summarized in Figure 12-14. The long-range recommendations either improve or align with these goals.

Figure 12-14 Long-Range Recommendations Alignment with Goals and Desired Outcomes

Goal	Long-Range Recommendation Impacts	
Improve Speed and Reliability: Make changes to speed up buses and ensure schedule adherence.	Recommendations will improve speed and reliability through increased frequency, longer service hours, schedule adjustments to keep buses running on time, and creating BRT corridors in high-volume areas.	✓
Match service levels to demand: Ensure services meet anticipated future demand, including for different time periods.	Recommendations include Innovative Service Zones to serve areas with on-demand transit service, and Night Owl Service to provide late-night transit options in downtown Olympia.	✓
Attract new riders and retain existing riders: Make changes that improve customer satisfaction and increase ridership.	Recommendations will improve customer experience by enhancing passenger facilities, providing a mobile ticketing option for passengers to pay their using a smartphone, and speed and reliability improvements.	✓
Evaluate additional funding opportunities: Look for innovative ways to fund operations in the future.	Recommendations include discussion of Alternative or 'Pre-paid' Fare Structure options for Intercity Transit.	✓
Provide service to growing areas: New services should be provided to new markets.	Recommendations include service to new and growing transit markets including: NE Lacey, Lacey to Yelm, and Late Night service.	✓

13 FUNDING STRATEGIES

Intercity Transit is currently funded through a combination of operating revenues, non-transportation revenues, local sources, and federal and state support. In 2018, of the agency's estimated $76 million in total revenue, 52% will come from sales tax, 40% from federal and state grants, 7% from operating revenue from passenger fares, vanpool, and advertising, and less than 1% from non-transportation revenue, such as contracts with local jurisdictions.[1]

In order to fund continued service expansion, Intercity Transit can use a variety of funding strategies to build stable revenue sources for the future. No strategy should be seen as a cure-all and these are best utilized in combination with one another. This chapter provides brief summaries of potential capital funding sources, including existing sources, and gives examples of how other agencies have leveraged various sources to fund transit projects.

FUNDING CATEGORIES

The funding strategies outlined in this chapter can be grouped into three categories: local, state and federal, and private sources. Intercity Transit uses some form of each of them and can enhance its revenue potential by capturing increasing value from both public and private sources.

LOCAL SOURCES

Local revenues can be used to fund operating costs or as a revenue stream to back municipal bonds, federal financing, or private investments in capital projects.

Local Option Sales Tax. Over half of Intercity Transit's revenues come from local sales tax. Thurston County's local sales tax option for public transportation is 0.8% out of a total approved state limit of 0.9%. With the passage of the State legislature bill to increase the Thurston County local sales tax option to 1.2%, Intercity Transit has the potential to earn 50% more sales tax revenue with a voter approved increase.[2] Voters last approved a sales tax increase of 0.2% in 2010. Community Transit was granted a similar sales tax carve out in 2016 and leveraged a public approved tax increase with plans to add significant service to SWIFT bus rapid transit projects.[3]

State and Local User Fees. Some states and localities raise revenue by charging road users who contribute to congestion. These user fees include motor vehicle fuel/gas taxes, road tolls, vehicle miles travelled (VMT) fees, parking taxes or parking benefit districts, and vehicle

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[1] Intercity Transit Authority, 2018 Budget, December 2017, https://www.intercitytransit.com/sites/default/files/2018-budget.pdf

[2] Washington State Legislature, SB 5288, March 2018

[3] Community Transit, Transit Expansion Continues in 2017 Proposed Budget, November 2017, https://www.communitytransit.org/news/news-releases/community-transit-news/2017/11/04/transit-expansion-continues-in-2017-proposed-budget

registration fees and excise taxes. These types of fees can be politically unpopular, but have the benefit of managing travel demand along the congested I-5 corridor and directing travelers towards transit. King County Metro and Sound Transit have both benefited from local vehicle registration fees. Road and bridge toll facilities have been gaining traction as a viable funding solution in the Puget Sound Region, including tolled high-occupancy vehicle (HOV) lanes, or high-occupancy toll (HOT) lanes. Additionally, Washington State has been exploring the feasibility of a road usage charge since 2012.[4]

FEDERAL AND STATE SOURCES

Federal and state governments provide a variety of resources that can be leveraged to fund transit projects, including grants and loans. Resources are limited and as a result, many programs are competitive and require proof of additional funding sources.

Transportation Infrastructure Finance and Innovation Act (TIFIA) Credit Program. The U.S. Department of Transportation (USDOT) provides federal secured loans, loan guarantees, and lines of credit to national and regionally significant surface transportation projects, including bus and rail transit, as well as transit-oriented development and local infrastructure projects. These loans must be paired with a dedicated funding stream such as sales tax or toll revenue.[5]

New Starts and Small Starts Grant Programs. These are Federal Transit Administration programs for funding major transit capital projects, including bus rapid transit. The funding is discretionary, meaning agencies must complete a series of steps over several years to be eligible for funding. New Starts funding is available for projects that will cost $300 million or more that are seeking $100 million or more in funding. Small Starts funding is available for projects that cost less than $300 and are seeking less than $100 in funds.[6]

Transportation Investment Generating Economic Recovery (TIGER) Grant Program. This discretionary USDOT program provides funding for road, rail, transit, and port projects. Funding varies annually based on congressional allocations, and grants are awarded on a competitive basis.[7]

State Loans and Grants. The State of Washington has resources for funding public infrastructure projects. The Community Economic Revitalization Board (CERB) Program makes loans and some grants to finance public infrastructure improvements that encourage new business development and expansion in areas seeking economic growth. The Public Works Assistance Account Programs makes loans for local infrastructure improvements. The Transportation State Infrastructure Bank provides low interest loans for transportation projects.[8]

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[4] Washington State Transportation Commission, Road Usage Charge Assessment, March 2017, http://wstc.wa.gov/StudiesSurveys/RoadUsage/RUC2013/default.htm

[5] U.S. Department of Transportation, Build America Bureau, TIFIA Credit Program Overview, January 2017, https://www.transportation.gov/tifia/tifia-credit-program-overview

[6] Federal Transit Administration, Capital Investment Program, February 2017, https://www.transit.dot.gov/funding/grant-programs/capital-investments/about-program

[7] U.S. Department of Transportation, TIGER Discretionary Grants, March 2018, https://www.transportation.gov/tiger

[8] Existing Washington State Infrastructure Financing Programs Appropriated in the 2011-13 Capital and Transportation Budgets, http://leg.wa.gov/JointCommittees/Archive/IFTF/Documents/2011Nov17/1cMatrix.pdf

PRIVATE SOURCES

Agencies around the county have been developing strategies to fund transit projects using innovative funding strategies outside of traditional public funds. The value of high quality transit is shared by all and by engaging private dollars, public agencies are passing on some of the financial responsibility to the beneficiaries.

Value Capture. Mechanisms can be put in place around high demand transit corridors to share transit costs with property owners that will benefit from proximity to the transit resource. Value capture tools can include special improvement districts around transit, tax increment financing to capture land value increase from transit investment, or development impact fees. When done successfully, value capture can fund 20%-50% of a project's capital costs and supplement traditional funding sources. A special assessment district around the South Lake Union streetcar project in Seattle produced $25 million of the $53 million needed for the project. [9]

Public-Private Partnerships. A public-private partnership is a mutually beneficial agreement between public and private entities that seek to improve the value of an asset. These partnerships allow public agencies to transfer some of the financial risk of building, maintaining, and/or operating infrastructure to public investors. With public sector funds in short supply, P3s are an alternative funding source that may also improve efficiency and innovation in design and construction.[10] Washington State has legislation that makes all transportation projects eligible for development as a P3, with restrictions on tolled facilities.[11] Sound Transit is considering using P3s for bus rapid transit projects by privatizing the building, operating, and maintenance of parking facilities along major corridors.[12]

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[9] Adeel Lari, David Levinson, and Zhirong Zhao, et al., Value Capture for Transportation Finance: Technical Research Report, Center for Transportation Studies, University of Minnesota, June 2009, http://www.cts.umn.edu/research/featured/value-capture.

[10] Bipartisan Policy Center, Bridging the Gap Together: A New Model to Modernize U.S. Infrastructure, May 2016, https://bipartisanpolicy.org/library/modernize-infrastructure/

[11] Washington State Joint Transportation Committee, Evaluation of Public Private Partnerships, January 2012, http://leg.wa.gov/JTC/Documents/Studies/P3/P3FinalReport_Jan2012Web.pdf

[12] Seattle Transit Blog, ST Explores Private-Public Partnerships, February 2018, https://seattletransitblog.com/2018/02/09/st-explores-private-public-partnerships/

14 FINANCIAL PLAN

Over half of Intercity Transit's revenues come from local sales tax. Thurston County's local sales tax option for public transportation is currently 0.8% out of a total approved state limit of up to 1.2%. With the passage of the State legislature bill 5288 in March 2018, Intercity Transit has the potential to increase the percentage of sales tax revenues by up to 0.4% with a voter-approved increase. The following chapter details packages of service improvements that can be implemented under two future funding scenarios—a Service Reduction Scenario and an Expanded Service Scenario—depending on the results of a voter initiative in fall 2018.

FINANCIAL FORECAST ASSUMPTIONS

Intercity Transit's 2019 to 2035 Strategic Plan/Financial Forecast Base Model was used to estimate whether long-range recommendations would result in a sustainable budget through the year 2035. Intercity Transit provided an estimate for available funding should the sales tax be increased by 0.4%. Sales tax revenues are anticipated to increase 3% each year, and an inflation rate of 3.5% has been applied to all costs starting at 2018.

Assumptions regarding bus replacement costs have a large influence on whether or not Intercity Transit's budget is sustainable through 2035. Two assumptions in the current budget have significant impacts in future years:

(1) Intercity Transit is budgeting for new technology buses, such as electric or hybrid vehicles, that cost an additional $400,000 apiece more than a conventional bus.

(2) The budget assumes 50% federal funding for bus purchases for 2020 and beyond. This reflects the uncertainty in federal capital programming, but the impacts of this assumption are significant. In the recent past, up to 80% of the cost of bus purchases was matched by the federal government.

Buses are programmed for replacement about every 12 years. In 2022 and in 2034, 29 buses require replacement, and the capital outlays associated with replacement are the primary reason that longer-term budgets are not sustainable without additional revenue. Any local or federal grants for bus purchases that become available will have a significant impact on the long-term sustainability of the budget.

Alternatives to Capital Acquisition

An alternative to capital acquisition of new buses to lease new vehicles. Although vehicle leasing reduces large capital outlays in a single year, it is not a standard industry practice as it typically results in higher long-term costs to the agency.

One emerging financing option is leasing electric and hybrid buses directly from the manufacturer. The cost to purchase an electric vehicle is typically prohibitively expensive for U.S. transit agencies. Leasing an electric vehicle and/or the battery is a potentially more cost-effective option that protects the agency's investment as new technologies hit the market. Additionally, greater use of electric or hybrid buses can help Intercity Transit meet environmental goals.

Compliance with FTA requirements regarding spare requirements and fleet maintenance should be taken into consideration when evaluating the option to lease new buses.

LONG-RANGE FUNDING AND SERVICE SCENARIOS

Service Reduction Scenario – No Net Revenue Increase

With no increase in local sales tax funding, Intercity Transit's sales tax share remains at 0.8%. Without new revenue, given the assumptions detailed above, service demands will outpace revenues by 2022. In the Service Reduction Scenario, Intercity Transit may need to allow public transportation service levels to shrink in the face of increasing growth and congestion, which increase operating costs.

Service Reduction Strategies

In the Service Reduction Scenario, Intercity Transit would need to reduce service in order to maintain financial sustainability. Several strategies are available to Intercity Transit when considering service reductions. Two potential examples are outlined below.

- **Focus on weekday coverage**. The first strategy is to maintain weekday coverage. No changes would be made to weekday service, but Saturday and Sunday service would be eliminated. This strategy would result in high impacts to existing riders.
- **Focus on productivity**. A second strategy is to focus on productivity. This would mean evaluating routes and eliminating or reducing service on the least productive routes. This strategy would result in lesser impacts to existing riders.

Regardless of the strategy chosen, Intercity Transit would follow the Service Reduction Guidelines outlined in the following section.

Service Reduction Guidelines

Should service reductions be needed, Intercity Transit would refer to the following guidelines to determine what services to cut should service reductions be needed.

- **Maintain system integrity and core.** Intercity Transit should take into consideration the system's overall integrity when considering what services to cut. Retaining the transit system's core routes and maintaining mobility throughout the four-city PTBA as much as possible are priorities.

- **Seek to minimize impacts to existing riders.** The number of riders negatively affected by a proposed service reduction should be taken into consideration. Intercity Transit should seek to make service reductions that harm the least number of riders.
- **Focus on productivity and cost metrics.** Any service reductions should take into account productivity—the number of passengers riding a given route per hour of service—and cost metrics—the operating expense per trip. This focus will allow Intercity Transit to make cuts that make the most sense financially.
- **Maintain coverage.** When considering service reductions, Intercity Transit should weigh the benefits and drawbacks of maintaining service where it exists today.
- **Social equity.** Prior to implementing any service reductions, Intercity Transit would be required to conduct Title VI equity analysis in accordance with Federal Transit Administration guidelines. This analysis ensures that negative impacts of the service reduction on vulnerable populations have been taken into consideration and mitigated where warranted.
- **Existing partnerships**. In some cases, partnerships with local colleges or institutions provide funding for services. Intercity Transit should seek to continue these valuable partnerships when considering a service reduction.

Timing of Reductions

The size of service reductions would depend on when they are implemented and on federal capital matching grant assumptions. Service reductions can be smaller, with fewer impacts, if implemented earlier. For example, if service reductions were to be made in 2019, roughly 38,000 annual service hours would need to be cut in order to maintain a sustainable budget. If service reductions were made the following year, the number of hours that would need to be cut increases to 50,000. It is therefore recommended that service cuts be implemented as early as possible.

Expanded Service Scenario

With the passage of the State legislature bill 5288 in March 2018, Intercity Transit has the potential to increase the percentage of sales tax revenues from 0.8% to 1.2% with a voter-approved increase. In this scenario, the revenue stream is commensurate with the maximum approved state limit of 1.2%. The funding increase would provide sufficient revenue to enable Intercity Transit to implement a long-range vision that enhances regional mobility.

With an additional 0.4% in sales tax funding starting in 2020, Intercity Transit can implement the following long-range service improvements:

Improve Span and Frequency

Provide critical service improvements and meet customer demand by improving span and frequency on all routes.

Provide Service to New Areas

Provide expanded service to new areas including NE Lacey and Yelm, and implement a new Night Owl flex service.

Enhance Commuter Service

Provide enhanced commuter service along the I-5 corridor.

Bus Rapid Transit

Provide bus rapid transit along Martin Way.

Enhance Capital Facilities Program

Implement an enhanced capital facilities program to improve customer experience and access.

Provide Innovative Service Zones

Implement up to three innovative service zones to match demand with service in low-ridership or emerging areas throughout the PTBA.

Keep Buses On Time

Budget for annual schedule maintenance to keep buses running on time.

EXPANDED SERVICE SCENARIO COSTS DETAIL

Figure 14-1 details the estimated operating and capital costs, in 2018 dollars, of the Expanded Service Scenario.

Figure 14-1 Long-Range Service Improvements Cost Detail

Service Improvement	Service Hours Increase	Estimated Annual Operating Costs (2018 dollars)	Estimated Implementation Year Capital Costs (2018 dollars)	Estimated Annual Capital Costs (2018 dollars)
Bus Rapid Transit	22,600	$2,500,000	$13,000,000	$470,000
Improved Frequency of Service	40,500	$4,500,000	$1,400,000	$117,000
Improved Span of Service	14,800	$1,650,000	$0	$0
Keep Buses On Time	--	$210,000	$0	$0
Expand Service to NE Lacey	6,300	$700,000	$1,400,000	$117,000
Limited Express Service to Yelm	3,600	$400,000	$1,400,000	$117,000
Innovative Service Zones	--	$1,500,000	$0	$0
Night Owl Service	3.600	$400,000	$0	$0
Enhanced Commuter Service	9,200	$1,000,000	$3,000,000	$250,000
Enhanced Capital Facilities Program	--	$0	$260,000	$260,000

IMPLEMENTATION SCHEDULE

If approved by Thurston County voters in November 2018, Intercity Transit would receive new sales tax revenues starting in 2019. Improvements could begin to be implemented in March 2019, and continue through 2026. The implementation schedule shown below is subject to change based upon any changes to the following factors:

- Up to 2 year delivery time for any new buses
- Operator training lead times
- Cash flow
- Planning/Operations staff availability for big service changes

The following table outlines a potential implementation schedule by year for service improvements in the Expanded Service Scenario.

Figure 14-2 Long-Range Service Improvements Implementation Schedule

Year	Recommended Start
2019	▪ Improve Span of Service ▪ Keep Buses On Time (Schedule Maintenance)
2020	▪ Improve Frequency of Service ▪ Expand Service to NE Lacey ▪ Enhance Capital Facilities Program
2021	▪ Innovative Service Zones (first zone) ▪ Night Owl Service
2022	▪ Limited Express Service to Yelm ▪ Enhance Commuter Service
2023	▪ Innovative Service Zones (second zone)
2026	▪ Innovative Service Zones (third zone) ▪ Bus Rapid Transit

FINANCIAL SUSTAINABILITY

The Expanded Service Scenario would result in a sustainable budget through the year 2034. In 2034, significant capital expenditures related to bus replacement are planned that will require additional funding sources. As discussed earlier, assumptions regarding bus replacement costs have a large influence on whether or not Intercity Transit's budget is sustainable through 2035. The data shown in Figure 14-3 reflects new technology buses post-2020 and also assumes a 50% federal match on bus replacement. Any changes to the assumptions regarding vehicle type, pricing, or federal funding change will have a large impact on the long-term viability of the budget.

Figure 14-3 provides a detailed financial forecast for 2019 through 2035, including the operating and capital costs of implementing long-range improvements according to the implementation schedule shown above.

Figure 14-3 Intercity Transit 2018 to 2035 Financial Forecast with Long-Range Transit Plan Capital and Operating Costs

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Starting Cash	55,391,905	39,520,413	29,581,077	24,094,593	34,531,226	29,686,312	42,121,252	49,964,098	41,418,124	40,022,539	41,318,797	43,556,524	40,396,000	37,987,713	47,106,636	33,506,912	28,068,894	(5,577,962)
Total Revenues	63,500,619	63,040,165	80,850,331	76,301,196	77,759,419	79,793,570	81,896,913	84,060,315	86,279,742	88,568,878	90,927,469	93,356,672	95,855,410	114,428,917	101,134,800	103,858,223	106,666,983	109,548,110
Operating Revenues	49,083,932	50,263,365	70,854,256	72,627,196	74,085,419	76,119,570	78,222,913	80,386,315	82,605,742	84,894,878	87,253,469	89,682,672	92,181,410	94,754,917	97,410,800	100,134,223	102,942,983	105,824,110
Capital Revenues	14,416,687	12,776,800	9,996,075	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	3,674,000	19,674,000	3,724,000	3,724,000	3,724,000	3,724,000
Total Costs	79,372,111	72,979,501	86,336,814	65,864,563	82,604,334	67,358,630	74,054,066	92,606,289	87,675,327	87,272,620	88,689,742	96,517,196	98,263,698	105,309,994	114,734,524	109,296,241	140,313,839	126,648,160
Operating Costs	41,919,659	43,990,713	45,839,771	47,855,562	49,815,026	51,972,573	54,353,301	56,873,027	59,542,294	62,372,490	65,375,878	68,566,231	71,958,169	75,568,021	79,413,382	83,513,359	87,889,040	92,563,370
Capital Costs	37,452,452	24,590,022	32,468,102	5,897,566	21,304,013	2,902,865	6,777,853	5,815,330	9,718,160	5,837,005	3,579,427	7,521,312	5,155,878	7,846,628	12,653,457	2,315,226	28,128,511	8,930,141
LRTP Capital and Operating Costs	--	4,398,766	8,028,942	12,111,435	11,485,294	12,483,192	12,922,913	29,917,932	18,414,873	19,063,125	19,734,436	20,429,652	21,149,651	21,895,345	22,667,685	23,467,656	24,296,288	25,154,649
Ending Cash	39,520,413	29,581,077	24,094,593	34,531,226	29,686,312	42,121,252	49,964,098	41,418,124	40,022,539	41,318,797	43,556,524	40,396,000	37,987,713	47,106,636	33,506,912	28,068,894	(5,577,962)	(22,678,011)