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Yamhill County Transit Area Transit Development Plan

Volume I

October 2018



**Yamhill County
Transit Area**

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1 INTRODUCTION

Yamhill County residents, employees, and visitors have at their fingertips an extensive transit network linking communities within the county and across the region. The Yamhill County Transit Area (YCTA) operates bus service in 10 cities across Yamhill County and connects riders to regional destinations including Grand Ronde, Hillsboro, Tigard, and Salem. YCTA carries 300,000 trips per year on a combination of fixed-route, intercity, and demand-response service.

Stakeholders and the public generally agree that YCTA routes do a good job of serving existing population and job centers and travel patterns. Yet there are several areas where the existing system falls short, including:

- **Frequency:** There are long gaps in service on some of the intercity routes connecting Yamhill County cities.
- **Reliability:** Some routes do not have enough time in their schedules to account for traffic congestion and frequent stops to pick up passengers, including service along OR 99W and local routes in McMinnville and Newberg. This results in buses that run significantly behind schedule or miss timed transfers.
- **Comfort:** A number of vehicles in YCTA's bus fleet are beyond the end of their useful life and need to be replaced.
- **Branding:** Buses and other transit infrastructure lack a consistent brand (or look) to identify them as part of YCTA service.
- **Legibility:** It is hard for people, especially potential new riders, to understand how the system works or where transit runs given the lack of marked bus stops in McMinnville and Newberg
- **Service diversity:** YCTA's intercity routes stop at a few places in smaller cities like Sheridan and Yamhill, but Yamhill County's smaller cities would benefit from more flexible and accessible transit services.

Ridership on most YCTA routes is reasonably strong relative to the amount of service provided, but these issues are keeping the system from attracting more riders and raising its profile within the community.

YCTA developed this Transit Development Plan (TDP) to provide strategic guidance over a 20-year planning period for a sustainable and innovative transit system to serve urban and rural areas in Yamhill County. The TDP will also serve as the basis for the transit element of local transportation system plans (TSPs) adopted by jurisdictions within the YCTA service area.

The overall desired outcome for the TDP is to provide a convenient system that offers seamless travel options for residents, employees, and out-of-area visitors. Other outcomes for the TDP are to:

- Meet needs expected from future regional growth and tourism
- Optimize and/or reorganize existing service
- Enhance physical transit infrastructure
- Provide revenue-neutral and increased funding scenarios
- Promote a full range of transportation options
- Identify transit-supportive land use policies and provide guidance for local jurisdictions

- Improve integration and coordination of urban and rural services, including with the Northwest Oregon Transit Alliance (NW Connector) and other YCTA partners
- Preserve function of state highways by expanding regional transit and reducing single-occupant vehicle travel

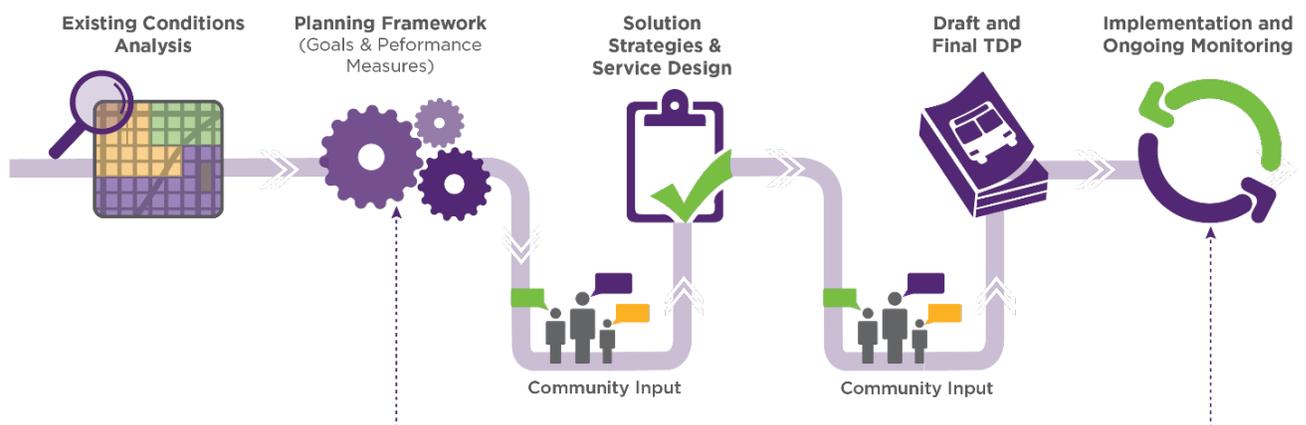
Creation of this TDP comes at an exciting time for public transportation in Oregon. The State Legislature enacted a statewide transportation funding package in 2017 (Statewide Transportation Improvement Fund, or STIF) that is expected provide YCTA with more than \$1.0 million in new annual revenues starting in 2020. While this new funding source is not sufficient to address all of the enhancements identified in the TDP planning process, the STIF will provide YCTA with an opportunity to address many of its most critical infrastructure and service needs. The TDP includes cost-neutral or low-cost changes that can happen in the next 1-2 years and short-, medium-, and long-term changes to make transit in Yamhill County more convenient, reliable, and connected.

PLANNING PROCESS

Creating an implementable TDP required both technical analysis as well as continual input from the community and stakeholders. Figure 1-1 illustrates how the various phases of the project fit together. The process included:

- Assessing **existing conditions** related to usage of the current transit system, community demographics and travel patterns, and future transportation needs.
- Creating a **planning framework** with goals and objectives used to assess service strategies.
- Gathering **community input** at multiple points in the process, which provided insights into existing issues and feedback on service opportunities.
- **Developing service strategies** that meet the transportation needs identified through existing conditions analysis and community input. These strategies were refined and turned into a service plan covering all aspects of the system from routing and schedules to fleet, technology, system management, and fares.
- Distilling findings into a **TDP document**, reflecting the preferred vision for transit in Yamhill County and providing a phased approach for implementing the vision.
- Establishing a **performance monitoring program** based on peer analysis and industry standards to set performance measure benchmarks for YCTA to use in regularly assessing system and route-level progress.

Figure 1-1 TDP Process



TDP OUTLINE

The TDP includes 11 chapters and seven appendices. Technical memorandums produced throughout the project include additional detail and are included in TDP Volume II for reference.

TDP Volume I Chapter	TDP Volume I Appendices	TDP Volume II
1. Introduction		
2. Yamhill County Characteristics and Trends		Section 2 - TM #2: Existing Conditions Section 3 - TM #3: Planning Framework
3. Existing Transit Service	Appendix A: Fleet Inventory Appendix B: Public Transportation Providers	Section 2 - TM #2: Existing Conditions
4. Community Input and Needs Assessment		Section 2 - TM #2: Existing Conditions
5. Transit Goals and Objectives		Section 1 - TM #1: Goals and Objectives
6. Service Plan	Appendix C: Bus Stop Design Guidelines Appendix D: Service Design Details	Section 4 - TM #4: Solution Strategies Section 5 - TM #5: Service Design
7. Capital Plan		Section 5 - TM #5: Service Design
8. Financial Plan	Appendix E: Public Transportation Funding Sources	Section 5 - TM #5: Service Design
9. Supporting Programs and Technology	Appendix F: Supporting Programs Details	Section 4 - TM #4: Solution Strategies
10. Supporting Public Transit with Local Land Use Policies	Appendix G: Detailed Land Use Policy Assessment and Sample Code Language	
11. Performance Standards		Section 2 - TM #2: Existing Conditions
		Section 6 – Advisory Committee Meeting Notes

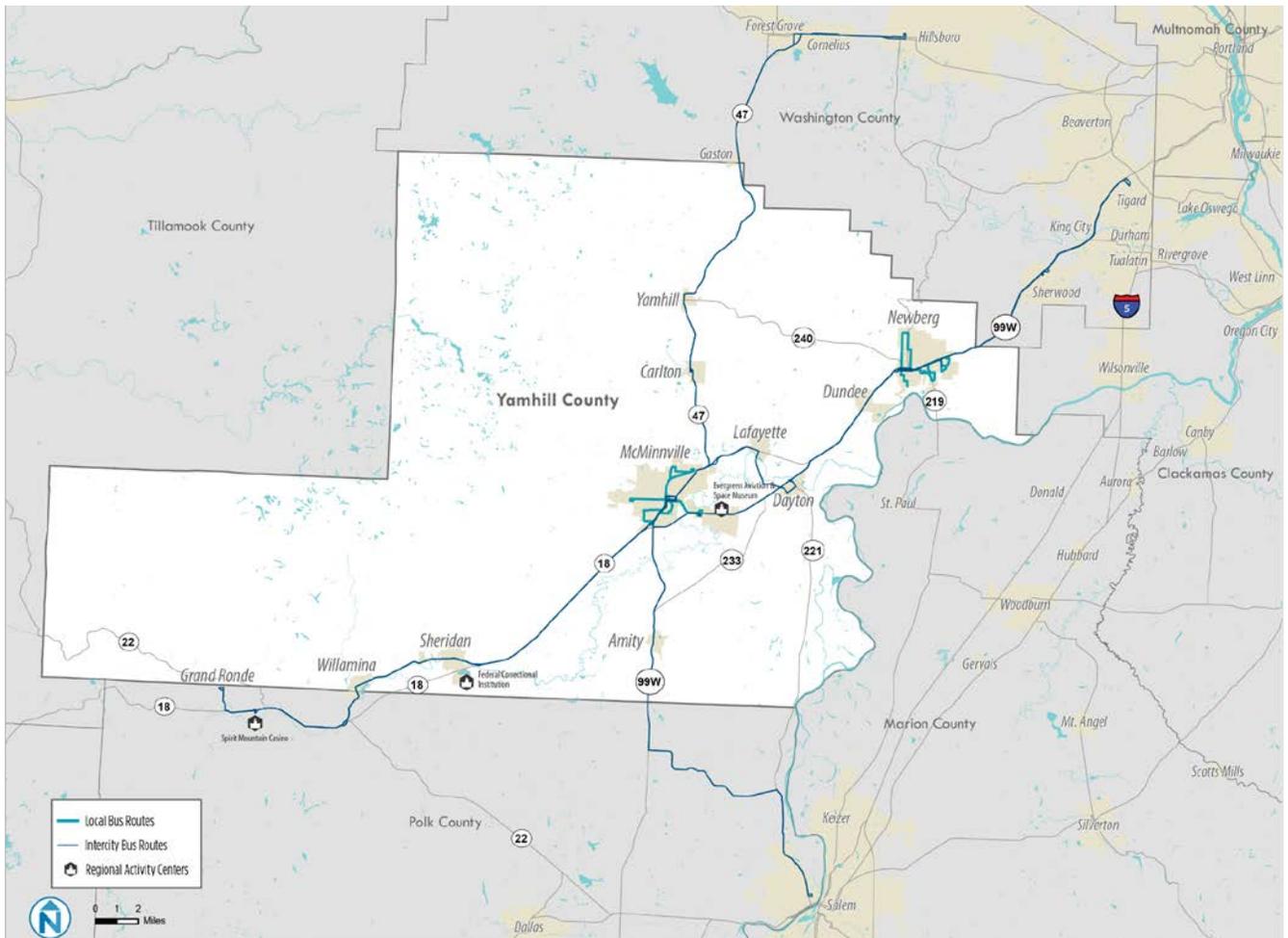
2 YAMHILL COUNTY CHARACTERISTICS AND TRENDS

YAMHILL COUNTY OVERVIEW

Yamhill County is located in the Willamette Valley in northwestern Oregon. It is bordered by Tillamook County to the west, Washington County to the north, Clackamas and Marion Counties to the east, and Polk County to the south. Yamhill County’s eastern border with Marion County is shaped by the Willamette River. McMinnville, the county seat, and Newberg are the largest cities in the county. There are eight additional incorporated cities, all in the eastern portion of the county. The Grand Ronde Community reservation is located in the southwestern part of the county, and the Siuslaw National Forest covers approximately 39 square miles in the far southwestern portion of Yamhill County.

The county measures 718 square miles, and is home to approximately 104,990 residents. The county has an average population density of 146 people per square mile.

Figure 2-1 Yamhill County Overview and Regional Context



TRANSPORTATION SYSTEM OVERVIEW

Roadways

Yamhill County’s existing roadway network includes 117 miles of state highways and 210 miles of county roadways classified as minor collector or above. Outside of cities, the majority of highways in Yamhill County are two-lane roads, with additional through lanes at some locations along OR 99W and OR 18.

The main routes connecting Yamhill County communities and providing connections outside Yamhill County include:

- **OR 99W** connecting I-5 in Portland with Tualatin, Tigard, Sherwood, Newberg, McMinnville, and Corvallis. OR 99W serves as a business route through Newberg and McMinnville.
- **OR 18** connecting OR 99W near Dayton with McMinnville, Sheridan, Willamina, Grand Ronde, and US 101 north of Lincoln City. OR 18 serves as a bypass route south of McMinnville. A business loop serves Willamina and Sheridan. OR 18 overlaps with OR 22 between Valley Junction (east of Grand Ronde) and Willamina.
- **OR 22** connecting Salem, Grand Ronde, and US 101.
- **OR 47** connecting OR 99W in McMinnville with Carlton, Yamhill, Cove Orchard, Gaston, Forest Grove, and Hillsboro.

There is significant commute traffic between the incorporated areas of the County, including McMinnville and Newberg, and the Portland and Salem areas. The primary commute routes are OR 99W, OR 47, OR 221 (connecting Dayton and Salem), and OR 18. For recreational travel, OR 99W and OR 18 are one of the primary connections between the Portland metropolitan area and the Oregon coast.¹

In general, non-seasonal congestion is not a problem on most state highways and county roads in Yamhill County. A few locations, however, do not meet ODOT’s mobility targets reflecting the maximum congestion that should occur on county roads and state highways. These congested locations include:²

- OR 99W between Newberg and Dundee and between Dundee and OR 18, which affects YCTA Routes 44, 45x, and 46s (McMinnville – Tigard). Traffic conditions on OR 99W in Newberg in 2017 reflected construction activity for the the nearly 4-mile Dundee Bypass, opened in late 2017. The bypass connects the eastern end of Newberg (Springbrook Road) and the western end of Dundee and is accessed via Springbrook Road between OR 99W and OR 219. Based on traffic data from the first half of 2018 after the bypass opened, it has reduced delay on OR 99W through Newberg.

Most intersections operate with acceptable levels of delay. Two exceptions applicable to YCTA are:³

- OR 18/OR 154 (Lafayette Highway), used by YCTA Route 44 between Lafayette and Dayton
- OR 99W/OR 47, used by YCTA Route 33 between McMinnville and Hillsboro

According to the 2015 Yamhill County Transportation System Plan (TSP), future traffic volumes on state highways are expected to increase approximately 1.9% per year, and by approximately 0.6% per year on county roads. The highest volumes of future traffic are expected to be on OR 99W and OR 18, and the highest growth rates are anticipated to be on OR 219 and OR 18. Portions of these roadways, which are used by YCTA intercity transit routes, are expected to exceed mobility targets.

¹ Yamhill County Transportation System Plan, 2015

² Yamhill County Transportation System Plan, 2015

³ Yamhill County Transportation System Plan, 2015

Transit Network

YCTA operates four intercity routes on set schedules and alignments connecting Yamhill County cities along OR 99W, OR 18, and OR 47 and providing connections to Tigard, Salem, Grand Ronde, and Hillsboro. Connections to other locations in the Portland region are available in Tigard and Hillsboro with a transfer to TriMet bus and rail services. YCTA routes run on weekdays only, with the exception of two routes serving the OR 18 and OR 99W corridors connecting Grand Ronde, McMinnville, Newberg, and Tigard, which also run on Saturdays. YCTA intercity routes make limited stops within cities. Local fixed-route service provides circulation within McMinnville and Newberg, along with demand-response service that provides shared rides with advance reservations during the same days and hours as local fixed-route service. There is limited local service in the smaller cities in Yamhill County. Chapter 3 provides additional detail on transit service.

Bicycle Network

The majority of dedicated bicycle lanes in Yamhill County are located within McMinnville and Newberg.

McMinnville’s bicycle network includes a combination of bike lanes and shoulder lanes. Shoulder lanes are available on many streets throughout the central business district and connect to bike lanes extending out of downtown on OR 99W, Lafayette Avenue, Riverside Drive, a section of Three Mile Lane’s west end, OR 18, 2nd Street, Cypress Street, and Baker Creek Road. In addition, some shared use pathways connect north and south of 2nd Street on the west side of McMinnville.⁴

Newberg’s bicycle network includes bike lanes on many city streets, including bike lanes along OR 99W through most of the city. Overall, bike lanes are concentrated near newer commercial and residential developments. In addition, there are several local and minor collector streets with bicycle route designations. These include signed shared roadways in the neighborhood just south of downtown, a bike boulevard (including pavement markings and/or bike route signage, and wayfinding signage) from Springbrook/Haworth to Ewing Young Park, and on Meridian to Joan Austin Elementary (using Crestview and Center).⁵

Nearly all bicycle facilities in rural areas of Yamhill County are either shoulder bikeways or shared roadways. OR 99W provides a paved shoulder lane for most of its route between Newberg and Sherwood.⁶ On lower-speed roadways, bikes and cars share a travel lane. There are no shared-use paths in the rural areas of the county at this time.

Significant Planned/Proposed Bicycle Facilities

The 17-mile Yamhelas Westsider Trail, which would link the cities of Gaston, Yamhill and Carlton, is a project in the Yamhill County TSP. The planned trail would run parallel to OR 47 from OR 99W to Gaston, and tie into the Banks-Vernonia trail, connecting to Forest Grove and Hagg Lake. There are potential connections to YCTA Route 33, which runs along OR 47 with stops in Gaston, Yamhill, and Carlton, or Route 44 in Lafayette.

Proposed Yamhelas Westsider Trail



Source: <http://yamhelaswestsidertrail.com>

⁴ McMinnville Transportation System Plan, 2010

⁵ Newberg Transportation System Plan, 2016

⁶ Google Maps Bicycling, Yamhill County, OR. <https://goo.gl/maps/hUyu9DDpgvN2>

MARKET ANALYSIS

Current Population and Trends

Current and future population and employment trends in communities across Yamhill County indicate where the greatest transit demand is likely to be today and in the future. Figure 2-2 provides current population (2017) and growth forecasts through 2035 for cities in Yamhill County and the resulting population densities. A total of 108,144 people live in Yamhill County (2017), with the highest population density located along the OR 99W / OR 18 corridor. Yamhill County is forecasted to grow by approximately 27% by 2035—an increase of over 28,000 new residents. Just over three-quarters of the population lives within urban growth boundaries (UGBs) today and this share is projected to increase, with 87% of growth projected to occur within UGBs.

McMinnville and Newberg, the county’s two most populous cities, contain 54% of the county population; each city is forecasted to gain more than 9,000 new residents over the 18-year period, nearly 70% of the total growth that is forecasted for the County. This represents an increase of 30% for McMinnville and 40% for Newberg. The population density in is expected to reach 6 persons per acre in McMinnville and 8 persons per acre in Newberg.

Among smaller cities, Lafayette, and Dundee are projected to grow by about 40% and Carlton is projected to grow by 35%. Lafayette has the highest average population density today, with over 7 persons per acre today, and is projected to increase to 10 people per acre by 2035.

Figure 2-2 Future Population Forecasts (within Urban Growth Boundaries), 2017-2035

Jurisdiction (UGBs)	Population, 2017	Population, 2035	Change in Population, 2017-2035	% Change, 2017-2035	Share of Growth, 2035	Density, 2017 (Pop/Acre)	Density, 2035 (Pop/Acre)
Yamhill County Service Area ^{B,C}	108,144	136,836	28,692	27%	100%	0.24	0.30
Within UGBs	82,976	107,955	24,979	30%	87%	4.6	6.0
McMinnville UGB	34,293	44,122	9,829	29%	34%	4.6	5.9
Newberg UGB ^A	24,296	34,021 ^A	9,725	40%	34%	5.4	7.6
Sheridan UGB ^B	6,340	6,893	553	9%	2%	4.0	4.4
Lafayette UGB	4,083	5,717	1,634	40%	6%	7.4	10.3
Dundee UGB	3,243	4,570	1,327	41%	5%	4.2	6.0
Dayton UGB	2,837	3,200	363	13%	1%	3.4	3.8
Carlton UGB	2,229	3,013	784	35%	3%	4.0	5.3
Willamina UGB ^C	2,125 ^B	2,321 ^B	196 ^B	9%	1%	2.9	3.2
Amity UGB	1,642	1,910	268	16%	1%	3.9	4.6
Yamhill UGB	1,077	1,338	261	24%	1%	3.6	4.5
Gaston UGB ^D	811 ^C	850 ^C	39 ^C	5%	0%	2.5	2.6
Outside UGBs	25,123	28,880	3,757	15%	13%	0.06	0.07

Notes: (A) The 2016 Newberg Comprehensive Plan population forecast data for 2015-2035 are higher than PSU Population Research Center (PRC) forecasts. City of Newberg planning staff communicated that the City intends to adjust its forecast consistent with the recent PRC projections. (B) Sheridan population includes the Federal Correctional Institution population of approximately 2,000. (C) The Willamina UGB includes residents in both Yamhill and Polk counties. City and “Service Area” population reflect the UGB. (D) The Gaston UGB includes residents in both Yamhill and Washington counties. City and “Service Area” population reflect the UGB.

Source: Portland State University Population Research Center (PRC), Coordinated Population Forecasts for Yamhill County, 2017. (TM #3, Figure 3-3)

Current Demographics and Trends

Transportation is often a primary barrier cited by individuals who are unable to access employment, medical services, and educational opportunities (among other key public services). In relatively rural areas like Yamhill County, transit service often carries a large share of persons who are “transit-dependent.” Transit provides people who do not have access to a vehicle or are unable to drive with a crucial lifeline to jobs, services, family and friends, and medical providers.

Presidential Executive Order 12898, issued in 1994, directed federal agencies to “make achieving environmental justice part of (their) mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low-income populations.” The order builds on Title VI of the Civil Rights Act of 1964 which prohibits discrimination on the basis of race, color, or national origin.

There are three fundamental principles of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

While not specifically identified by Title VI or the Executive Order, the analysis presented in this section also considers persons age 65 and older, persons with disabilities, and persons with limited English proficiency. Understanding where these demographic groups are located helps YCTA identify where potential transit customers live and better serve population groups that have unique transportation needs.

Figure 2-3 summarizes transit-dependent populations by city. Several key takeaways include:

- The greatest densities of older adults (age 65 or older) are concentrated in and near McMinnville, Newberg, and Sheridan. Unincorporated areas, where it may be more difficult to access public transportation, have a high share of older adults – 21% of residents, compared to 15% countywide. Population forecasts indicate that the share of older adults in Yamhill County is projected to continue to increase, from approximately 15% of the population currently to 20% by 2035. This demographic trend creates additional demand for public transportation.
- Willamina has a high percentage of both low-income households and people with disabilities compared to the rest of the county. Some types of disabilities may prevent people from driving. Access to transportation is an important factor in allowing persons with disabilities to access services and live independently.
- McMinnville, Newberg, Dayton, and Willamina have the highest percentages of people with low incomes, defined here as earning an annual income less than the federal poverty level (\$12,060 in 2017 for an individual), which is the income-eligibility criteria for various social service programs in Oregon and around the country.
- Lafayette and Dayton have the highest percentage of people who report limited-English speaking proficiency, defined here as people who identify as speaking English “less than well.”
- Dayton, Sheridan, and Amity have the highest share of population that identifies as non-white. Understanding where different racial or ethnic groups are located in the County can help YCTA reach out to and involve different communities in its decision-making.

TDP Volume II, Section 2: TM #2, Chapter 2 provides additional detail on transit-dependent populations.

Figure 2-3 Demographic Information for Yamhill County Communities, 2015

Jurisdiction	Population [1]	Jurisdiction % of County Population	Older Adults [2]	Limited-English Speaking Population [3]	Race – Non-White Population [4]	Civilian Non-Institutionalized Population [5]	People With Disabilities [5]	Population for Whom Poverty Status is Determined [6]	Low-Income Population [6]	
									100% of poverty	200% of poverty
State of Oregon	3,939,233	-	15%	3%	15%	3,900,771	14%	3,862,756	16%	36%
Yamhill County	101,119	100%	15%	3%	12%	98,985	15%	95,796	17%	36%
Incorporated Communities	77,716	77%	13%	4%	14%	74,450	16%	71,490	19%	40%
McMinnville	33,185	33%	16%	5%	13%	32,869	17%	31,558	21%	43%
Newberg	22,566	22%	12%	3%	14%	22,462	12%	21,009	19%	36%
Sheridan	6,048	6%	10%	2%	20%	4,334	21%	4,322	19%	57%
Lafayette	3,824	4%	8%	7%	9%	3,824	13%	3,735	15%	41%
Dundee	3,184	3%	11%	1%	13%	3,184	15%	3,169	8%	28%
Dayton	2,539	3%	12%	7%	24%	2,539	15%	2,539	20%	39%
Willamina	1,811	2%	13%	1%	12%	1,811	23%	1,796	23%	43%
Carlton	1,869	2%	9%	1%	7%	1,869	13%	1,846	5%	30%
Amity	1,558	2%	13%	0%	18%	1,558	19%	1,516	17%	28%
Yamhill	1,132	1%	9%	0%	3%	1,132	14%	1,079	8%	19%
Unincorporated Areas	23,403	23%	21%	1%	6%	24,535	14%	24,306	8%	22%

Notes/Sources: ACS 2011-2015 estimate. [1] Table B01003. [2] Table B01001. Older adults as a percentage of the total population. [3] Table B16004. Population that speaks English less than “well.” [4] Table B02001. Individuals identifying as any other race or combination of races other than “White alone,” as a percentage of the total population. [5] Table B18101. Disability population as a percentage of the civilian noninstitutionalized population. Disability population in Sheridan is 29% less than the total, primarily due to the Federal Correctional Institution. [6] Table S1701. Percentage of the population for whom poverty status is determined, which excludes institutionalized people (e.g., prisons), people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. Poverty population in Sheridan is 28% less than the total, primarily due to the Federal Correctional Institution.

Current Economy and Trends

Job Sectors

According to the Oregon Employment Department (OED), Yamhill County’s top employment sectors include manufacturing; health care and social assistance; and education services, comprising over 40% of all jobs (Figure 2-4). The retail sector accounts for approximately 10% of jobs. Although not represented among the largest individual employers, wineries and wine-related tourism are major industries in the county. Agriculture – grouped with forestry, fishing, and hunting as an employment sector – is the fifth largest employment sector in the county (9.4% of jobs). Yamhill County has the most vineyards, planted acreage, harvested acreage, yield per harvest acre, and production of any county in the state (see map in TDP Volume II, Section 2: TM #2 Chapter 2). As of 2006, 227 vineyards were in operation in Yamhill County, representing approximately 30% of all Oregon vineyards.⁷ A related sector, food services and accommodation, represents 8.8% of jobs.

Mismatches between transit service and employment include later evening shifts at large retailers and food service establishments that existing transit service does not run late enough to accommodate. And agricultural work sites are often located beyond easy access to transit stops on main highways.

Figure 2-4 Employment by Sector, 2016

Employment Sector	# Jobs	% of Total	Employment Sector	# Jobs	% of Total
Manufacturing	6,258	18.1%	Professional and technical services	774	2.2%
Health care and social assistance	5,065	14.7%	Transportation, warehousing & utilities	726	2.1%
Educational services	3,547	10.3%	Finance and insurance	696	2.0%
Retail trade	3,514	10.2%	Wholesale trade	688	2.0%
Agriculture, forestry, fishing & hunting	3,253	9.4%	Arts, entertainment, and recreation	568	1.6%
Accommodation and food services	3,036	8.8%	Real estate and rental and leasing	273	0.8%
Construction	1,789	5.2%	Information	251	0.7%
Public administration	1,495	4.3%	Management of companies and enterprises	144	0.4%
Other services, ex. public admin	1,416	4.1%	Mining	77	0.2%
			Total for All Sectors	34,523	100%

Source: Oregon Employment Department

⁷ OED, Growing a Vintage: Oregon’s Wine & Grape Industry, 2007. <https://tinyurl.com/yag273tg>

Major Employers

Yamhill County’s ten largest employers (listed in Figure 2-5) represent a range of industries, including medical services, higher education, manufacturing, and security facilities. All but one – the Federal Correctional Institution in Sheridan – operate in McMinnville or Newberg. The county’s two largest employers by number of employees are in Newberg – A-dec and George Fox University. While major concentrations of employment in the county are generally located in proximity to transit, five of Yamhill County’s top ten employers, including A-dec, do not have a transit stop within a half-mile of their location.

Figure 2-5 Top Ten Yamhill County Employers, 2012

Employer	Employment	City	Product	Transit Routes
A-dec	978	Newberg	Dental equipment	
George Fox University	560	Newberg	Private college	5
Cascade Steel Rolling Mill	431	McMinnville	Steel products	
Linfield College	430	McMinnville	Private college	2, 3, 11, 22, 24s, 45x
Willamette Valley Medical Center	420	McMinnville	Full service hospital	2
Federal Correctional Institute Sheridan	380	Sheridan	Security facility	
Evergreen Aviation Museum	361 [a]	McMinnville	Aviation museum	
Meggitt Polymers & Composites	283	McMinnville	Aerospace products	33, 44
Providence Newberg Medical Center	255	Newberg	Full service hospital	7, 44, 45x
Betty Lou’s Inc.	180	McMinnville	Food Manufacturer and Co-packer	7

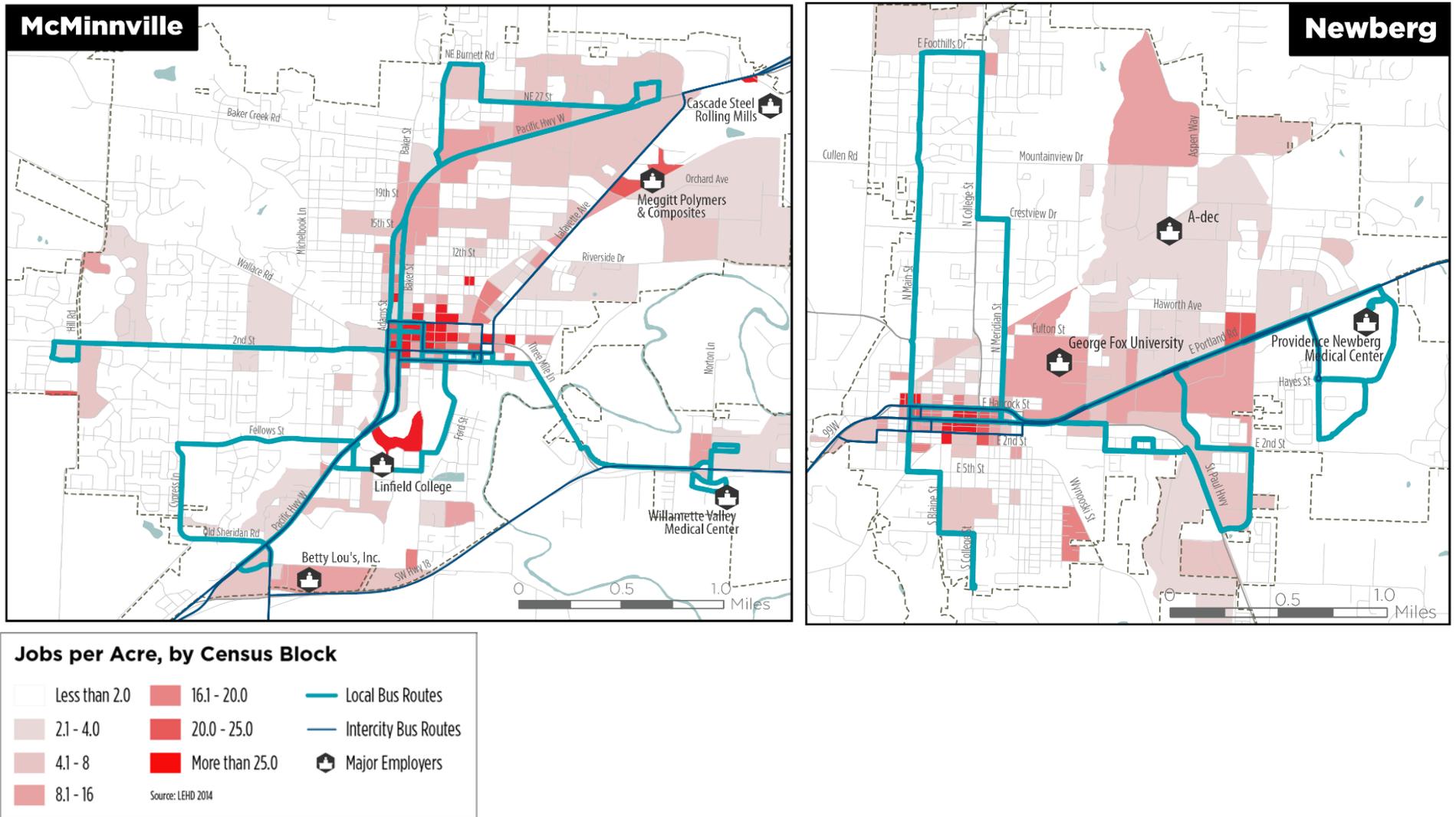
Note: [a] Total includes Evergreen International Airlines, which went out of business on December 31, 2013

Source: Grow Yamhill County Report, 2013

Employment Density

Figure 2-6 illustrates employment density in McMinnville and Newberg, the county’s two largest employment centers. Average employment density in the rest of the county is less than two jobs per acre. Businesses throughout both McMinnville and Newberg are generally located in and around the OR 99W and OR 18 corridors, or within the central business districts.

Figure 2-6 McMinnville and Newberg Employment Density, 2014



Source: TM #2, Fig 2-13 and 2-13

Future Employment

Yamhill County employment is projected to increase from approximately 33,000 to nearly 43,000 jobs by 2035, an increase of 29%. Figure 3-4 lists existing and forecasted employment for cities in Yamhill County, and the resulting employment densities. Based on the high-level assumptions applied from the regional forecasts, over 6,000 new jobs would be added in McMinnville and Newberg between 2014 and 2035. Growth rates for the top three employment sectors in Yamhill County—accounting for 45% of all employment—are listed below along with major employers represented among these sectors.

- **Manufacturing: 9%.** Includes A-dec and Cascade Steel Rolling Mill.
- **Health Care and Social Assistance: 18%.** Includes Willamette Valley Medical Center and Providence Newberg Medical Center.
- **Educational Services: 15%.** Includes George Fox University and Linfield College.

Unincorporated areas account for over 20% of all jobs in the county. However, these areas have the lowest employment density and are among the most challenging to serve by transit. Agriculture, forestry, fishing and hunting is among the fastest growing employment sectors in the county, and accounts for most of the land use in unincorporated areas. Along with construction, this sector is forecasted to experience the highest percentage of total annual growth—19% between 2014 and 2024. Wineries and wine-related tourism are an important part of the agricultural sector in Yamhill County, contributing to job growth near Dundee, McMinnville, and Newberg, and rural communities north of OR-99W and east of OR-47. Employees in this sector may benefit from transportation services, though the job locations are often located off the major highways and may require alternative public transportation service models/types.

Figure 2-7 Future Employment Forecasts, 2014-2035

Jurisdiction	Area (Acres)	Jobs 2014	Jobs 2035	Change in Jobs, 2014-2035	% of County Jobs, 2035	Job Density, 2014 (Jobs/Acre)	Job Density, 2035 (Jobs/Acre)
Yamhill County ^A	459,671	33,073	42,707	9,634	100.0%	0.07	0.09
Incorporated Cities ^B	15,613	25,109	32,423	7,314	75.9%	1.61	2.08
McMinnville	6,745	13,927	17,984	4,057	42.1%	2.06	2.67
Newberg	3,724	7,920	10,227	2,307	23.9%	2.13	2.75
Sheridan	1,250	1,123	1,450	327	3.4%	0.90	1.16
Dundee	884	485	626	141	1.5%	0.55	0.71
Carlton	567	348	449	101	1.1%	0.61	0.79
Willamina	606	289	373	84	0.9%	0.48	0.62
Dayton	532	282	364	82	0.9%	0.53	0.68
Yamhill	346	272	351	79	0.8%	0.79	1.02
Amity	399	259	334	75	0.8%	0.65	0.84
Lafayette	559	204	263	59	0.6%	0.36	0.47
Unincorporated Areas	444,058	7,964	10,284	2,320	24.1%	0.02	0.02

Notes: For TDP analysis purposes. A. Yamhill County growth extrapolated to 2035 based on 2014-2024 sector growth rates from the Mid-Willamette Valley Region. B. Overall 2035 Yamhill County jobs allocated to cities based on the city's 2014 share of Yamhill County jobs.

Source: Oregon Employment Department, Mid-Valley 2014-2024 Employment Forecast.

For additional details see TDP Volume II, Section 3: TM #3 Chapter 3 and Appendix A. This appendix provides sector-by-sector growth forecasts from OED for the Mid-Willamette Valley region that were the basis for the TDP analysis.

Commute Patterns

In addition to understanding where employment is concentrated, commute patterns were analyzed to understand how transit service can best connect employees' home and work locations (Figure 2-8). Findings from analysis of US Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data for 2014 are:

- Nearly **41,000** Yamhill County residents are employed.
- Over **32,000** people work in Yamhill County.
- Nearly **18,000** people both live and work within the county (this represents 44% of Yamhill County residents who are employed and 55% of people who work in Yamhill County).
- The top panel of Figure 2-8 shows the top commute patterns among the nearly 23,000 (approximately 56%) employed residents who travel outside the county for work.
 - Over **12,000** Yamhill County residents (30% of employed residents) commute to locations around the Portland Metro area, including nearly **1,800** to Hillsboro.
 - Over **2,600** residents commute to the Salem area (6%); the largest share (over 760 in 2014 and over 800 in 2015) is from McMinnville.
- The bottom panel of Figure 2-8 shows the top commute patterns into Yamhill County.
 - Over **5,000** workers commute into Yamhill County from locations around the Portland Metro area (16% of all Yamhill County employees).
 - Over **1,600** workers commute from the Salem area; the largest share (over 530 in 2014 and over 600 in 2015) is to McMinnville.
- **McMinnville:** Over 5,000 (38%) of employed McMinnville residents live and work in the city. Nearly 7% of residents work in the city of Portland, with an additional 8% in other Portland metro area cities within the top 10 locations. Nearly 6% of residents work in Salem and 4% work in Newberg. The individual cities with the highest share of commuters to McMinnville are Salem, Portland, Newberg, and Sheridan.
- **Newberg:** Less than 2,000 (21%) of employed Newberg residents also work in Newberg. Compared to McMinnville, more residents work in the Portland Metro area (both as a percentage and in absolute numbers). Approximately 4% work in McMinnville. Approximately 4% of residents work in Salem, a smaller share and number than McMinnville, and 300 residents work in Wilsonville. The individual cities with the highest share of commuters to Newberg are McMinnville, Portland, Lafayette, Sherwood, Tigard, and Dundee.

Overall findings include:

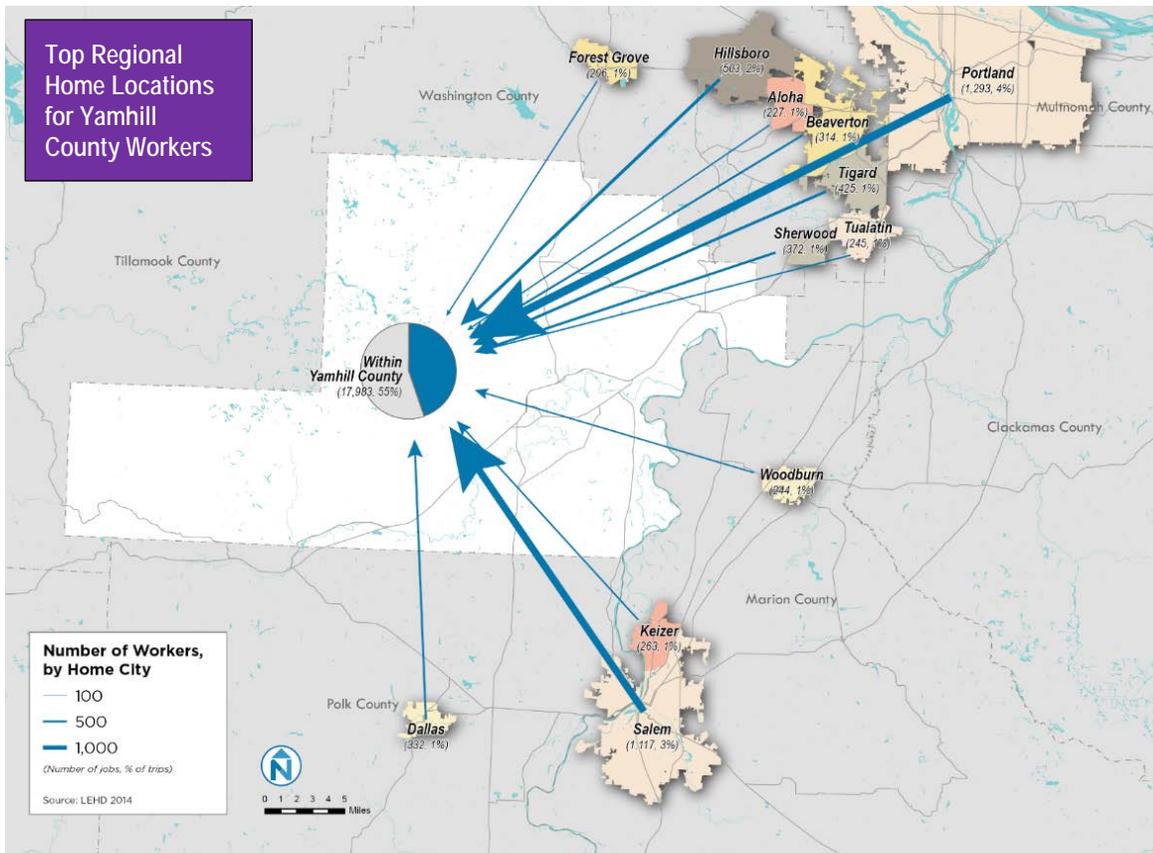
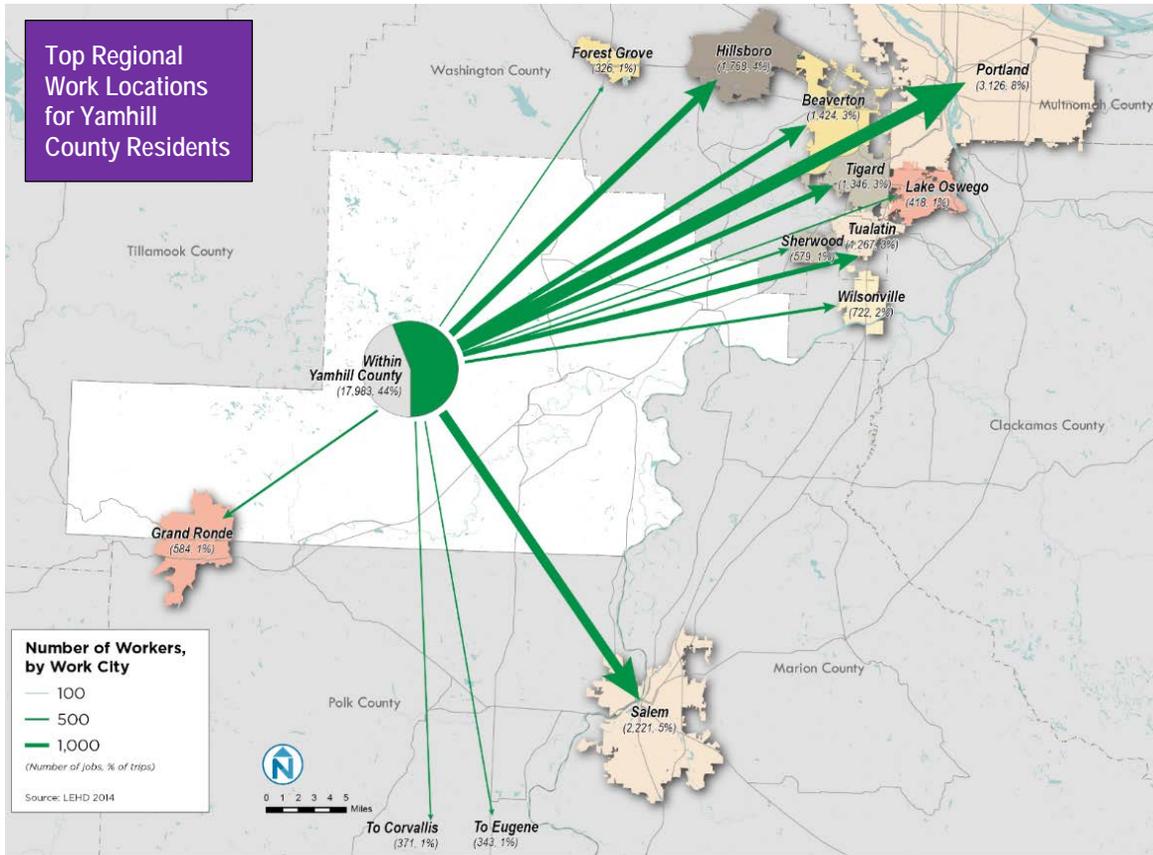
- People who live and work in Yamhill County are an only slightly larger market than the combined out-of-county commute and in-commute.
- Out-of-county work commutes are a larger market than in-commuting to Yamhill County, but the in-commute (about 40% of the out-of-county commute) is still a significant potential market.
- McMinnville is the strongest work commute market to/from Salem.

For additional details see TDP Volume II, Section 2: TM #2 Chapter 2 (Commute Patterns).

Commute Mode Share

Approximately **1%** of Yamhill County residents primarily commute to work on transit, compared to 4% statewide, based on American Community Survey data for 2011-2015. More people carpool (13%) and walk (6%) than the statewide averages (10% and 4%, respectively). Approximately 7% of Newberg residents and 9% of McMinnville residents walk to work.

Figure 2-8 Top Regional Commute Flows from and to Yamhill County, 2014



EXISTING AND PLANNED LAND USE

Land use and development in Oregon counties and cities is guided by their adopted Comprehensive Plans, which are implemented primarily by the local development code. Development code and zoning districts define characteristics such as allowed land uses and intensity of development. These districts include several types of residential zones (low-, medium-, and high-density), non-residential zones such as commercial or industrial, and mixed-use zones that allow both residential and non-residential uses to be combined on a site.

The map in Figure 2-9 illustrates existing zoning designations in Yamhill County. Nearly all of the county's industrial and commercial zones are located in incorporated cities; these areas, along with institutional and community facility zoned areas, account for many of the county's largest employers. Farm use, forestry, and agricultural zones comprise most of the county's unincorporated areas, and contain over 20% of jobs in Yamhill County. Southwest Yamhill County is also home to northern sections of the Siuslaw National Forest and Grand Ronde Community tribal lands.

Summary of Existing Land Use by Corridor and City

Medium- to high-density residential areas and concentrations of commercial/industrial uses have the highest potential for transit and are generally located in incorporated areas. The following overview of land use within Yamhill County cities highlights such opportunities. These opportunities were identified through zoning codes and maps, information on proposed developments, and public/stakeholder input.

McMinnville. The majority of land area is zoned for residential use. High-density residential zones are mostly concentrated in the OR 99W corridor, central business district, and around the Linfield College campus; some exceptions are along Hill Road on the city's west side, in the northeast part of the city, and in the Three Mile Lane corridor. McMinnville's R-3 residential zoning district allows nearly 12 units per acre and the R-4 residential district allows for higher-density developments (over 20 units per acre), which could support transit service that is more frequent than today; however, current residential density in the city is relatively low, even in areas currently zoned for medium- or higher-density housing. Some areas of the city have moderate population density, comparable to parts of the city that have transit coverage, but are beyond ¼-mile access to existing transit routes. ½-mile

Commercial uses are concentrated in the OR 99W corridor, Lafayette Avenue corridor, and the downtown central business district. There are also several commercial parcels scattered along Three Mile Lane, and on the west side of the city along 2nd Street.

Industrial parcels are generally east of OR 99W, especially in the Lafayette Avenue, Three Mile Lane, and Booth Bend Road corridors. Land zoned for open space lines the South Yamhill River and Cozine Creek.

Newberg. Much of the land area is zoned for low- and medium-density residential use. Newberg's R-2 residential zoning district allows nearly nine units per acre and the R-3 residential district allows for higher density developments (over 20 units per acre), which could support transit service that is more frequent than today; however, current residential density in the city is relatively low, even in areas currently zoned for medium- or higher-density housing. Some areas in the northeast and southwest parts of the city have moderate residential density comparable to other parts of Newberg, but are not served by transit.

Commercial and central business district zoning is concentrated along the OR 99W corridor. Significant areas of institutional lands owned by George Fox University and Providence Health & Services are located in central and eastern Newberg, respectively. Land zoned for industrial uses is concentrated along the Portland & Western Railroad corridor.

OR 18 Corridor west of McMinnville:

Sheridan. Most development is within a ¼- to ½-mile distance of OR 18 Business, with commercial and mixed-use residential zones (including those allowing multi-family housing) located in close proximity to the OR 18 Business route through the city. Most industrial zoned land is located on the west side of the city north of the highway, including the McFarland Cascade Mill. Yamhill County Head Start is also on the west side of the city south of the highway. Some parcels zoned for industrial or institutional uses are located on the east side of the city south of the Yamhill River, including Sheridan High School; Bridge Street is the only river crossing within the city. A Federal Correctional Institution is located south of OR 18.

Willamina. Most development is within a ¼- to ½-mile distance of OR 18 Business, with pockets of land zoned for multi-family residential uses located near the highway. An area of multi-family residential uses is located in the far southwest part of the city. The Boise-Cascade Mill is located just outside the eastern edge of the city and the Hampton Lumber Mill is just outside the western edge.

OR 18 / OR 99W Corridors between McMinnville and Newberg:

Dayton. Residential uses are generally lower-density, but within approximately a ½-mile of the existing YCTA stops serving the city.

Lafayette. Commercial uses are located primarily along OR 99W, with most development primarily north of the highway, up to a ½ to ¾ mile distance from the highway, including medium-density residential in the far northeast part of the city. Lafayette has the highest population density among Yamhill County cities (7.3 and 10.3 persons per acre in 2017 and 2035 respectively). The highest densities are clustered north of OR-99W, while transit service runs through the far southwest part of the city.

Dundee. Land zoned for commercial and medium-density residential uses is located on either side of OR 99W, along the highway or within approximately ½-mile.

OR 47 Corridor:

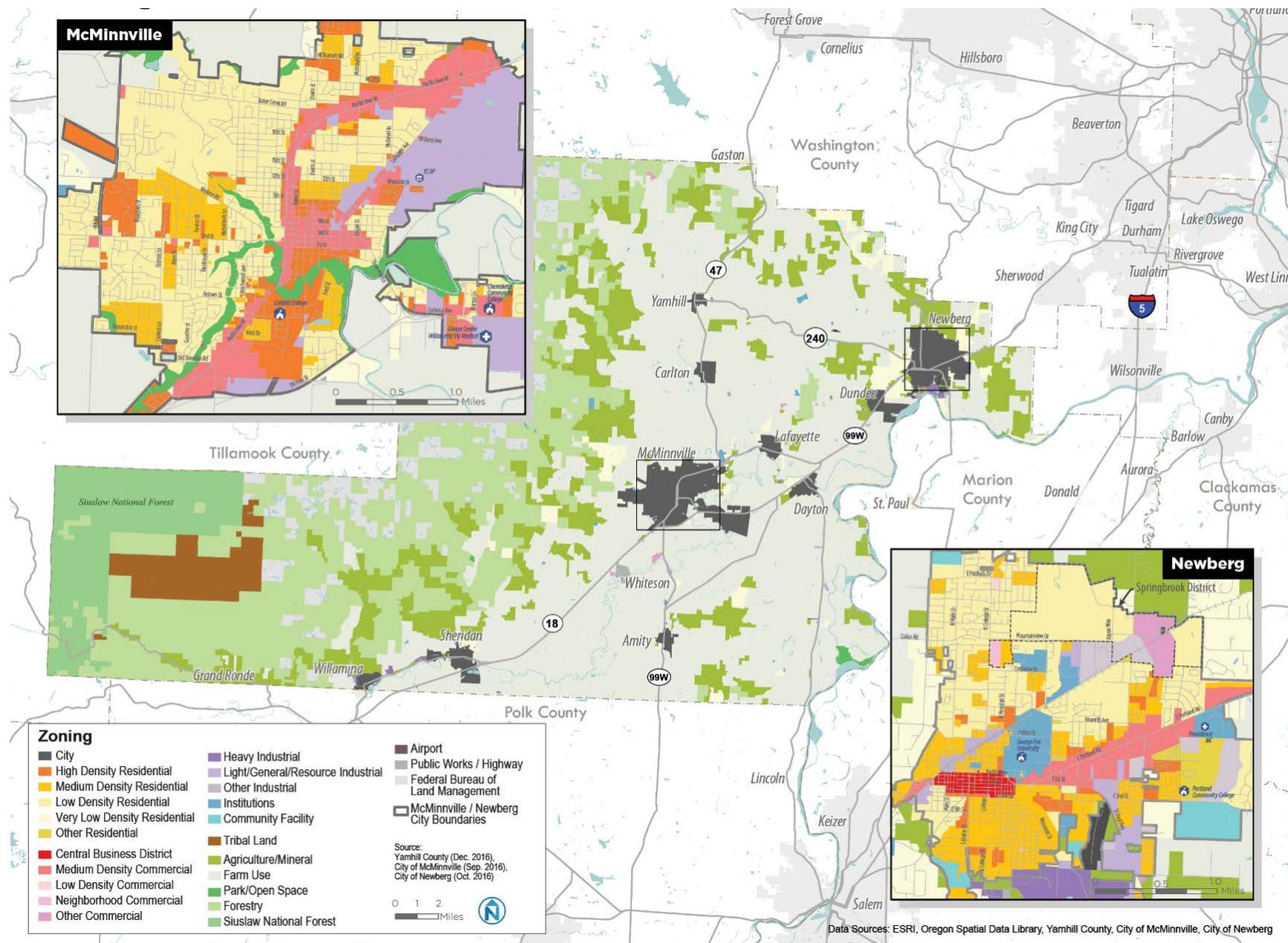
Carlton. Medium- to high-density residential zones are generally clustered around the center of the city, and most development is within a ½-mile distance of the city center.

Yamhill. Most uses are within a ½ to ¾ mile distance from the OR 47, where YCTA service can currently be accessed. Multi-family residential zoning and a small mixed-use residential zone is located just east of OR 47's route through the city. A light industrial zone located on the far east side of the city, about a ¾ mile distance from the city center along OR 240 (Yamhill-Newberg Highway), appears to be largely undeveloped but includes Fruithill, a produce wholesaler.

OR 99W Corridor between McMinnville and Salem:

Amity. Commercial and light industrial zones are along OR 99W, with adjacent medium-density residential zones on either side. The highest-density residential zoning is at the north end of the city.

Figure 2-9 Yamhill County Existing Land Use (Zoning)



Source: Local Zoning Codes. Reproduced from TM #3, Fig. 3-7

Proposed Development and Future Potential Service Areas

Major planned developments and growth patterns could affect future travel patterns and demand for public transportation. Figure 2-10 illustrates areas within urban growth boundaries where future transit-supportive growth could occur. The information is based on input from the TDP Project Advisory Committee and other stakeholders, City planning documents, and media reports. Notable plans include the Northeast Gateway Plan (2012) and the Transit Feasibility Study (1997) in McMinnville and the Riverfront Master Plan (2002), Springbrook Master Plan (2008), and South Industrial Master Plan (2009) in Newberg.

Figure 2-11 illustrates existing transit service along with potential future service areas identified through the TDP analysis.

The planned developments and other growth areas include:

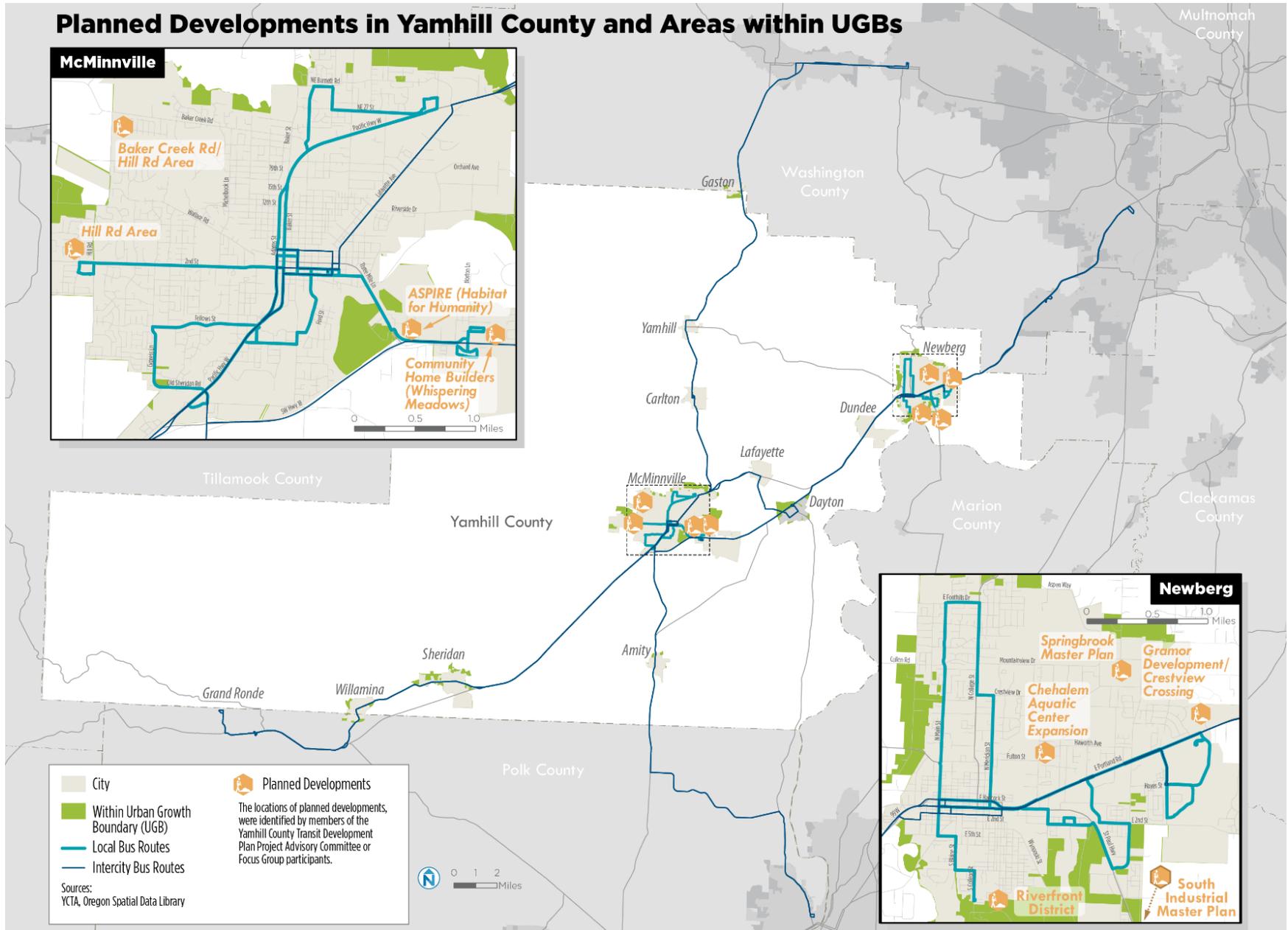
In McMinnville, areas west of Hill Road and in the Hill Road/Baker Creek Road areas in the west part of the city, including a major development with proposed workforce housing, and along Three Mile Lane and Norton Drive in the east part of the city.

The McMinnville Transit Feasibility Study depicts growth areas both inside and outside the UGB at the time the study was developed (see TDP Volume II, Section 3: TM #3, Figure 3-10), and the city continues to use conceptual bus routes identified in the study as a guide for where transit will be available in the future. The growth areas outside the UGB – primarily to the northwest and southwest – reflect a proposed UGB expansion that was ultimately not approved by the State. Growth areas identified along Hill Road in the west and an area in the northern part of the city, both of which are within the UGB, correspond to developments and potential service areas identified in Figure 2-10 and Figure 2-11.

A Planned Development Overlay was adopted for the Three Mile Lane area in McMinnville in 1981 and was amended in 1994. The area is the subject of an ODOT Transportation Growth Management planning grant that has been awarded to the city; work on an area plan is due to begin in July 2018. As the grant application states, large property owners in the area are poised to make substantial investments. “Areas of interest” in the Three Mile Lane planning area represent a range of residential, employment, and commercial development opportunities.

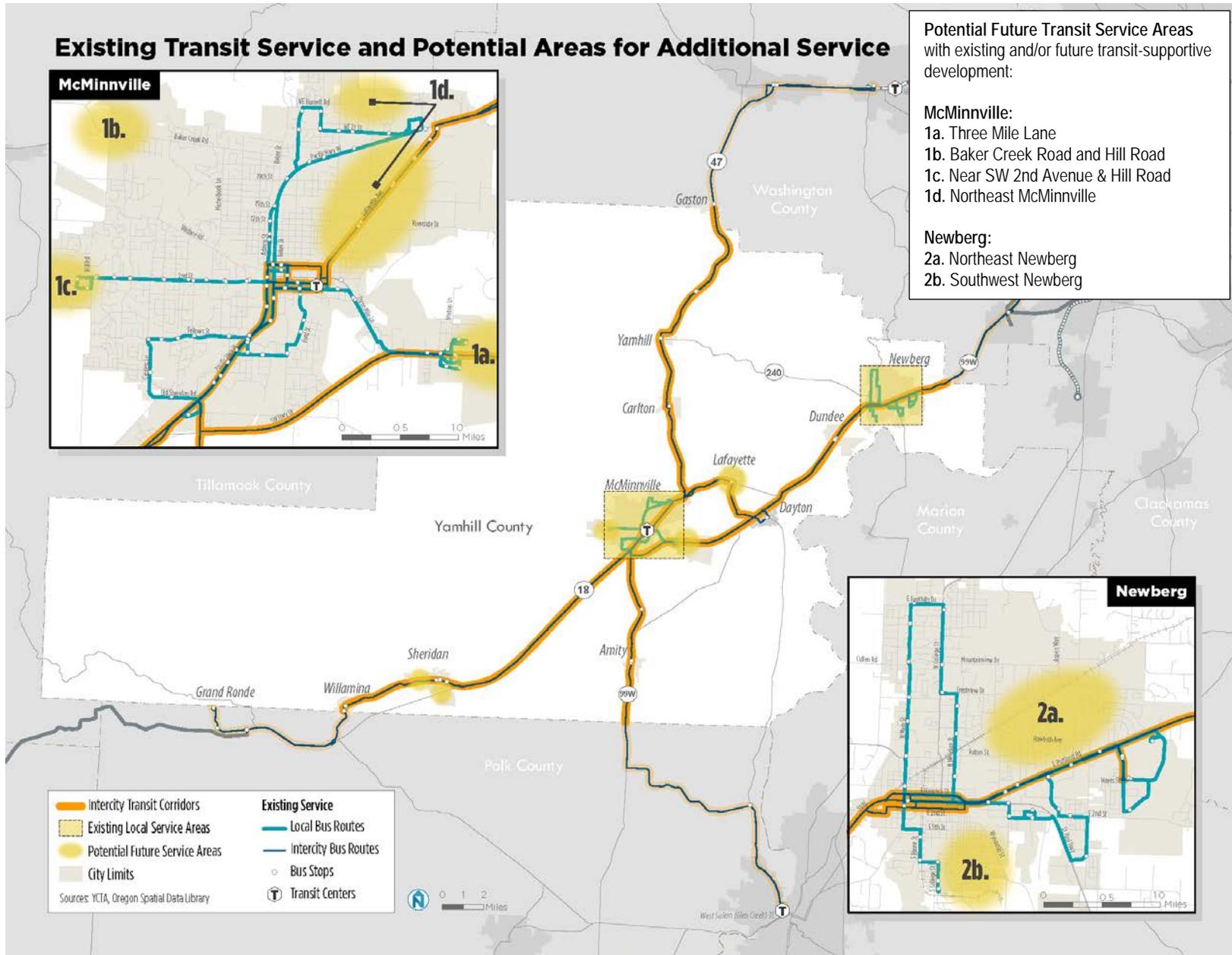
In Newberg, future growth areas include the Gramor/Crestview Crossing development north of OR 99W, which is also associated with a planned extension of Crestview Drive, and the Springbrook Master Plan in the northeast part of the city. In the southwest part of the city, the Riverfront Master Plan area includes medium-density housing and mixed-use areas. Anecdotally, there is significant ongoing development permitting activity.

Figure 2-10 Planned Developments



Note: Green shaded areas are outside of city limits but within the UGB. Source: Reproduced from TM #3, Fig 3-8

Figure 2-11 Potential Future Transit Service Areas



Source: TM #3, Fig 3-12 (Minor Updates)

3 EXISTING TRANSIT SERVICE

YCTA ORGANIZATIONAL STRUCTURE

Yamhill County Transit Area was established in March 2007 by the Yamhill County Board of Commissioners as a County Service District under Oregon Revised Statutes (ORS) 451: County Service Facilities.⁸ A resolution from all Yamhill County cities approved establishment of the District and it is organized appropriately, based on YCTA's consultation with Yamhill County legal counsel and the Special Service District of Oregon.

The County Board of Commissioners acts as the YCTA Board of Directors and is responsible for all YCTA operations and management. The YCTA Board reviews and authorizes the YCTA budget process, executes contracts and intergovernmental agreements, and assigns staff and other resources to YCTA tasks or projects. The commissioners rotate duties as Board Chair and Vice Chair. The YCTA office is in McMinnville.

Until September 2018, YCTA had the following two advisory groups:

- The **YCTA Advisory Committee** serves as the primary advisory body to the YCTA board on general public transportation-related issues affecting the county. The committee consists of 11 members – one for each of the ten incorporated cities in Yamhill County, and one for the Confederated Tribes of the Grand Ronde.
- The County Board of Commissioners established the **Special Transportation Fund Advisory Committee (STFAC)** in 2009. Its purpose is to advise the County in how to prioritize and allocate Oregon Special Transportation Fund (STF) resources, as required by state law.⁹ The STFAC has nine members appointed by the Board and meets quarterly. The STFAC roster changes regularly, and must include at least five community members, representing four key constituencies defined in Oregon Administrative Rules.¹⁰

On September 20, 2018, YCTA replaced these advisory groups with a restructured, 11-member committee called the **Yamhill County Transit Advisory Committee (YCTAC)**. This committee meets YCTA District, STF, and Statewide Transportation Improvement Fund (STIF) requirements. The STIF was established by Oregon House Bill 2017 (HB 2017); the Oregon Transportation Commission approved the STIF administrative rules effective July 1, 2018.¹¹

⁸ *Yamhill County Transit Area Advisory Committee By-Laws, 2003.* <https://tinyurl.com/y77frdth>

⁹ *Special Transportation Fund Advisory Committee of Yamhill County Bylaws, 2009.* <https://tinyurl.com/ycalsqao>

¹⁰ See OAR 732 Special Transportation Fund for the Elderly and Handicapped, Division 5 General Information (732-005).

¹¹ The STIF Advisory Committee for a transportation district or county must include a minimum of five members, including at least one person that is a member of or represents each of the following groups: (1) low-income individuals, (2) individuals age 65 or older or people with disabilities, and (3) public transportation service providers or non-profit entities which provide public transportation services. See OAR 732-040-0030: Advisory Committees. <https://tinyurl.com/y928h4ay>

EXISTING YCTA SERVICES

System Overview

YCTA offers the following types of service:

Intercity routes on four corridors; these routes operate on a set schedule and alignment, but focus on connecting cities and make limited stops within cities.

Local fixed routes that provide circulation within McMinnville and Newberg.

Demand-response service in Yamhill County provides shared rides without a set route or schedule and includes:

- **ADA Paratransit** *door-to-door* service in Newberg and McMinnville. ADA Paratransit is provided between origins and destinations located within $\frac{3}{4}$ of a mile of local fixed route transit service (i.e., routes 2, 3, 5, and 7), as required under the federal Americans with Disabilities Act (ADA) of 1991. Service is limited to ADA-eligible customers—those who have a disability that prevents them from riding fixed-route service.
- **General Public Dial-a-Ride** *curb to curb* service within Yamhill County. Dial-a-ride primarily serves trips in McMinnville and Newberg due to limited capacity.

Figure 3-1 summarizes the characteristics of each type of service. Each type of service is described in more detail below.

Figure 3-1 Comparison of YCTA Service Types

Characteristics	Intercity Routes	Local Fixed-Route	ADA Paratransit	General Public Dial-A-Ride
YCTA Coverage	4 routes: 11, 22, 33, 44 24s and 46s are weekend variants of 22 and 44, respectively 45x is an express variant of 44	2 routes in McMinnville: 2, 3 2 routes in Newberg: 5, 7	$\frac{3}{4}$ mile distance around fixed-route service The origin and destination must both be within a $\frac{3}{4}$ mile distance of a fixed-route bus stop Limited eligibility	Generally serves trips in McMinnville and Newberg due to capacity limitations. Some trips extend to the greater McMinnville and Newberg areas
YCTA Service Hours	Varies by route	7:00/7:30 PM to 6:00/6:30 PM	Same days, hours, and times as fixed-route service	8 AM – 4:30 PM
Subscription Trips	N/A	N/A	Limited to 50% of available trips at a given time of day; may exceed the ceiling if there is excess capacity to provide additional trips (discretionary).	Allowed, no restriction
Access	Fixed stops	Fixed and flag stops	Door-to-door	Curb-to-curb

Fixed-Route Service

Local fixed routes provide local circulation within Newberg and McMinnville city limits.

- Routes 2 and 3 serve McMinnville
- Routes 5 and 7 serve Newberg

All four local routes run on weekdays only. Along these routes, YCTA operates as a flag system. This means that YCTA has designated stop locations, but between stops riders may stand on the curb and flag

down the buses or request that the driver let them off at a particular point along the route. Drivers will stop if it is safe to do so.

Intercity routes serve longer-distance travel needs between Yamhill County cities, and connections outside of the county. Figure 3-2 provides a summary of each route’s service area, service days, headways (or frequency), and span of service. Along these routes, YCTA has set stops; flag stops are not permitted on intercity routes, including within McMinnville and Newberg.

The intercity routes include:

- Route 11 connects McMinnville, Amity, and Salem
- Route 22 (weekday) and 24s (Saturday) connect McMinnville, Sheridan, Willamina, and Grand Ronde
- Route 33 connects McMinnville, Yamhill, Carlton, Gaston, and Hillsboro
- Route 44 (weekday), 45x (weekday express), and 46s (Saturday) connect McMinnville, Lafayette, Dayton, Dundee, Newberg, and Tigard

Since local routes 2, 3, 5, and 7 operate on weekdays only, routes 24s and 46s are the only options for local circulation within McMinnville and Newberg on Saturdays; within McMinnville, Route 46s operates a modified route along OR 99W instead of Lafayette Avenue on Saturdays.

Figure 3-2 Yamhill County Transit Area Route Summaries

#	Route Name	Type	Headways or Departure Times	Span of Service
Weekday Service				
2	McMinnville East-West Express	Local	Every 60 minutes (east and west routes every 30 minutes)	7 AM- 6 PM
3	McMinnville City Loop	Local	Every 60 minutes (north and south routes every 30 minutes)	8 AM-6 PM
5	Newberg Foothills Drive	Local	Every 60 minutes (interlined with Route 7)	7:30 AM-6 PM
7	Newberg Providence	Local	Every 60 minutes (interlined with Route 5)	7 AM-6:30 PM
11	McMinnville to West Salem	Intercity	To Salem: 6:00, 7:30 AM; 12:00, 4:00, 5:30 PM To McMinnville: 6:00, 7:30 AM; 12:00, 4:00, 5:30 PM Approximate one-way travel time: 40 minutes	6 AM-7 PM
22	McMinnville to Grand Ronde	Intercity	To Grand Ronde: 6:25, 8:15; 10:40 AM; 12:30, 2:30, 4:45, 6:35 PM To McMinnville: 5:30, 7:20, 9:35, 11:35 AM; 1:25, 3:15, 5:40 PM Approximate one-way travel time: 48 minutes	5:30 AM-7:30 PM
33	McMinnville to Hillsboro	Intercity	To Hillsboro: 6:00, 10:30 AM; 12:30, 3:30, 5:30 PM To McMinnville: 7:00, 11:30 AM; 1:30, 4:30, 6:30 PM Approximate one-way travel time: 50 minutes	6:00 AM-7:30 PM
44	McMinnville to Tigard	Intercity	To Tigard: 5:10, 6:25, 7:25, 10:35 AM; 12:15, 1:15, 3:20, 5:40, 6:12 PM To McMinnville: 7:48, 8:48, 11:58 AM; 1:38, 2:38, 4:47, 6:16, 7:01, 7:39 PM Approximate one-way travel time: 1h 12m – 1h 34m	5 AM-9 PM
45x	McMinnville to Tigard	Intercity	One morning trip from Tigard to McMinnville and one afternoon trip from McMinnville to Tigard. Approx. one-way travel time: 1h	6:42 AM-7:50 AM 5:05 PM-6:06 PM
Saturday Service				
24s	McMinnville to Grand Ronde	Intercity	Approximately every 2 hours with a 1-hour midday gap	9:35 AM-4:50 PM
46s	McMinnville to Tigard	Intercity	Approximately every 3 hours	8 AM-7:30 PM

Figure 3-3 YCTA System Map, with McMinnville and Newberg Insets, 2018 Existing

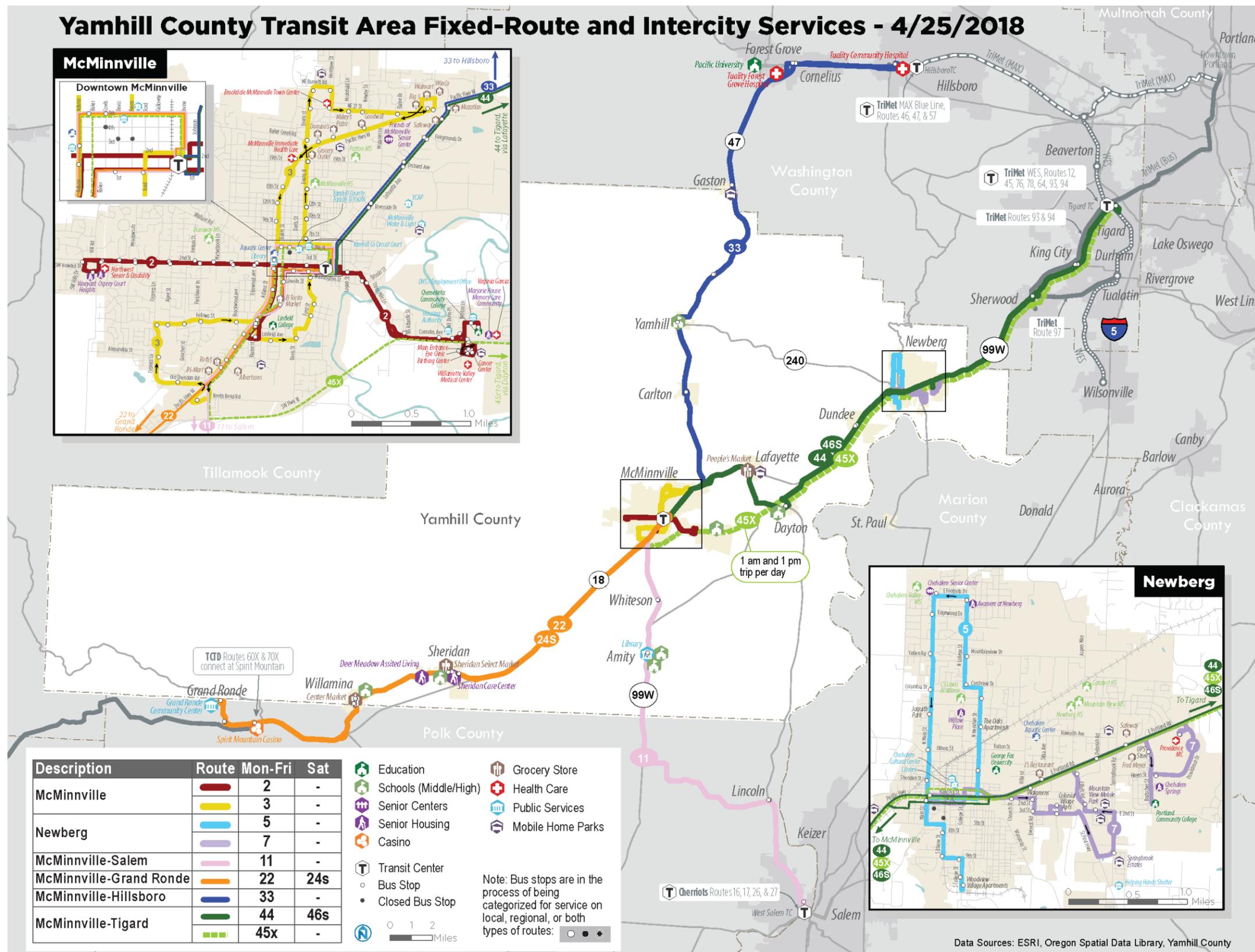
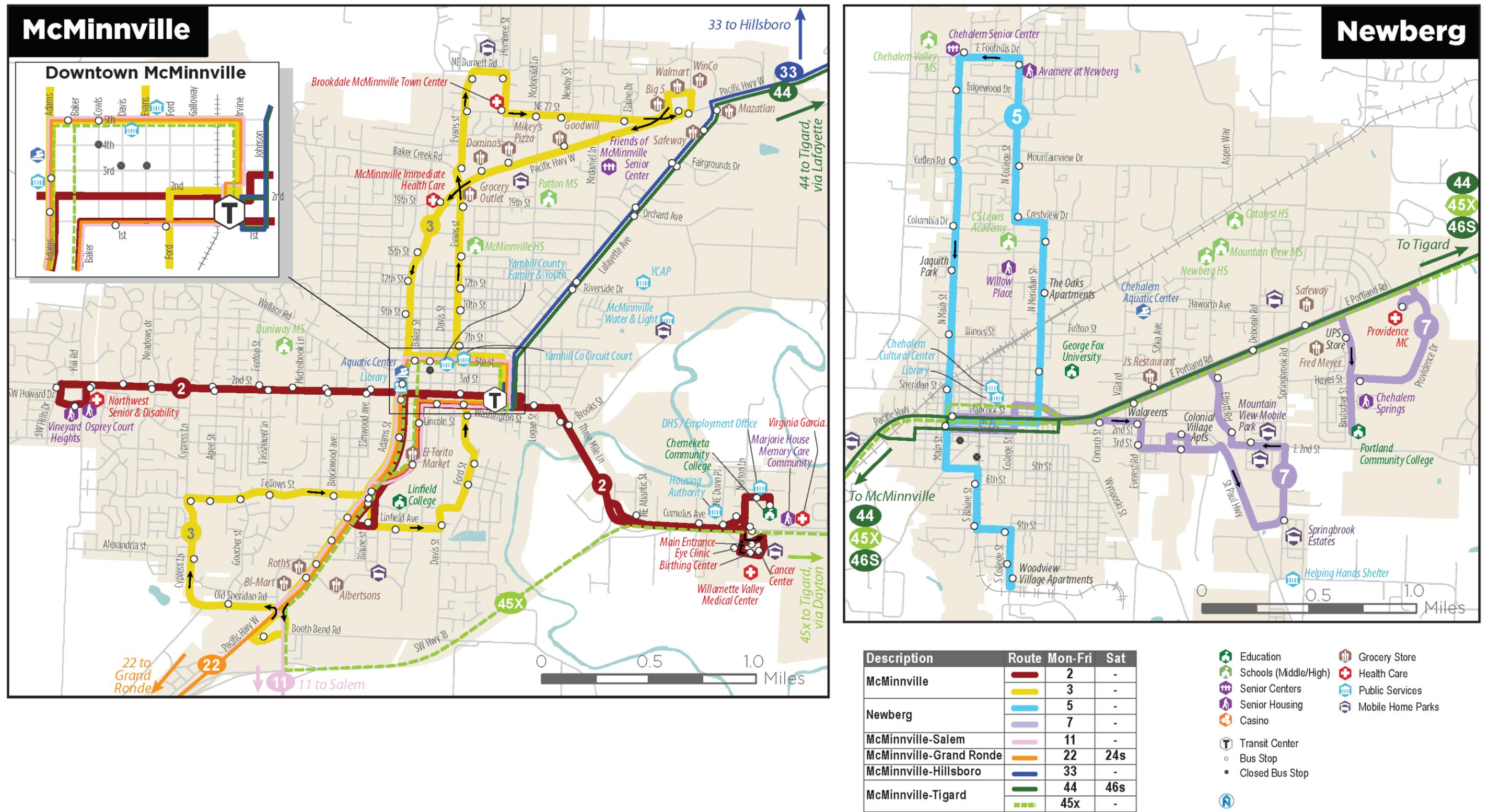


Figure 3-4 YCTA McMinnville and Newberg Local Service, 2018 Existing



Demand-Responsive Service

Demand-response service in Yamhill County provides shared rides and includes both general public Dial-a-Ride and ADA paratransit.

ADA Paratransit Overview

YCTA ADA Paratransit is federally-required door-to-door service offered to people with physical or cognitive disabilities who are unable to access or use local fixed-route service. Passenger origins and destinations must be within a $\frac{3}{4}$ -mile buffer of local fixed-route service in McMinnville and Newberg. YCTA paratransit service is offered during the same hours and days as fixed-route service: from 7 AM – 6 PM on weekdays in McMinnville, and 7 AM – 6:30 PM on weekdays in Newberg. YCTA paratransit riders are guaranteed a ride within a two-hour window of their requested trip time.

YCTA paratransit service is not available along Routes 11, 22, 24s, 33, 44, 45x, and 46s, which are intercity routes classified as commuter bus service, and are therefore exempt from the requirement to provide complementary ADA paratransit service.

Reservations for YCTA paratransit can be made between one and 14 days in advance. YCTA accepts paratransit reservations by phone on weekdays between 7:00 AM and 6:30 PM. Individuals calling to make a trip reservation outside these times can leave a message for a trip to be logged when staff are next on duty. Before a person can make a reservation for a paratransit trip, he/she must complete YCTA's ADA Paratransit Application, and be approved by YCTA's ADA Eligibility Committee, based on federal ADA requirements. Subscription paratransit trips are available for work and medical appointments only. YCTA is required to limit subscription trips to no more than 50% of available capacity at any given time of day per federal requirements. Fares for a one-way trip are \$2.50 (fares are not allowed to be more than double the cost of a comparable trip on fixed-route service).

Dial-a-Ride Overview

General public Dial-a-Ride provides curb-to-curb service to the general public to and from locations in Yamhill County. There is no application process required to reserve a Dial-a-Ride trip. YCTA Dial-a-Ride operates on weekdays from 8 AM to 4:30 PM. All YCTA Dial-a-Ride vehicles are ADA accessible, and service animals are allowed. YCTA Dial-a-Ride trips must be scheduled at least 24 hours in advance. A reservation is contingent on capacity, and schedulers may suggest a different time to accommodate customer needs. Dial-a-Ride phone reservations are taken on weekdays between 6:30 AM and 6:30 PM. Trip reservation calls made outside these hours can be left as a voicemail, to be logged when staff are next on duty. Dial-a-Ride riders can make subscription reservations for recurring trips. YCTA allows an unrestricted number of subscription trips in the Dial-a-Ride system. Fares are \$1.75 each way and \$40.00 for a monthly pass.

Major Activity Centers

Major transit trip generators are shown in Figure 3-3 and Figure 3-4 (above) relative to existing YCTA fixed routes and stops. Activity centers are clustered in and around McMinnville and Newberg, along the OR 99W / OR 18 corridor that runs through the eastern part of the county. Additional activity centers—including grocery stores, middle and high schools, senior housing communities, and libraries—are located near Sheridan, Lafayette, Amity, and Willamina. Spirit Mountain Casino is a notable major trip generator a mile south of the county border, in Grand Ronde.

Examples of activity centers that are not directly served by public transportation include:

- Sheridan: Deer Meadow Assisted Living—Route 22 goes past it but does not stop; large buses are not able to pull into the facility parking lot and there are not safe crossings or pull-outs.
- McMinnville:
 - Senior Center—service runs on OR 99W but does not directly serve the center.
 - Yamhill Community Action Partnership (YCAP) and McMinnville Water and Light—Intercity routes 33 and 44 run along Lafayette Avenue but do not serve the area east of Riverside Drive.
 - Virginia Garcia Memorial Health Center and Marjorie House Memory Care Community—Route 2 serves Chemeketa Community College less than 0.1 mile to the west, but there is no direct roadway access to allow a bus to travel between the two facilities
- Newberg: There is no service in the northeast part of the city, including to city schools, a large employer (Adec), and the Chehalem Aquatic Center.

In both McMinnville and Newberg, bus stops serve retail areas along OR 99W, but large parking lots often separate store entrances from the roadway and some stops lack nearby pedestrian crossings between stops in each direction.

Fare Structure

Figure 3-5 lists YCTA’s existing fares, which range from \$1.25 for a one-way ride on fixed-route service (both local and intercity routes) to \$1.75 on Dial-a-Ride and \$2.50 on ADA Paratransit. Day passes (both individually and as a set of 10) and monthly passes are available but there are currently no discounted fares available. Children six years of age or under can ride for free.

Fares can be purchased in the following ways:

- **During a trip:** Single One-Way fares and Single All-Day Passes can be purchased from drivers while boarding the vehicle with exact change only.
- **Prior to a trip:** Fares can be purchased in-person from the Yamhill County Board of Commissioners office with exact change only or at the McMinnville Transit Center with cash or check only. Riders can also print and fill in an order form from the YCTA website and send it to YCTA by mail with a check or money order.

Figure 3-5 YCTA Fares, 2018

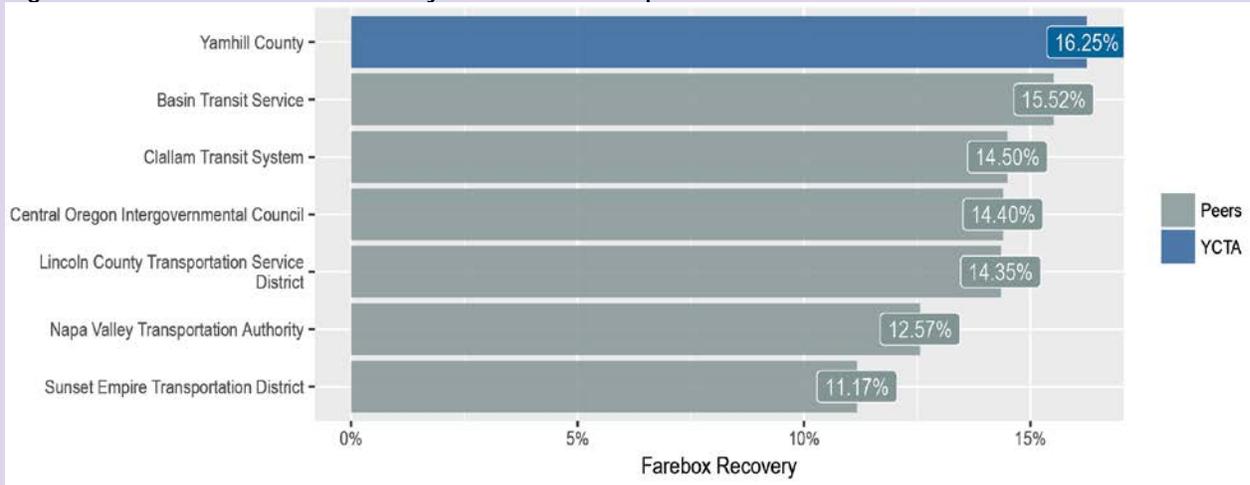
Fare	Fixed-Route	Dial-a-Ride	ADA Paratransit	Notes
Single One-Way Trip	\$1.25	\$1.75	\$2.50	
Single Day Pass	\$2.50			Twice cost of a one-way fare
Book of 10 Day-Passes	\$18.00			Savings of \$7 over 10 individual day passes
Unlimited Monthly Pass	\$35.00	\$40.00		Breaks even after 28 one-way fixed route trips, 14 day passes, 19 day passes when purchased in a book of 10, or 23 Dial-a-Ride trips

Fare policy recommendations are provided in Chapter 9: Supporting Programs and Technology

Peer Comparison: Farebox Recovery

Figure 3-6 shows that YCTA’s farebox recovery is slightly higher than a set of six peer agencies, with a rate of more than 16% in 2015 (shown in the chart) and 15% in 2016. A 10% farebox recovery is generally considered to be a minimum standard for transit agencies. The recovery ratio is a function of fare policies (i.e., the price of a ticket or pass), ridership, and total operating costs. YCTA’s moderate ridership and low operating costs support a strong farebox recovery ratio.

Figure 3-6 YCTA Farebox Recovery Ratio – Peer Comparison



For peer review details see TDP Volume II, Section 2: TM #2, Chapter 3 and Appendix C

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

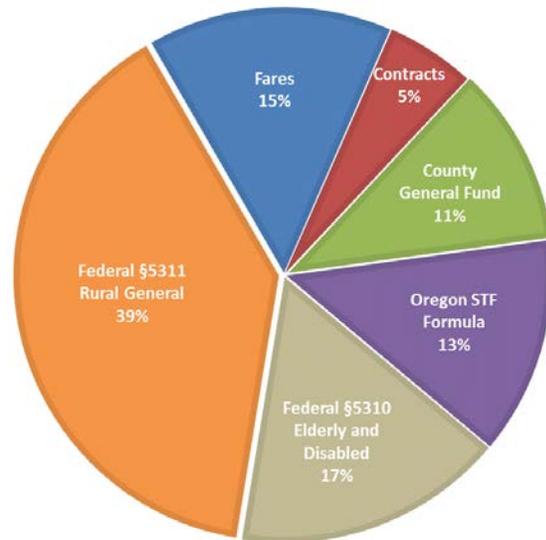
Operating and Capital Costs

Operating Costs

YCTA’s operating budget of approximately \$2.1 million has remained fairly steady through 2017. YCTA’s key expenditures are contracts for service delivery and fuel, totaling over 80% of the existing operating budget (70% and 12%, respectively). Approximately 70% of YCTA’s operating revenue is from federal and state funds, while the remaining 30% is from local sources including fares. As shown in Figure 3-7, YCTA’s annual operating revenue sources are comprised of:

- **Federal and State funds (70%)** provided by the Oregon Department of Transportation (ODOT), which manages Federal Transit Administration (FTA) and state public transportation funds available to rural and small urban public transportation providers, and providers of public transit for seniors and people with disabilities
- **Farebox revenue (15%)**
- **Local service contracts (5%)** with the Confederated Tribes of the Grand Ronde Community (supporting Route 22; \$56,000) and the cities of McMinnville and Newberg (supporting local service; approximately \$20,000 each annually in recent years)
- **Yamhill County General Fund (11%)**

Figure 3-7 Yamhill County Transit Area Operating Sources – FY 2012-2016 Average

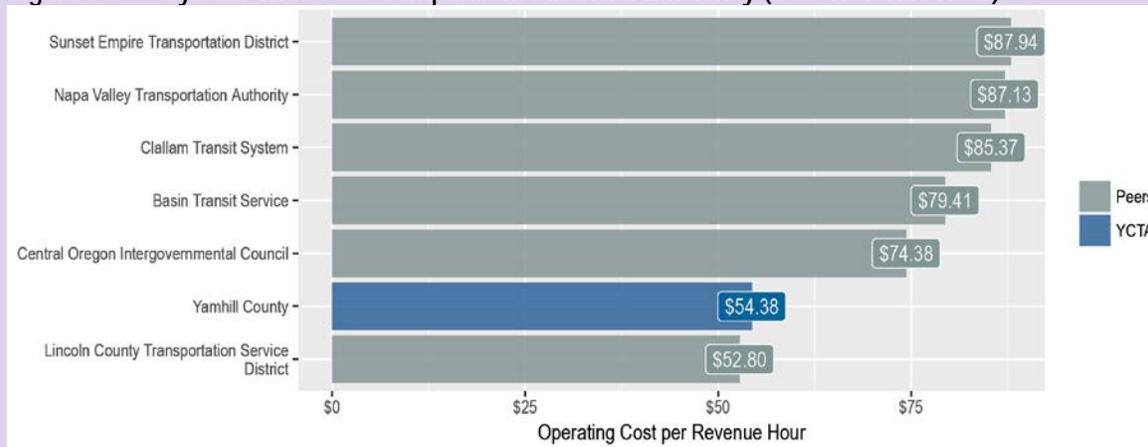


Sources: Yamhill County Transit Area, Oregon Department of Transportation, Federal Transit Administration

Peer Comparison: Financial Efficiency

Financial efficiency reflects YCTA’s cost to provide each “revenue hour,” or each hour that a bus is on the road. YCTA’s cost per revenue hour (\$54.38) is the second lowest among the peer group.

Figure 3-8 System-Wide Peer Comparison: Financial Efficiency (Cost/Revenue Hour)



For peer review details see TDP Volume II, Section 2: TM #2, Chapter 3 and Appendix C

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Capital Costs

Capital budgets depend on relatively expensive one-time purchases, ranging from buses, shelters and bus stop amenities, and technology (e.g., radios and dispatch software) to major investments such as the McMinnville Transit Center. YCTA’s capital needs have ranged from less than \$100,000 to over \$1 million in recent years. Grants are available to assist with capital needs and YCTA received three significant awards from discretionary funding programs in 2015 for the 2017-2018 fiscal year. The STF Discretionary program funded communications and scheduling technology as well as the local match for two vehicles funded through the FTA Section 5339 program. ODOT also awarded YCTA funding for four buses through the STIP Enhance program.

Additional detail on public transportation funding sources is provided in Chapter 8: Financial Plan. More information on YCTA current and historical operating and capital costs can be found in TDP Volume II, Section 2: TM 2, Chapter 3 (see pages 3-3 to 3-6).

Transit Vehicle Fleet

YCTA owns a bus fleet of approximately 35 vehicles serving demand-response and fixed-route services, including several new vehicles purchased in 2018, 6 vehicles that are in fair to poor condition, and 4 vehicles that are at the end of their useful life; Appendix A provides a complete fleet inventory. Figure 3-9 summarizes the vehicles, grouped by vehicle type and condition. As of July 2018, only 40% of the vehicles were in “Excellent” or “Good” condition, pointing to a need to replace vehicles that are in poor condition and are expensive to maintain. With new vehicles received as of October 2018, 60% of YCTA vehicles are in “Excellent” or “Good” condition and seven end-of-life vehicles have been replaced. YCTA has secured grants to replace additional vehicles over the next one to two years.

First Transit, the current private contractor for YCTA operations and maintenance functions, provides maintenance for the YCTA fleet at its facility located east of Lafayette Avenue in McMinnville; capacity of this facility to clean, store, and maintain the YCTA fleet is limited.

The Yamhill County Fleet Department maintains small transit vehicles on behalf of non-profit transportation partners, including MV Advancements, Abacus (Yamhill County), and the Yamhill-Carlton Volunteer Program. The maintenance costs are valued at approximately \$5,000 to \$15,000 per year.

Figure 3-9 YCTA Existing Fleet Summary, October 2018

Vehicle Class	Vehicles in Daily Operation*	Vehicle Condition				Total Fleet
		Excellent or Good	Adequate	Fair, Marginal, or Poor	End-of-Life	
Medium-size (30-foot) Bus, Heavy-Duty	7	7	2	2	2	13
Large Cutaway, Medium-Duty	3	3	0	3	1	7
Small Cutaway, Light-Duty	5	11	0	0	0	11
Van	2	0	2	1	1	4
Total	17	21	4	6	4	35
% of Total	-	60%	11%	17%	11%	100%

Note: * Not including spares. Based on limited fleet availability, YCTA may interchange the types of vehicles used on different services.

YCTA RIDERSHIP AND SYSTEM PERFORMANCE

System-wide Ridership and Performance

Figure 3-10 shows a five-year trend for YCTA performance. Highlights include:

- **Local fixed-route ridership increased by approximately 10% in both 2015 and 2016.** This followed service cuts between 2012 and 2013 that led to declines in ridership, after the transition from non-profit operation to service contracted by YCTA, due to a shortfall in operating funding. Local fixed-route service in McMinnville has the highest productivity (see sidebar on the next page for definition) due to the higher development densities and shorter distances over which the services operate.
- **Ridership is highest on intercity routes and increased 14% in 2016.** Service hours on intercity routes are approximately double the number of hours operated on local service from 2013 onward. Intercity routes carry passengers over a long distance, but with less trips per day or less hours than local routes, and productivity is slightly lower than local routes in McMinnville.
- **Dial-a-Ride ridership declined as well but it was steady in 2015 and 2016.** Dial-a-Ride has generally reached its maximum capacity based on fixed resources available. It carries around three rides per revenue hour, which is common for similar demand-response systems.

Figure 3-10 YCTA Ridership, Revenue Hours, and Productivity by Service Type, 2012-2016

Service Type		2012	2013	2014	2015	2016	2012-2016
Ridership							
Local Fixed-Route	#	183,437	117,096	83,771	90,848	100,139	-83,298
	% Change ¹	-	-36%	-28%	8%	10%	-45%
Intercity	#	155,522	213,213	169,812	155,057	177,216	21,694
	% Change ¹	-	37%	-20%	-9%	14%	14%
Dial-a-Ride	#	59,816	45,230	47,729	43,366	41,439	-18,377
	% Change ¹	-	-24%	6%	-9%	-4%	-31%
Total	#	398,775	375,539	301,312	289,271	318,794	-79,981
	% Change ¹	-	-6%	-20%	-4%	10%	-20%
Revenue Hours							
Local Fixed-Route	#	17,040	8,820	8,147	8,156	8,498	-8,542
	% Change ¹	-	-48%	-8%	0%	4%	-50%
Intercity	#	16,580	16,413	16,059	16,096	15,862	-718
	% Change ¹	-	-1%	-2%	0%	-1%	-4%
Dial-a-Ride	#	12,435	13,165	13,317	13,439	12,706	271
	% Change ¹	-	6%	1%	1%	-5%	2%
Total	#	46,055	38,398	37,523	37,691	37,066	-8,989
	% Change ¹	-	-17%	-2%	0%	-2%	-20%
Productivity							
Local Fixed-Route	#	10.8	13.3	10.3	11.1	11.8	1.0
Intercity	#	9.4	13	10.6	9.6	11.2	1.8
Dial-a-Ride	#	4.8	3.4	3.6	3.2	3.3	-1.5
Total	#	8.7	9.8	8	7.7	8.6	-0.1

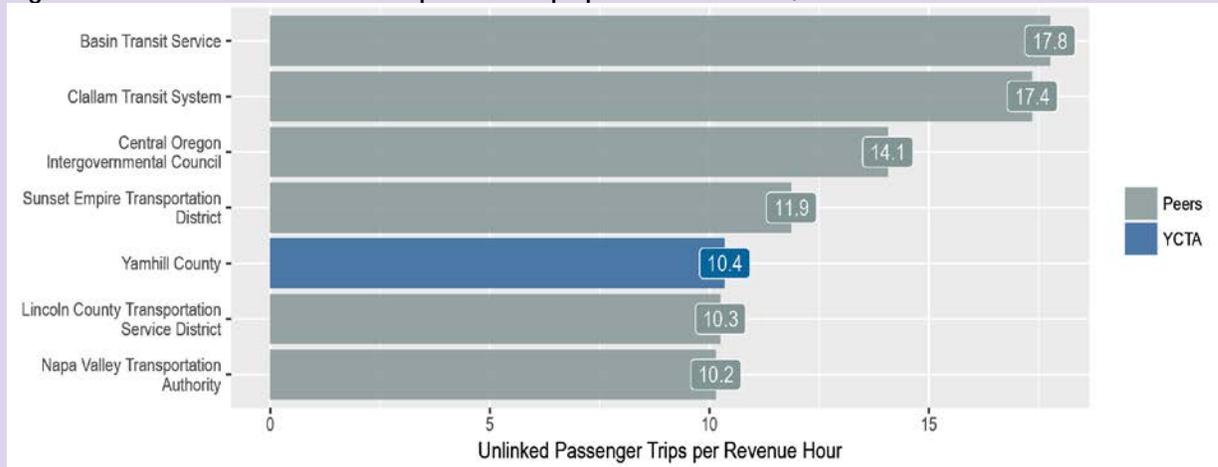
Note: % change is year-to-year, except for 2012-2016 which is % change between 2012 and 2016.

Source: 2012-2014 from National Transit Database. 2015 and 2016 from YCTA.

Peer Comparison: Fixed-Route Service Effectiveness

Service effectiveness measures “productivity” in terms of the number of passenger trips served per vehicle revenue hour of service provided. YCTA provides moderately productive service relative to the amount of service it provides and exceeds ten trips per revenue hour, which is generally considered an acceptable level for a large area like Yamhill County.

Figure 3-11 Fixed-Route Peer Comparison: Trips per Revenue Hour, 2015



For peer review details see TDP Volume II, Section 2: TM #2, Chapter 3 and Appendix C

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Fixed-Route Ridership and Performance

Figure 3-12 summarizes fixed route performance statistics and ridership by route, based on data collected for each trip over a three-week period from April 24 - May 10, 2017. Highlights include:

Detailed route profiles can be found in TDP Volume II, Section 2: TM #2, Chapter 2 and Appendix A

- There were 811 daily boardings on weekdays and 147 boardings on Saturdays.
- Most local ridership was in McMinnville. The highest intercity ridership was on Route 44/45x between McMinnville, Newberg, and Tigard.
- Route 3 in McMinnville had the lowest on-time performance among local routes; 41% of trips were late (five minutes or more behind schedule). This is in part due to high ridership demand and a large number of individual stops, including flag stops.
- Routes 5 and 7 in Newberg had very low productivity.
- Route 44/45x had the lowest on-time performance among intercity routes; nearly 50% of trips were late. This is in part due to heavy traffic congestion on the OR 99W corridor, due in part to the Dundee Bypass construction in 2017. On-time performance on YCTA’s other local routes was also relatively low (64% to 71%) indicating that schedules need to be re-timed.

Figure 3-12 Route Summary Table based on Ridecheck, May 2017, Daily

Route		Boardings	Alightings	Service Hours	Productivity	On Time	Early	Late	Max Load	Max Load Stop
Weekday										
2	East-West Express	108	108	8.2	13.1	83%	17%	1%	8	NE Tanger Dr & NE Norton Ln (DHS)
3	City Loop	121	119	7.7	15.8	58%	1%	41%	9	Town Center / Dutch Bros.
5	Foothills Drive	8	5	4.6	1.7	82%	4%	14%	2	Nap's Thriftway (Newberg)
7	Providence	11	12	6	1.8	91%	6%	3%	2	Newberg (Radio Shack)
11	West Salem	56	53	6.6	8.5	64%	11%	25%	12	Amity Hwy 99 @ Chevron
22	Grand Ronde	124	104	11.1	8.8	67%	6%	27%	13	Spirit Mountain East Entrance
33	Hillsboro	85	61	8.5	10	71%	2%	28%	24	Carlton - N Pine St. Bus Shelter
44	Tigard	275	270	22.9	11.2	47%	6%	47%	25	Sherwood Shari's
45x	Tigard Express	22	22	2.2	10.2	44%	6%	50%	13	Sherwood Shari's
Total / Average		810	754	77.8	9	67%	7%	26%	12	
Saturday										
24s	Grand Ronde	41	34	6.3	6.5	76%	1%	23%	6	Spirit Mountain East Entrance
46s	Tigard	107	113	9.3	11.5	41%	3%	56%	17	Sherwood Shari's
Total / Average		148	147	15.6	9	58%	2%	40%	11.5	

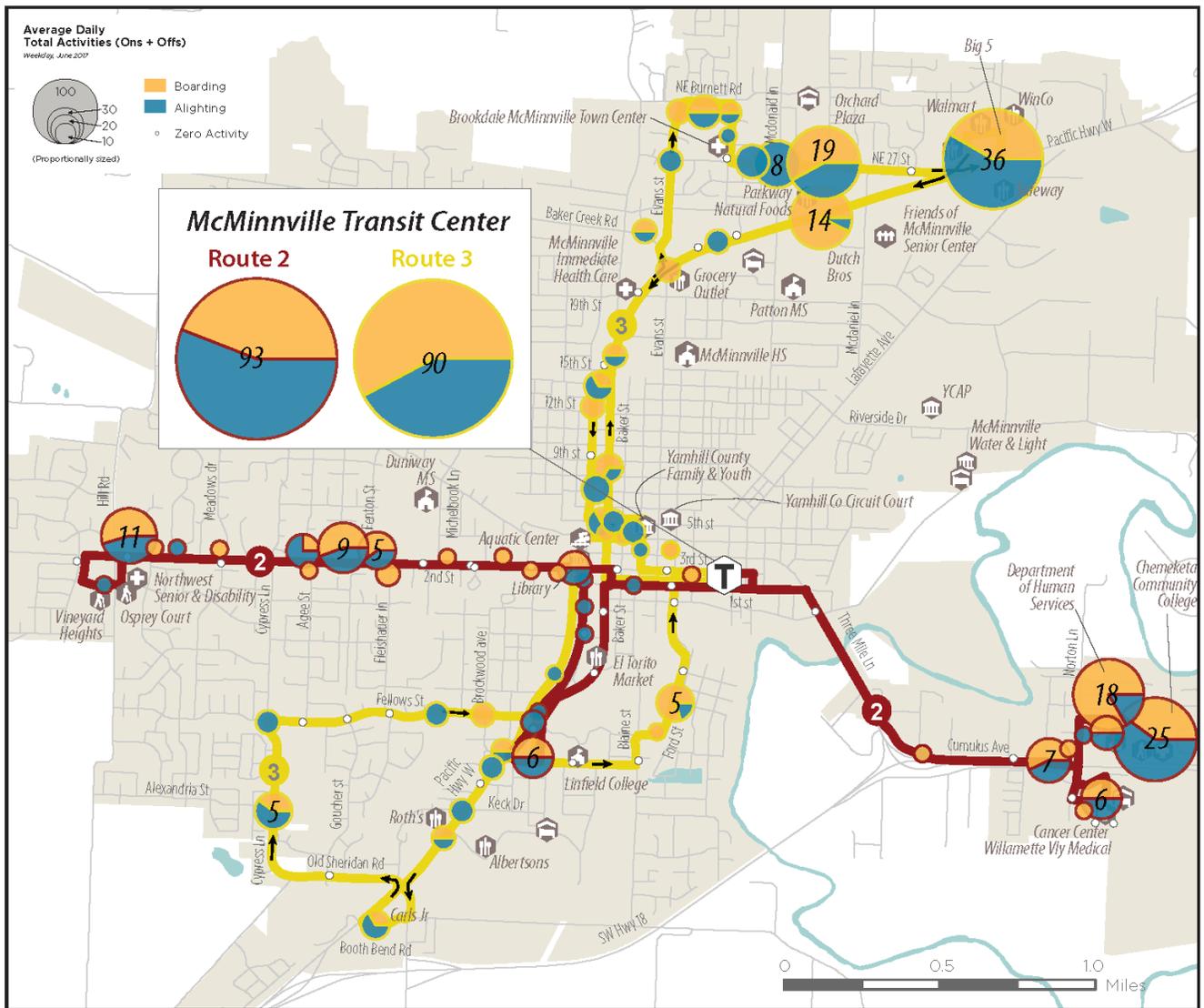
McMinnville

Figure 3-13 shows daily ridership on the local bus routes serving McMinnville:

- Route 2 travels east-west through McMinnville between Chemeketa Community College (CCC), Willamette Valley Medical Center, and senior and social services.
- Route 3 travels north-south through McMinnville, serving destinations including WinCo, Walmart, and Safeway in the northeast and Walgreens, BiMart, Roth’s, and Linfield College to the south.

Both routes have strong ridership, particularly the north portion of Route 3 and the east portion of Route 2. As noted above, on-time performance is a significant operational challenge on the north portion of Route 3.

Figure 3-13 McMinnville Routes Daily Ridership, Spring 2017



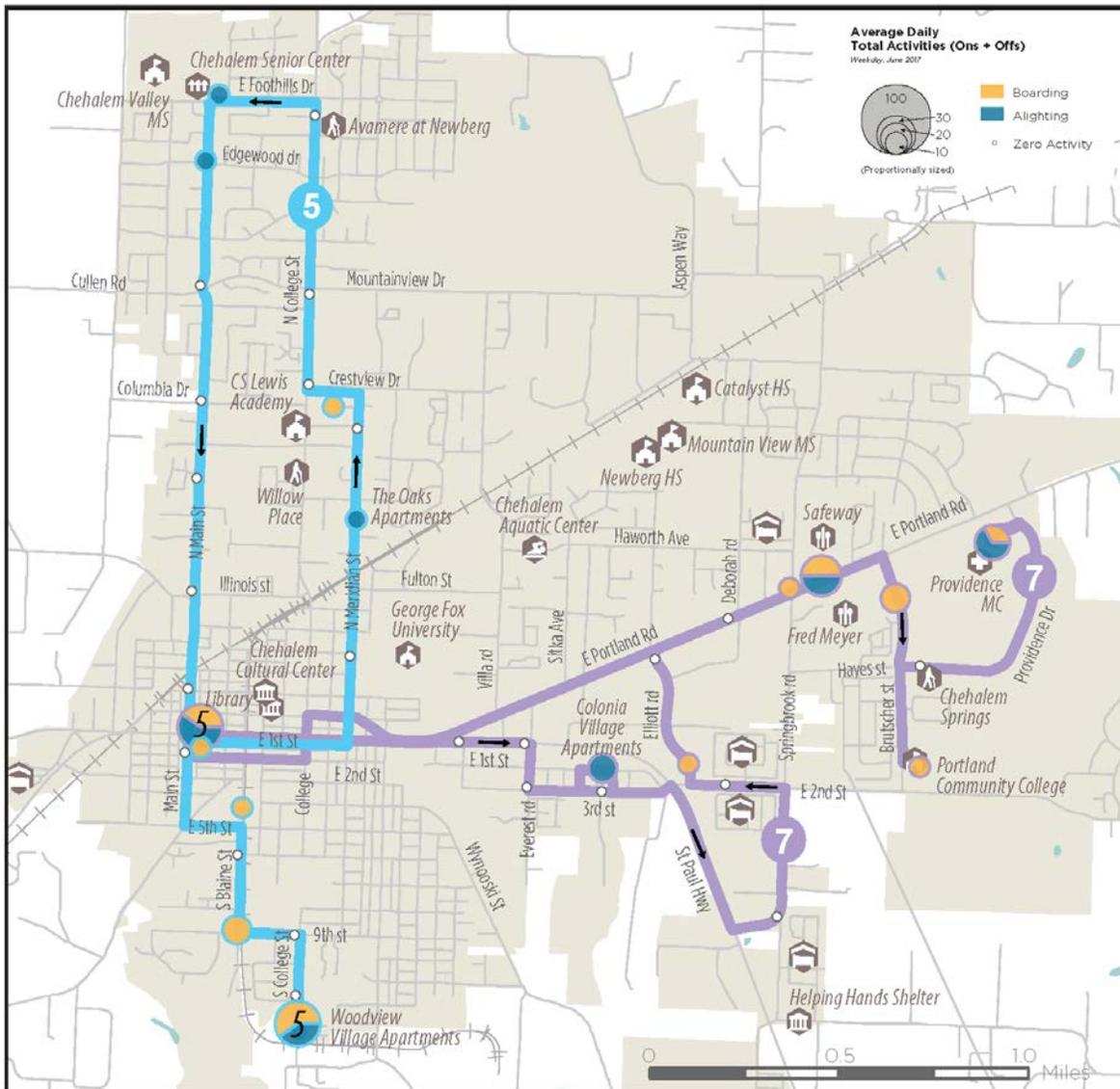
Newberg

Figure 3-14 shows daily ridership on the local bus routes serving Newberg:

- Route 5 travels a loop around the northwest Newberg, serving George Fox University and several senior facilities, with a “there-and-back” line south of downtown connecting to Woodview Village Apartments.
- Route 7 travels east-west through Newberg, connecting Providence Medical Center, Portland Community College, and grocery stores to downtown Newberg. Bus stops along OR 99W may be 300 to 600 feet from the front door of retail stores, through parking lots that typically lack pedestrian accessways.

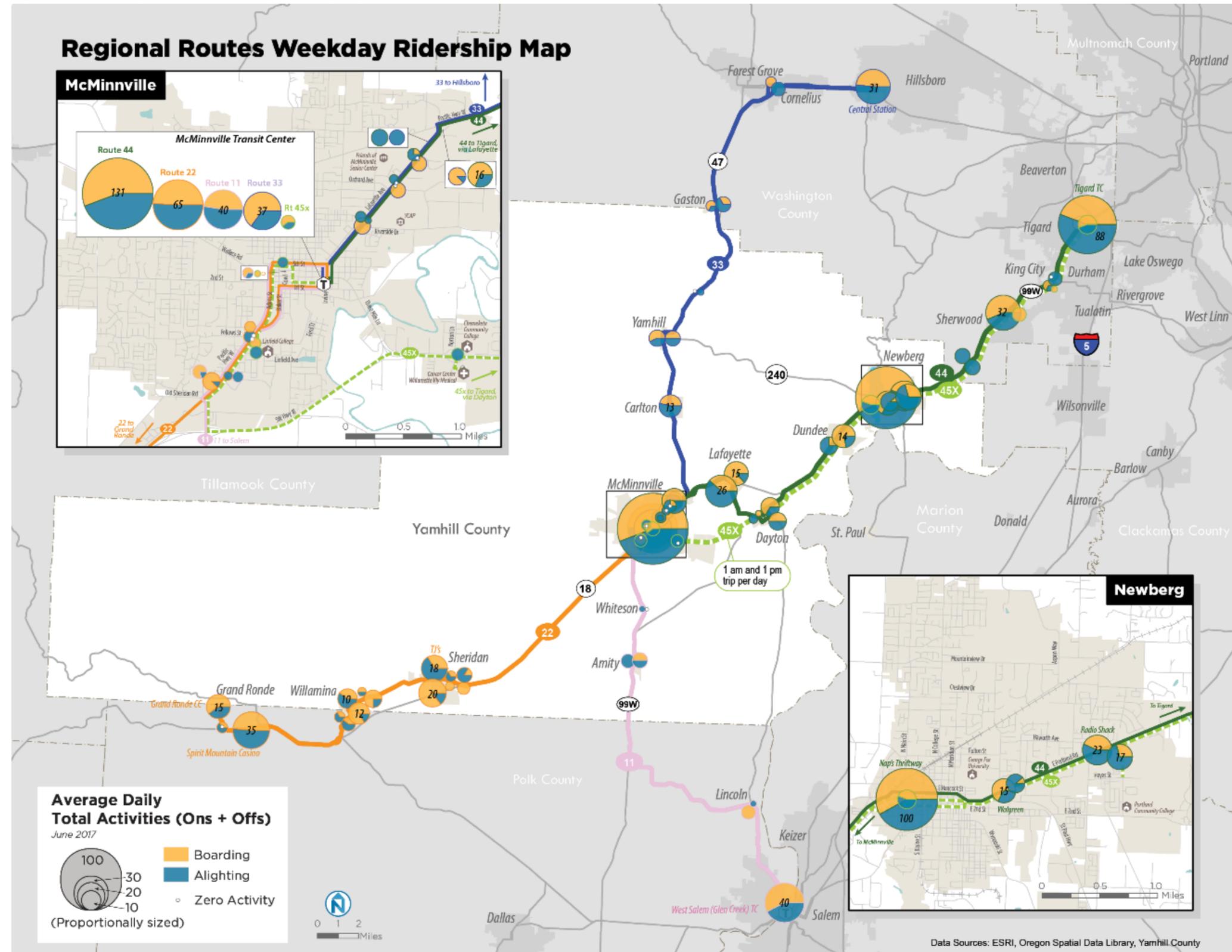
Ridership and productivity (ridership per service hour) was extremely low on local routes in Newberg during the survey period. George Fox University was no longer in session when the survey was conducted; however, a separate survey while George Fox was still in session (week of April 17) did not show ridership activity at the Route 5 stop serving the University.

Figure 3-14 Newberg Routes Daily Ridership, Spring 2017



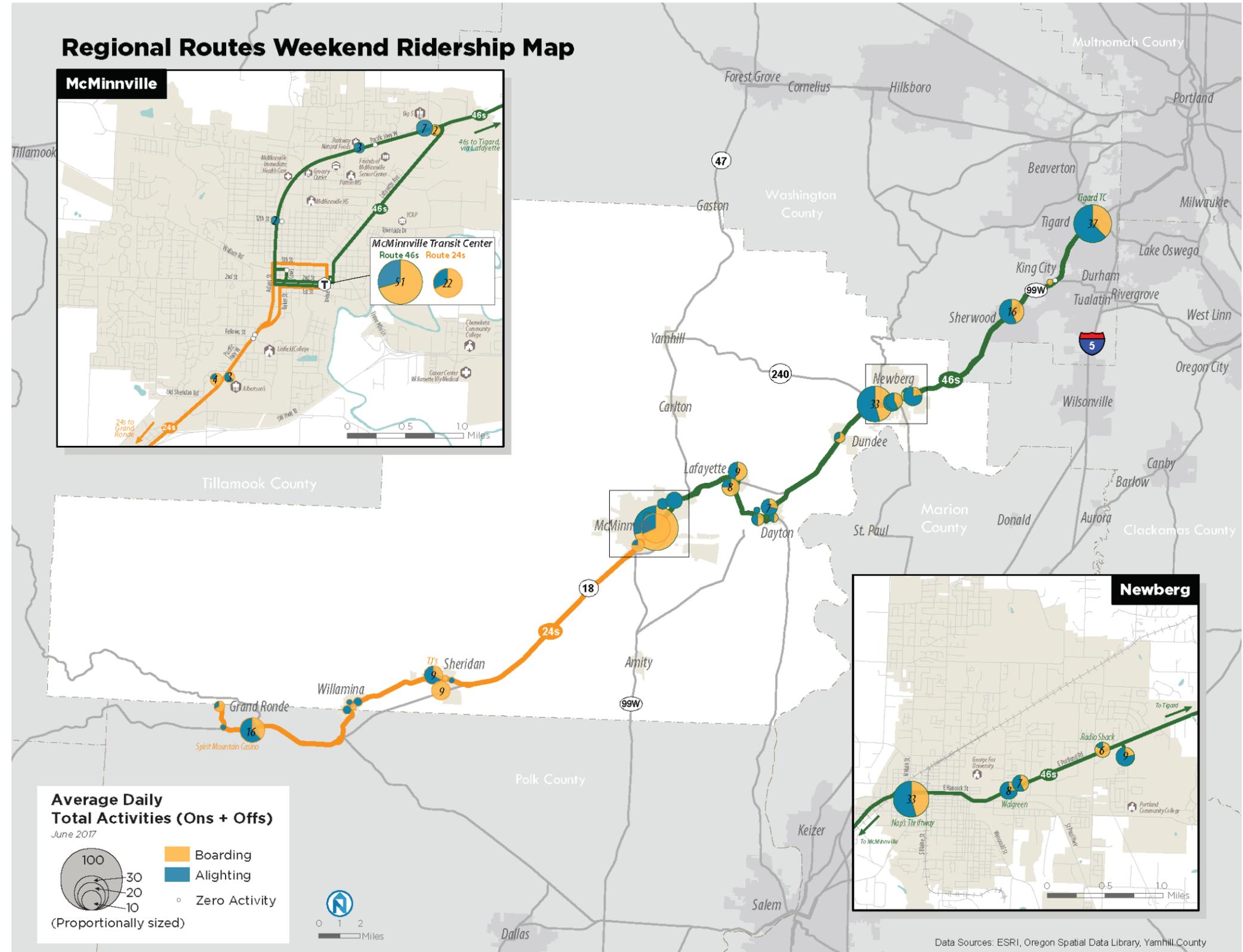
- Route 11 (McMinnville-West Salem Transit Center):** Ridership to McMinnville Transit Center is highest in the morning, and ridership to West Salem Transit Center is highest in the afternoon. Most boarding activity occurs in McMinnville and West Salem.
- Route 22 (McMinnville-Grand Ronde Community Center):** Ridership is relatively balanced in each direction; the Grand Ronde direction has both a morning and afternoon peak while the McMinnville direction is relatively steady across all trips in the morning and afternoon with a late afternoon peak. Boarding activity is also relatively balanced along the route.
- Route 33 (McMinnville-Hillsboro Central Station):** Ridership for the route is relatively steady across all trips but is highest on the northbound 10:30 AM trip to Hillsboro Transit Center. Boarding activity is strongest in McMinnville and Hillsboro but also moderately strong in Yamhill and Carlton.
- Route 44 (McMinnville-Tigard Transit Center):** Ridership is steady throughout the day, highest on the late morning trips in both directions and lowest on the early evening trips. Ridership is highest at McMinnville Transit Center, Nap's Thriftway in Newberg, and Tigard Transit Center, but is also relatively steady across the route including along Hwy 99 in Newberg.
- Route 45x (McMinnville-Tigard Transit Center Express):** This route currently makes one trip to McMinnville in the morning and one trip to Tigard in the afternoon. Ridership activity is highest at Tigard TC, Nap's Thriftway, Linfield College, and Willamette Valley Medical Center in McMinnville.

Figure 3-15 Regional Routes Weekday Ridership Map



- **Route 24s (McMinnville-Grand Ronde Community Center):** Ridership is relatively balanced across all four weekend trips (midday and late afternoon trips in the McMinnville direction have the highest ridership) and is also relatively balanced across stops.
- **Route 46s (McMinnville-Tigard Transit Center):** Ridership is relatively balanced across all four weekend trips (midday and late afternoon trips have the highest ridership) and is also relatively balanced across stops. Route 46s provides local service on Hwy 99 in McMinnville since the local fixed-routes do not operate on Saturdays.

Figure 3-16 Regional Routes Weekend Ridership Map



Dial-A- Ride Ridership and Performance

YCTA’s demand-response service includes general public Dial-a-Ride and ADA paratransit (serving person who are unable to use fixed-route service due to a disability, within a 3/4 mile distance of fixed-route service in McMinnville and Newberg). Both types of trips are scheduled on the same vehicles. In 2016, demand-response service carried 31,264 riders in the McMinnville area and 10,701 in the Newburg area. On an average month in 2016, the demand-response services transported 3,497 boardings using 1,059 revenue hours—an average of 3.3 passengers per hour. Figure 3-18 shows demand-response travel patterns over a two-week period in April 2017.

Dial-A-Ride ridership and performance highlights include:

- Approximately 90% of the trips analyzed either started or ended in McMinnville (60%) or Newberg (30%), with some rides serving Amity and Dundee (see Figure 3-18). This is due in part to limited capacity and resources to provide broader coverage in the county.
- The vast majority of demand-responsive trips are general public Dial-A-Ride; during the analysis time period, only 18 of 1,848 demand-response trips were classified as ADA trips.
- Demand is spread generally across the day, with peaks occurring at 8 AM, 11 AM, and 1 PM. This pattern generally remains consistent on all days of the week, with slightly above average ridership on Monday, Wednesday, and Friday, which could indicate part-time work schedules or other regularly scheduled activities.
- Of the 1,417 trips in April 2017 with a recorded booking purpose, 80% were work trips. As shown in Figure 3-18, top destinations include employment locations such as A-dec and Meggit Silicone; other locations are residential care or supportive housing facilities facilitating work placement and training.

Peer Comparison: Demand-Response Service Effectiveness

Service effectiveness measures the productivity of demand-response service, in terms of the number of passenger trips served per hour of service provided. YCTA demand-response trips per revenue hour rank in the middle of the selected peers, and within industry standards for demand-response service.

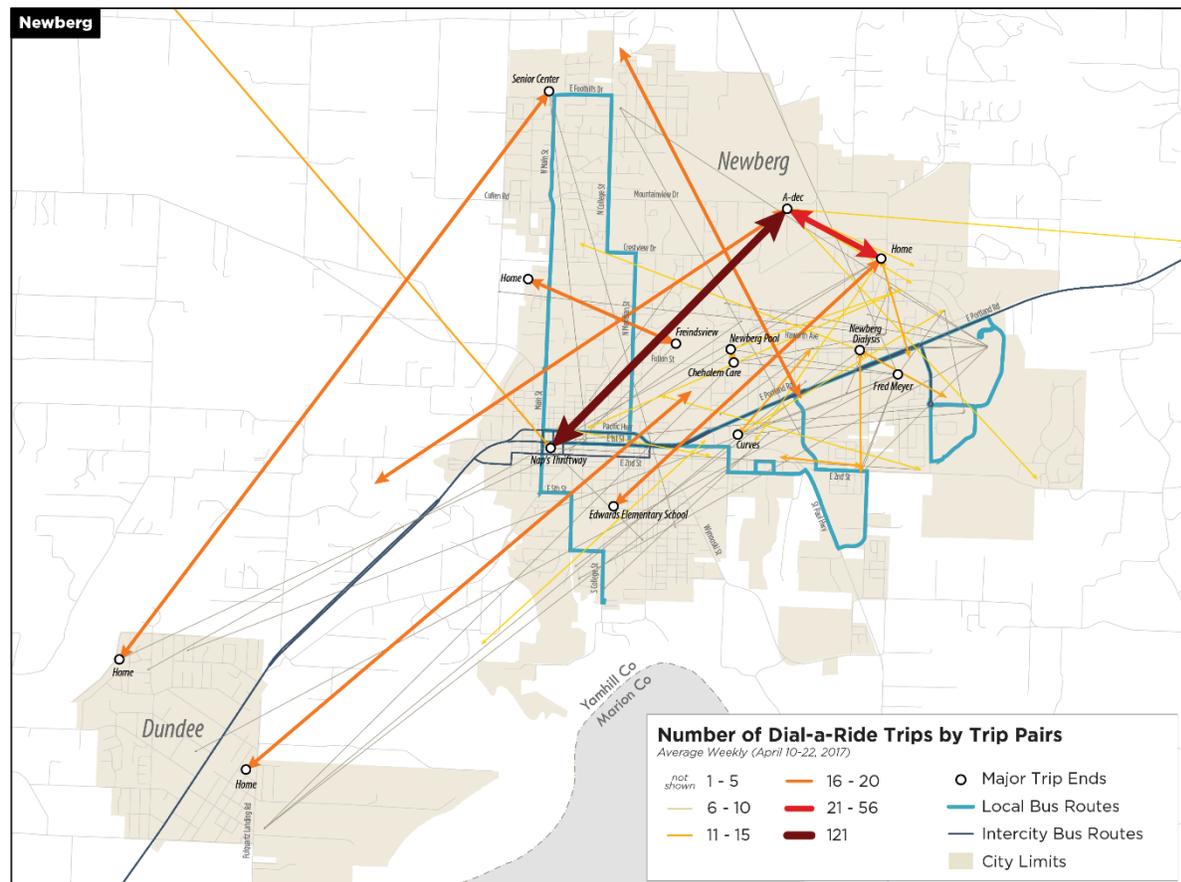
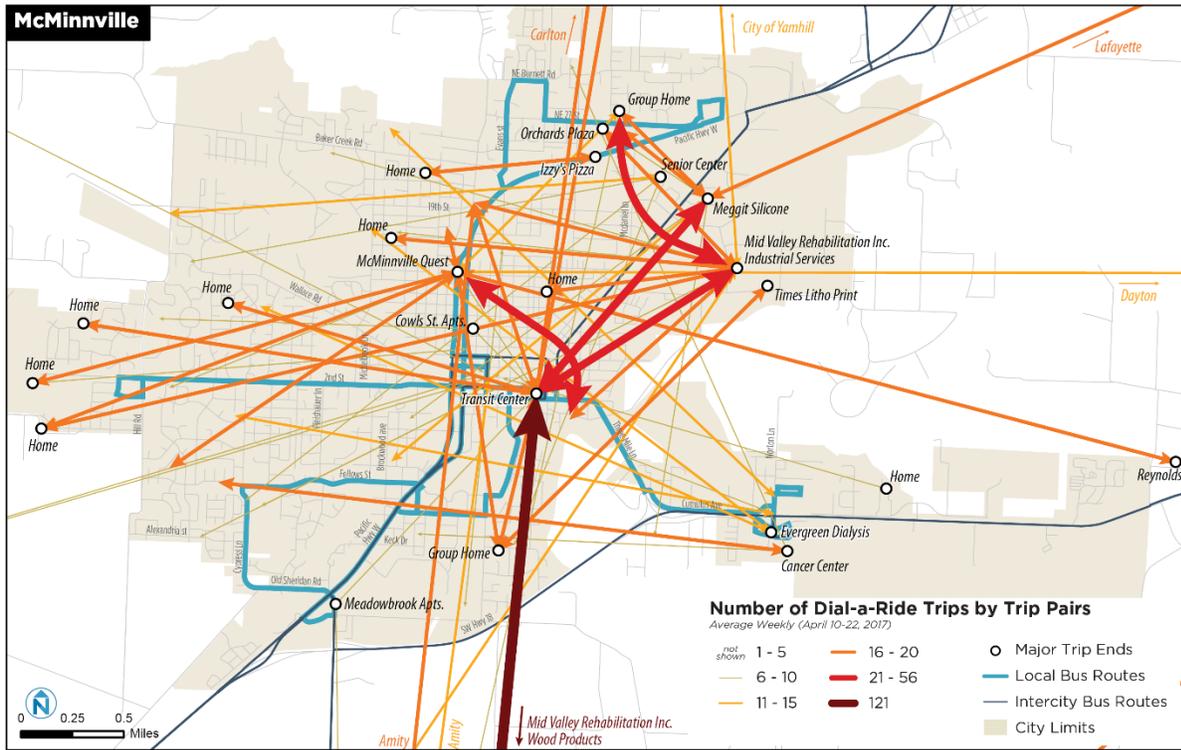
Figure 3-17 Demand Response Peer Comparison: Trips per Revenue Hour, 2016



For or peer review details see TDP Volume II, Section 2: TM #2, Chapter 3 and Appendix C

Source: National Transit Database 2015; US Census Bureau American Community Survey 5-year estimate.

Figure 3-18 Dial-A-Ride Origin Destination Patterns, McMinnville and Newberg



OTHER TRANSPORTATION SERVICES

Regional Transit Providers

YCTA’s intercity routes connect passengers to neighboring transit systems outside the county. These neighboring systems include:

Tri-County Metropolitan Transportation District of Oregon (TriMet) operates transit service in the Portland metropolitan area, serving communities in Clackamas, Multnomah, and Washington counties. TriMet operates several modes of fixed-route service, including five light rail (MAX) lines, one commuter rail line (WES), and 79 bus lines. Service runs between 4:30 AM and 2:30 AM; however, WES runs during weekday commute hours only. TriMet also operates the Portland Streetcar. LIFT is TriMet’s complementary ADA paratransit service, operating within a ¼-mile buffer of TriMet fixed routes. YCTA connects to TriMet in Hillsboro and Tigard. TriMet plans to build a MAX light rail extension to Tigard Transit Center, opening in 2025 or later.

Appendix B provides an inventory of other public transportation services. Additional detail on other transportation services can be found in TDP Volume II, Section 2: TM #2, Chapter 3 (see pages 3-41 to 3-47). See Chapter 9 for recommendations on improving regional coordination.



YCTA Route 33 at the Hillsboro Central MAX Station/Transit Center. There is no designated bay or signage for YCTA, but YCTA is working with the City of Hillsboro to install a stop pole and seat.

Cherriots provides public transit service in the Salem metropolitan area. Cherriots services run weekdays from approximately 6 AM to 9 PM. CherryLift is Cherriots’ ADA paratransit service, available within a ¼-mile buffer of Cherriots fixed route service. Cherriots Regional service connects to communities in Marion and Polk Counties, including Woodburn and Dallas, as well as Wilsonville.

Tillamook County Transportation District (TCTD) operates a Coastal Connector route (60X) that links Lincoln City, Chinook Winds Casino, Rose Lodge, Grand Ronde, and downtown Salem seven days a week. TCTD also operates the Grand Ronde Express (70X) between Grand Ronde and downtown Salem on weekdays only. TCTD is one of five member agencies of the [Northwest Connector](#) (NW Connector). Member agencies’ routes have a unified website and branding to improve connectivity between communities across northwestern Oregon.

Ride Connection is a non-profit organization made up of a network of agencies who partner together to serve older adults, people with disabilities, low-income individuals, and the general public. Ride Connection serves the three counties in the TriMet District (Clackamas, Multnomah, and Washington). Ride Connection’s Community Connector deviated fixed-route services based in Hillsboro and Forest Grove connect with YCTA. The Forest Grove GroveLink service operates from 6 a.m. to 7 p.m. with peak service in the morning and evening commute times. It features two loops – an east and a west loop – as well as an employment service providing a dedicated route to TTM Technologies in eastern Forest Grove. The Washington County Community Bus operates a morning (approximately 7 AM to 9 AM) and evening (approximately 4:30 PM to 7 PM) commuter bus between Forest Grove, Hillsboro, Banks, and North Plains.

South Metro Area Transit (SMART) operates transit in Wilsonville. SMART adopted a transit master plan in 2017 that calls for SMART to realign its 2X commuter route between Wilsonville and Southwest Portland to serve Tigard TC, filling in gaps when TriMet WES service does not operate.

Figure 3-19 highlights the primary connection points between regional providers and YCTA service.

Figure 3-19 Summary of Regional Transit Connections

Community	Location	Provider	Routes
Tigard	Tigard Transit Center (8960 SW Commercial, Tigard); https://trimet.org/transitcenters/	TriMet	WES commuter rail(weekday peak only); Routes 12, 45, 64, 76, 78, 93
		YCTA	Routes 44, 45x (weekday); 46s (Saturday)
Hillsboro	Central MAX Station/Transit Center (333 SE Washington St); https://trimet.org/transitcenters/	TriMet	MAX Blue Line; Routes 46, 47, 48, 57
		Ride Connection	Washington County Community Bus (weekday only)
		YCTA	Route 33 (weekday only)
Forest Grove	Tualatin Valley Hwy and OR 47	TriMet	Route 57
		Ride Connection	GroveLink (weekday only)
		YCTA	Route 33 (weekday only)
West Salem	West Salem Transit Center (Glen Creek Rd NW & Cornucopia St NW); https://www.cherriots.org/en/baymaps	Cherriots	Routes 16, 17, 26, 27 (all weekday only, although Saturday service is planned for some routes)
		YCTA	Route 11 (weekday only)
Grand Ronde	Spirit Mountain Casino or Grand Ronde Community Center	TCTD	Coastal Connector (60X) and Grand Ronde Express (70X, weekday only)
		YCTA	Route 22 (weekday); 24s (Saturday)

Additional Transportation Services

Human Services / Medical Transportation

Social service transportation providers in Yamhill County include a mix of schools, churches, nonprofits and human service agencies. Many of these providers operate a single van or passenger vehicle. As of 2016, nine social service agencies are actively involved or interested in providing transportation service in Yamhill County. Eight agencies are based in McMinnville, and two are based in Salem. See Appendix B for a description of the transportation services these agencies are involved with, and for whom they are available.

Vanpool/Carpool

Cherriots Rideshare is a public ridesharing service operated in Marion, Polk, and Yamhill counties. It is a part of Cherriots’ Trip Choice program, which connects commuters with carpool and vanpool partners through Drive Less Connect, a demand-management program operated by the State of Oregon.

Volunteer Service

Yamhill-Carlton Volunteer Transit is a volunteer demand-response service, intended for first/last-mile trips connecting with YCTA fixed-route bus services. Volunteer drivers, operating a Yamhill-Carlton Volunteer Transit van, drive passengers between their trip origin in Carlton (often their home) and the nearest YCTA bus stop. Trips must be reserved at least 24 hours in advance, and the fare is \$2. The fare includes a YCTA fixed-route day pass. Yamhill County oversees this program and provides funding from the County General Fund. The program has one vehicle, which is owned by the County and maintained by the County maintenance shop.

Airport Transportation

HUT Airport Shuttle operates a shuttle service to Portland International Airport seven days per week. The service is based in Albany, and has stop locations south and east of Yamhill County in Corvallis, Salem, and Woodburn. As an example of fares, a one-way adult rate for service from Corvallis to the airport is \$49.

Taxi Service

According to Yamhill County's 2016 Coordinated Public Transit – Human Services Transportation Plan,¹² four taxicab companies operate in Yamhill County. These include Super Cab and Rick Shaw Taxi in McMinnville, Advanced Taxi Service in Newberg, and Yellow Cab in Beaverton.

Ride-Hailing Services or Transportation Network Companies (e.g., Lyft and Uber)

Although Yamhill County is mostly outside of the official Lyft and Uber service areas, trips on these services can be scheduled for parts of Yamhill County. The ability to schedule a trip appears to be somewhat limited based on availability of drivers to serve the trip, particularly outside of the OR 99W and OR-18 corridors, such as a trip in the OR 47 corridor that originates outside of the service areas.

Tourist-Oriented Services

Spirit Mountain Casino operates shuttle bus routes between the Portland and Salem Metro Areas and the casino.¹³ One of the routes serves Newberg and leaves from BiMart at 590 Haworth Ave in Newberg every Monday and Wednesday at 9 AM and leaves the casino at 3:15 PM. The shuttle is free, but requires a free Coyote Club membership. The casino operates the service with five over-the-road coaches. There must be 10 passengers or more for the shuttle to operate.

Several private shuttle services specialize in wine tours throughout the Willamette Valley, including Yamhill County. These private shuttles range from standard transportation to and from regional wineries, to tours that include additional wine-related programming. A list of shuttle services is provided in Appendix B.

See Appendix B for an inventory of public transportation providers. Chapter 9 provides additional discussion of Ride-Hailing Services.

¹² Yamhill County Coordinated Public Transit – Human Services Transportation Plan, 11/2016. <https://tinyurl.com/y6vj2ang>

¹³ <https://www.spiritmountain.com/shuttle>

4 COMMUNITY INPUT AND NEEDS ASSESSMENT

This chapter summarizes public input gathered in the Existing Conditions phase of the YCTA TDP study, and provides an overall assessment of transit needs based on both community input and the analysis of existing conditions.

SUMMARY OF COMMUNITY INPUT

Input was gathered from current riders, the general public, and a variety of stakeholders. Each outreach element is listed in Figure 4-1. The first phase of TDP outreach in Spring/Summer 2017 focused on helping develop goals for YCTA and understanding current conditions and needs. This section summarizes the results; additional details can be found in the documents indicated in the table. Additional public outreach focused on solution strategies and service design was conducted in March 2018 and is summarized in Chapter 6.

Figure 4-1 Summary of TDP Community Input

Time Frame	Project Tasks	Outreach Tools	Detailed Results
Spring / Summer 2017	Goals	<ul style="list-style-type: none"> Outreach events 	<ul style="list-style-type: none"> Volume II, Section 1: TM #1
	Existing Conditions	<ul style="list-style-type: none"> On-board rider survey 	<ul style="list-style-type: none"> Volume II, Section 2: TM #2, Chapter 4 and Appendix D
		<ul style="list-style-type: none"> Community survey 	<ul style="list-style-type: none"> Volume II, Section 2: TM #2, Chapter 4 and Appendix E
		<ul style="list-style-type: none"> Stakeholder meetings and focus groups 	<ul style="list-style-type: none"> Volume II, Section 2: TM #2, Chapter 4 and Appendix F
		<ul style="list-style-type: none"> Bus operator interviews 	<ul style="list-style-type: none"> Volume II, Section 2: TM #2, Chapter 4 and Appendix G
March 2018	Solution Strategies Service Design	<ul style="list-style-type: none"> Outreach events Community survey 	<ul style="list-style-type: none"> TDP Chapter 6 and Volume II, Section 4: TM #4, Chapter 6 and Appendix A



The project team held outreach events in McMinnville (Transit Center and Community Center) and in Newberg (Nap's Thriftway and Chehalem Cultural Center) on March 2 and 7, 2018 to obtain input on draft solutions from riders and the public.

Rider (On-Board) Survey

YCTA conducted a survey of current riders on-board buses in April 2017, covering all trips on at least one weekday and weekend day. A total of 306 surveys was collected, including 10 in Spanish.

On-board survey highlights include:

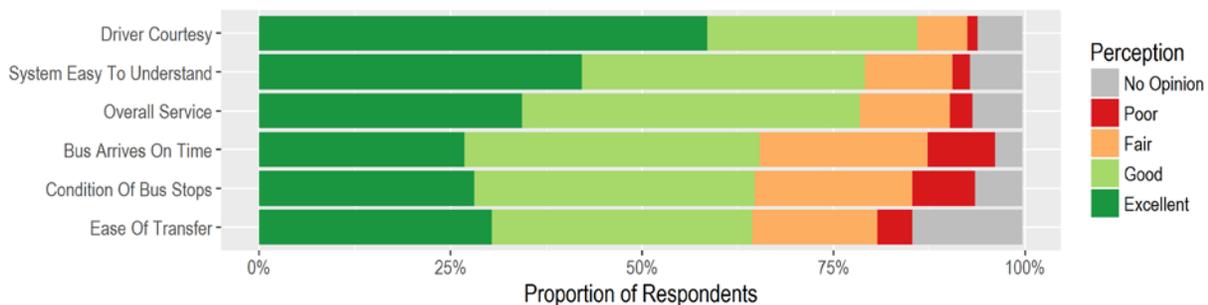
- **Age:** Mostly riders are between age 18 and 64. Approximately 4% of riders are 17 or under and 6% are 65 or over.
- **Labor Market Status:** Two-thirds of riders surveyed are employed—43% work full-time and 24% work part-time. Nearly 20% are students.
- **Income:** Over 70% of YCTA riders have a household income of less than \$30,000 annually, including 43% who earn less than \$15,000 per year.
- **Trip Purpose:** Most people (47%) used YCTA for travel to/from work, with other purposes evenly split between personal business, recreation/social, college/school, medical, and shopping. Linfield College and Chemeketa Community College were the most common school destinations.
- **Transfer Activity:** Approximately 29% of survey respondents connected to/from another YCTA route and/or another provider on at least one end of their transit trip.
- **Access to Transit:** More than 60% of respondents indicated they walk to and from the bus stop and the walk takes 10 minutes or less for most riders.
- **Frequency of use:** The vast majority of riders (81%) are frequent riders—who use YCTA service two or more days per week.
- **Transit Reliance:** Nearly a third of respondents indicated they would have been unable to make the trip if the bus services were not available.
- **Out-of-County Origins and Destinations:** Passengers traveling outside of Yamhill County using Route 33 (Forest Grove and Hillsboro) and Route 44 (Sherwood, Tualatin, and Tigard) connect to/from TriMet service for travel to locations in Beaverton, Hillsboro, Tigard, and around the Portland area. Route 11 passengers travel to/from other parts of the Salem area using Cherriots service (YCTA service ends at West Salem Transit Center).

Customer Satisfaction

Over three-quarters of respondents rated their overall satisfaction with service as “good” or “excellent.”

- The vast majority of respondents (86%) rated driver courtesy as “good” or “excellent.”
- Most respondents (over three-quarters) indicated the system is easy to understand, although most respondents are frequent riders who are already familiar with the system.
- Satisfaction was lowest for on-time arrivals, the condition of bus stops, and ease of transfers.

Figure 4-2 Satisfaction with Transit Service



Q10: Please rate your perception of YCTA service (N=306)

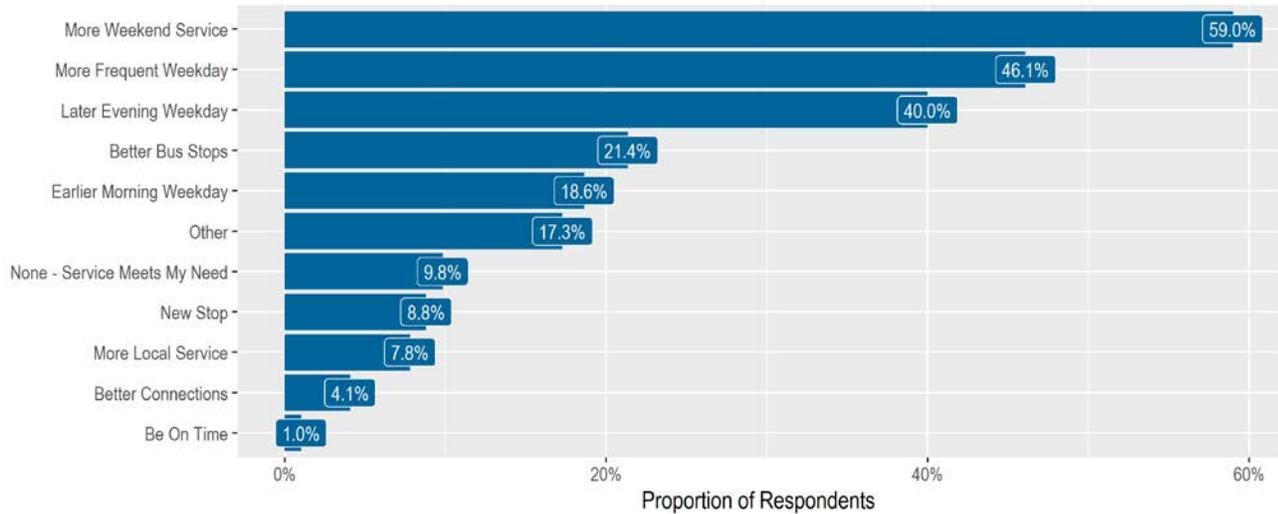
Improvement Priorities

The top priorities among existing riders for improving service are:

- More service on weekends (nearly 60%)—also the single most important improvement (over 28%)
- Increased frequency on weekdays (46%)
- Later evening weekday service (40%). Most of these respondents service wanted service to run until 8 PM or 9 PM. (Respondents who identified earlier morning service as an improvement wanted service to start at 6 AM or earlier.)

Smaller shares of respondents identified better bus stops and earlier morning service within the “Top 3” improvements. Nearly 10% of passengers indicated that service as it operates today meets their needs.

Figure 4-3 Top Service Improvements Requested by Respondents



Q11: Please select up to THREE improvements that would help you choose to ride the bus more often (n=296)

For details on the On-Board Survey see TDP Volume II, Section 2: TM #2, Chapter 4 and Appendix D

Community Survey

YCTA conducted a survey of the overall community to help understand travel patterns, opinions about transit, and likelihood of taking transit among the general public. The survey was available from late June 2017 through August 22, 2017. The survey was available online in English, and a paper version of the survey was available in both English and Spanish. A total of 405 surveys was collected—329 online and 76 hard-copy responses. Approximately a third of people who took the survey live in McMinnville, a third live in Newberg, and a quarter reside elsewhere in Yamhill County. The remaining responses came from people who live outside of Yamhill County.

Highlights from the Community Survey include:

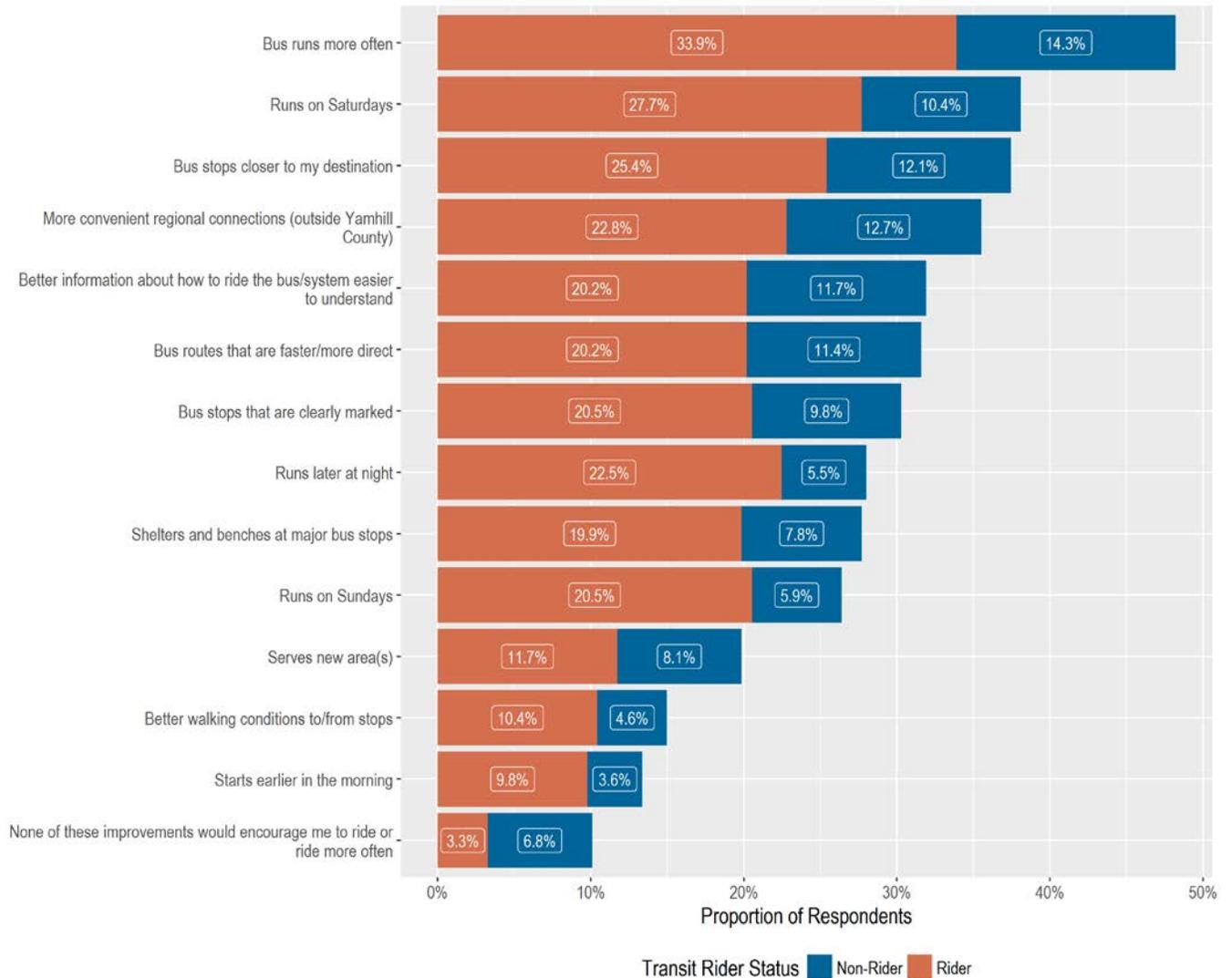
- The top destinations people would like to access by transit include major retailers (Fred Meyer, Winco, Safeway, Walmart, Albertson's, etc.) and major institutions (George Fox University, Providence Newberg Medical Center, etc.). McMinnville and Newberg were identified as key destinations from other Yamhill County cities, as were regional connections to the Portland and Salem areas.
- Over 75% of people who took the survey have access to a vehicle and would be considered "choice" riders. Approximately 60% indicated that they and/or a member of their household used public transportation within the past year, most of whom (60%) were occasional riders.
- Among people who took the survey and did not use transit in the past year, nearly half simply prefer to drive. Reasons other people did not use transit include that it is not available near their home (41%), takes too long (37%) or does not run when (34%) or where (28%) they need it to go. A relatively small share (22%) felt uncomfortable riding transit or was concerned that it is unsafe. Approximately 71% of people who did not use transit still identified a moderate or high benefit to the community from public transit service.

Preferences for Transit Improvements

The top improvement that would encourage people to ride transit or to ride it more often is more frequent service. Figure 4-4 identifies a variety of other potential improvements. There did not appear to be a significant difference in priorities between people who had used public transportation in the past year and people who had not used transit.

Nearly 29% of respondents prioritized later evening hours. Several people commented that expanding the hours of service are an important factor in making transit work for people who don't get off work until 6 p.m. or 7 p.m., work later evening shifts, or attend college classes that run at night. Most of these respondents (70%) suggested that service end between 8:00 p.m. and 10:00 p.m. Of the 14% of respondents who said earlier service would encourage them to use the service, most wanted a start time before 6:00 a.m.

Figure 4-4 Support for Potential Improvements (up to 5 Priorities)



Q20 (Q8) What types of improvements to bus service would help you ride Yamhill County Transit or ride more often? Please rank your top five choices. (n=307)

Relative Preferences for Potential Transit Funding Options

People were asked to identify their *relative* preference for different potential local options for funding public transportation improvements in Yamhill County. By a wide margin, people preferred a countywide product-specific tax (such as lodging, cigarettes, or alcohol)—77% of the top three ranked choices. A new vehicle fee and a business payroll tax were the next most favorably ranked local funding options—66% and 52% of the top three choices, respectively.

Q22 (Online Only): Today, the County General Fund makes up about 10% of the YCTA operating budget (about \$2 million annually). State and Federal funding may not keep pace with the cost of YCTA's current service levels. Please rank the following local funding options for public transportation improvements in order of preference. 1 is most preferred, 7 is least preferred. (n=202)

For details on the Community Survey see TDP Volume II, Section 2: TM #2, Chapter 4 and Appendix E. Figure 4-12 in TM #2 provides a chart showing support for various options.

Focus Groups

The project team conducted a series of meetings to gather input from the public and stakeholders in a small group setting, including over 40 participants at four meetings facilitated as part of the TDP study process. Figure 4-5 summarizes the issues discussed, input and ideas from focus group participants, and key opportunities.

Figure 4-5 Focus Group Summary

Issue / Topic	Description/Comments	Opportunities
Discussion of awareness and importance of transit in the community		
Awareness of YCTA service	<ul style="list-style-type: none"> People in the community are not aware of current service 	<ul style="list-style-type: none"> Bus stop signs and shelters, travel training, and transit ambassadors could raise awareness
Importance of transit in the community	<ul style="list-style-type: none"> Transit is important for: Older and younger people who can't drive, Kids (major roadways and crossings are not safe), Environmental reasons 	<ul style="list-style-type: none"> Coordinate with the business community
How YCTA could better serve current and new markets		
Agricultural Workers	<ul style="list-style-type: none"> Agricultural work starts early in the morning (5:30 – 7:00 AM until mid-afternoon) 	<ul style="list-style-type: none"> Vans could meet workers at points along the highway; consider vanpools through Cherriots Seasonal hours to accommodate agricultural work
Special Events	<ul style="list-style-type: none"> Transit could improve access and reduce congestion during special events 	<ul style="list-style-type: none"> Events like Dayton Friday Nights, Newberg Old Fashioned Festival, local sporting events (weekends)
Students	<ul style="list-style-type: none"> George Fox University students primarily live on campus; small commute market but students who live on campus might use transit to get around 	<ul style="list-style-type: none"> Partner with Linfield College around later evening service
Barriers to using existing services		
Lack of signage and fixed stops	<ul style="list-style-type: none"> Stops should have signs (or at minimum, some sort of painted marking), benches, and shelters Flag stops not ideal, but should be better advertised 	<ul style="list-style-type: none"> Graphical communication of how to use flag stops Improve legibility of readerboards for visually-impaired, especially stops served by multiple routes
Safety of stops and ability to access to destinations	<ul style="list-style-type: none"> Major roadways and crossings are not safe for kids Safety of stops along OR 99W Difficult to navigate to front door of stores through parking lots 	<ul style="list-style-type: none"> Provide "shopper shuttle" to improve access Work with Willamette Medical Center to Hospital to change from two-way to one-way operation Improve access to McMinnville Senior Center, Winco/Walmart, Roth's, Walgreen's, Safeway, etc.
Dial-A-Ride/ ADA Paratransit	<ul style="list-style-type: none"> Limited awareness of ADA service Dial-A-Ride is inconvenient – need to reserve in advance – but is appealing to some people –get picked up closer to home than fixed-route service 	<ul style="list-style-type: none"> Participants are open to alternative service models, e.g., feeder service to fixed-routes, central connection points, point deviation, shopper shuttles, deviated fixed-routes, etc.
Buses	<ul style="list-style-type: none"> Need to upgrade vehicles and make them more passenger-friendly 	<ul style="list-style-type: none"> YCTA is currently in the process of purchasing new vehicles
Fares	<ul style="list-style-type: none"> Generally perceived as reasonable, but pass costs are high for some populations and fares can be high for large families A modest increase in exchange for more service would be OK 	<ul style="list-style-type: none"> Consider 12 and under, student, and low-income discounts, and bulk pass program Expand locations where passes can be purchased (e.g., Newberg)

Issue / Topic	Description/Comments	Opportunities
Communications	<ul style="list-style-type: none"> ▪ Use a variety of communication mechanisms (email, phone, etc.) ▪ Baker/Evans change not communicated well ▪ Challenging due to driver turnover ▪ Language barrier – drivers and dispatchers; people may not be awareness of the translation service that is available ▪ Send service alerts through Facebook and Twitter and post on website 	<ul style="list-style-type: none"> ▪ Ensure policies allow/facilitate communications and coordination between drivers ▪ YCTA should communicate detour routes to riders (e.g., parades, construction) ▪ Worksource training grants are available and could help to increase diversity (and ability to speak multiple languages) among drivers ▪ Explore possible partnership with High School computer lab (around website/service alerts)
Information	<ul style="list-style-type: none"> ▪ Difficult to obtain printed materials in the past ▪ Website and online are both important ▪ An online trip planner would be useful – website and hone 	<ul style="list-style-type: none"> ▪ Place printed materials at key locations in the community ▪ YCTA technology grant will help enhance capabilities
Safety	<ul style="list-style-type: none"> ▪ Perceived as safe by people who use the system – not considered a barrier. But new riders may not know that (related to awareness). 	<ul style="list-style-type: none"> ▪ See items under “Awareness of YCTA Service”
Discussion of where routes run and provide service today; areas that should be served (including growth areas)		
McMinnville	<ul style="list-style-type: none"> ▪ No service beyond Hill Road in McMinnville (many apartments in growing area) ▪ Apartments near 27th & Hembree near Goodwill (south of Hembree, north of 27th); Burnett Road ▪ Housing at Baker Creek & Hill Road ▪ North American Plants (east of McMinnville) 	
Newberg	<ul style="list-style-type: none"> ▪ Cultural Center/Library ▪ NE Newberg – High School, Aquatic Center, Springbrook north of Fred Meyer (lower-income housing) ▪ Could reduce service frequency in order to increase coverage (more routes that run less often) 	
Other Communities	<ul style="list-style-type: none"> ▪ No service in Sheridan to Deer Meadows. Bus goes past but does not stop 	
Service between communities	<ul style="list-style-type: none"> ▪ Yamhill-Newberg requires transferring in McMinnville. ▪ Newberg-McMinnville travel patterns are mostly for access to services 	
How could YCTA attract more riders and what are the priorities?		
Service Hours (“Span”)	<ul style="list-style-type: none"> ▪ Earlier and later hours are needed for work and school, including arriving at work at 8 AM or 9 AM considering both intercity and local routes 	<ul style="list-style-type: none"> ▪ Consider alternative models for late night service; partner with Linfield College ▪ Seasonal hours (e.g., agricultural workers)
Days of Service	<ul style="list-style-type: none"> ▪ Weekend service is seen as a priority, particularly Saturday but also to Church on Sundays. 	<ul style="list-style-type: none"> ▪ Fares could be higher for Sunday service
Frequency	<ul style="list-style-type: none"> ▪ Mixed opinions on importance of convenience (short walk) and frequency/speed 	
Local vs. Regional Service	<ul style="list-style-type: none"> ▪ Regional connections are useful, but local service is as or more important and needs improvement 	
Improve Transfers	<ul style="list-style-type: none"> ▪ Need well-timed transfers between local and intercity services 	<ul style="list-style-type: none"> ▪ Bring back connection from Route 44 to Oregon Mutual Insurance (OMI)
Other Discussion Items		
Transit Center	<ul style="list-style-type: none"> ▪ Restroom lock and cleanliness issues 	<ul style="list-style-type: none"> ▪ Explore transit center in Newberg
Coordination	<ul style="list-style-type: none"> ▪ The many community organizations in the county can help raise awareness of transit 	<ul style="list-style-type: none"> ▪ Various groups that YCTA should coordinate with (see TM #2)

Issue / Topic	Description/Comments	Opportunities
Park-and-Ride	<ul style="list-style-type: none"> Informal carpooling already occurs 	<ul style="list-style-type: none"> Explore agreements with churches, etc., to support ride share, park-and-ride access
Land Use / Street Infrastructure / Pedestrian Access	<ul style="list-style-type: none"> Consider Newberg ADA/Pedestrian/Bike Route Improvement Plan 	<ul style="list-style-type: none"> Cities should include the transit agency in development process and consider street infrastructure and the ability to accommodate transit related to new development applications

Note: Condensed from TM #2, Figure 4-14 (See TDP Volume II, Section 2)

For details on the Focus Groups see TDP Volume II, Section 2: TM #2, Chapter 4 and Appendix F

OPERATOR INPUT AND FIELD OBSERVATIONS

The consultant team met with bus operators and dispatchers either one-on-one or in small groups to obtain their input, and also rode most bus routes to observe how the system works and had additional informal conversations with drivers while riding the bus routes. Drivers generally communicated that they enjoy their job and appreciate that everyone works as a team to help out (e.g., Dial-A-Ride drivers pick up portions of Routes 3 and 7 when these routes get behind). They feel that they are doing their best but that the current design and timing of some routes is challenging, and the lack or quality of infrastructure reflects badly upon them.

For a detailed synthesis of operator input and the consultant team’s field observations, see TDP Volume II, Section 2: TM #2, Chapter 4 (Figure 4-6) and Appendix G

SUMMARY OF ISSUES AND OPPORTUNITIES

The table below lists key issues and opportunities identified from both community input and analysis during the TDP study Existing Conditions phase.

Figure 4-6 Issues and Opportunities

Topic Area	Issue	Opportunity
Transportation System	Congestion on OR 99 results in transit delays for Routes 44, 45x, and 46s.	The Newberg-Dundee Bypass was completed midway through TDP development; along with the end of construction detours, its completion appears to have alleviated transit delays on OR 99W.
Land Use	The bulk of land uses in the rural portions of the county are within a ½-mile of YCTA routes.	Better promotion of service, including fixed bus stops to identify the presence of transit and where to catch the bus, may help those who can walk to access existing routes.
	Newberg’s residential uses are primarily low and medium density.	The land uses and development patterns in Newberg may be better served by a different type of service than the fixed-routes that are provided today.
	In general, transit routes travel through and between all of Yamhill County’s population centers.	Route alignment is generally good, but changes to service times, frequencies, or better marketing are needed to get people onto buses.

Topic Area	Issue	Opportunity
Market Analysis	Unincorporated areas of the county make up 23% of the population but accounted for 43% of the population growth from 2010-2016.	Opportunities may be limited; unincorporated areas are typically low-density and difficult to serve with fixed-route transit.
	The population growth rates of Carlton, Lafayette, and Newberg were the highest in the county from 2010-2016.	These communities may need additional transit service. Service in Newberg, which has two routes today, may need to be modified to tap into the city's rider market.
	Willamina has high percentages of both low-income residents and people with disabilities.	Many members of this community may be unable to walk to the existing Route 22 McMinnville-Grand Ronde service.
Economy	Vineyards are a major player in the local economy. Locations are spread out throughout the county.	Multiple private companies offer visitor transportation, but there may be an opportunity for YCTA to help transport employees, especially along the OR 99W corridor.
	Four of the county's top 10 employers have no transit service available.	Potentially reroute services to attract employees and coordinate with Cherriots Trip Choice on employer outreach.
Existing Services	YCTA does not serve several major activity centers in McMinnville, including YCAP, Virginia Garcia clinic and senior housing between the clinic and Evergreen Aviation Museum. The Virginia Garcia clinic along Cumulus Avenue in eastern McMinnville is a frequent destination; however, the road linking the Chemeketa Community College campus and Virginia Garcia is only open for emergency vehicles.	Consider revising route alignments. Route 2 could serve Virginia Garcia if the emergency roadway were open for transit vehicles (the TDP identifies funding for an automated access gate). 
	Service was requested at Deer Meadow Assisted Living outside Sheridan. Route 22 McMinnville-Grand Ronde passes Deer Meadow, but does not stop. There is no safe place to pull over.	While it is not possible to serve Deer Meadow given lack of roadway pull-outs and the parking lot configuration, the TDP includes alternative service models that can address this need.
	Passengers are not aware of where it is safe for buses to stop or how to signal drivers, and become frustrated when buses pass them by.	Consider educating the public about the flag system and transition to set stops once bus stops have been marked/signed.
	Shopping areas and other destinations are challenging for older adults, people with disabilities, and others to access from stops along major roadways (OR 99W).	Explore alternative service models, such as shopper shuttles (and/or other types of shuttles), to provide near front-door access to retail store, senior centers, medical centers, and other locations.
	System Performance	Newberg routes 5 and 7 have very low ridership and productivity.
On-time performance is generally poor. Route 44 McMinnville-Tigard, which has the highest ridership, is on time less than 50% of the time. On-time performance is poor for McMinnville Route 3; factors are frequent flag stops and the length of the route.		Retime routes with traffic and adjust schedules to show actual running times. Evaluate whether routes are too long for predicted run time. Evaluate use of additional and well-marked fixed stops to mitigate performance issues.

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Topic Area	Issue	Opportunity
Regional Coordination	Numerous agencies connect with YCTA, giving passengers the ability to traverse a large area, but it can be challenging for potential new riders to plan a multi-agency trip.	Show regional connections on a system map. Coordinate with agencies to improve signage and information at transfer locations outside of Yamhill County, and identify other potential opportunities such as coordinating schedules or making fares easy to pay and more affordable.
Transit Capital	Certain major stops such as Big 5 do not have a shelter or sign.	YCTA has a contract to relocate and/or install shelters and benches. As part of the TDP, create standards for when to add shelters, such as based on ridership.
	Few bus stop signs exist across the system.	Install signs at scheduled and/or other high-ridership stops with information about schedule and route alignment.
Technology)	Radios cut out in rural portions of the county.	YCTA replaced radios in 2018 using a technology grant.
	Deficiencies in scheduling software capabilities inhibits system performance.	Software is needed that allows dispatchers to efficiently group Dial-a-Ride trips and schedule same-day trips. This is also being addressed through YCTA's technology grant and should be in place sometime in 2018.
	YCTA's GTFS data is slightly different from the actual route alignments, making information online maps or trip planner information inaccurate.	GTFS data will be updated at the conclusion of the TDP.
Information	Individual brochures show each route map and schedule. Some routing is not consistent with printed and online materials.	Create a system map. Update printed and online materials.
	Riders prioritized obtaining information on the YCTA website, followed by a mobile phone app and printed materials.	YCTA has a technology grant that can be used to improve its online capabilities. Using the YCTA website and mobile phones to communicate delays in real-time is a key priority.
	Lack of marketing for transit services.	Use new YCTA funds to ramp up communications and marketing efforts.
Improvement Priorities	Existing riders were least satisfied with on-time performance, condition of bus stops, and ease of transfers.	Refine schedules to more accurately reflect travel times and improve transfers, and install markings at fixed bus stops.
	Top improvement priorities identified by YCTA riders in the on-board survey were service on weekends, more frequent weekday service, and later evening service, followed by better stops and earlier morning service. More frequent and weekend service were also top priorities in the community survey, although later service was a lower priority. Bus stops closer to respondents' destinations, better information, and faster/more direct service were higher priorities.	Priorities suggested by both riders and the community overall will inform the TDP analysis of solution strategies.

Note: Condensed from TM #2, Figure 5-1 (See TDP Volume II, Section 2)

OVERALL NEEDS ASSESSMENT

Overall findings from the Existing Conditions phase of the TDP include that the YCTA route alignment is generally good and useful to customers who depend on it, but that potential improvements could include::

- Schedule adjustments are needed on a variety of routes, including better timing of local and intercity route connections and to help service run on-time given actual traffic conditions.
- Some local routes need to be redesigned, particularly Route 3 in McMinnville (serving the north part of the city) which is over capacity and runs behind schedule. Routes in Newberg have very low ridership, particularly Route 5, and also need to be redesigned.
- Most transit stops lack signage or markings, making it difficult for people to know where the bus stops. Marking stops and transitioning from flag to fixed stops will improve travel times and make people more aware of transit.
- High-quality and consistent branding of vehicles and online and printed information will also raise awareness of where transit runs in the community and help people understand the system.
- Small cities in the County are served only by intercity services that make limited stops. Major shopping destinations are set-back from highways in McMinnville and Newberg, making it challenging to reach storefronts through parking lots. There are opportunities for locally-focused shopper shuttles and flexible routes to improve access to destinations.

Figure 4-7 provides a qualitative assessment of priority for various potential enhancements, based on the input from riders, the general public, focus groups, and the project advisory committee.

Figure 4-7 Needs Assessment Summary

Potential Public Transportation Enhancement	Overall Assessment (Community Input and Existing Conditions Analysis)	Surveys		Focus Groups	Project Advisory Committee
		Riders	General Public		
More weekend service – Saturday	High	High	High	High	Intercity: Medium Local: High
More frequent weekday service	Medium-High (particularly intercity connections)	High	High	Medium	Intercity: High Local: Low
Later evening weekday service - until 8 PM	Medium-High	High	Medium	High	Medium
Better bus stops / shelters	Medium-High	Medium	Medium	High	Medium-High
Better information, easier to understand	Medium	N/A	Medium	High	Medium
Better regional connections	Low-High	Low	High	High	Low-High
New bus stops / closer to destination	Low-High	Low	High	High	Low-High
More weekend service – Sunday	Low-Medium	High	Medium	Low-Medium	Intercity: Medium Local: Low
Expand coverage (new areas)	Low- Medium	Low	Low	High	Low-High
Faster, more direct service	Low-Medium	N/A	Medium	Medium	Low-Medium
Later evening weekday service - until 10 PM	Low-Medium	High	Medium	Medium	Low-Medium
Earlier morning weekday service	Low-Medium	Medium	Low	Medium	Low-Medium

See TDP Volume II, Section 2: TM #2, Chapter 5 (Figure 5-2) for a quantitative assessment of existing service.

5 TRANSIT GOALS AND OBJECTIVES

The TDP goals and objectives reflect the public transportation priorities for the Yamhill County Transit Area. The goals are coordinated with goals and policies developed in other Yamhill County plans and by key partners such as jurisdictions within and affecting Yamhill County, the state of Oregon, and the Federal Transit Administration (FTA). The goals provide a framework to identify and prioritize Transit Development Plan strategies and policies to support the values and key issues in Yamhill County.

DEFINITIONS

Goals and objectives are defined as follows:

- **Goals** establish Yamhill County’s overall policy direction and organizational philosophy. These are typically value statements.
- **Objectives** offer a means to meeting a goal. They are typically action-oriented strategy statements and should be understandable, specific, attainable, and measurable. Objectives can be met through a variety of actions. For example, an objective to reduce transit travel time can be achieved by eliminating route deviations, providing more direct service, traveling on higher-speed roads, investing in traffic congestion relief solutions, and/or giving transit priority at congested intersections.
- **Performance measures** quantify characteristics of existing transit operations. Some performance measures are used as **evaluation criteria** to select and prioritize strategies as part of the TDP planning framework. A measure is a basis for comparison – to a desired goal, to peer systems, or to past performance. The most useful measures for transit planning and operations are typically ratios of product provided (e.g., transit trips) to resources expended (e.g., “revenue” hours of bus driver time). Productivity (ridership per revenue hour), for example, is a nearly universal measure in the transit industry. A good set of performance measures should rely on readily available data, and focus on key aspects of operations.
- **Performance standards** are target values for specific performance measures. They set the expectations for acceptable levels of performance. Using the productivity example, a standard of 10 to 15 boardings per revenue hour may be the threshold at which routes performing below this standard merit attention. A single performance measure may have multiple standards based on the service type, operating period, or geographic zone being evaluated. When setting performance standards, YCTA needs to balance industry norms, its goals and objectives, and any requirements from funding or other sources. For example, farebox recovery standards may be set below those of peer systems if local policy-makers agree to higher subsidies to address affordability concerns. Alternatively, operating funding requirements may not allow lowering the farebox recovery standard.

PLANNING CONTEXT

Public transportation goals and objectives can best serve the county when coordinated with and related to relevant planning documents from state, regional, and local organizations. The project team evaluated over 20 planning documents guiding transportation and land use decisions in Yamhill County. Figure 5-1 provides a brief assessment of the key issues or “takeaways” for public transportation that were identified from the plan review. One of the key local documents guiding the YCTA goals and objectives is the Yamhill County Transportation System Plan (TSP), updated in 2015.

Along with input from YCTA and Yamhill County staff and elected officials, the Project Advisory Committee (PAC), other stakeholders, and the public, this information provided the groundwork to understand key needs and opportunities for Yamhill County’s public transportation system. YCTA’s goals and objectives stem directly from—and are intended to reflect—this understanding.

For additional on the Plan Review, see TDP Volume II, TM #1 and TM #1 Appendix A

Figure 5-1 Transportation / Land Use Plans and Key Issues for the Yamhill County Transit Development Plan

Document	Key Issues and “Takeaways”
STATEWIDE PLANS	
Oregon Transportation Plan	<ul style="list-style-type: none"> ▪ Overarching transportation policy plan guiding transportation investments statewide. ▪ Goal to ensure the transit system is easy-to-use, reliable, cost-effective, and accessible. ▪ Encourages governments to consider new facilities and connections that support an efficient transportation system and meet the needs of the growing community. ▪ Transit-supportive policies include Mobility 1.1 (efficient multimodal system), Mobility 1.2 (multiple travel choices), Economic Vitality 3.2 (mobility options for work and recreation), Energy Supply 4.2 (alternative fuels), Creating Communities 4.3 (sidewalk networks and transit supportive development), and Coordination 7.1 (remove jurisdiction barriers).
Oregon Public Transportation Plan	<ul style="list-style-type: none"> ▪ State modal policy plan guiding investments and programs for public transportation. ▪ 10 goals address user experience, connectivity, livability, equity, health, safety and security, environment, land use, efficient investments, and coordination. ▪ Currently being drafted, this Plan may identify public transportation priorities, programs and performance measures presenting opportunities for local agencies.
Oregon Safety Action Plan	<ul style="list-style-type: none"> ▪ Statewide plan providing policy direction across all modes. ▪ Encourages state and local agencies to develop a transit system that prioritizes safety and limits roadway conflicts to support Oregon’s long-term vision of zero deaths and life-changing injuries on the State system.
Oregon Transportation Options Plan	<ul style="list-style-type: none"> ▪ State modal policy plan guiding investments for transportation options (i.e., transportation demand management). ▪ Policies encouraging transit systems that support multimodal connections. ▪ Encourages local agencies, businesses, and educational institutions to offer travel options programs that support transit use (e.g., transit subsidies, Guaranteed Ride Home programs, etc.). ▪ Transit-supportive policies include Safety 1.1 (safe for all modes), Access 3.1 (access for all modes), and Economy 5.1 (household transportation spending)
Oregon Bicycle and Pedestrian Plan	<ul style="list-style-type: none"> ▪ State modal policy plan guiding investments for bicycle and pedestrian facilities and programs. ▪ Presents policies to coordinate within and between state agencies and local jurisdictions to ensure transit facility design integrates pedestrian and bicycle projects. ▪ Transit-supportive policies include Safety 1.1 (safe design), Accessibility 2.4 (multimodal connections), and Strategic Investment 8.2 (high need locations) and 8.4 (leverage funding).

Document	Key Issues and “Takeaways”
YAMHILL COUNTY PLANS	
Yamhill County Transportation System Plan (TSP)	<ul style="list-style-type: none"> ▪ Public transportation is an important part of the County’s long-term multimodal transportation goals and strategies. ▪ It is important to coordinate public transportation with local and countywide transportation initiatives and land use regulations. ▪ Public transportation infrastructure projects should be included in the County TSP to ensure State law compliance.
Yamhill County Comprehensive Land Use Plan	
YCTA Coordinated Human Services Transportation Plan	<ul style="list-style-type: none"> ▪ Transportation needs for customers accessing human services are wide ranging and best met by flexible, varied transportation solutions. ▪ Human services and medical needs extend beyond Yamhill County, which stretch limited local resources if not carefully prioritized and managed.
Yamhill County Agribusiness Economic Development Plan	<ul style="list-style-type: none"> ▪ Focuses on the County’s agriculture and tourism industries, to ensure the industry can thrive, operate profitably, grow, and contribute to community livability. ▪ Plan stakeholders identified transportation – including public and private transit options – as a need to support agri-tourism. ▪ Transit opportunities include local bus systems, private transportation, and central wine tasting “hubs” in local communities that would support shared mobility.
YCTA Title VI and Limited English Proficiency Plan	<ul style="list-style-type: none"> ▪ Federal Transit Administration (FTA) and Oregon Department of Transportation (ODOT) requirement for public transportation providers to document the agency’s responsibility to assess, minimize, and mitigate negative effects on specific demographic and socioeconomic populations; also documents the County’s public notices barring discrimination and providing clear discrimination related complaint processes.
LOCAL JURISDICTION PLANS	
Newberg Downtown Improvement Plan	<ul style="list-style-type: none"> ▪ Local community transportation system plans (and other local plans) detail specific roadway, sidewalk, and cycling improvements that can complement the public transportation system. ▪ The Yamhill County TDP will present an opportunity to align transit capital improvements (e.g., bus stops) with prioritized local projects and investments. ▪ Local land use plans describe policies and programs that encourage medium residential and employment density. The plans address land use policies and codes that direct developers to provide roadway, sidewalk, or transit facility improvements. ▪ The Yamhill County TDP will present an opportunity to understand and inform communities interested in implementing transit-supportive land use regulations and decision-making processes.
Newberg Comprehensive Plan	
Newberg TSP	
McMinnville Comprehensive Plan	
McMinnville TSP	
Amity TSP	
Carlton TSP	
Dayton TSP	
Dundee TSP	
Lafayette TSP	
Sheridan TSP	
Willamina TSP	
Yamhill (City) TSP	

GOALS AND OBJECTIVES

Each goal for YCTA is presented individually, followed by objectives to support implementation of the goals. The goals and objectives were used to evaluate existing public transportation conditions and to develop and prioritize public transportation strategies presented in the Transit Development Plan.

Chapter 11 (Monitoring Implementation) provides performance measures that will allow YCTA to measure organizational progress and monitor implementation of the TDP against the goals and objectives.

Goal 1: Mobility – provide convenient, reliable public transportation serving a range of customer needs.

Objective 1. Achieve high route productivity by serving key ridership markets

Objective 2. Serve key activity centers with convenient hours and days of service that meet the travel needs of workers and residents *†

Objective 3. Provide direct and reliable service that supports reliable transfers to intra- and inter-county regional connections *†

Objective 4. Identify areas that will support additional or improved transit services using data-driven and customer focused methods, and coordinate improvements to the coverage, reliability, and frequency of services *

Goal 2: Accessibility – provide public transportation services that are equitable and address the needs of all users.

Objective 1. Coordinate with local agencies to guide transit-supportive land use policies and practices

Objective 2. Provide access to public transportation services that meets applicable County, State and Americans with Disabilities Act (ADA) standards *

Objective 3. Provide local connectivity within and between the various communities in the County *

Objective 4. Provide a mix of public transportation services to meet the needs of different rider markets, such as fixed routes, deviated fixed routes, commuter routes, dial-a-ride, community shuttles and rideshare services

Objective 5. Distribute the benefits and impacts of services fairly and address the transportation needs and safety of all users, including the young, older adults, people with disabilities, and people of all races, ethnicities, and income levels*¹⁴

Objective 6. Coordinate with human services agencies serving adults, seniors, and people with disabilities and veterans to identify specific resources, training and needs for these markets †

Objective 7. Provide easy to understand, affordable fare polices, products and payment systems

Goal 3: Passenger experience – make public transportation a convenient, attractive and welcoming way to travel.

Objective 1. Deliver transportation information to riders and the community at-large across multiple print, online, and mobile platforms †

¹⁴ YCTA defines low-income households or people based on total income not exceeding 200% of the poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2) for the 48 Contiguous States and the District of Columbia.

Objective 2. Enhance marketing, education, and promotion efforts

Objective 3. Translate all printed and online materials into priority languages identified in the YCTA Limited English Proficiency plan (e.g. translate into Spanish and employ Spanish-speaking customer service staff)

Objective 4. Invest in technologies that enhance customer service, service reliability and access to information

Objective 5. Achieve high customer satisfaction by supporting employee training and outreach.

Objective 6. Provide system legibility by installing marked signs at bus stop locations

Goal 4: Safety and security – ensure transit riders and drivers have safe and secure vehicles and facilities.

Objective 1. Provide for high-quality driver and dispatcher training to ensure passenger and driver safety and security

Objective 2. Provide high-quality transit facilities by including bus stop shelters, seating and other amenities that support customer comfort and convenience.

Objective 3. Maintain vehicles in a state of good repair and replace in accordance with the Transit Asset Management Plan¹⁵ to ensure a reliable, safe and attractive public transportation system

Objective 4. Coordinate with County and local emergency managers to support robust emergency response and resiliency to natural and human disasters

Objective 5. Coordinate with local jurisdictions and Oregon Department of Transportation (where relevant) to provide safe ways to cross streets at or near major bus stops

Goal 5: Livability and economy – integrate public transit in the transportation system to support a prosperous, healthy community

Objective 1. Enhance access to major activity centers (e.g., major residential, employment, industrial, and institutional locations) and emerging or underserved activity centers (e.g., agricultural employment) as resources warrant *

Objective 2. Maintain and explore innovative partnerships with employers and institutions to serve rider markets and supplement public transportation funding

Objective 3. Support a multimodal transportation network by inviting access to transit via bicycling, walking

Goal 6: Efficiency and financial accountability – manage the transit system in a fiscally responsible way to maximize return on investment.

Objective 1. Advocate for increased funding and seek out new and innovative funding opportunities †

Objective 2. Improve system productivity and reliability to ensure efficient resource utilization

Objective 3. Coordinate with other transportation partners to ensure shared long range sustainability of public transportation services

Notes: * Denotes objectives adapted from the Yamhill County Transportation System Plan. † Denotes objectives adapted from the 2017 YCTA Coordinated Public Transit Human Services Transportation Plan.

¹⁵ The Transit Asset Management Plan is a federally-required document in which YCTA inventories vehicles and other assets, estimates replacement timeframes, and specifies maintenance activities and schedules to ensure assets meet or exceed useful life expectations.

6 SERVICE PLAN

This chapter presents the long-term vision for transit in Yamhill County, including the types of services and how service will be structured. The vision was developed based on the analysis of current and future transit markets and existing YCTA services, community input and needs assessment, and the YCTA goals described in the previous chapters. It includes service design principles and a phased plan to help YCTA incrementally implement the long-term vision.

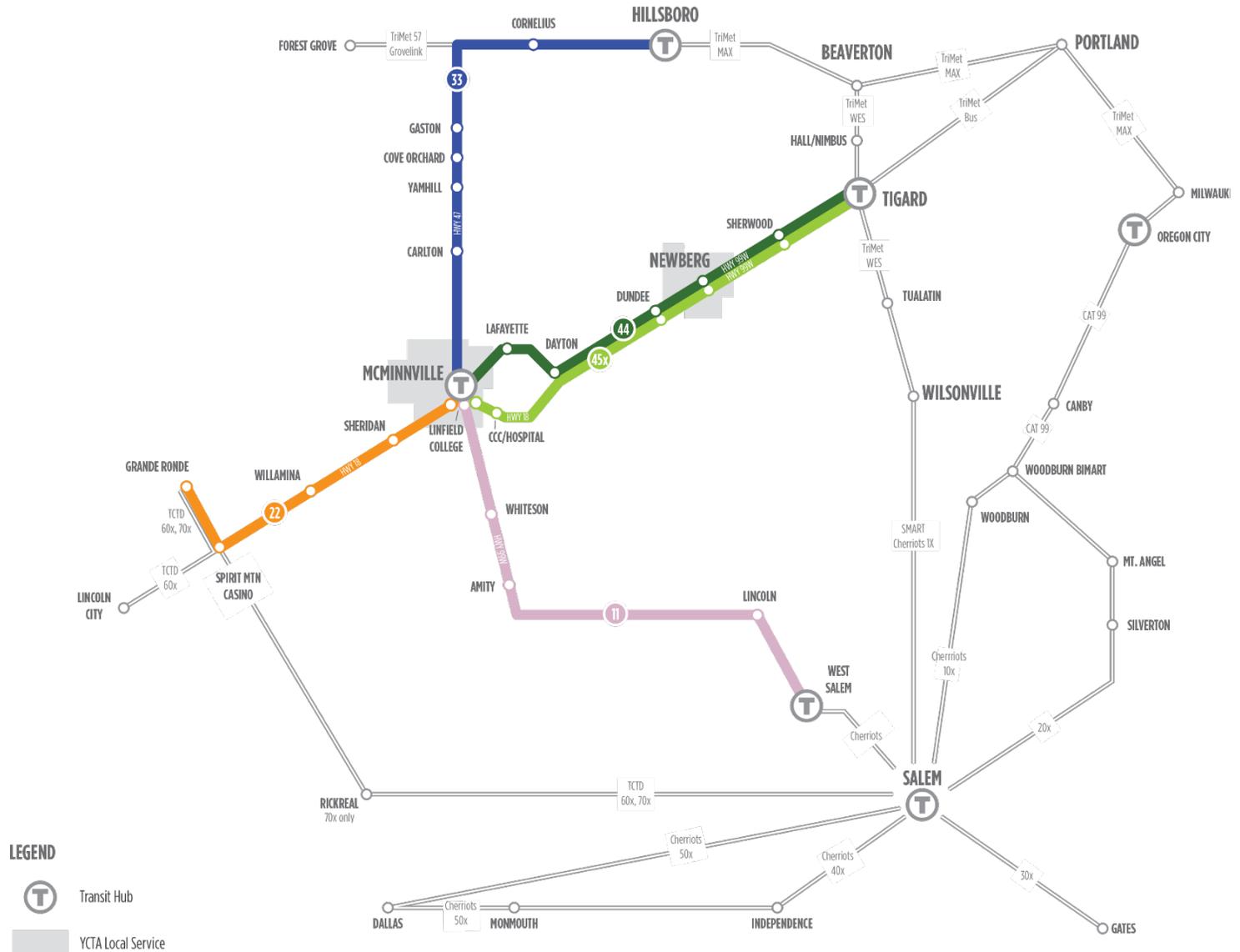
LONG-TERM YCTA VISION

Figure 6-1 illustrates existing YCTA service and transit connections. Figure 6-2 describes the long-term vision for public transit in Yamhill County.

As described in Chapters 3 and 4, challenges for existing transit in Yamhill County include:

- **Local service runs on weekdays only** in McMinnville and Newberg.
- **Intercity services** to Hillsboro, Salem, and Tigard **have several long gaps in service** during the day.
- **Route 11 only runs to West Salem**, while most demand is for travel to downtown Salem.
- **Service within small cities** is limited, particularly for people or destinations that are not directly served by existing intercity routes and bus stops.
- **Bus stops are not marked** and **buses lack consistent branding** and some are unreliable.

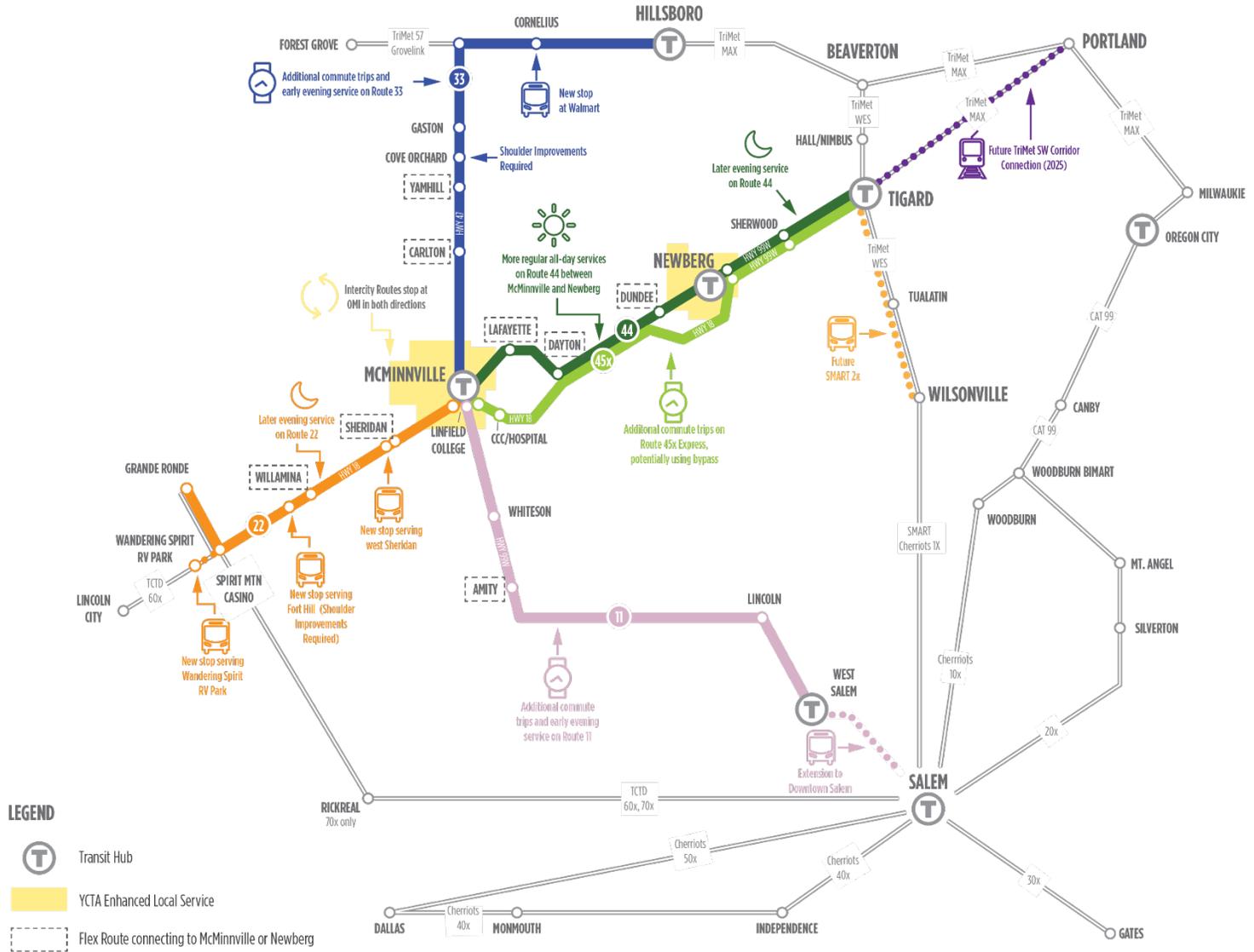
Figure 6-1 Existing Transit Service



The long-term vision for transit in Yamhill County includes:

- **Enhanced local service** in McMinnville and Newberg, including on **Saturdays**.
- **Regular all-day service on OR 99W (Route 44)** connecting McMinnville, Lafayette, Dayton, Dundee, and Newberg, with some trips continuing to Sherwood and Tigard.
- **Express service (Route 45x)** between McMinnville (via Linfield College and hospital area), Newberg, and Tigard.
- **More morning and afternoon peak period and early evening service** on intercity routes.
- **Route 11 extended to downtown Salem.**
- **Flex-route service connecting small cities to key destinations in McMinnville and/or Newberg.**
- **Marked bus stops, more shelters, better customer information, and new buses with a consistent look.**
- **Sunday service** is a lower priority, but may be possible on some routes in the long-term.

Figure 6-2 Long-Term Transit Vision



How we got to the Vision: Service Alternatives

Providing transit service requires evaluating how to allocate limited resources between local services, inter-community connections within Yamhill County, and regional linkages. YCTA's current resource allocation is roughly balanced between locally-focused and regionally-focused service. To understand whether this service model should change, the project team developed two long-range scenarios to contrast distinct approaches to allocating public transportation resources.

- **Scenario 1: Locally-focused.** YCTA prioritizes resources for local service and connections within Yamhill County, while either reducing slightly or maintaining at current levels the resources allocated to connections outside of Yamhill County.
- **Scenario 2: Regionally-focused.** YCTA enhances regional connections to be more attractive to commuters, with more modest improvements to local service and connections within Yamhill County.

The project team then developed specific operational strategies for each scenario and screened each strategy against the YCTA goals and objectives (Chapter 5), providing a cost-benefit analysis with order-of-magnitude costs and an assessment of how each strategy helps YCTA achieve its goals. The Project Advisory Committee worked to prioritize strategies at its meeting on January 25, 2018, to help inform development of the TDP vision.

TDP Volume II, Section 4: TM #4 and the minutes for Project Advisory Committee meeting #3 summarize the results of the scenario analysis.

Figure 6-3 Selected Scenario Performance Evaluation Measures (Adapted from TM #1 and #3 Planning Framework Measures)

Goal	Objective (numbering refers to full Goals & Objectives framework)	Performance Measure	Existing	Scenario 1: Locally Focused	Scenario 2: Regionally Focused	TDP Vision	
						Mid-Term, 2027	Long-Term, 2028+
Service Hours			35,000	70,100	59,400	50,340	70,845
Estimated Operating Cost (not including capital costs, e.g., buses)			\$2.6 million	\$5.3 million	\$4.6 million	\$4.2 million	\$5.9 million
Estimated Number of Vehicles in Maximum Service			8 fixed-route buses 4 Dial-A-Ride buses	13 fixed-route buses 11 Dial-A-Ride buses or vans	13 fixed-route buses 7 Dial-A-Ride buses or vans	12 fixed-route buses 7 Dial-A-Ride buses/vans 3 flex-route buses	18 fixed-route buses 9 Dial-A-Ride buses/vans 5 flex-route buses
Goal #1: Mobility	2. Serve key activity centers with convenient hours and days of service that meet the travel needs of workers and residents	Service span: hours of service (qualitative)	Local: 7 AM - 7 PM Intercity: 6 am-7 PM or 6 AM-9 PM (varies by route)	 Local: 6 AM - 9 PM	 Local: 7 AM - 7 PM	 Local: 7 AM - 7 PM	 Local: 6 AM - 9 PM
				 Intercity: 6 AM - 7 PM or 6 AM - 9 PM (varies)	 Intercity: 6 AM-9 PM	 Intercity: 7 AM-9 PM	 Intercity: 6 AM-9 PM
	3. Provide direct and reliable service that supports reliable transfers to intra- and inter-county regional connections	Schedule alignment with connecting providers	N/A	 More direct service but reduced midday connections	 Increased frequency and service to downtown Salem	 Maintain and enhance regional connections, including service to downtown Salem	

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Goal	Objective (numbering refers to full Goals & Objectives framework)	Performance Measure	Existing	Scenario 1: Locally Focused	Scenario 2: Regionally Focused	TDP Vision	
						Mid-Term, 2027	Long-Term, 2028+
Goal 2: Accessibility	3. Provide local connectivity within and between Yamhill County communities	Revenue hours dedicated to connections between Yamhill County communities	16,900 (48%)	19,600 (27%)	30,400 (56%)	20,200 40%	24,900 35%
	4. Provide a mix of public transportation services to meet the needs of different rider markets	Service hours per capita Peer median of 0.73, range of 0.28 to 1.24	0.32 (Overall Yamhill County, 2017)	0.65 (UGB Population Forecast, 2035)	0.55 (UGB Population Forecast, 2035)	0.44 (Population Forecast, 2023)	0.57 (Population Forecast, 2028)
	5. Distribute the benefits and impacts of services fairly and address the transportation needs and safety of all users	low-income residents within ¼-mile of a transit stop (100% and 200% of poverty)	100%:15,800 200%: 26,900	Not Evaluated	Not Evaluated	100%: 17,500 200%: 29,700	100%: 18,700 200%: 29,800
Goal 5: Livability and economy	1. Enhance access to major activity centers (e.g., major residential, employment, industrial, and institutional locations) and emerging or underserved activity centers (e.g., agricultural employment) as resources warrant	employees within ¼-mile of a transit stop residents within ¼-mile of a transit stop	16,700	19,400	22,900	22,300	25,000
			35,000 (fixed-route)	41,800 (fixed-route only) (not including flex-routes in small cities)	39,950	39,400 (fixed-route) (not including flex-routes in small cities)	43,000 (fixed-route) (not including flex-routes in small cities)
Goal 6: Efficiency and financial accountability	1. Advocate for increased funding and seek out new and innovative funding opportunities	Transit operating funding per capita, relative to peers Peer median of \$59.19, range of \$19.52 to \$105.58	\$24.14 (Overall Yamhill County, 2017)	\$39 (Overall Yamhill County Forecast, 2035)	\$33 (Overall Yamhill County Forecast, 2035)	\$33 (Population Forecast, 2023)	\$48 (Population Forecast, 2028)

Notes: Population, jobs, and low-income access to transit calculated using Remix, LEHD 2014 and American Community Survey 2015 at the block group level, i.e., based on current levels not future projections.

Summary of Community Input on Solutions Strategies

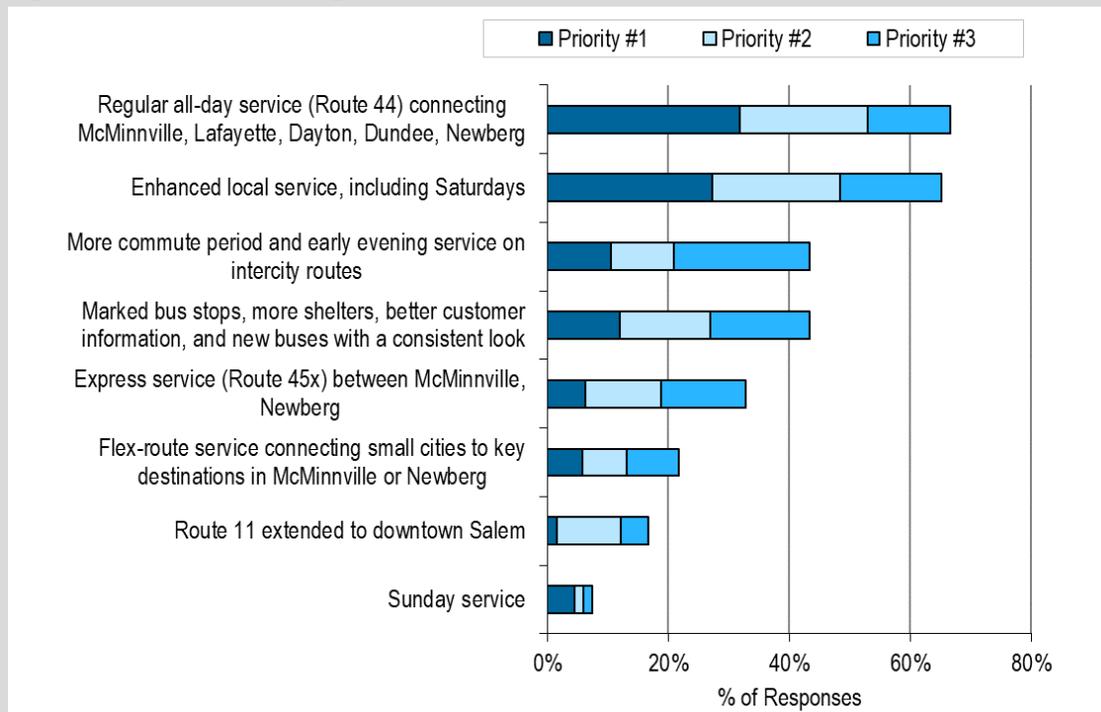
Input on proposed solutions was gathered from current riders and the general public to inform development of the vision and phasing plan. Four public events (Transit Center and Community Center in McMinnville; Nap’s Thriftway and Chehalem Cultural Center in Newberg) and an online survey were conducted in March 2018, reaching or engaging approximately 125 people. This sidebar summarizes the results.

Overall Priorities

The overall top service priorities among people who responded to the online survey are:

- **Enhanced local service in McMinnville and Newberg** including on Saturdays—top priority for **32%** and among top 3 priorities for **67%**.
- **Regular all-day service on OR 99W (Route 44)** connecting McMinnville, Lafayette, Dayton, Dundee, and Newberg—top priority for **25%** and among top 3 priorities for **65%**.
- **Improvements to bus stops, vehicles, and customer information**—among top 3 priorities for **43%**.
- **Add commute period and early evening service on intercity routes**—among top 3 priorities for **43%**.

Figure 6-4 Overall Ranking of Proposed Enhancements

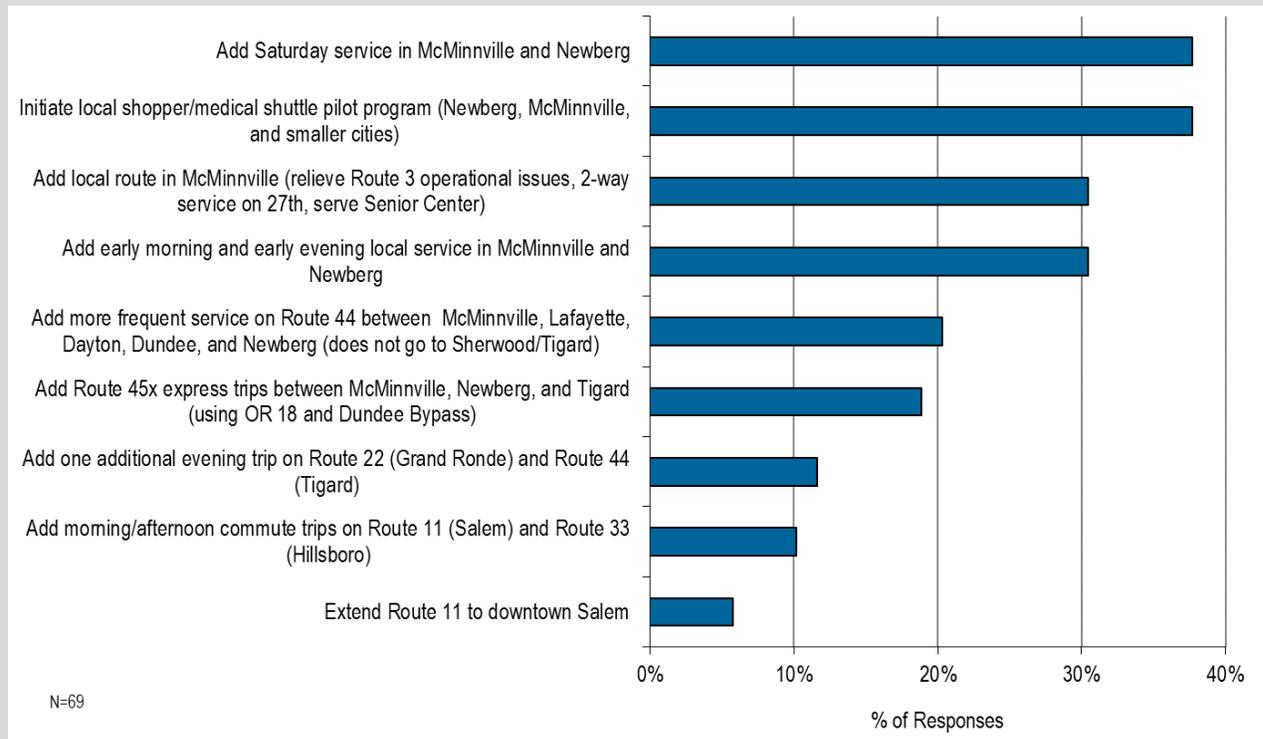


Near-Term Priorities

The project team asked people responding to the online survey to prioritize the two most important improvements that could be implemented first (see Figure 6-5):

- The highest priorities (both 38%) were to **add Saturday service in McMinnville and Newberg**, and **initiate a local shopper/medical shuttle pilot program** (Newberg, McMinnville, and smaller cities).
- The next highest priorities (both 30%) were to **add a local route in McMinnville** and **run McMinnville and Newberg local bus routes earlier in the morning and in the early evening**.
- A third tier of near-term priorities (approximately 20% each) was to **provide more frequent service (Route 44) between McMinnville and Newberg** (including Lafayette, Dayton, and Dundee) and **more express service (Route 45x) between McMinnville, Newberg, and Tigard**.

Figure 6-5 Enhancements to Implement First



While most people supported the proposed improvements, several **key concerns** are:

- **Dundee residents are concerned about losing service** if Route 45x (express) uses the Dundee Bypass.
- **Some people were concerned about eliminating flag stops**, particularly if the distance between assigned stops is too long on some routes.
- **Bus ridership in Newberg may not increase** in response to service improvements

Additional outreach findings include:

- **Key schedule gaps** are on Route 44 (mid-morning and mid-afternoon) and Route 33 (mid-morning).
- **Timing of connections** is important between intercity routes and between intercity and local routes.
- **Later evening hours** aligned with class/shift times are important for students and workers.
- **Rural flex route service for small cities received the strongest support**, but there was also support for starting with shopper/medical shuttles (including in McMinnville and Newberg) to experiment with the service and conducting a community-driven process to design the service in each city.
- **Marking bus stops, adding shelters, improving customer information, and improving the appearance/cleanliness of vehicles is a high priority**—within top 3 for **43%** of respondents.
- **Intercity routes need to have higher-capacity buses.** Smaller-capacity buses are acceptable for local routes, but **cutaways do not provide a comfortable ride.**
- Bus **schedules need to be clear and consistent**, both in print and online forms.
- **Communicating information** about delays and route changes/closures is essential.
- Programs that provide **travel training/education** would be valuable

For additional details on community input on proposed solutions see TDP Volume II, Section 4: TM #4 Chapter 6 and Section 5: TM #5 Chapter 3.

IMPLEMENTING THE VISION

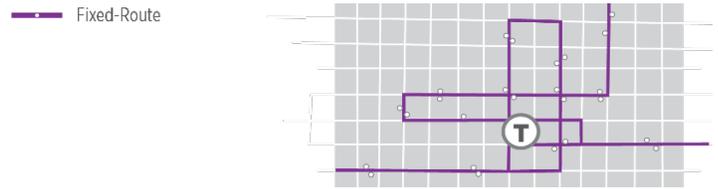
YCTA Service Types

YCTA provides intercity (including express), local fixed-route, and demand-response service. The TDP includes two new service types—a shopper shuttle and rural flex routes. Some services are a hybrid of these service types. For example, Route 44 provides local connections in some parts of McMinnville and Newberg although it is primarily the intercity route serving OR 99W between the two cities.

Intercity routes operate along major arterials and state highways connecting Yamhill County cities. Intercity service includes Routes 11, 22, 33, and 44, and weekend Routes 24s and 46s. Intercity routes make limited stops in cities. **Express** intercity routes provide more direct service and/or limited stops. Route 45x provides a more direct connection between McMinnville-Newberg, including direct service to Willamette Medical Center and Linfield College. Route 44 provides connections to Dayton and Lafayette.



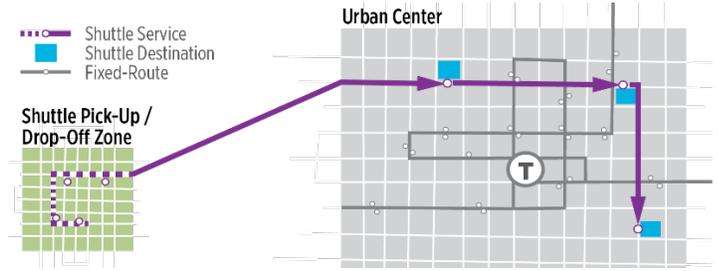
Local routes serve major destinations and run along both arterial and local streets. Local routes often act as feeders, bringing people to hubs where they can transfer to Intercity routes. Local service includes Routes 2 and 3 in McMinnville and Routes 5 and 7 in Newberg.



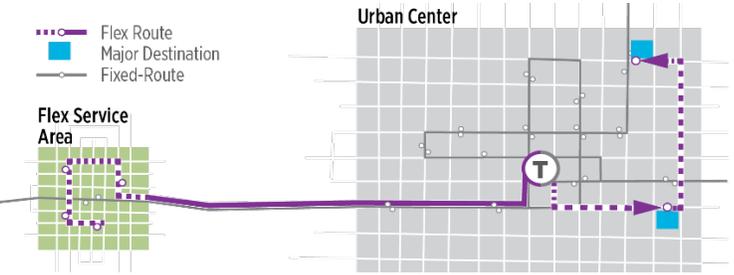
Demand-response service requires advance reservations. **Dial-a-Ride** for the general public provides curb-to-curb service within a geographically limited area (primarily McMinnville and Newberg). **ADA Paratransit** provides door-to-door service for ADA-eligible customers (who have a disability that prevents them from riding fixed-route service) within a ¾ mile distance of local fixed-route service in McMinnville and Newberg.



A **shopper/medical shuttle** provides door-to-door service between residential areas in McMinnville, Newberg, and small cities to selected major shopping and medical destinations in McMinnville or Newberg, on limited days and hours of service. Trips run at scheduled days and times, but advance reservations are required for door-to-door pickups and drop-offs.



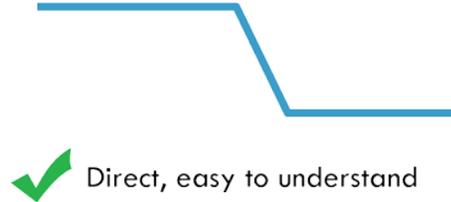
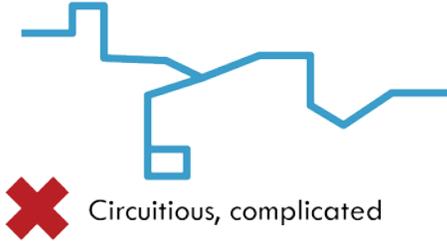
A **rural flex route** makes both scheduled stops and provides curb-to-curb service (with advance reservations) in small cities, directly serving transit centers and selected major shopping and medical destinations in McMinnville and Newberg. Complementary ADA Paratransit is not required for a route deviation service like a flex route as long as deviations are provided to all riders (not just those with disabilities).



Service Design Principles

Service design principles are broad transit service concepts that were used to develop the TDP, and provide guidance for YCTA to use in future service design decisions as it implements the Plan.

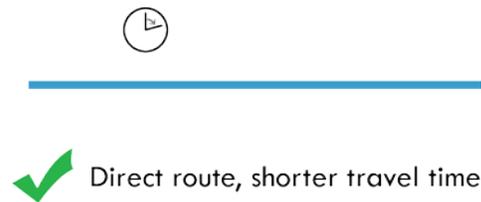
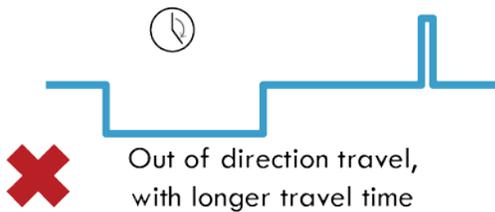
Service should be simple and direct. Routes that are direct are easier for customers to understand and remember. Direct routes are often shorter and more efficient for passengers and YCTA.



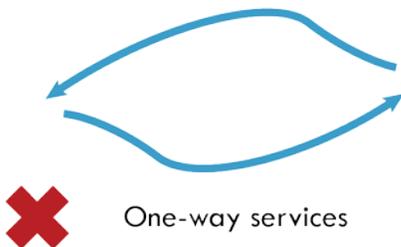
Minimize route deviations. Avoiding out-of-direction travel and keeping directional changes to a minimum make routes easier to understand and reduce overall travel time. Deviations off of the most direct route may be appropriate to avoid a bottleneck or to provide service to major shopping centers, employment sites, schools, etc. In these cases, the benefits of the deviation must be weighed against the inconvenience caused to passengers already on board. Rules of thumb for implementing route deviations include:

- The deviation will result in an increase in overall route productivity.
- The number of new passengers that would be served is equal to or greater than 25% of the number of passengers who would be inconvenienced by the additional travel time on any particular deviated trip.

In most cases, route deviations should be provided all day. Exceptions are during times when the sites that the route deviations serve have no activity—for example, schools and shopping centers.



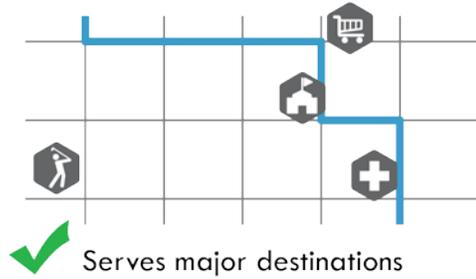
Operate symmetrical routes. Keeping routes on one roadway in both directions provides clear, consistent service and information. Exceptions can be made where such operation is not possible due to one-way streets or turn restrictions. In those cases, routes should be designed so that the opposite directions parallel each other as closely as possible. The coverage benefits of loop or circular routes should be balanced against route efficiency and productivity.



Serve well-defined markets. Match service to demand by serving destinations that typically rely upon transit. Activity centers may change over time; evaluate service periodically to ensure that routes continue to serve the highest demand areas.

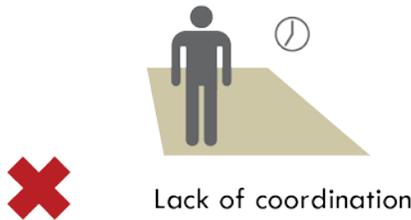


Serves areas with little demand



Serves major destinations

Coordinate public transportation services. Provide timed transfers between local and intercity routes. Where possible, connect with frequent services to reduce the need to coordinate schedules. Transfers should be within line-of-sight or have clear wayfinding signage.

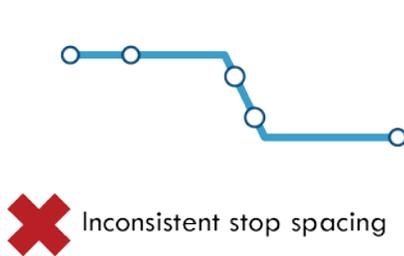


Lack of coordination

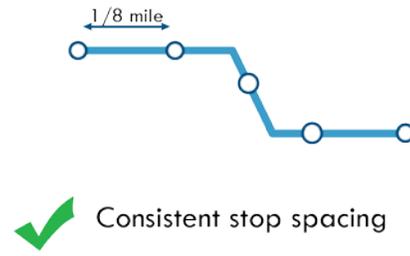


Service operates as a system

Space stops appropriately. Stop spacing directly affects bus travel times, schedule reliability, and customer access. Closely spaced stops, or stops with inconsistent spacing, increase travel time and reduce predictability. On local routes, $\frac{1}{8}$ to $\frac{1}{4}$ -mile spacing is generally appropriate, while allowing for . Intercity routes should have longer spacing between stops (e.g., $\frac{1}{2}$ -mile or more) within cities, depending on land use context. Fewer stops encourage people

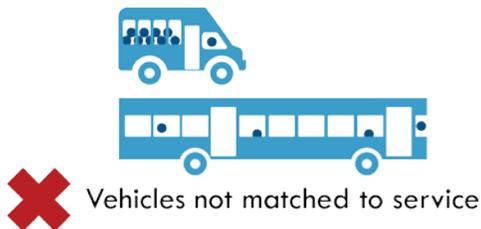


Inconsistent stop spacing

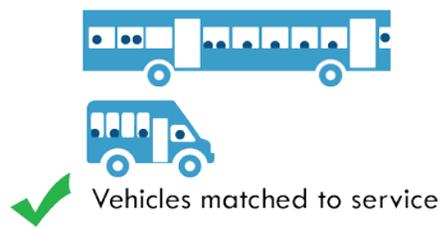


Consistent stop spacing

Match vehicles to passenger demand and access needs. The highest capacity vehicles are needed on intercity services, particularly between McMinnville, Newberg, and Tigard. In cities, vehicles need to balance high passenger demand on some routes with the needed to navigate tight turns and parking lots. Flex service and demand response vehicles are general the smallest and most flexible.



Vehicles not matched to service



Vehicles matched to service

Planning Time Frames

The TDP is structured into several phases to help YCTA incrementally implement the long-term transit vision. Implementation of the plan will be contingent on future funding levels—both sustaining existing funding sources and funding from new sources. The primary new funding source is the Statewide Transportation Improvement Fund, which will provide YCTA with new revenues starting in 2019. However, STIF revenues alone will not be sufficient to implement all desired system enhancements. Other potential local revenue sources are described in the TDP Financial Plan (see Chapter 8).

Figure 6-6 provides an overview of the planning time frames and assumed funding levels.

- The **Immediate** time frame assumes cost-neutral funding, while the remaining time frames assume increased revenues.
- The **Near-Term** and **Short-Term** enhancements can be implemented with the funding level anticipated to be available for YCTA, including new revenue from the Statewide Transportation Improvement Fund starting in 2019.
- YCTA lacks funding to implement all of the **Mid-Term** and **Long-Term** enhancements. A subcommittee of the YCTA Public Advisory Committee is developing a local funding plan to determine whether additional enhancements identified for these time frames are viable.
- The **Long-Term** time frames are not constrained to funding and include additional options that could be implemented in the future.

Figure 6-6 Planning Time Frames

Time Frame	Years*	Funding Level
Immediate	0 years: FY 2018 (Summer/Fall 2018)	Cost-Neutral/Near Cost Neutral operational changes that YCTA will implement prior to plan adoption
Near-Term	1 years: FY 2019 (2018-2019)	Low-cost changes assuming partial STIF funds available in FY 2019 (up to \$500,000 in new revenue)
Short-Term	2-3 years: FY 2020 to FY 2022 (2020 – 2022)	Phased expansion based on approximately \$1.1 M in STIF funds available starting in FY 2020. Assume incremental service expansion while prioritizing significant share of new resources to address capital needs (bus stops, fleet, etc.) in early stages of the plan.
Mid-Term	4-9 Years: FY 2023 to FY 2027 (2023 – 2027)	Continued service expansion is possible using STIF funding with many of YCTA's basic capital needs addressed, but additional local funding revenues would be needed to implement additional desired enhancements that are currently assumed in the long-term time frame.
Long-Term	10-20 Years: FY 2028 to FY 2037 (2028-2037)	Flexible service plan (not financially constrained)
Long-Term (Vision)	Beyond 20 Years	Additional service options

Note: *2018 refers to FY 2018-2019, etc. STIF = Statewide Transportation Improvement Fund

SERVICE PLAN OVERVIEW

This section provides the detailed YCTA service plan. To be eligible for STIF funds, YCTA will need to submit a STIF Plan. Consistent with recent ODOT guidance, individual strategies are grouped into a “Project.” A project can include several activities, referred to as “Tasks.” Tasks correspond to different project elements, such as operations (service) and buses (capital). For example, a project to provide flex-route service in small cities could include a “operations” task for each service area and a “buses” task to purchase vehicles. YCTA will need to submit measures such as cost, service hours, service miles, and estimated ridership for each task. The TDP will provide STIF Plan information for the near-term projects that can be submitted to ODOT as early as Fall 2018.

TDP Volume II, Section 4: TM #5 Chapter 6 summarizes community input on high-level solution strategies. Appendix D and TDP Volume II, Section 5: TM #5 Chapter 3 provide additional detail on service design.

Existing/Immediate

This section identifies a number of cost-neutral service enhancements, focused on operational improvements to the Yamhill County transit system. YCTA plans to implement these changes over the first year of the plan, starting in Summer 2018 (see Figure 6-8). Highlights include:

- **McMinnvil local service adjustments** (SI1 and SI2), including interlining routes to help Route 3 run on schedule and implementing a stop closer to the Winco/Walmart front doors (see Figure 3-4).
- **Schedule and minor route/stop adjustments on intercity routes** (SI4, SI5, SI6, and SI7), including stops at OMI for Route 33 (and potentially other routes).
- **Adding a stop on Route 22 at Wandering Spirit RV Park** west of OR 18 and Grand Ronde Road (SI5).
- **Converting on-call Route 44 and/or 45x stops at Providence Hospital in Newberg and Dayton RV park to regular stops** (SI7).

Figure 6-7 Stops near Winco/Walmart (Immediate or Near-Term/Short-Term)

- Stop in Winco parking lot on existing Route 3
- Existing sidewalk can be used
- Contingent on obtaining store approval
- Feasibility of right-turn from OR 99W into parking lot needs to be tested, given concrete median and channelized right-turn island
- Appendix D (and TDP Volume II, Section 5: TM #5 Chapter 3) includes an illustration of later phase routing that can also serve a stop closer to the Safeway front door

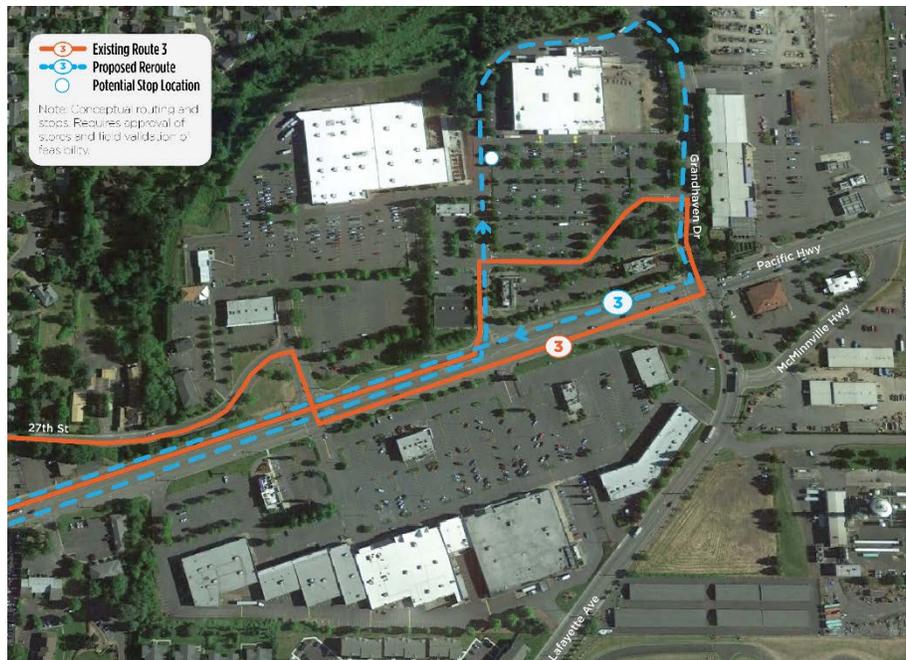


Figure 6-8 Immediate Time Cost-Neutral Service Adjustments

Project	Task	Project Name	Project/Task Description	Routes
SI1	1	McMinnville Local Service Adjustments	Interline McMinnville local routes and adjust schedules, to help address capacity and schedule issues on Route 3: <ul style="list-style-type: none"> One bus serves 2 East and 3 South One bus serves 2 West and 3 North <i>It is recommended that these changes be made along with route renumbering to minimize passenger confusion.</i>	2, 3
SI1	2	McMinnville Local Service Adjustments	Stop and minor routing adjustments: <ul style="list-style-type: none"> Revise Route 3 South routing at Booth Bend Rd Revise Route 2 East to use Dunn Pl; new Housing Authority bus stop Various other minor stop adjustments 	All
SI2	1	McMinnville bus stops closer to store front doors	Local buses serve stops for WinCo/Walmart near store front doors, subject to identifying suitable locations and reaching agreements with stores. (Safeway could be a later phase, contingent on Route 3 redesign)	3
SI3	1	Newberg Local Service Adjustments	<ul style="list-style-type: none"> Schedule adjustments for Routes 5 and 7 	5, 7
SI4	1	Salem Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Schedule adjustments for Route 11 	11
SI4	2	Salem Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Add a Route 11 stop at OMI (5th & Cows) in both directions 	11
SI5	1	Grand Ronde Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Schedule adjustments for Route 22 including better timing with other intercity routes 	22/24s
SI5	2	Grand Ronde Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Add a stop at OMI (5th & Cows) in both directions Add a stop at Wandering Spirit RV Park (west of Grand Ronde Road) Add a stop at Oldsville Road 	22/24s
SI6	1	Hillsboro Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Schedule adjustments for Route 33, including adjusting schedules of the current 10:30 AM and 12:30 PM trips from McMinnville to reduce the current 4h 30 min gap between the 6 AM and 10:30 AM trips. Add a stop at OMI (5th & Cows) in both directions 	33
SI7	1	Tigard Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Schedule adjustments for Routes 44 and 45x 	44/45x
SI7	2	Tigard Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Modify southbound stop at Langer Pkwy in Sherwood to run in the opposite direction, saving several minutes of time in the southbound direction 	44/45x
SI7	3	Tigard Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Convert on-call stop at Providence Hospital to a regular stop. Stops on OR 99W. YCTA will need to coordinate pedestrian access improvements with ODOT & City of Newberg. 	44/45x
SI7	4	Tigard Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Convert on-call stop at Dayton RV Park to a regular stop. Stops on OR-18. YCTA will need to coordinate shoulder improvements with ODOT. 	44

Project	Task	Project Name	Project/Task Description	Routes
SI7	5	Tigard Intercity Schedule, Stop, and Routing Adjustments	<ul style="list-style-type: none"> Modify Route 45x to serve Linfield College stops on OR 99W at Fellows St 	45x

Near-Term

As described below and illustrated in Figure 6-18 (System), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg) where applicable, in the near-term (2019-2020) YCTA would:

- Implement local service changes in McMinnville (Project SN1)** as shown in Figure 6-19:
 - Renumber routes to make service easier to understand. Routes 2 and 3 each consist of two segments that take approximately 30 minutes to complete and serve the transit center twice. This change would provide a unique number for each portion of the route. See Figure 6-10 (table) and Figure 6-19 (map) for a description of the new route numbers.
 - Redesign Route 3 to improve reliability and capacity, including service to the Senior Center (along McDaniel) and two-way service on 27th Avenue and Evans Street. This would improve service to McMinnville High School and multifamily housing and apartments in northeast McMinnville. The routing incorporates a near-term change to serve the Winco/Walmart parking lot.
 - Extend Route 4 (existing Route 2 West) along 2nd Street west of Hill Road and south on Adams and Baker Streets to Booth Bend Road.
 - Extend service hours for Routes 2 and 4 (existing Route 2 West and East) to start at 7 AM (same as Routes 1 and 3).
- Implement local service changes in Newberg (SN2)** as shown in Figure 6-20. This cost-neutral change would add an additional bus to fixed-route service and provide four routes, each operating generally in each quadrant of the city. Each route would take approximately 30 minutes to complete and return to the downtown transit center. Particularly for Route 5 (northwest) and 6 (southwest) there may be time to accommodate deviation requests. This project would serve Northeast Newberg, including Newberg Schools, Head Start, and A-dec.
- Add trips on Route 44 between McMinnville and Newberg (SN3 – Phase 1)**, to provide more frequent, consistent service between McMinnville, Lafayette, Dayton, Dundee, and Newberg. This project reduces waiting times and long schedule gaps on YCTA’s highest-ridership route. Added trips would not continue to Sherwood/Tigard.
- Modify Route 44 to run along OR 99W in McMinnville (SN4)** as shown in Figure 6-19. This cost-neutral project improves legibility (ease-of-understanding), provides access to destinations along OR 99W and in downtown McMinnville, and allows Route 44 to serve the same route and stops on weekdays and Saturdays. This change would be concurrent with SN1, which would modify Route 3 North to provide service to most existing stops on Lafayette Avenue.
- Modify Route 33 to relocate the westbound Forest Grove stop and add eastbound and westbound stops at Walmart in Cornelius (SN5).**
- Implement a pilot shopper/medical shuttle (SN6)** serving Sheridan/Willamina/Amity, Carlton/Yamhill, Dayton/Lafayette, Newberg/Dundee, and McMinnville. This would incorporate a community-driven process to develop the specific initial and longer-term design for each set of cities, and evolve into more frequent local service in the cities/markets where it is well-utilized. The service would utilize small vans, which would allow it to serve destinations that are inaccessible in a larger intercity bus, such as Deer Meadows Assisted Living in Sheridan. The

service would incorporate on-demand technology to allow it to be used in a more real-time manner, as opposed to traditional demand-response service that requires advance reservations.

- **Mark and sign all bus stops and install amenities** (capital project). All bus stops would be marked or have signs installed, and shelters would be installed at high-demand stops. Over time YCTA would transition away from flag stops for its local routes, which will make service faster and help routes stay on schedule.

Maps are provided in Figure 6-18 (System Map with McMinnville and Newberg insets), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg). See Figure 6-21 for individual project details.

Short-Term

As described below and illustrated in Figure 6-18 (System), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg) where applicable, in the short-term (2020-2022) YCTA would:

- **Extend Route 2 (East) in McMinnville to serve NE Cumulus Avenue** (SS1) including the Virginia Garcia Clinic and other housing; this project requires modifications to an access roadway connecting NE Cumulus Avenue to the Chemeketa Community College parking lot. The TDP provides a capital funding allowance for this improvement.
- **Extend local evening service hours in McMinnville and Newberg to 7 PM** (SS2 and SS3) for fixed-route and Dial-A-Ride service.
- **Transition away from flag stops on local fixed-routes in McMinnville and Newberg** (SS4), once all stops have been marked or signed. This will include outreach to ensure stops are located in the right places. Once implemented the change will help routes run on schedule.
- **Add trips on Route 44 between McMinnville and Newberg** (SS5 – Phase 2), filling remaining schedule gaps.
- **Extend Route 11 to the downtown Salem Transit Center** (SS6). Route 11 currently connects to Cherriots service at West Salem Transit Center. The route would likely be renamed to avoid confusion with Cherriots Route 11 and could continue to stop on Wallace Road near the West Salem Transit Center.
- **Add an additional early evening trip on Route 22 between McMinnville and Grand Ronde** (SS7), coordinated with shift times at the Spirit Mountain Casino and with TCTD Route 60X to Lincoln City.
- **Expand the Shopper Shuttle pilot projects to flex-route service in two geographic areas** (3 days per week, 10 hours per day) – SS8. Yamhill/Carlton and Sheridan/Willamina/Amity are recommended since they have the least existing service; the McMinnville-Newberg Connector (SN3 and SS5) will increase service to Dayton and Lafayette. An existing volunteer program serving Yamhill/Carlton could be transitioned to this service. Sheridan/Willamina have a high need and potential market size based on population and geography. YCTA should monitor existing intercity routes to see if there are changes in ridership that could allow some low-demand trips to be discontinued.

Maps are provided in Figure 6-18 (System Map with McMinnville and Newberg insets), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg); Figure 6-21 provides individual project details.

Mid-Term

As described below and illustrated in Figure 6-18 (System), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg) where applicable, in the mid-term (2023-2027) YCTA would:

- **Implement local service on Saturdays in McMinnville (SM1).**

The mid-term also includes two contingencies for service in Newberg:

- **Modify service in Newberg coordinated with a potential new transit center** (on- or off-street) in downtown Newberg (could also be short-term, depending on timing).
- **Add Dial-A-Ride and ADA Paratransit capacity in Newberg**, if warranted based on demand, since one Dial-A-Ride vehicle is being shifted to fixed-route service in the near-term (SM2).

Maps are provided in Figure 6-18 (System Map with McMinnville and Newberg insets), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg), Figure 6-21 provides individual project details.

Long-Term

The long-term time frame is not fiscally-constrained and includes additional options supported by TDP community input and analysis that YCTA could implement based on available resources.

As described below and illustrated in Figure 6-18 (System), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg) where applicable, in the long-term (2028-2037) YCTA would:

- **Enhance intercity service to be better meet work and school trip needs** by adding a later evening trip to Tigard and early evening trips to Salem and Hillsboro (SL1), and adding additional morning and/or afternoon trips to Salem and Hillsboro (SL2). Depending on YCTA's financial and capital resources, and future productivity of these routes, these projects could be blended with SV1 (Long-Term Vision) which would require at least one additional vehicle but would increase frequency during morning and afternoon peak periods making the service significantly more convenient.
- **Add additional express trips between McMinnville, Newberg, and Tigard** in the morning and afternoon commute periods (SL3). Depending on future traffic conditions, YCTA can evaluate the tradeoffs of routing express trips using the Dundee Bypass. (Performance data can be obtained from ODOT.)
- **Expand Saturday service on intercity routes between McMinnville and Salem, and between McMinnville and Yamhill/Carlton** (SL4). Extending Saturday service between Yamhill and Hillsboro is not included in this project, but could be considered depending on demand and available funding (see SV2).
- **Expand small city flex-routes to three days per week in a third geographic area (Dayton/Lafayette is assumed) and expand the Sheridan/Willamina flex-route to operate five days per week** (SL5).
- **Expand shopper shuttles serving Dundee/Newberg and/or McMinnville to five day per week operation** (SL6).
- **Implement earlier (starting at 6 AM) and later (until 9 PM) local service hours in McMinnville and/or Newberg** (SL7).
- **Develop a pilot flex-route serving the area east of Lafayette Avenue in McMinnville** (SL8), including YCAP, McMinnville Power & Light, Dental Clinic, and employment areas, e.g., Cascade Steel, North American Plants, etc.). YCTA may be able secure grant funds for emerging mobility pilot projects or STIF discretionary funds to implement this service sooner.

- **Implement a new route serving the Hill Road and Baker Creek Road area in northwest McMinnville** (see Figure 6-19); this route would serve Lafayette Avenue and allow modifications of Route 3 (SL9). The feasibility of this route is dependent on development density and activity centers along the route.

Maps are provided in Figure 6-18 (System Map with McMinnville and Newberg insets), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg), Figure 6-21 provides individual project details.

Long-Term “Vision”

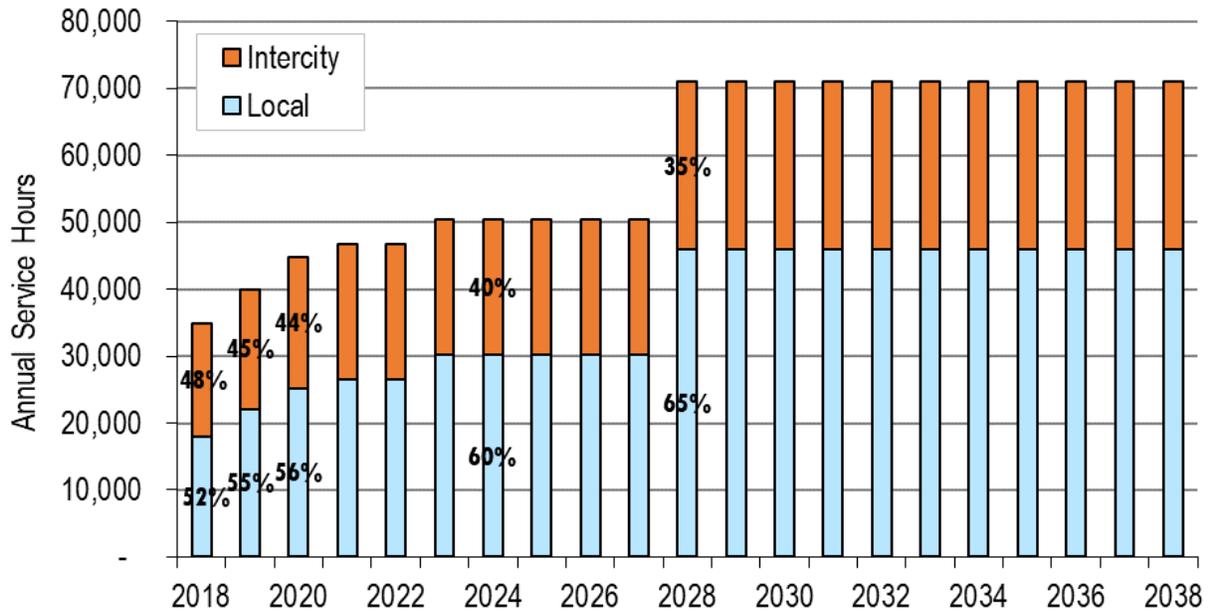
The Long-Term “Vision” time frame includes additional long-term enhancements that YCTA could implement based on the results of near-, short-, and mid-term enhancements (e.g., ridership), future land use conditions, and future funding levels. These potential projects include:

- **Increase peak period frequency to Salem and Hillsboro (SV1).** Current service runs as often as every 90 minutes (Salem) to two hours (Hillsboro) with a single bus serving each route. More frequent service during peak hours would require adding an additional bus during peak hours. This project would depend on ridership demand on existing service.
- **Expand Saturday service (SV2).** This project includes enhancing Saturday frequency on Route 44 between McMinnville and Tigard, extending Route 33 to Yamhill, increasing Saturday Dial-A-Ride capacity in McMinnville, and providing Saturday service in Newberg.
- **Implement Sunday service (SV3).** Based on TDP outreach, Sunday service is generally seen as a low to medium priority, but was identified as a “Medium” priority for YCTA’s Grand Ronde and Tigard routes by 66% of people who provided input on those service areas in an online survey in March 2018 (see TDP Volume II, Section 4: TM #4, Chapter 6). Routes 22 (24s) and 44 (46s) would therefore be the highest priorities for Sunday service, along with some level of local service. TDP focus group participants suggested that less frequent service and/or a higher fare would be acceptable on Sundays.
- **Expand local service (SV4).** Additional local frequency and/or Dial-A-Ride capacity could be added in McMinnville and Newberg, as warranted by YCTA service standards (e.g., productivity, passenger loading, etc.)

Service Hours by Service Type

Figure 6-9 provides a breakdown of service hours by local and intercity service. Existing YCTA service is nearly evenly split between local and intercity services (the latter includes both connections between Yamhill County cities and out-of-county service). Based on input from the community and the Project Advisory Committee, the TDP prioritized enhancements to local service. The proposed plan increases the share of local service to 60% of service hours by the mid-term time frame, and to 65% in the long-term.

Figure 6-9 Existing and Planning Service Hours by Local and Intercity Service Type



Route Number Changes

Figure 6-10 summarizes recommended changes to YCTA route numbering, to improve legibility of routes by separating different routes patterns into separate route numbers; this also allows YCTA to more easily interline local routes in order to maintain on-time performance or for other operational reasons. Shifting Newberg routes to the 10-19 range allows future expansion in McMinnville while keeping route numbers in the same range (1-9).

Figure 6-10 Existing and Recommended Route Numbering

Service Area	Existing Route Number		New Route Number	Notes
	Weekday	Weekend		
McMinnville	3 South	-	1	Split two parts of route into individual routes
	2 East	-	2	No change to route number
	3 North	-	3	No change to route number
	2 West	-	4	Split two parts of route into individual routes
	-	-	5-9	Reserved for future
Newberg	5	-	15	Split Route 5 into two individual routes; modify to avoid conflict with future McMinnville routes
		-	16	
	7	-	17	Change
	-	-	18	Change
	-	-	10-14,19	Reserved for future
McMinnville-Salem	11	-	80x	Change to avoid conflict with Cherriots Route 11 with extension to downtown Salem
McMinnville-Grand Ronde	22	24s	22	Same weekday and weekend route number
McMinnville-Hillsboro	-	-	33	No change
McMinnville-Newberg-Tigard	44	46s	44	Same weekday and weekend route number
	45x	-	45x	No change

System Maps

Immediate time frame maps are provided in Figure 6-16 (System) and Figure 6-17 (McMinnville/Newberg), including changes that YCTA will implement starting in Summer 2018.

Near-Term, Short-Term, and Mid-Term changes that YCTA will implement starting in 2019 are shown in Figure 6-18 (System), Figure 6-19 (McMinnville), and Figure 6-20 (Newberg). Where applicable these maps also indicate long-term changes.

System Operating Plan

Figure 6-11 and Figure 6-12 summarize the TDP operating plan (hours of service or the number of trips) on YCTA routes on weekdays and Saturdays, respectively. Figure 6-14 provides a summary for small city flex-route services (including shopper/medical appointment shuttles in McMinnville and Newberg/Dundee).

Figure 6-14 (weekday) and Figure 6-15 (weekend) provide a detailed listing of the YCTA service span (hours of operation) and frequency for each route in each plan time frame.

Figure 6-11 Summary of Changes to Weekday Service Span or Number of Intercity Trips

Route	Existing	Near-Term to Mid-Term	Longer-Term
McMinnville Local Service	7 or 8 AM – 6 PM	7 AM – 7 PM	6 AM – 9 PM*
Newberg Local Service	7 AM – 6:30 PM	7 AM – 7 PM	6 AM – 9 PM
McMinnville-Salem	5	Extended to downtown Salem	+3 trips (AM / PM / early evening*)
McMinnville-Grand Ronde	7	+1 evening trip	No change
McMinnville-Hillsboro	5	No change	+3 trips (AM / PM / early evening*)
McMinnville-Tigard	9	No change	+1 late evening trip*
McMinnville-Newberg	-	+4 round trips	No change
McMinnville-Tigard Express	1 AM / 1 PM	No change	Up to 4 additional one-way trips*

Figure 6-12 Summary of Changes to Saturday Service Span or Number of Intercity Trips

Route	Existing	Near-Term to Mid-Term	Longer-Term
McMinnville Local Service	-	8 AM – 6 PM	8 AM – 6 PM
Newberg Local Service	-	-	8 AM – 6 PM
McMinnville-Salem	-	No change	4 trips
McMinnville-Grand Ronde	4	No change	No change
McMinnville-Hillsboro	-	No change	4 trips (initially to Yamhill-Carlton only)
McMinnville-Tigard	4	No change	No change

Figure 6-13 Summary of Small City Flex-Route Service Days and Hours

Near-Term	Short-Term	Mid-Term	Long-Term
1 to 3 days/wk, 4 hours/day	3 days/wk, 10 hours/day		5 days/wk, 10 hours/day
McMinnville			McMinnville (4 hrs)
Newberg-Dundee			Newberg-Dundee (4 hrs)
Yamhill / Carlton	Yamhill / Carlton		
Sheridan / Willamina / Amity	Sheridan / Willamina / Amity		Sheridan / Willamina / Amity (10 hrs)
Dayton / Lafayette		Dayton / Lafayette*	

Figure 6-14 Long-Term System Operating Plan – Weekday, Service Span and Frequency or # of Trips

Service Area	Route	Description	Existing / Immediate		Near/Short/Mid-Term		Long-Term		Long-Term (Vision)	
			Service Span	Frequency	Service Span	Frequency	Service Span	Frequency	Service Span	Frequency
McMinnville	1	South	7 AM- 6 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	60 min	6 AM – 9 PM	30-60 min
	2	West	8 AM-6 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	60 min	6 AM – 9 PM	30-60 min
	3	North	7 AM- 6 PM	60 min	7 AM – 7 PM	30 min	6 AM – 9 PM	30 min	6 AM – 9 PM	30-60 min
	4	East	8 AM-6 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	60 min	6 AM – 9 PM	30-60 min
	New	Lafayette Ave / Baker Creek Rd	N/A	N/A	N/A	N/A	6 AM – 9 PM	60 min	6 AM – 9 PM	60 min
	New	East of Lafayette Ave On-Demand	N/A	N/A	N/A	N/A	7 AM – 6 PM	Varies	7 AM – 6 PM	Varies
	DAR	Dial-A-Ride	7 AM-6 PM	N/A	7 AM – 7 PM	N/A	6 AM – 9 PM	N/A	6 AM – 9 PM	N/A
Newberg	5	Northwest	7 AM – 6:30 PM	60 min	7 AM – 7 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	60 min
	6	Southwest	7 AM – 6:30 PM	60 min	7 AM – 7 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	30-60 min
	7	Southeast	7 AM – 6:30 PM	60 min	7 AM – 7 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	30-60 min
	8	Northeast	N/A	N/A	7 AM – 7 PM	60 min	7 AM – 7 PM	60 min	6 AM – 9 PM	30-60 min
	DAR	Dial-A-Ride	7 AM-6:30 PM	N/A	7 AM – 7 PM	N/A	6 AM – 9 PM	N/A	6 AM – 9 PM	N/A
Intercity	11	McMinnville-Salem	First Trip: 6 AM Last Trip: 5:30 PM	5 round trips	No Change	No Change	First Trip: 6 AM Last Trip: 7:30 PM	8 round trips	First Trip: 6 AM Last Trip: 7:30 PM	8 round trips
	22	McMinnville to Grand Ronde	First Trip: 5:30 AM Last Trip: 6:35 PM	7 round trips	First Trip: 5:30 AM Last Trip: 7:30 PM	8 round trips	First Trip: 5:30 AM Last Trip: 7:30 PM	8 round trips	First Trip: 5:30 AM Last Trip: 7:30 PM	8 round trips
	33	McMinnville to Hillsboro	First Trip: 6:00 AM Last Trip: 6:30 PM	5 round trips	No Change	No Change	First Trip: 6:00 AM Last Trip: 7:30 PM	7 round trips	First Trip: 6:00 AM Last Trip: 7:30 PM	7 round trips
	44	McMinnville to Tigard	First Trip: 5 AM Last Trip: 7:40 PM	9 round trips	No Change	No Change	First Trip: 5 AM Last Trip: 9 PM	10 round trips	First Trip: 5 AM Last Trip: 9 PM	10 round trips
	New	McMinnville to Newberg	N/A	N/A	8 AM – 5 PM	4 round trips	8 AM – 5 PM	4 round trips	8 AM – 5 PM	4 round trips
	45x	McMinnville to Tigard	First Trip: 6:42 AM Last Trip: 5:05 PM	2 one-way trips	No Change	No Change	No Change	No Change	Approx. 6 – 8 AM and 4 – 7 PM	Up to 6 one-way trips

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Service Area	Route	Description	Existing / Immediate		Near/Short/Mid-Term		Long-Term		Long-Term (Vision)	
			Service Span	Frequency	Service Span	Frequency	Service Span	Frequency	Service Span	Frequency
Shopper Shuttles and Small City Flex Routes	Sheridan / Willamina / Amity		N/A		Near-Term: 4 hours, 1-3 days/week Short-Term: 8 to 10 hours, 3 days/week		8 to 10 hours, 5 days/week		8 to 10 hours, 5 days/week	
	Yamhill/Carlton		N/A		Near-Term: 4 hours, 1-3 days/week Short-Term: 8 to 10 hours, 3 days/week		8 to 10 hours, 3 days/week		8 to 10 hours, 3 days/week	
	Dayton/Lafayette/Amity		N/A		Near-Term: 4 hours, 1 day/week		8 to 10 hours, 3 days/week		8 to 10 hours, 3 days/week	
	Dundee/Newberg		N/A		Near-Term: 4 hours, 1 day/week		4 hours, 5 days/week		4 hours, 5 days/week	
	McMinnville		N/A		Near-Term: 4 hours, 1 day/week		4 hours, 5 days/week		4 hours, 5 days/week	

Figure 6-15 Long-Term System Operating Plan – Weekend, Service Span and Frequency or # of Trips

Service Area	Route(s)	Description	Existing / Immediate		Near/Short/Mid-Term		Long-Term		Long-Term (Vision)	
			Saturday	Sunday	Saturday	Sunday	Saturday	Sunday	Saturday	Sunday
McMinnville	All	Fixed-Routes			60-120 min 8 AM – 6 PM	None	60-120 min 8 AM – 6 PM	None	60-120 min 8 AM – 6 PM	60-120 min 8 AM – 6 PM
	New	East of Lafayette Ave On-Demand	N/A	N/A	N/A	N/A	None	None	None	None
	DAR	Dial-A-Ride	None	None	8 AM – 6 PM		8 AM – 6 PM		8 AM – 6 PM	8 AM – 6 PM
Newberg	All	Fixed-Routes	None	None	None	None	None	None	60-120 min 8 AM – 6 PM	60-120 min 8 AM – 6 PM
	DAR	Dial-A-Ride	None	None	None	None	None	None	8 AM – 6 PM	8 AM – 6 PM
Intercity	11	McMinnville-Salem	None	None	None	None	4 round trips	None	4 round trips	4 round trips
	22 (24s)	McMinnville to Grand Ronde	4 trips, First: 9:00 AM, Last: 4:00 PM	None	No Change	None	No Change	None	No Change	4 round trips
	33	McMinnville to Hillsboro	None	None	None	None	4 trips to/from Yamhill/Carlton	None	4 trips to/from Hillsboro	4 round trips
	44 (46s)	McMinnville to Tigard	4 trips, First: 8:00 AM, Last: 6:18 PM	None	No Change	None	No Change	None	No Change	4 round trips
	New	McMinnville to Newberg	N/A	N/A	None	None	None	None	4 round trips	4 round trips

Figure 6-16 shows the YCTA system including planned cost-neutral changes that YCTA plans to implement starting in Summer 2018.

Figure 6-16 YCTA System Map, with McMinnville and Newberg Insets – Including Summer 2018 Immediate Changes

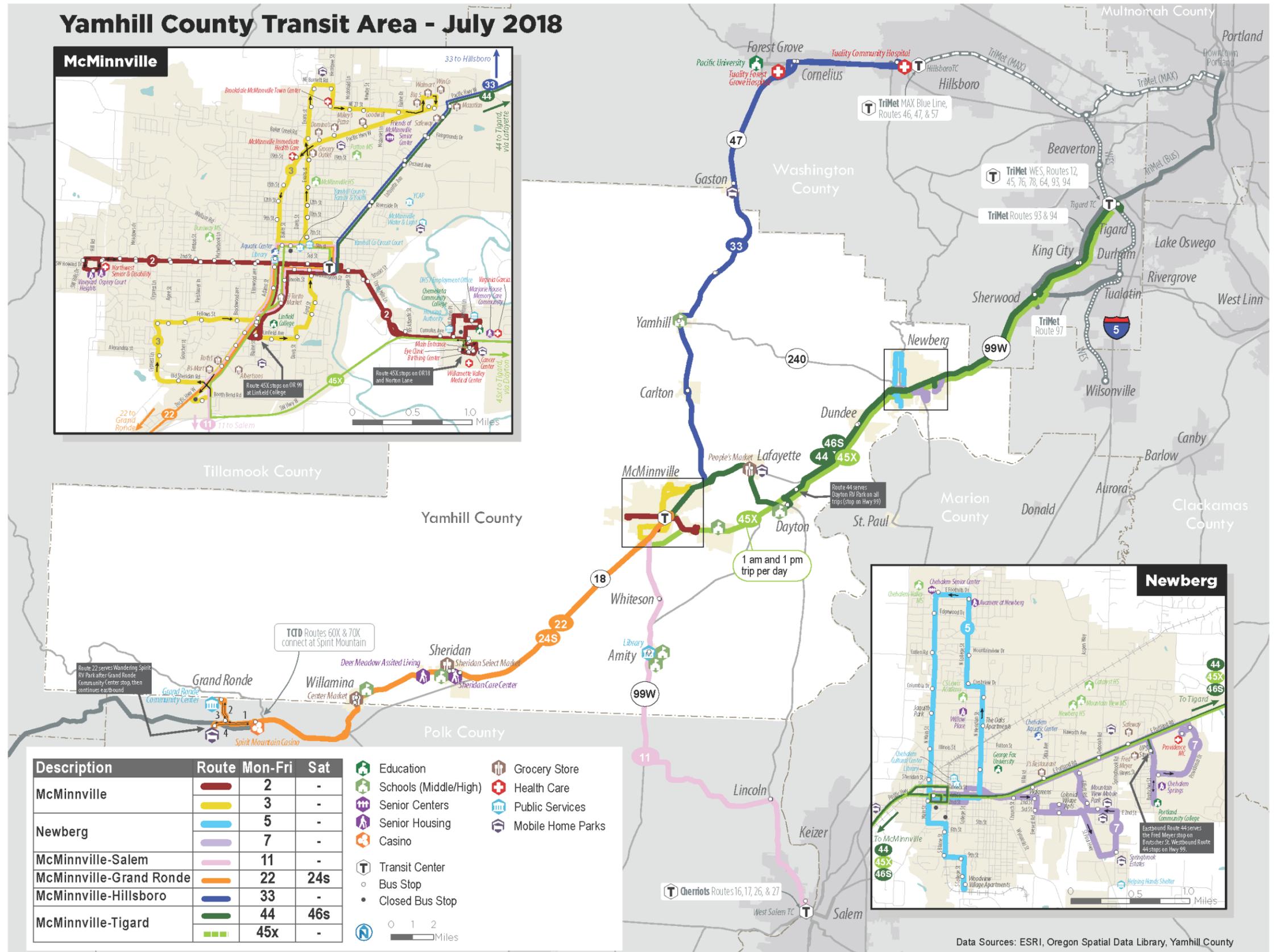


Figure 6-17 YCTA McMinnville and Newberg Local Service – Including Summer 2018 Immediate Changes

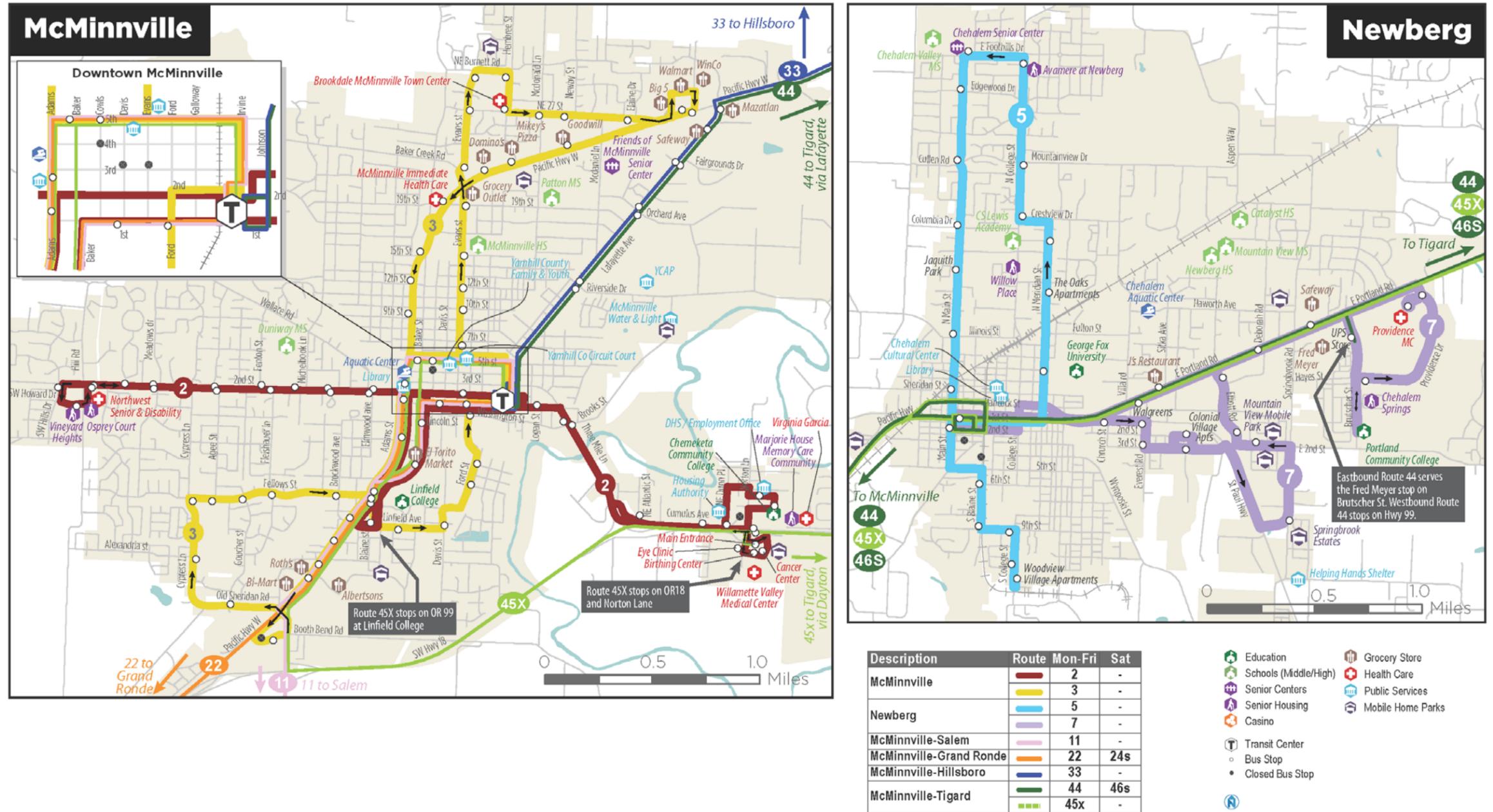


Figure 6-18 (System), Figure 6-19 (McMinnaville), and Figure 6-20 (Newberg) illustrate routing changes in the near-term, short-term, and mid-term (and also note some longer-term enhancements).

Figure 6-18 (right) includes the following changes:

- Local route changes in McMinnville, including route number changes (see Figure 6-19 for a larger map)
- All intercity routes serve downtown McMinnville along 5th Street with a stop near OMI
- Route 11 is extended to downtown Salem
- Route 22 serves the Wandering Spirit RV Park in one direction
- Routes 33 and 44 run along OR 99W in McMinnville
- Local route changes in Newberg (see Figure 6-20 for a larger map)

Figure 6-18 System Map with Near-Term, Short-Term and Mid-Term Changes

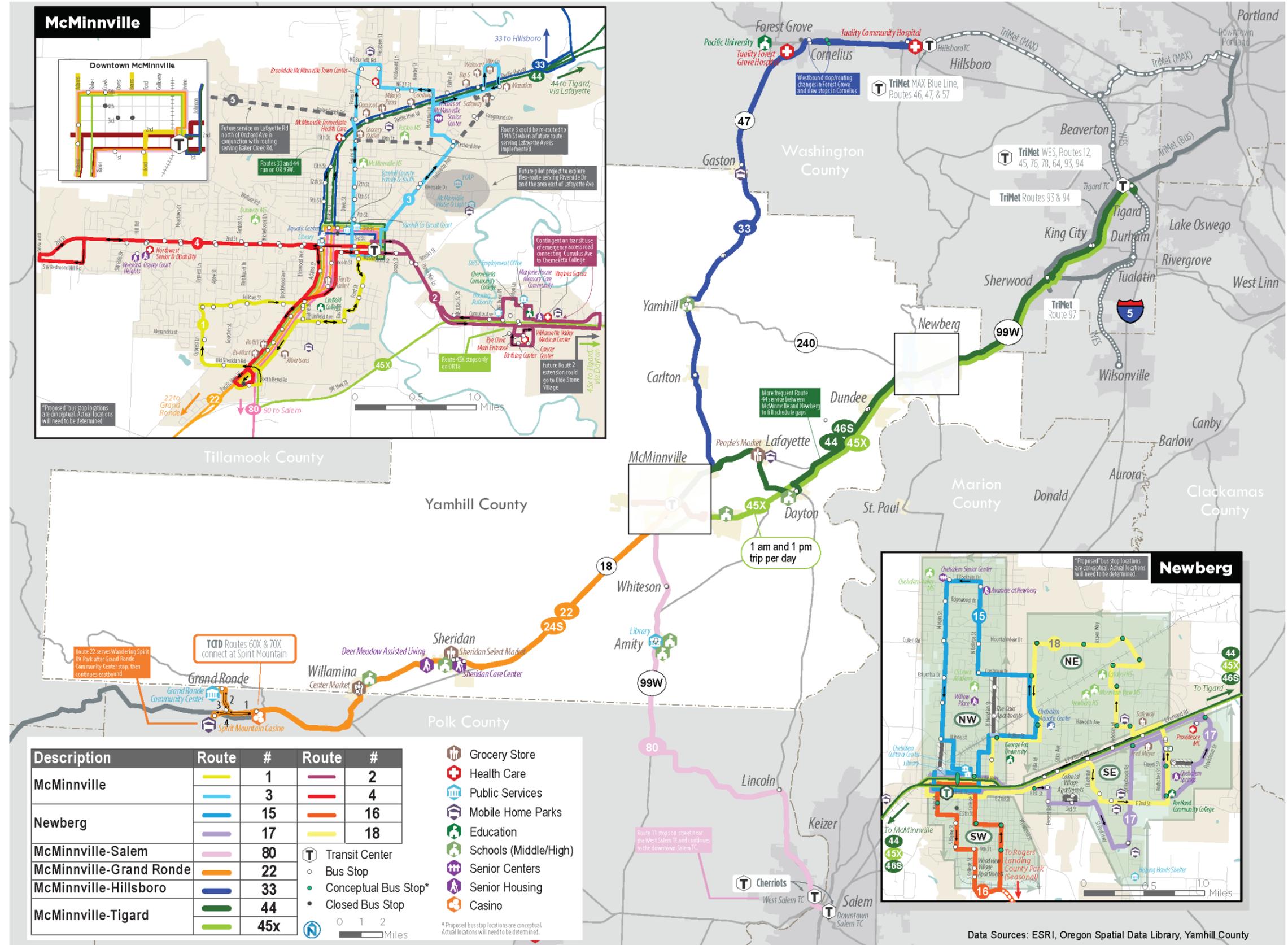
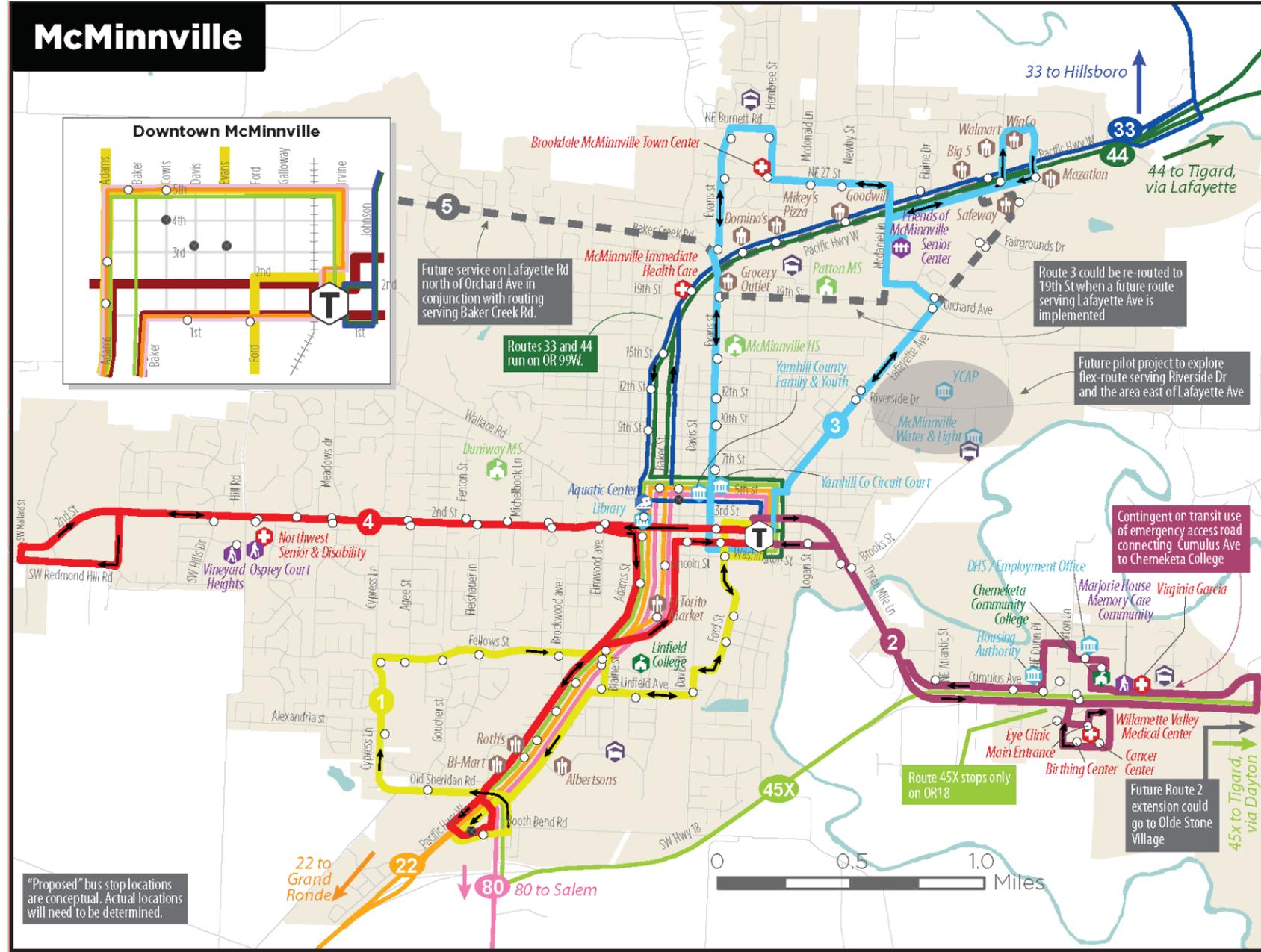


Figure 6-19 shows local route changes in McMinnville starting in the near-term.

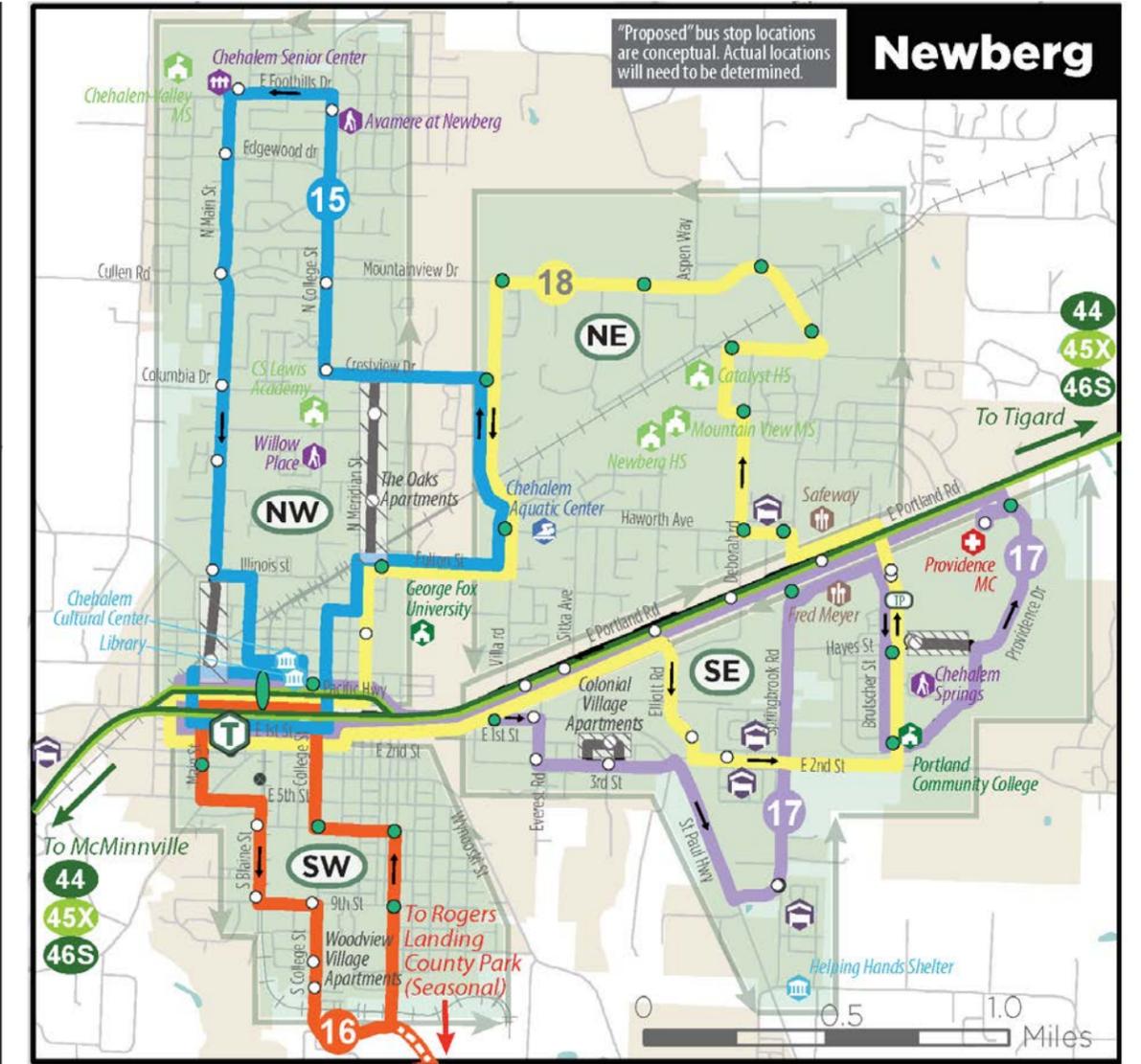
Figure 6-19 McMinnville Map with Near-Term, Short-Term, and Mid-Term Changes



█ YCTA Future McMinnville Routes
█ Future Service
● Conceptual Bus Stop*

Figure 6-20 shows local route changes in Newberg starting in the near-term.

Figure 6-20 Newberg Map with Near-Term, Short-Term, and Mid-Term Changes



█ Proposed Newberg Local Routes
█ Existing Route Segments To No Longer Be Served
█ Proposed Conceptual Service Areas
● Conceptual Bus Stop*
T Proposed Transit Center (General Location)
T Proposed Transfer Point

A Westbound transit stop on Hancock St.
B Northbound bus stop on Brutscher St.
C Bus stop in Fred Meyer parking lot (subject to identifying suitable location)
D Future downtown transit center (location to be determined)

Individual Project and Task Details

Figure 6-21 provides details about each project and task, including descriptions, additional annual service hours and operating costs, and new capital requirements (in addition to the existing fleet).

Figure 6-21 Service Plan Implementation Details by Time Frame

Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Near-Term										
SN1	1	1	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Renumber McMinnville local routes: <ul style="list-style-type: none"> ▪ Renumber Route 3 South to Route 1 ▪ No change to Route 2 East - remains Route 2 ▪ No change to Route 3 North - remains Route 3 ▪ Renumber Route 2 West to Route 4 	See Figure 6-10 and Figure 6-19	-	-	-
SN1	2	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 1 (formerly Route 3 South) to provide bidirectional service on Ford St south of downtown. This would provide a faster connection between the Transit Center and Linfield College. Route 1 would no longer serve 2 nd St or Adams St, which would still be served by Route 4 (formerly Route 2 West).	Figure 6-19; see Appendix D for details	-	-	-
SN1	3	1	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 3 to provide more service to Winco/Walmart area, two-way service on Evans and 27 th St, and service on McDaniel Ln (Senior Center). Requires additional half bus.	Figure 6-19; see Appendix D for details	1,430	\$107,000	1 large cutaway
SN1	4	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 4 (current 2 West) to extend along 2 nd St west of Hill Rd, providing service for additional residents, and south to Booth Bend Rd to provide direct access to Roths, Bi-Mart, and Albertsons. Accomplished using the remaining half bus from the Route 3 modification.	Figure 6-19; see Appendix D for details	1,430	\$107,000	
SN1	5	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	1 additional hour for Route 2 and 4 (start at 7:00 AM)	N/A	260	\$20,000	-
SN2	1	1	Newberg Local Service Redesign	Newberg	Fixed-Route	<ul style="list-style-type: none"> ▪ Four approximately 30-minute routes, each running every hour (2 buses; 1 bus converted from Dial-A-Ride). ▪ Routes operate counter-clockwise and generally serve each quadrant of Newberg. ▪ Shorter western routes interlined with longer eastern routes, e.g., NW-SE (5-7) and SW-NE (6-8). ▪ Renumber routes to 15, 16, 17, and 18; see Figure 6-10 (above) ▪ Coordinated transfers with intercity services in downtown (Route 44). ▪ Provide a westbound stop on Hancock St for all local and intercity routes. The eastbound stop at Nap's Thriftway only serves eastbound routes. (This could transition later to a downtown transit center) ▪ Consider stops near selected store front door for local routes, subject to identifying suitable locations and reaching agreements with stores. Locations TBD, e.g., Fred Meyer and Safeway. 	Figure 6-20; see Appendix D for details	-	-	1 large cutaway
SN3	1	1	McMinnville-Newberg Connector	McMinnville-Tigard	Fixed-Route	Add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	N/A	1,040	\$78,000	-
SN4	1	2	Route 44 serves OR 99W in McMinnville	McMinnville-Tigard	Fixed-Route	Route 44 runs on OR 99W instead of Lafayette Ave in McMinnville, and stops at OMI (5th & Cows) in both directions; assumes concurrent introduction of local service on Lafayette Ave in McMinnville.	Figure 6-19	-	-	-
SN5	1	2	Route 33 bus stop and routing changes	McMinnville-Hillsboro	Fixed-Route	<ul style="list-style-type: none"> ▪ Relocate westbound Route 33 stop in Forest Grove. Eliminate westbound stop at McMenamins Grand Lodge (west of Hwy 47). Add new westbound stop at the TriMet bus stop 1/4 mile east of Hwy 47. Modify westbound routing to save travel time. ▪ Add eastbound and westbound stops at Walmart (4th Ave) in Cornelius. 	Figure 6-18; see Appendix D for details	-	-	-
SN5	2	3	Route 33 bus stop and routing changes	McMinnville-Hillsboro	Fixed-Route	Coordinate with ODOT on shoulder and other improvements to enhance safety of the Cove Orchard stop. Partner with Gaston and Washington County to provide stop or park-and-ride amenities.	N/A	-	-	TBD

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.)	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS1	1	1	McMinnville Local Service East Extension	McMinnville	Fixed-Route	<ul style="list-style-type: none"> Redesign Route 2 (East) to serve NE Cumulus St (e.g., Virginia Garcia Clinic, Fircrest Senior Living, etc.). Contingent on capital improvement to access road/gate. Coordinate with Evergreen Museum to explore possibility of a walking path from a bus stop located at the intersection of Cumulus Ave and NE Cumulus Ave (southwest of the museum). 	Figure 6-19; see Appendix D for details Capital project	-	-	Modifications to access roadway and gate
SS2	1	1	Early Evening Service	McMinnville	Fixed-Route	Extend McMinnville local fixed-route service hours by one hour to 7 PM (last trips leave transit center at 6:00 or 6:30 PM). Assumes 3 fixed-route buses.	N/A	780	\$60,000	-
SS2	2	1	Early Evening Service	McMinnville	Demand-Response	Extend McMinnville demand-response service hours by one hour to 7 PM; assumes 2 Dial-a-Ride vehicles.	N/A	520	\$30,000	-
SS3	1	2	Early Evening Service	Newberg	Fixed-Route	Extend Newberg local fixed-route service hours by a half-hour to 7 PM (last trips leave transit center at 6:00 or 6:30 PM). Assumes 2 fixed-route buses.	N/A	260	\$20,000	-
SS3	2	2	Early Evening Service	Newberg	Demand-Response	Extend Newberg demand-response service hours by a half-hour to 7 PM; assumes 1 Dial-a-Ride vehicle.	N/A	130	\$8,000	-
SS4	1	2	Phase out flag stops	McMinnville/Newberg	Fixed-Route	After stops are marked or signed, transition away from flag stops in McMinnville and Newberg. This will help service run faster and stay on schedule.	N/A	-	-	Mark or sign all bus stops
SS5	1	1	McMinnville-Newberg Connector	McMinnville-Tigard	Fixed-Route	Phase 2 of near-term project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	N/A	1,040	\$78,000	-
SS6	1	2	Extension to Downtown Salem	McMinnville-Salem	Fixed-Route	<ul style="list-style-type: none"> Extend Route 11 to Downtown Salem Transit Center. Route 11 would still stop along Wallace Rd in West Salem In conjunction with this change, rename Route 11 (e.g., to 80X) to avoid confusion with Cherriots Route 11; see Figure 6-10 	Figure 6-18	758	\$57,000	-
SS7	1	1	Additional Grand Ronde evening trip	McMinnville-Grand Ronde	Fixed-Route	Add an additional evening trip, timed to serve work shifts at the Spirit Mountain Casino and improve connections to/from TCTD 60X Coastal Connector route serving Lincoln City (at Spirit Mountain Casino or Grand Ronde Community Center). Timing should be determined in consultation with TCTD and Spirit Mountain. Improves regional coordination and job access.	N/A	503	\$38,000	-
SS8	1	1	Implement Local Flex Route	Yamhill/Carlton	Flex-Route	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Willamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	N/A	1,352	\$78,000	1 van
SS8	2	2	Implement Local Flex Route	Sheridan/Willamina	Flex-Route		N/A	1,352	\$78,000	1 van
Mid-Term										
SM1	1	1	McMinnville Saturday Service	McMinnville	Fixed-Route	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	N/A	1,040	\$78,000	-
SM1	2	1	McMinnville Saturday Service	McMinnville	Demand-Response	Add local service on Saturdays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6PM.	N/A	520	\$30,000	-
SM2	1	3	Newberg Dial-A-Ride Capacity	Newberg	Demand-Response	Contingency project to restore Newberg Dial-a-Ride to two vehicles, assuming that fixed-route ridership meets standards and additional paratransit capacity is required based on service standards.	N/A	2,080	\$121,000	-
Long-Term										
SL1	1	1	Additional intercity later evening service	McMinnville-Tigard	Fixed-Route	Add 1 additional evening trip	N/A	780	\$59,000	-
SL1	2	1	Additional intercity later evening service	McMinnville-Salem	Fixed-Route	Add 1 additional early evening trip	N/A	403	\$30,000	-

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost _{1,2}	New Capital Requirements
SL1	3	1	Additional intercity later evening service	McMinnville-Hillsboro	Fixed-Route	Add 1 additional early evening trip	N/A	520	\$39,000	-
SL2	1	1	Additional intercity morning and/or afternoon trips	McMinnville-Salem	Fixed-Route	Add 1 additional morning and 1 additional afternoon trip; no additional vehicles required; depending on YCTA's financial and capital resources, and future productivity of these routes, consider adding an additional vehicle to increase frequency during morning and afternoon peak periods (see SV1 - Long-Term Vision).	N/A	806	\$60,000	-
SL2	2	1	Additional intercity morning and/or afternoon trips	McMinnville-Hillsboro	Fixed-Route	Add 1 additional morning trip; no additional vehicles required; depending on YCTA's financial and capital resources, and future productivity of these routes, consider adding an additional vehicle to increase frequency during morning and afternoon peak periods (see SV1 - Long-Term Vision).	N/A	520	\$39,000	-
SL3	1	1	Additional express service	McMinnville-Tigard	Fixed-Route	<ul style="list-style-type: none"> ▪ Add up to four total express trips on Route 45x in morning and afternoon commute hours ▪ Express could potentially using bypass if traffic conditions warrant it in the future. Using bypass means express trips would not serve Dundee and downtown Newberg. There would be a timed transfer with local service in eastern Newberg (e.g., Fred Meyer). Route 44 would continue to serve Dundee and downtown Newberg. ▪ Express service provides direct access to Willamette Medical Center and other activity centers on the OR 18 Bypass, and reduces travel times between the County's largest population centers. 	N/A	1,213	\$91,000	-
SL4	1	2	Saturday Service Expansion	McMinnville-Salem	Fixed-Route	Add Saturday service between McMinnville and downtown Salem. Assumes 4 round trips.	N/A	322	\$24,000	-
SL4	2	2	Saturday Service Expansion	McMinnville-Hillsboro	Fixed-Route	Add Saturday service between McMinnville and Yamhill/Carlton. Assumes 4 round trips. Phase 1 of Saturday service to Hillsboro.	N/A	159	\$12,000	-
SL5	1	1	Implement/Expand Local Flex Routes	Dayton/Lafayette	Flex-Route	Expand shopper shuttle pilot to three days per week, 10 hours per day operation in a third geographic area (Dayton/Lafayette assumed). Amity could be included in Dayton/Lafayette service area and/or Sheridan/Willamina service area.	N/A	1,352	\$78,000	1 van
SL5	2	1	Implement/Expand Local Flex Routes	Sheridan/Willamina	Flex-Route	Expand local flex-route to operate 5 days per week in Sheridan/Willamina.	N/A	1,040	\$60,000	
SL6	1	1	Expand Shopper Shuttle Days of Operation	Newberg/Dundee	Flex-Route	Expand shopper shuttle to a 5 day per week service. Assumes 4 hours per day.	N/A	832	\$48,000	0.5 van
SL6	2	2	Expand Shopper Shuttle Days of Operation	McMinnville	Flex-Route	Expand shopper shuttle to a 5 day per week flex-route service. Assumes 4 hours per day.	N/A	832	\$48,000	0.5 van
SL7	1	1	Early Morning and Later Evening Service	McMinnville	Fixed-Route	Start McMinnville local fixed-route service at 6 AM. Assumes 3 buses.	N/A	780	\$60,000	-
SL7	2	1	Early Morning and Later Evening Service	McMinnville	Demand-Response	Start McMinnville demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	N/A	260	\$15,000	-
SL7	3	2	Early Morning and Later Evening Service	McMinnville	Fixed-Route	Extend McMinnville local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses (reduced coverage or lower frequency than daytime operation).	N/A	1,040	\$78,000	-
SL7	4	2	Early Morning and Later Evening Service	McMinnville	Demand-Response	Extend McMinnville demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	N/A	520	\$30,000	-
SL7	5	1	Early Morning and Later Evening Service	Newberg	Fixed-Route	Start Newberg local fixed-route service at 6 AM. Assumes 2 buses.	N/A	520	\$40,000	-
SL7	6	1	Early Morning and Later Evening Service	Newberg	Demand-Response	Start Newberg demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	N/A	260	\$15,000	-
SL7	7	2	Early Morning and Later Evening Service	Newberg	Fixed-Route	Extend Newberg local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses.	N/A	1,040	\$78,000	-
SL7	8	2	Early Morning and Later Evening Service	Newberg	Demand-Response	Extend Newberg demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	N/A	520	\$30,000	-

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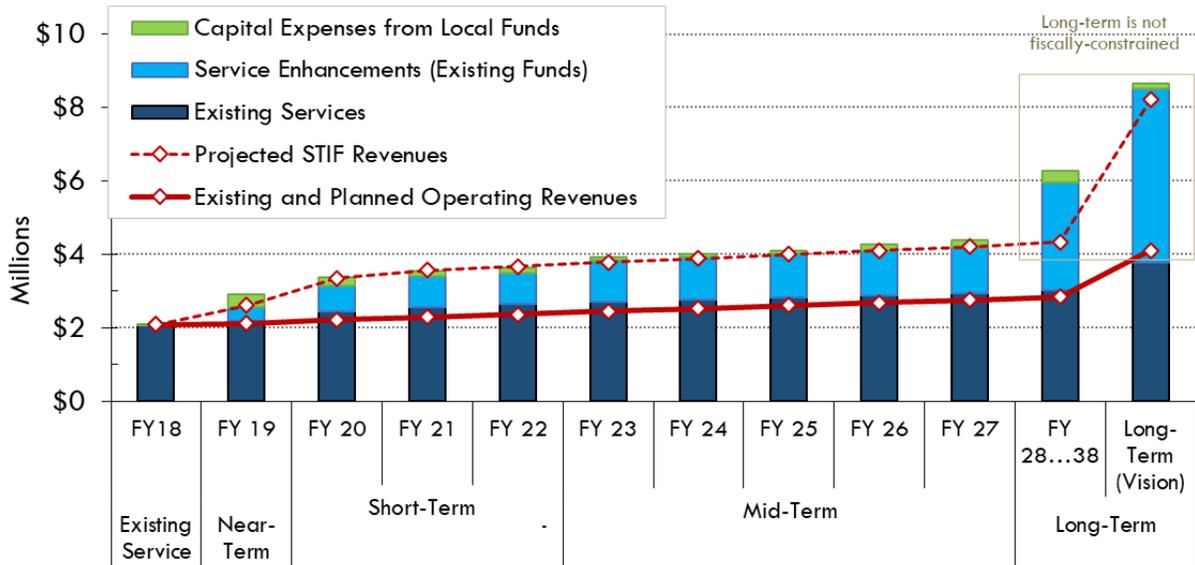
Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SL8	1	1	McMinnville Lafayette Ave On-Demand Flex-Route Pilot	McMinnville	Flex-Route	<ul style="list-style-type: none"> Develop a pilot flex-route serving the area east of Lafayette Ave (e.g., YCAP, McMinnville Power & Light, Dental Clinic, Pet Stop Inn, etc.), with some fixed stops and on-demand dispatch software that enables ride requests within a 2-hour window or on a subscription basis. Could be designed to serve employment areas at key shift times. Cost assumes 7 AM – 6 PM operation, but could be implemented in two phases (peak hours and midday). YCTA should seek grant funding for emerging mobility projects to provide funding for this service. 	Figure 6-19	2,860	\$165,000	1 van
SL9	1	2	New Route or Extension Serving Hill Rd / Baker Creek Rd Area	McMinnville	Fixed-Route	<ul style="list-style-type: none"> Extend service to the Hill Rd and Baker Creek Rd area. Cost assumes a new route along Baker Creek Rd that would connect to the WinCo/Walmart/Safeway area via NE 27th St and to the transit center via Lafayette Ave. This new route would also allow Route 3 to be modified to operate a shorter route, including service on 19th St. and improving access to McMinnville High School. 	Figure 6-19	3,900	\$293,000	1 large cutaway
Long-Term (Vision)										
SV1	1	2	Increase peak period frequency to Salem and Hillsboro	McMinnville-Salem	Fixed-Route	Add trips on Route 11 during morning and afternoon commute hours; this would increase frequency. Requires an additional bus on the route.	N/A	806	\$60,000	1 medium bus
SV1	2	2	Increase peak period frequency to Salem and Hillsboro	McMinnville-Hillsboro	Fixed-Route	Add trips on Route 33 during morning and afternoon commute hours; this would increase frequency. Requires an additional bus on the route. Improve coordination with Grovelink employment area trips.	N/A	1,040	\$78,000	1 medium bus
SV2	1	1	Expand Saturday service	McMinnville-Newberg	Fixed-Route	Add frequency on Route 44 between McMinnville and Newberg on Saturdays	N/A	416	\$31,000	-
SV2	2	3	Expand Saturday service	McMinnville-Hillsboro	Fixed-Route	Extend Route 33 to Hillsboro on Saturdays. Hours/cost in addition to Phase 1 (SL4, McMinnville-Yamhill only).	N/A	257	\$19,000	-
SV2	3	3	Expand Saturday service	McMinnville	Demand-Response	Add a second Dial-A-Ride bus in McMinnville on Saturdays	N/A	520	\$30,000	-
SV2	4	1	Expand Saturday service	Newberg	Fixed-Route	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	N/A	1,040	\$78,000	-
SV2	5	1	Expand Saturday service	Newberg	Demand-Response	Add local service on Saturdays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6PM.	N/A	520	\$30,000	-
SV3	1	2	Implement Sunday Service	McMinnville-Tigard	Fixed-Route	Operate Route 44 on Sundays (McMinnville-Tigard). Assumes 4 round trips. This would be the highest priority for Sunday service on intercity routes.	N/A	624	\$47,000	-
SV3	2	3	Implement Sunday Service	McMinnville-Newberg	Fixed-Route	Add frequency on Route 44 between McMinnville and Newberg on Sundays	N/A	416	\$31,000	-
SV3	3	2	Implement Sunday Service	McMinnville-Grand Ronde	Fixed-Route	Operate Route 22 between McMinnville and Grand Ronde on Sundays. This would be the second highest priority for Sunday service on intercity routes.	N/A	624	\$47,000	-
SV3	4	2	Implement Sunday Service	McMinnville-Salem	Fixed-Route	Operate Route 11 on Sundays. Assumes 4 round trips.	N/A	322	\$24,000	-
SV3	5	3	Implement Sunday Service	McMinnville-Hillsboro	Fixed-Route	Operate Route 33 on Sundays. Assumes 4 round trips.	N/A	451	\$34,000	-
SV3	6	3	Implement Sunday Service	McMinnville	Fixed-Route	Add local service on Sundays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6 PM.	N/A	1,040	\$78,000	-
SV3	7	3	Implement Sunday Service	McMinnville	Demand-Response	Add local service on Sundays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6 PM.	N/A	520	\$30,000	-
SV3	8	3	Implement Sunday Service	Newberg	Fixed-Route	Add local service on Sundays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 10 AM-6PM.	N/A	1,040	\$78,000	-
SV3	9	3	Implement Sunday Service	Newberg	Demand-Response	Add local service on Sundays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 10 AM-6PM.	N/A	520	\$30,000	-
SV4	1	3	Local Service Expansion	McMinnville	Fixed-Route	Add one additional bus in McMinnville to provide additional frequency and capacity, if and where needed based on service standards, e.g., Routes 2 and 4 (existing 2 East and West). Assumes 12 service hours per day, but could also be implemented during peak hours only for multiple routes.	N/A	3,120	\$234,000	1 Large Cutaway
SV4	2	3	Local Service Expansion	Newberg	Fixed-Route	Add one additional bus in Newberg to provide additional frequency and capacity, if and where needed based on service standards. Assumes 12 service hours per day.	N/A	3,120	\$234,000	1 Large Cutaway
SV4	3	3	Local Service Expansion	Newberg	Demand Response	Add additional Dial-a-Ride capacity in Newberg, if needed based on service standards (assumes 1 additional van and 1 additional cutaway in service, each for 8 service hours per day)	N/A	4,160	\$241,000	1 Van, 1 Small Cutaway

Notes: [1] Priority tier is a TDP recommendation, which should be confirmed by the YCTA advisory committee for submission in YCTA's STIF Plan. The STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding, in order to help prioritize depending on actual funds available. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to the projected implementation year.

Cost Overview

A summary of annual transit operating costs relative to anticipated funding levels is provided in Figure 6-22. The chart shows the costs of operating existing services and the estimated costs of enhancements. In the early near-term and short-term, a larger share of YCTA revenues is required for capital enhancements like marking bus stops and upgrading the bus fleet (see Chapter 7). Costs are described in more detail in the TDP financial plan (see Chapter 8).

Figure 6-22 Projected Annual Operating Costs, Existing Funding Sources



Additional Funding Scenario

If additional resources are available, YCTA could implement projects that are currently not assumed until the long-term time frame, which is intended as a flexible service plan and is not financially-constrained.

- **Expand local flex-route service to a third service area, assumed to be Dayton and Lafayette (SL5)** starting in the mid-term.
- **In McMinnville and/or Newberg, provide earlier morning service** (starting at 6 AM) in the short-term and **later evening service** (until 9 PM) in the mid-term (SL7).
- **Add additional early evening trips on intercity routes (SL1)** starting in the short-term.
- **Add additional express trips between McMinnville and Newberg (SL3)** starting in the short-term.
- **Initiate a pilot of on-demand service east of Lafayette Avenue in McMinnville (SL8)** starting in the mid-term. Initially, the pilot could run during peak hours, e.g., 7-10 AM and 3-6 PM, which would reduce its cost.

Chapter 8: Financial Plan provides additional discussion of funding options.

7 CAPITAL PLAN

The capital elements of a transit system include vehicles, bus stop amenities (e.g., signs, seating, shelters, bike racks, etc.), and major capital facilities (transit centers and facilities to maintain and store buses). Buses are typically purchased on a rolling basis to replace old equipment and support expansion of operations, while major facilities require advance planning to secure land and funding. This chapter identifies investments and priorities for each plan time frame.

Emerging Mobility Tools and Technologies

Emerging mobility tools and technologies can help YCTA enhance travel and accessibility for Yamhill County residents, employees, and visitors. The TDP addresses emerging mobility in several parts of the plan:

- **Autonomous vehicle (AV) technology** for shuttles or other vehicles – Chapter 7: Vehicles
- **Integration of shared mobility services** (cars, bikes, scooters, etc.) – Chapter 7: Facilities
- **Ride-hailing services** such as Uber and Lyft (also known as Transportation Network Companies or TNCs) – Chapter 9: Regional Coordination and Partnerships
- **On-demand dispatch technology** to enable transit vehicles to serve requests for pickups in near real-time; this is sometimes referred to as **microtransit**—a publicly or privately operated bus route/system using vans or small buses – Chapter 9: Advanced Public Transportation Technology

VEHICLES

Figure 7-1 summarizes actions related to vehicles and the YCTA fleet. The following sections provide additional detail.

Figure 7-1 Summary of Vehicle-Related Capital Actions

Category	Action	Cost	Partners	Time Frame
Vehicle Replacement and Expansion	Replace end-of-life vehicles with low-floor vehicles branded for and matched to each service type, and maintain an adequate spare ratio.	\$5.4 M (through mid-term), including existing grants YCTA has been awarded; see Figure 7-4 for details.	N/A	Near-term and ongoing
Vehicle Maintenance Facility	YCTA will need an expanded facility to support existing and future vehicle maintenance needs.	See Figure 7-6	Yamhill County, Cities of McMinnville and/or Newberg	Mid-term to long-term
Alternative Fuel Vehicle Options	Evaluate alternative fuel vehicle options, including lifecycle costs, and obtain grants to fund pilot projects.	Not determined – higher fleet and upfront costs and potentially lower fuel/maintenance costs	N/A	Short-term and ongoing
Autonomous Transit Vehicle Technology	YCTA can incorporate autonomous vehicle technology elements as they mature and conduct pilot or demonstration projects, including for first and last-mile access including for low-demand, low-density employment areas.	Unknown	TBD	Mid- to long-term

Vehicle Types and Characteristics

As described in Chapter 3, YCTA’s bus fleet is made up of a variety of vehicles that lack a consistent look (or brand), and are aging and increasingly unreliable. This section describes costs and strategies to provide comfortable, reliable vehicles that are matched to each YCTA service type and support expansion in each TDP time frame.

Figure 7-2 identifies the vehicle types and costs assumed in the plan. Different types of vehicles would be matched to each type of YCTA service based on access and capacity requirements, and uniquely branded. This will require having sufficient vehicles of each type and will limit the ability to interline vehicles across services, although operators could still switch vehicles. YCTA will need to balance the benefits of branding with having too many service types and limiting its flexibility.

YCTA is soliciting input on a distinctive image that would be included in a second phase of bus wraps. The image would evoke something of local significance for Yamhill County or each city, such as agriculture (vineyards, hazelnuts, lumber, etc.), universities, etc.

Vehicle amenities could include:

- **Low-floor** vehicles to make it faster and easier for passengers using wheelchairs and mobility devices to board and alight.
- Intercity routes could include **charging ports** to make services more attractive to commuters and others traveling long distances.
- Local routes could include **community-oriented features** that help riders feel a sense of ownership and be considerate of the bus and other passengers.

Figure 7-2 YCTA Vehicle Types

Category	Representative Image ³	Typical YCTA Services	Typical Size / Capacity	Cost ¹	Assumed Model	Vehicle Class	Minimum Useful Life
Bus – Large ²	Not planned until long-term	Intercity Routes (highest demand)	35-foot multiple doors 35-40+ pass.	\$450,000	Gillig 35' Low, Low-Floor	A	12 Years or 500,000 miles
Bus - Medium		Intercity and Local Routes	30-foot multiple doors 25-35 pass.	\$340,000	El Dorado EZ Rider II 30', Low-Floor	A	12 Years or 500,000 miles
Cutaway - Large		Intercity and Local Routes	16+ pass. 2 W/C	\$140,000	Champion, Low-Floor	C	7 Years or 350,000 miles
Cutaway - Small		Local Routes (lowest demand), Dial-A-Ride, Small City Flex Routes	12 pass. 2 W/C	\$85,000	Arboc Spirit of Independence Low-Floor	D	5 Years or 150,000 miles
Van		Small City Flex Routes, Dial-A-Ride	5 pass. 1-2 W/C	\$50,000	Accessible van	E	4 Years or 100,000 miles

Notes: [1] Costs in 2018 dollars, including add-on items. Based on recent YCTA procurements or the Oregon DOT State Price Agreement Vehicle Contract Crosswalk, June 2017. [2] “Bus – Large” vehicle type not assumed until later plan years (long-term). [3] Draft bus wrap images as of July 2018.

Alternative Fuel Vehicles

Transit agencies in North America are increasingly adopting alternative fuel vehicles. As of 2015 approximately half of all transit buses in the U.S. were propelled by a fuel source other than traditional diesel fuel. There are a number of alternative fuel vehicle options on the market, including:

- Compressed natural gas (CNG).
- Hybrid diesel-electric (hybrid-electric).
- Electric vehicles (EV) (battery-electric). As of 2018, there are at least 13 models available deployed at more than 70 transit agencies in the United States¹⁶
- Hydrogen fuel cell.

Most alternative fuel vehicles have higher upfront capital costs than standard diesel-fuel buses, and there are other upfront costs related to installing or upgrading facilities for fueling and maintenance. The First Transit maintenance facility that currently maintains YCTA's fleet does not have capacity for these facilities, which may limit near-term options to hybrid-electric vehicles. Options with lower upfront costs are to purchase refurbished battery-electric vehicles (cost of \$200,000 per vehicle currently) or leasing several buses as a pilot project. However, alternative fuel vehicles may be less costly over the life of the vehicle due to lower fuel and/or ongoing maintenance costs.

YCTA could evaluate implementation of alternative fuel vehicles, including pilot projects, considering upfront capital and life cycle operating and maintenance costs of vehicles and facilities.

¹⁶ TCRP Synthesis 130: Battery Electric Buses State of the Practice, 2018. <https://tinyurl.com/y7c8uqvz>

Autonomous Transit Vehicles

Autonomous vehicles, or technology-assisted driving, is an evolving technology that can be grouped into five categories:

- Levels 1 to 3 (driver assistance to conditional automation) rely on a driver to pilot the vehicle with varying levels of automated functions.
- Levels 4 and 5 (high to full automation) allow driverless operations. Applications range from personal mobility (individual vehicle owners and users) to shared mobility (subscription-based and bundled transportation services).

Research and development activity around autonomous vehicle technology continues to progress, with pilot services in a number of cities across the United States and internationally. Once driverless vehicles are available for widespread consumer use, they are expected to steadily gain market share. However, the adoption timeline is uncertain given unknowns about the technology itself and the regulatory efforts that will shape it. Autonomous vehicle technology is likely to be adapted by vehicle manufacturers and transit agencies in stages. Likely implications for transit include:

- Lower levels of automation could improve safety and comfort, e.g., improved collision avoidance, smoother acceleration/deceleration, precision curb alignment, automated parking, etc.
- Full (Level 5) automation is likely a decade or more away,¹⁷ but could lead to significant shifts in the way transit services operate by:
 - Shifting the role of the operator to focus on customer service and assisting passengers. Labor represents a major portion of transit operating costs, but the continued need for an attendant (especially in paratransit applications) would likely offset potential labor cost savings.
 - Making it more cost-effective to provide automated circulators or shuttles that can provide access to “line-haul” routes. Current automated shuttles typically operate with a low level of autonomy on pre-defined, fixed routes in controlled environments, minimizing operational challenges and enabling the vehicles to operate with minimal human intervention.
- Converging with ride-hailing and microtransit, some shuttle providers are exploring offering on-demand services where passengers would either press a button at stop locations to board the shuttle or hail a ride through their smartphone, and press a button to request to alight at the next stop.
- The need for maintenance and repair may increase as more, smaller vehicles run more frequently. Advanced training requirements are likely to grow as technology evolves and the transit fleet incorporates autonomous technology.

YCTA can incorporate autonomous vehicle technology into future pilot or demonstration projects.

¹⁷ FTA: Strategic Transit Automation Research Plan, January 2018. <https://tinyurl.com/ybkv9rxh>

Fleet Plan

See Appendix A for detailed vehicle type assumptions (Figure A-2) and a replacement schedule (Figure A-3).

Figure 7-3 summarizes vehicle requirements by the type and number of vehicles required in each plan time frame. The plan assumes transitioning away from cutaways in favor of medium-size buses for local fixed-routes and heavy-duty buses for the intercity routes, particularly on routes with the highest demand. These buses have more seating capacity and features like multiple doors to help board/alight passenger efficiently.

Maximum Vehicles in Service

The number of vehicles operated in maximum service (VOMS) that would be in service each day increases from 17 currently to 19 in the near-term and 22 in the short-term. Figure 7-3 provides a summary. See Figure A-2 in Appendix A for detailed assumptions by route.

The five additional vehicles would be used to provide:

- **Near-Term:** An additional bus for McMinnville local service and a van to initiate the shopper shuttle and small city service pilots. One of the two existing Dial-A-Ride vehicles in Newberg is shifted to fixed-route service.
- **Short-Term:** Additional vehicles for small city services and a vehicle added back to Newberg Dial-A-Ride service (depending on demand).
- **Mid-Term:** An additional vehicle for small city services
- **Long-term:** This time frame provides a set of flexible options for future conditions and is not fiscally-constrained. YCTA could operate up to 30 vehicles if all options are implemented, including additional Dial-A-Ride capacity and additional routes or increased frequency in McMinnville and Newberg, and additional vehicles for small city services. It also assumes that the highest-demand services (Route 3 in McMinnville and Route 44 McMinnville-Tigard) would move to larger buses.

Spare Vehicles

For systems with 50 or more vehicles, the Federal Transit Administration (FTA) recommends maintaining a ratio of approximately 20% spare vehicles to ensure that transit service is not impacted by planned or unplanned vehicle maintenance. There is no corresponding recommendation for a spare ratio for smaller systems like YCTA. In order to match vehicles to each service type, the plan assumes a relatively high spare ratio; YCTA can adjust this based on operational experience with the future vehicle fleet.

Figure 7-3 Capital Plan Summary – Maximum Number of Vehicles in Service by Type and Time Frame

Vehicle Type	TDP Time Frame	Existing Service	Near-Term	Short-Term	Mid-Term	Long-Term
	Year	2018	2019	2020-2022	2023-2027	2028-2038
Bus - Large		0	0	0	0	4
Bus - Medium		7	7	7	7	6
Cutaway - Large		3	5	5	5	7
Cutaway - Small		5	6	7	7	11
Van		2	2	3	3	4
Total Maximum Vehicles in Service		17	20	22	22	32
Total Vehicles with Spares		22	27	31	32	43
Overall Spare Ratio		29%	35%	41%	45%	34%

Vehicle Capital Cost Summary

Figure 7-4 summarizes vehicle capital costs including replacing end-of-life vehicles in the early years of the plan, and ongoing vehicle replacements over the first 10 years of the plan (based on the typical useful life listed in Figure 7-2 above). Figure 7-5 illustrates costs over this time period.

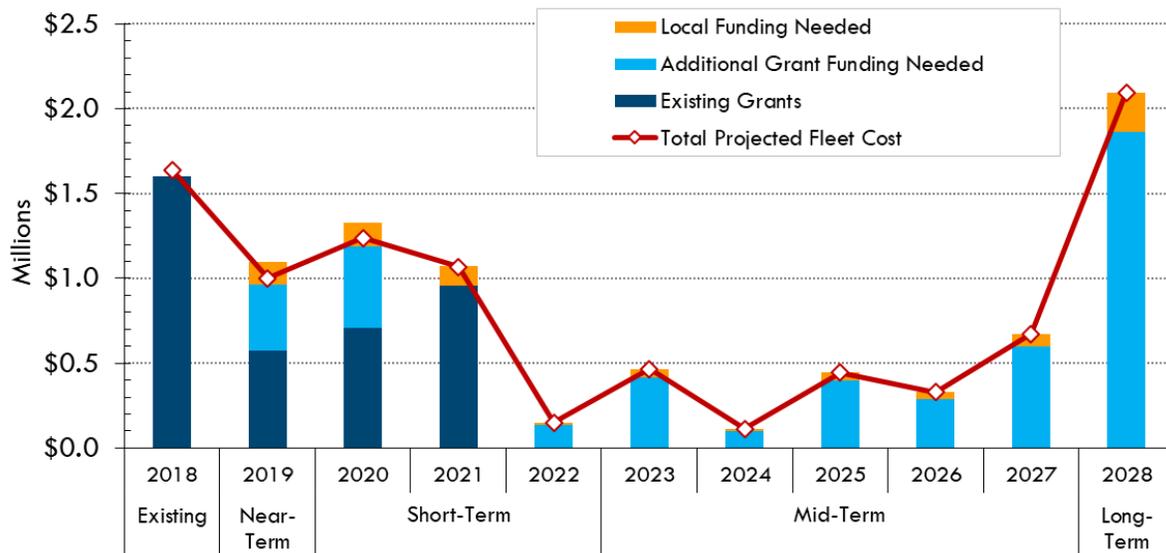
YCTA has existing grants to purchase new vehicles in 2018 and 2019, but will need to seek additional grant funding sources to replace end-of-life vehicles and support planned expansion. The plan assumes that YCTA will need to cover local matching costs, typically 10.27% to 20% depending on the grant, but also creates a capital reserve to cover the gap between grants and funding needs, including replacing the new vehicles YCTA is currently acquiring in the long-term time frame. See Figures A-1 and A-3 in Appendix A for details on fleet expansion and replacement.

Figure 7-4 Capital Plan Summary – Vehicle Capital Costs by Type and Time Frame (Total and Assumed Local Costs)

TDP Time Frame	Existing	Near-Term	Short-Term	Mid-Term	Long-Term
Year	2018	2019	2020-2022	2023-2027	2028 (1st Year)
Bus - Large	\$0	\$0	\$0	\$0	\$1,104,000
Bus - Medium	\$1,360,000	\$0	\$2,112,000	\$0	\$0
Cutaway - Large	\$280,000	\$560,000	\$293,000	\$1,000,000	\$516,000
Cutaway - Small	\$0	\$340,000	\$0	\$853,000	\$416,000
Van	\$0	\$100,000	\$51,000	\$169,000	\$61,000
Total Cost	\$1,640,000	\$1,000,000	\$2,456,000	\$2,022,000	\$2,097,000
Existing Grants	\$1,603,346	\$571,770	\$1,667,072	\$0	\$0
Additional Grants Needed	\$0	\$391,000	\$614,000	\$1,796,000	\$1,865,000
Total Local Funding Needed	\$0	\$132,175	\$269,042	\$226,000	\$232,000
# of Years in Time Frame	1	1	3	5	1
Avg Total Cost per Year	\$1,640,000	\$1,000,000	\$818,667	\$404,400	\$2,097,000
Avg Local Cost per Year ¹	\$0	\$132,175	\$89,681	\$45,200	\$232,000

Notes: Based on bus unit costs in 2018 dollars, adjusted for inflation. [1] Local costs assume an average local share of approximately 11%.

Figure 7-5 Projected Fleet Capital Costs by Assumed Funding Source and Time Frame



MAJOR FACILITIES

Figure 7-6 summarizes facility recommendations and costs. The following sections discuss each major type of facility.

Figure 7-6 Capital Facility Actions and Planning-Level Costs

Action/Improvement	Benefits	Estimated Cost*	Partners	Time Frame
Sign and Mark Bus Stops	Communicates where vehicles stop and presence of transit	\$100,000	Local Jurisdictions	Near- to Short-Term
Stop improvement program (benches, shelters, pads, and other amenities)	Provides comfortable, dignified places for passengers to catch the bus	\$25,000 - \$50,000 (annual)	Local Jurisdictions	Near-Term and Ongoing
Improvements at Chemeketa Community College – McMinnville. Gate access and roadway improvements.	Enables service to Virginia Garcia clinic and other housing east of Norton Lane.	\$15,000 - \$25,000	City of McMinnville, Chemeketa College	Short-Term
Willamette Valley Medical Center	Explore one-way circulation options to improve safety.	TBD	Medical Center	Short-Term
Newberg Downtown Transit Center (On-Street to Off-Street)	Provides visibility for transit and a restroom for drivers and passengers.	\$250,000 to \$1.0 M	City of Newberg	Short- to Long-Term
McMinnville Bus Maintenance & Storage Facility	Provides space for future expansion and flexibility for future service contracting.	\$5.0 - \$6.0 M	Yamhill County, McMinnville and/or Newberg	Mid- to Long-Term
Plan for expansion of McMinnville Transit Center	Provides space for future expansion	\$1.0 – 1.5 M	City of McMinnville, Yamhill County	Mid- to Long-Term
Park-and-rides	Identify park-and-ride locations through partnership agreements	-	To be determined (e.g., local churches)	Ongoing

* Order-of-magnitude, planning-level costs, 2018 dollars

Secondary Transit Hubs

Secondary transit hubs are major stops that have a higher level of amenities and passenger capacity to support convenient transfers between routes outside of the downtown transit centers. The plan recommends:

- **Plan for secondary transit hubs in McMinnville** by acquiring land/easements or securing use of public right-of-way as opportunities arise. Locations could include the northeast (vicinity of OR 99W and Lafayette Avenue), and/or west, east and south parts of McMinnville.
- **Establish a secondary transit hub in eastern Newberg** (in the vicinity of Fred Meyer) to support coordinated transfers between Routes 44/45x (including possible future re-routing of Route 45x to use the Dundee Bypass) and Newberg local routes. This would require an enhanced or protected pedestrian crossing.

Figure 7-7 Brutscher Street Shelter, Newberg



Brutscher Street adjacent to Fred Meyer in Newberg is a potential secondary transit hub location. Amenities could include higher capacity shelters and a protected pedestrian crossing.

- **Consider establishing a transit hub at Spirit Mountain Casino**, which is served by YCTA Route 22 as well as TCTD services. The Grand Ronde Tribe, which is completing its own transit plan in 2018, may be a potential funding partner.

Transit Centers

Transit centers are the primary locations where bus routes converge and buses can layover between trips. The McMinnville Transit Center provides facilities for customers and operations staff (e.g., First Transit). Key actions include:

- **Plan for expansion of the downtown McMinnville transit center** by acquiring land as opportunities arise.
- **Establish a downtown transit center in Newberg** with coordinated schedules between Route 44 and local service. While it is appropriate for YCTA and Newberg to take initial steps to plan for a transit center now, the recommended mid-term implementation time frame is intended to allow existing routes to demonstrate increased ridership from proposed near-term service changes and modest stop improvements (including signage/markings at all stops), before making a significant capital investment. The City of Newberg has also proposed providing public right-of-way for an on-street transit center, which could be implemented at lower cost and in an earlier plan time frame.

Park & Ride Lots

Park-and-ride lots are public parking lots that allow people to park their cars and access transit or ridesharing. There are currently no official park-and-ride lots in Yamhill County.¹⁸ YCTA can secure park-and-ride locations through partnership agreements with institutions such as churches that do not utilize their available parking on weekdays. Transit riders would be allowed to park at certain times. Small context-appropriate park & ride lots and drop-off spaces for taxis and ride-hailing services (e.g., Lyft and Uber; see Chapter 9) could also be incorporated into future transit centers, if land is available.



Top: YCTA owns and maintains the McMinnville Transit Center, built in 2013 and funded through the Oregon Department of Transportation's ConnectOregon IV program supplemented with FTA, Yamhill County, and other ODOT funds.
 2nd from Top: Tillamook Transit Center includes bus stops along Second Street near City Hall.
 2nd from Bottom: Hawthorne Station in Bend includes bus stops along both sides of Hawthorne Ave.
 Bottom: SETD took advantage of a vacant retail space to open a Transit Kiosk in Seaside.

¹⁸ Oregon Department of Transportation. *Park & Ride Lots*. <https://www.tripcheck.com/Pages/RLPark-ride.asp>

Maintenance Facilities

YCTA buses are maintained by First Transit under its contract with YCTA. The maintenance shop is located on Lafayette Avenue in McMinnville, but has limited capacity. Key actions include:

- **Identify and acquire or partner to secure a long-term location for maintaining and storing buses.** Having its own facilities will provide YCTA with future flexibility in contracting for service and incorporating fueling and maintenance facilities for alternative fuel buses.
- YCTA could also consider identifying locations where buses can be stored or maintained in other communities as needs and opportunities arise. This can avoid deadheading (when a bus travels without carrying passengers to reach the start of a route or return to the maintenance base, such as Route 22 currently does), but can create other operational or logistical challenges.

BUS STOPS AND PASSENGER AMENITIES

Bus Stop Amenity Standards

Bus stops are the basic type of transit facility and serve as the front door of the transit system. The presence of bus stops lets people know where buses run and their appearance and condition often define people’s impressions of transit. A key near-term improvement is to sign and/or mark all YCTA bus stops; funds are identified starting in the first year of the plan. YCTA should also set aside funds for a program to make ongoing investments in bus stops. Figure 7-9 identifies existing bus stops and amenities, focused on stops outside of McMinnville, as well as current improvement plans.

Stop improvements, and improving pedestrian and bicycle access to bus stops is an area where local jurisdictions play an important role in making improvements and setting standards to ensure that appropriate facilities are built when land is developed or redeveloped (see Chapter 10).

Future facility policies and plans should accommodate ride-hailing services (e.g., drop-off zones for Lyft, Uber, Taxis, etc.), future shared mobility services (e.g., future bike or scooter charging stations), and other first last-mile services.



Solar-Powered Lighting and Beacons

It can be challenging for bus operators to see passengers waiting at shelters, particularly on intercity routes and at night or in low-visibility conditions. YCTA can equip selected stops shelters with a solar-powered beacon that provides lighting at the stop and allow drivers to more easily see when passengers are waiting. Examples are shown at right. Costs range from approximately \$1,000 to \$1,400 for beacons and from \$1,500 - \$2,000 for shelter lighting.



Source: Urbansolar / PV-Stop

Figure 7-8 Bus Stop Amenity Standards and Unit Costs

Photo Example	Stop Amenity Category	Ridership and Land Use Context Guidelines	Required/Preferred Elements	Optional Elements	Unit Cost
 Wilsonville (Source: Simme Seat)	Minimal marking or pole	None	<ul style="list-style-type: none"> YCTA route sign or other marking 	<ul style="list-style-type: none"> Well-maintained pull-out location (e.g., highways) 	\$30 - \$150
	Basic with no or existing pad	Low = <10 Daily Boardings	<ul style="list-style-type: none"> Meets ADA requirements Continuous pedestrian access Posted route and schedule information 	<ul style="list-style-type: none"> Above plus lighting 	\$1,000
	Basic with pad and Simme Seat	Low = <10 Daily Boardings Moderate-use activity center	<ul style="list-style-type: none"> Above plus Simme seat Pad 	<ul style="list-style-type: none"> Above plus bicycle parking 	\$3,500
 Grand Ronde Community Center	Basic with pad and bench	Low = <10 Daily Boardings Moderate-use activity center	<ul style="list-style-type: none"> Above with expanded pad and bench 	<ul style="list-style-type: none"> Above plus bicycle parking 	\$4,500
 Peer example with pullout, shelter, and beacon (Island Transit, WA)	Stop with Shelter	Medium = 10-25 Daily Boardings High-use stops and activity centers, intercity stops, transfer points	<ul style="list-style-type: none"> Above with shelter 	Above plus: <ul style="list-style-type: none"> Enhanced information (system map) Solar-powered beacon light (intercity stop with limited visibility for bus drivers) Lighting 	\$12,500
 Peer Example (Bend)	Enhanced Stop	High = >25 Daily Boardings	<ul style="list-style-type: none"> Above plus... Printed information Bicycle parking High-capacity shelter(s) Real-time information display 	Above plus: <ul style="list-style-type: none"> Secure bicycle parking Trash can Placemaking / art Solar shelters and lighting Designated park and ride or drop-off spaces 	\$25,000 or more

Sources: Oregon DOT Transit in Small Cities, 2013; ODOT Transit Division price agreement; industry standards; and estimates for other recent plans. Costs adjusted for inflation to 2018 \$

Stop Improvement Locations

Every transit trip involves waiting at the stop for a certain amount of time. Passenger amenities make waiting feel as safe and comfortable as possible, given limited resources. Standards based on ridership levels help YCTA prioritize requests and justify decisions about where to install amenities. General thresholds for high, medium, and lower ridership stops are included for each tier of bus stop, based on the Spring 2017 ridecheck (see Figure 7-8). YCTA already has some seats and shelters available to install once the TDP is adopted and routes and bus stop locations are finalized.



Bus shelter in Willamina

Figure 7-9 Potential Locations for Stop Improvements or Shelters

Location	Route(s)	Improvements	Partners
Tigard	44, 45x	<ul style="list-style-type: none"> Shelter with schedule and system map (adjacent to Transit Center) Improved wayfinding Longer-term, coordinate with TriMet to secure a bay in a new, future Transit Center when the Southwest Corridor MAX line opens. 	<ul style="list-style-type: none"> City of Tigard TriMet
Hillsboro	33	<ul style="list-style-type: none"> Stop sign with Simme Seat (adjacent to Transit Center); City of Hillsboro is working on intergovernmental agreement Schedule Improved wayfinding; TriMet added YCTA to TC map The City of Hillsboro is working to provide two-way access into Central Station as part of the Regional Enhanced Transit Corridor initiative, using the City-owned parking area where YCTA currently stops. Coordinate with the City of Hillsboro and TriMet to secure a bay in the expanded space available when this change occurs. 	<ul style="list-style-type: none"> City of Hillsboro TriMet
Salem	80x (11)	<ul style="list-style-type: none"> Shelter with system map and schedule at West Salem Transit Center; Cherrlots planned to install in Winter/Spring 2018 	<ul style="list-style-type: none"> Cherrlots
Grand Ronde	22	<ul style="list-style-type: none"> System map and schedule in Community Center; existing bench and nearby awnings 	<ul style="list-style-type: none"> Grand Ronde Tribe
Amity	80x (11)	<ul style="list-style-type: none"> Shelters in both directions (current plans to install southbound) 	<ul style="list-style-type: none"> City of Amity
Dundee	44	<ul style="list-style-type: none"> Have shelter in one direction; needed in other direction 	<ul style="list-style-type: none"> City of Dundee
Dayton	44	<ul style="list-style-type: none"> Have shelter in one direction; plan to install Simme seat in the southbound direction 	<ul style="list-style-type: none"> City of Dayton
Lafayette	44	<ul style="list-style-type: none"> Have shelter in one direction; shelter needed in the other direction 	<ul style="list-style-type: none"> City of Lafayette
Carlton	33	<ul style="list-style-type: none"> Have shelter in one direction; shelter needed in the other direction Explore alternative shelter locations, possibly for both directions, to avoid deviations and minimize travel time. 	<ul style="list-style-type: none"> City of Carlton
Yamhill	33	<ul style="list-style-type: none"> Have shelter in one direction; shelter needed in the other direction 	<ul style="list-style-type: none"> City of Yamhill
Sheridan	22	<ul style="list-style-type: none"> Multiple existing shelters; one is needed eastbound 	<ul style="list-style-type: none"> City of Sheridan
Willamina	22	<ul style="list-style-type: none"> Have shelter in one direction; shelter needed in the other direction 	<ul style="list-style-type: none"> City of Willamina
McMinnville	Local / Intercity	<ul style="list-style-type: none"> Marked stops, shelters (multiple locations) 	<ul style="list-style-type: none"> City of McMinnville
Newberg	Local / 44 / 45x	<ul style="list-style-type: none"> Marked stops, shelters (multiple locations) 	<ul style="list-style-type: none"> City of Newberg

SHORT-TERM CAPITAL PLAN SUMMARY

Figure 7-10 summarizes capital projects for the first three years of the plan.

Figure 7-10 Capital Project Summary, FY 2019 to FY 2021 and Ongoing

TDP Project ID	TDP Task	STIF Project ID & Task	Time Frame	Project Name	Project/Task Description	FY 2019	FY 2020	FY 2021	Subsequent Years
CN1	Multiple	1	Near-Term	Bus Local Match	Replace end-of-life vehicles with low-floor vehicles branded for and matched to each service type; Acquire new vehicles to support SN1.3, SN 1.4, and SN 6.1.	\$128,451	\$136,699	\$110,115	Local Match as Required
CN2	1	3.1	Near-Term and Ongoing	Bus Stop Improvements	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. <ul style="list-style-type: none"> ▪ Task 1: Planning ▪ Task 2: Signing/Marking ▪ Task 3: Shelters 	\$10,000			
CN2	2	3.2	Near-Term and Ongoing	Bus Stop Improvements		\$20,000	\$10,000	\$10,000	
CN2	3	3.3	Near-Term and Ongoing	Bus Stop Improvements		\$25,000	\$25,000	\$25,000	\$25,000 annually (ongoing)
CN3	1	-	Near-Term	Technology Enhancements	Automated Vehicle Location/Real-Time Information. Funded by YCTA Technology Grant.	\$191,474			
CN3	2	4.1	Near-Term	Technology Enhancements	(1) Mobile surveillance solution for reliable, real time tracking for 33 buses to increase efficiency and camera coverage inside & out to promote passenger safety. (2) Automated Stop Announcements.	\$100,000			
CN3		4.1	Short-Term	Technology Enhancements	To be determined; could include pilots of dispatching or fare payment technology.		\$50,000		
CN4		8.1	Near-Term	CCC Access Gate	Gate access and roadway improvements at Chemeketa Community College in McMinnville. Enables service to Virginia Garcia clinic and other housing east of Norton Lane.	\$15,000			
CN5		9.1	Near-Term	Marketing	Support vehicle and other branding and marketing.	\$50,000			
CS1		19.1	Short-Term	Capital Reserve	Establish and contribute to a capital reserve fund (e.g., to be used for local matching funds for vehicle grants in the future)			\$50,000	\$50,000 to \$100,000 annually

8 FINANCIAL PLAN

This chapter provides funding and investment scenarios to guide YCTA services over the next 10 years and beyond. It describes:

- Transit operating cost assumptions
- Revenue trends and assumptions including federal and state funding programs, Yamhill County funds, local agency partners, and fares
- Potential additional revenue sources
- Financial scenarios for YCTA, including projected expenses based on the Service Plan (Chapter 6) and Capital Plan (Chapter 7)

TRANSIT OPERATING COST ASSUMPTIONS

YCTA’s average cost per service hour of \$55 in 2014 and \$59 in 2018 is assumed to be lower than will be sustainable in the future; for example, YCTA needs to pay a higher, more competitive wage to attract and retain drivers and has minimal administrative staffing that will need to increase in the future (see Service Delivery and Organizational Capacity in Chapter 9). YCTA will be issuing a new RFP for its service contract in 2019, which may have a higher cost than the current contract. In addition, YCTA will need to pay a larger cost of administrative functions provided through Yamhill County, such as legal counsel and human resources. YCTA projects that an average cost of \$70 to \$75 is an appropriate baseline cost; this is below the median of the peer operating cost range.

The TDP financial plan transitions to this cost by 2020. Thereafter, the TDP assumes annual inflation of 2.3% based on the US Bureau of Economic Analysis Consumer Price Index.

Figure 8-1 Transit Operating Cost Assumptions

Service Type	2018	2019	2020	2023	2028
	Existing	Near-Term	Short-Term	Mid-Term	Long-Term
Overall Average	\$59	\$63	\$70	\$78	\$84
Fixed-Route	\$65	\$67	\$75	\$82	\$90
Dial-A-Ride	\$42	\$50	\$58	\$71	\$77
Flex-Route / Shuttle	N/A	\$55	\$56	\$62	\$67

EXISTING AND POTENTIAL FUNDING SOURCES AND TRENDS

YCTA's funding sources are described in more detail below.

Formula Funds

YCTA's federal and state funding sources fall into two categories: formula-based or discretionary. Formula funds are allocated from ODOT every two years based on formulas developed by ODOT staff and approved by local stakeholders through the public transportation advisory committee. The formula programs are described below.

- **Oregon Special Transportation Fund (STF).** Formula funding for transportation services to older adults and persons with disabilities. ODOT allocates these funds to YCTA, and YCTA works with local transit providers and the STF Advisory Committee to distribute funds locally. STF funds can be counted as local match for federal funding, since STF is entirely locally generated.
- **FTA Section 5310 Enhanced Mobility for Seniors and People with Disabilities.** Formula funding for capital costs for serving older adults and persons with disabilities. Approximately 70% of the program consists of other federal funds that ODOT transfers into the program. ODOT allocates these funds to YCTA, and YCTA works with local stakeholders to allocate the funds locally. YCTA typically uses the funds for service delivery contracts in addition to traditional capital costs such as vehicles. The local match rate is 20%.
- **FTA Section 5311 Formula Grants for Other than Urbanized Areas.** Formula funding for operations and capital costs for rural transit services. YCTA typically uses these funds for its operating contract. The local match rate is 50% for operations (including contracts with third-party contractors) and 20% for capital.
- **State Transportation Improvement Fund (STIF).** The State Legislature passed a transportation funding package (House Bill 2017) that includes over \$100 million dollars annually for public transportation providers statewide, starting in fiscal year 2019. The funding is from a statewide employee payroll tax and can be used for operations, capital, planning, and other purposes. STIF funds can be used to match federal and other grant funding sources.

Discretionary Funds

The FTA and ODOT offer discretionary funding programs (grants) on varying schedules. Discretionary transit funding programs typically fund capital investments such as vehicles, equipment, and bus stops. These funds may also support pilot projects, such as alternative fuel vehicles and new service models, and major capital projects (e.g., transit center construction or expansion). Some of these programs are specific to public transportation, while others fund transportation improvements statewide and have more limited project eligibility requirements. For example, the Connect Oregon IV program provided over \$1.1 million in funding for the McMinnville Transit Center in 2013-2014; however, the HB 2017 legislation limited the eligibility of transit projects for future Connect Oregon funding solicitations.

- **ODOT Special Transportation Fund (STF) Discretionary.** This program funds transportation services for older adults and persons with disabilities. Solicitations identify specific prioritization criteria. There is no local match rate requirement. In 2017, the STF Discretionary program provided YCTA with \$456,000 in funding for communications and scheduling technology as well as the local match for two vehicles funded through the FTA Section 5339 program.

- **FTA Section 5339 Bus and Bus Facilities.** This program is used to replace, rehabilitate and purchase buses, equipment and bus-related facilities. Vehicle replacements must meet age and mile requirements. The local match rate is 20%.
- **Oregon State Transportation Improvement Program (STIP) –Enhance.** ODOT solicits every two to four years statewide for transportation projects that enhance, expand, or improve the transportation system. The program’s public transportation funding is typically limited to vehicles and equipment supporting services that improve the state transportation system. The local match rate is 20%. ODOT awarded YCTA \$942,000 for buses in the 2015-2018 STIP and \$707,000 for buses in the 2018-2021 STIP.
- **ODOT State Transportation Improvement Fund (STIF) Discretionary.** The STIF program allocates a total of 9% of available funds for two discretionary funding programs. The Discretionary Fund can be used for all types of projects except ongoing operations. The Intercommunity Discretionary Fund is for improving connections between communities and other key destinations, emphasizing statewide transit network connectivity. Eligible projects include capital (vehicles, facilities, equipment and technology), mobility management, planning, research and operations; however, ongoing operations projects are not guaranteed funding in future grant solicitations. The local match is generally 20% of the total cost, but may be reduced to 10% for projects that predominantly serve or provide access to rural communities (50,000 population or less and outside of urban areas).

Local Funds

YCTA maintains intergovernmental agreements or contracts with local agencies to support public transportation to their areas. These funds are important to YCTA by supplementing local funds with flexible funding that can be used to match federal and state grants. The local funding agreements also direct resources to areas with high transit demand and provide a clear and sustainable service relationship. These contracts include:

- **Confederated Tribes of the Grand Ronde Community:** The city of Grand Ronde is located just outside Yamhill County in Polk County. Grand Ronde contracts with YCTA for about \$58,500 (2018-2019) annually to support Route 22 (an increase from \$42,000 in previous years); this may change in the future based on the hourly rate YCTA pays its service provider.
- **McMinnville and Newberg:** Yamhill County’s largest cities have provided local funds through intergovernmental agreements to support local fixed route operations in their cities. The City Councils decide annually how much to contribute—approximately \$20,000 each in recent years.

Figure 8-2 provides the estimated annual local contribution for Yamhill County and cities. The table compares these contributions to population and service hours attributed to each jurisdiction.

- Yamhill County provides 14% of total funding, which is \$2.68 annually per total person in the County and \$8.18 per service hour.
- McMinnville and Newberg contribute 1% of total funding, which is less than \$1 per person annually and approximately \$2 per local service hour in each city.
- Grand Ronde contributes 3% of total funding, which is \$33 per person and \$14 per service hour.

By comparison, the sidebar below (see Figure 8-3) shows that local jurisdictions in Central Oregon contribute between \$3 and \$13 per person annually.

Figure 8-2 Existing Local Transit Service Contribution per Person and Service Hour

Jurisdiction	Existing Contribution (2018 Budget)	% of Total ¹	Population (2017) ²	Existing Annual Contribution per Person	Annual Service Hours ³	Existing Annual Contribution per Service Hour
Yamhill County	\$284,758	14%	106,300	\$2.68	16,865	\$8.18
Amity			1,640		2,015	
Carlton			2,205		2,600	
Dayton			2,670		8,316	
Dundee			3,225		8,316	
Lafayette			4,095		8,316	
McMinnville	\$20,000	1%	33,665	\$0.59	10,400	\$1.92
Newberg	\$20,000	1%	23,480	\$0.85	7,540	\$2.65
Sheridan			6,185		3,935	
Willamina (Yamhill/Polk)			2,110		3,935	
Yamhill			1,075		2,600	
Unincorporated			26,820			
Grand Ronde	\$56,000	3%	1,661	\$33.71	3,935	\$14.23
Total	\$380,000	19%				

Notes/Sources: [1] Based on YCTA 2018 operating budget of approximately \$2,050,000. [2] Portland State University, Population Research Center (PRC). Grand Ronde population is for the Census Designated Place, 2010 US Census. [3] Based on the intercity route serving each small city, local fixed-route and Dial-A-Ride service hours for McMinnville and Newberg, and the total intercity service hours for Yamhill County.

Peer Comparison: Cascades East Transit Local Funding

The table below shows that local jurisdictions contribute 28% of operating costs for Cascades East Transit, which serves Crook, Deschutes, and Jefferson Counties, including the cities of Bend, Culver, La Pine, Madras, Metolius, Prineville, and Redmond, along with the Confederated Tribes of Warm Springs. Local contributions range from \$3 to \$13 per person.

Figure 8-3 Peer Comparison: Cascades East Transit Local Transit Service Contribution per Person

Jurisdiction	Contribution	Population	Contribution / Person	% of Total
Deschutes County	\$515,313	170,740	\$3.02	6%
Jefferson County	\$103,000	22,445	\$4.59	1%
Crook County	\$203,122	21,085	\$9.63	2%
City of Bend	\$1,082,040	81,310	\$13.31	13%
Other Local Gov't	\$414,479	48,830	\$8.49	5%
Total Local Gov't	\$2,317,954	214,270	\$10.82	28%
Fares	\$653,337			8%
Social Services	\$58,392			1%
Total CET	\$8,415,938			

Source: COIC 2014-2015 Proposed Budget, <https://newcoic.files.wordpress.com/2012/08/14-15-updated-binder.pdf>

Funding Trend Assumptions

YCTA can expect to receive formula funding revenues as long as it maintains compliance with FTA and ODOT rules, and meets planning and management requirements. YCTA will also continue to have access to capital funding programs that can offer large if infrequent infusion of funds for vehicles and equipment (such as the FTA 5339 Buses and Bus Facilities Grants Program and the discretionary component of the STIF program), although financing large capital facilities may be a challenge if Connect Oregon continues to limit eligibility for public transportation projects.

The TDP assumes that revenue and operating expense trends will continue and that there will be no major changes in local, state, and federal transit grant programs. Starting with the fiscal year 2018 budget, revenues and expenses were projected using the assumptions described below.

- **The State Transportation Improvement Fund (STIF) provides approximately \$500,000 in FY 2019, \$1.12 million annually starting in FY 2020, and \$1.27 million in FY 2021.** STIF funds are projected to increase by 2.3% annually. The STIF funding allocation is lower than a preliminary projection used in early TDP work—\$1.7 million in fiscal year 2021. Actual STIF revenues may be higher or lower than projected. While STIF resources are available to other public transportation providers in Yamhill County, the TDP assumes that YCTA will receive nearly all available funds.
- **Expenses, federal revenue, and state revenue increase at a 2.3% annual inflation rate.** The inflation rate is based on the US Bureau of Labor Statistics Consumer Price Index data between years 1996 and 2016, and is consistent with generally low inflation rates in recent years.
- **Fare revenues increase based on a fare increase of 25 cents in early years of the plan (after initial improvements are implemented) followed by an average fare increase of 5 cents per year.** The fare increase could be for intercity (particularly out-of-county services, which are lower than many other providers, as described in Chapter 9. YCTA can also introduce fare programs to mitigate the increase on low-income persons, youth, and seniors, etc. Increasing fare revenues assume ridership increases at half the rate of service hours. Fare revenue is assumed at 90% of the projection. These trends should maintain YCTA's farebox recovery ratio in the 10% to 15% range.
- **Local service agreement revenues grow rapidly with increased coordination.** The County expects to grow operations contracts and agreements with local institutional partners, doubling today's revenues by the year 2025 (or a 13% annual growth rate). The growth rate is then assumed to be 5%.
- **Yamhill County General Fund revenues increase with inflation, then slow over the long term.** YCTA expects General Fund revenues to increase to \$250,000 by the year 2020 (13%), increase with inflation at 2.3% annually until 2025, then taper to 1.0% annual growth over the following 10 years.

Potential for Additional Revenue Sources

As described in Chapter 6, to continue to expand services, by the mid-term time frame YCTA may need to generate additional local revenues in addition to the recently enacted STIF funding source. Appendix E provides a detailed summary of existing and potential funding sources that could be used to fund public transportation service and capital needs, including federal programs, state funds, local option taxes, and local partnerships. These sources are used by peer agencies in Oregon and around the U.S. Where possible, the summary table includes an order-of-magnitude estimate of revenues that could be generated from various local funding options, as well as an assessment of feasibility and applicability for YCTA. Figure 8-4 below identifies several examples. Respondents to a community survey conducted at outset of

the TDP identified a product-specific tax, such as on lodging, as their preference for a potential transit funding source among a range of potential options.

Figure 8-4 Examples of Potential Revenue Sources

Funding Sources	Example Level	High-Level Revenue Estimate
Product-specific tax (lodging, etc.)	9% (Ashland) Existing state lodging tax of 1%	Not estimated
Motor vehicle registration fee	Per \$8 annual	\$400,000
Payroll tax	1/10 of a percent	\$400,000
Utility fee	\$1-\$1.50 per 34,000 households	\$400-600k
Local option property tax	5 cents per \$1,000	\$400,000 (subject to compression)
Gasoline tax	1 cent	\$400,000 (declining based on fuel efficiency and alternative-fuel vehicles)

Corvallis Transit Operation (Utility) Fee

The Transit Operation Fee (TOF) is a monthly charge to City of Corvallis utility customers to generate revenue for the exclusive purpose of funding Corvallis Transit System (CTS) operations. This revenue source was established in 2010 to replace property tax funds that previously supported transit operations and transit fare revenues.

Single-family residential customers are charged \$2.75 per month and multi-family residential customers are charged \$1.90 per housing unit per month. Fees for commercial and industrial customers are based on the type of business. The fee is indexed to gasoline prices. The City Council can decide to increase the fee to fund new or expanded public transportation services.

The fee has been a stable source for about one-third of the CTS budget with annual revenue of approximately \$1.2 million in FY 2013–14 and FY 2014–15. This approach provides significantly more revenue than the property tax revenue, which previously provided about \$400,000 in annual revenues.

Source: City of Corvallis. Transportation Operations Fee. January 2016. <https://tinyurl.com/y6wlvtn>

Appendix E summarizes potential funding options that could be used to support public transportation in Yamhill County. There is additional discussion of potential funding options in TDP Volume II, Section 3: TM #3.

RECOMMENDED FINANCIAL SCENARIOS

This section provides two TDP funding scenarios:

- **Current Trends with STIF.** This scenario identifies the enhancements that can be implemented in the Near-Term, Short-Term, and Mid-Term, constrained to anticipated funding including new revenues from the STIF.
- **Additional Funding.** This scenario identifies additional enhancements, currently identified in the Long-Term time frame, that could be implemented with additional local funding.

Key assumptions include:

- **Existing.** Based on an average operating cost of \$59 per service hour.
- **Near-Term to Short-Term.** Assumes a phased increase to an average cost of \$70 per service hour by 2020. In the near-time, with only a partial STIF revenue allocation, a relatively large share of new funding from the STIF is assumed to go towards stop improvements (signs/markings) and new buses, leaving a shortfall in the near-term time period.
- **Mid-Term.** There is small shortfall; additional projected STIF funding would not cover all programmed improvements.
- **Long-Term.** The long-term time frame is not fiscally-constrained, but is intended to provide a flexible service plan that YCTA can adapt based on actual conditions. Improvements in this category could be implemented sooner if additional funding sources can be identified.
- **Long-Term (Vision).** Includes additional service options that YCTA could implement based on future needs and conditions.

Current Trends with STIF Funding Scenario

Operating Cost Summary by Time Frame

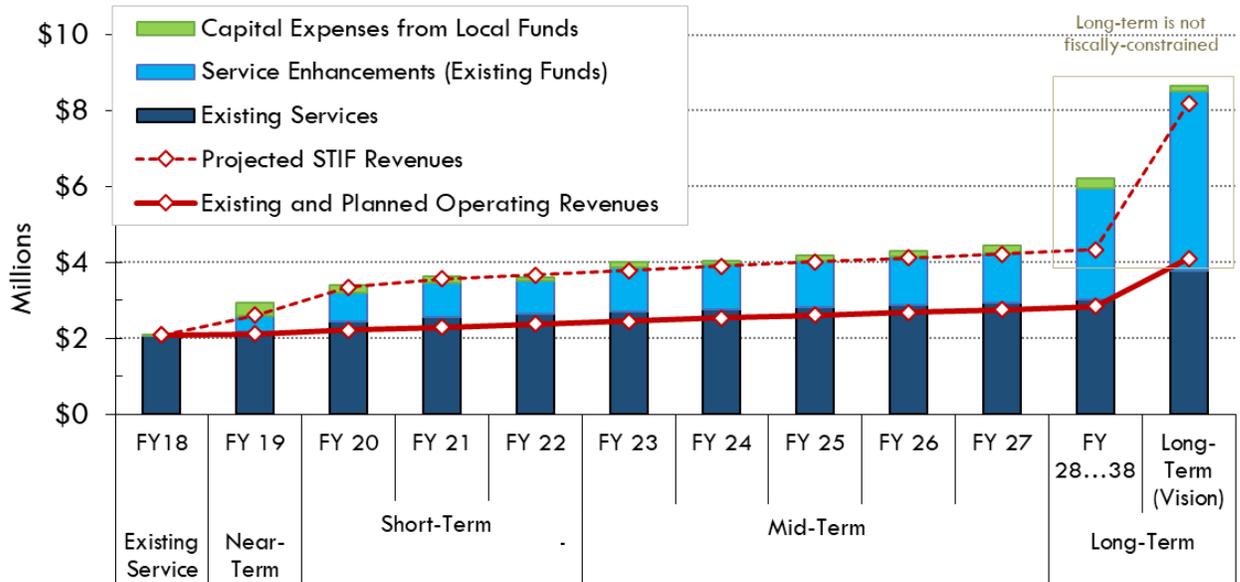
Figure 8-5 summarizes plan operating costs by time period. Some of YCTA’s available local operating funds are programmed for capital improvements identified in Chapter 7, such as local match for buses, and are subtracted from the amount available for operations. Although there are relatively small deficits in the near-term, short-term, and long-term, STIF revenues in excess of projections or additional local funds may be able to support the identified level of enhancements.

Figure 8-5 Incremental Plan Operating Costs, Based on First Year of Each Time Period

Time Period	Fiscal Years	Annual Operating Revenues	Annual Operating Costs of Existing Services	New Annual Operating Costs in Time Period	Cumulative New Annual Operating Costs	YCTA Funds used for Capital Elements	Total Annual Operating Cost	Operating Funds Remaining
Existing	2018	\$2,606,000	\$2,167,000	\$415,000	\$415,000	\$348,000	\$2,930,000	-\$323,000
Near-Term	2018-2019	\$3,344,000	\$2,451,000	\$322,000	\$737,000	\$217,000	\$3,405,000	-\$60,000
Short-Term	2019-2022	\$3,781,000	\$2,690,000	\$441,000	\$1,178,000	\$127,000	\$3,995,000	-\$214,000
Mid-Term	2023-2027	\$4,336,000	\$3,013,000	\$1,763,000	\$2,941,000	\$257,000	\$6,211,000	-\$1,874,000
Long-Term	2028-2038	\$6,014,000	\$3,783,000	\$1,795,000	\$4,736,000	\$126,000	\$8,645,000	-\$2,629,000
Long-Term (Vision)	N/A	\$2,606,000	\$2,167,000	\$415,000	\$415,000	\$348,000	\$2,930,000	-\$323,000

Figure 8-6 illustrates operating costs in each plan year for existing services and enhancements, relative to revenues from existing sources and project revenues from the STIF.

Figure 8-6 Projected Annual Operating Costs, Existing Funding Sources



For comparison, Figure 8-7 and Figure 8-8 show that service hours and operating spending per capita over the life of the plan are within the ranges of YCTA’s peer agencies (identified in Chapter 3). Service hours per capita increase significantly, though they remain below the peer median. YCTA’s operating spending would be lower than the peer median until the long-term time horizon—including all of the Long-Term (Vision) enhancements.

Figure 8-7 Service Hours per Capita (adjusted for population growth)

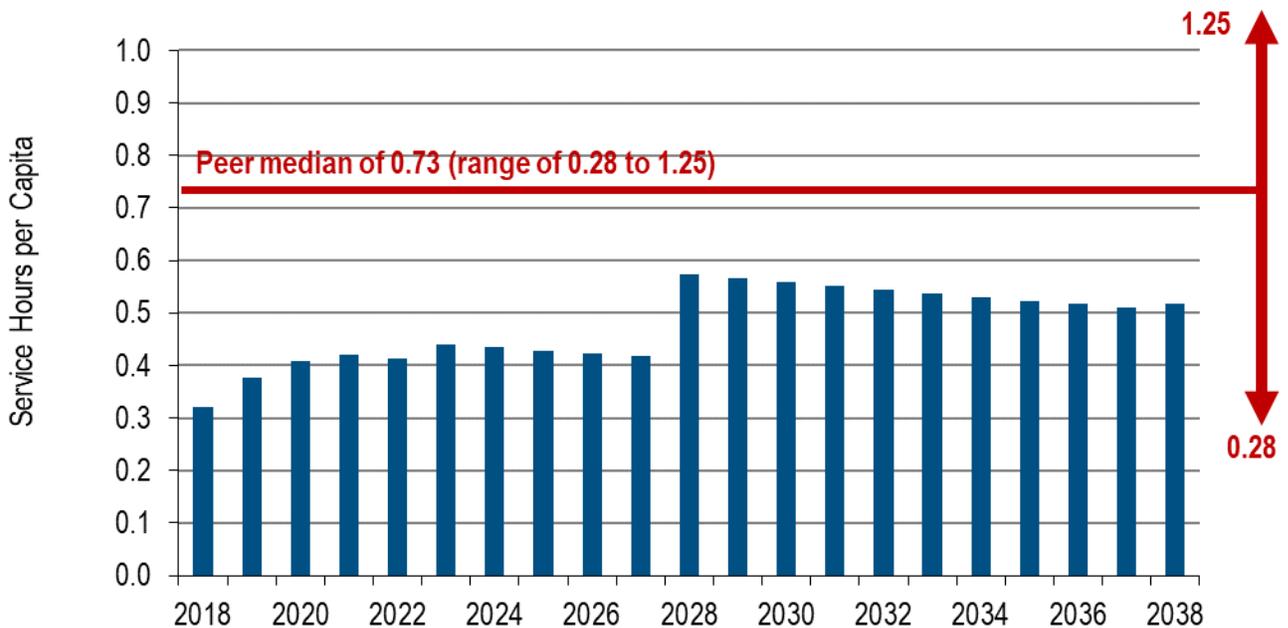
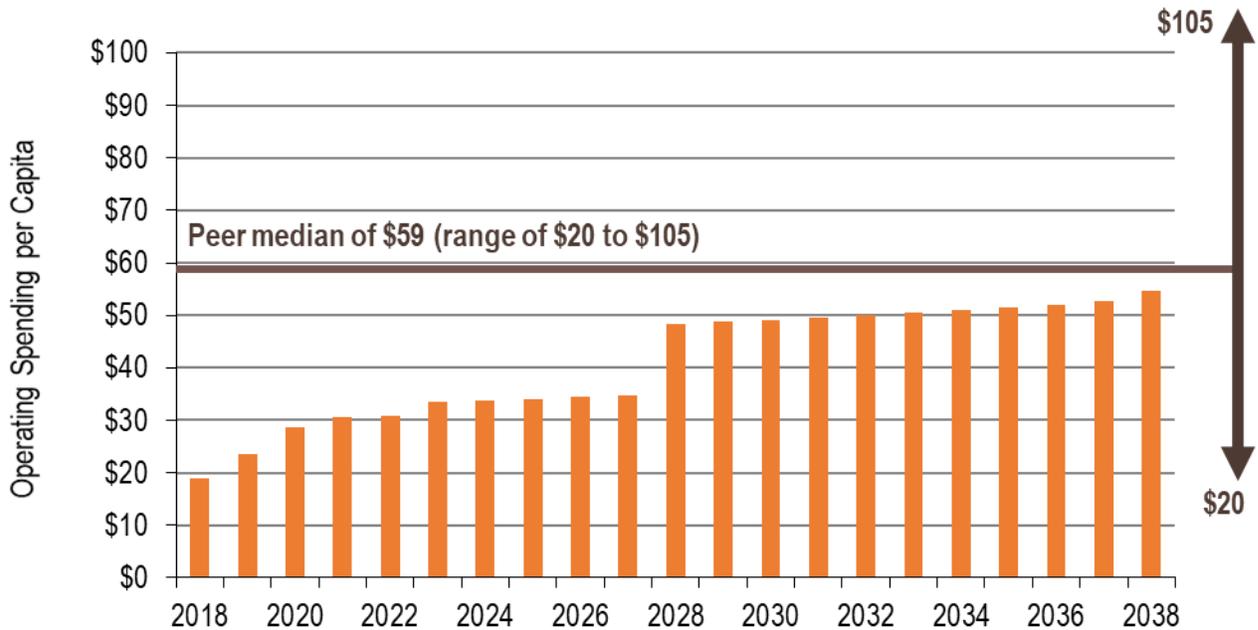


Figure 8-8 Operating Cost per Capita (adjusted for population growth)



Additional Funding Scenario

A sub-group of the YCTA Advisory Committee has been discussing options for additional local funding.

If YCTA is able to identify additional local funds, or if the STIF generates more revenue than is projected, YCTA could implement additional long-term enhancements sooner. The dashed orange line in Figure 8-10 illustrates a scenario where YCTA has additional operating revenues to fund particular enhancements. The orange bars represent the cost of implementing these projects in the short-term or mid-term (they are currently all assumed in the long-term). Figure 8-9 describes a conceptual scenario where local jurisdictions agree to contribute to YCTA services on a per-capita basis (or other formula, such as number of service hours or assessed property values). Since local jurisdictions may have limited general funds to contribute to transit, this may require identifying a new local revenue source. Based on initial discussion of the YCTA Advisory Committee Funding Sub-Committee, such a source would ideally be linked to transit or transportation and could be pursued in the later short-term to early mid-term time frame, once YCTA has implemented short-term enhancements that elevate the image of transit and increase awareness of transit in the county.

See Figure 8-2 and Figure 8-3 earlier in this chapter for existing local contributions in Yamhill County, and a comparison of local contributions elsewhere.

Figure 8-9 Conceptual Revenue Scenario by Jurisdiction (for Illustrative Purposes)

Service Area Type	Annual Local Funding per Person (Conceptual for Illustrative Purposes)	Notes
Large City (e.g., McMinnville)	\$12	
Medium City (e.g., Newberg)	\$8	Based on ratio of medium to large city population
Small City	\$5	
County	\$4	

Figure 8-10 Projected Annual Operating Costs, with Potential Additional Funding Sources

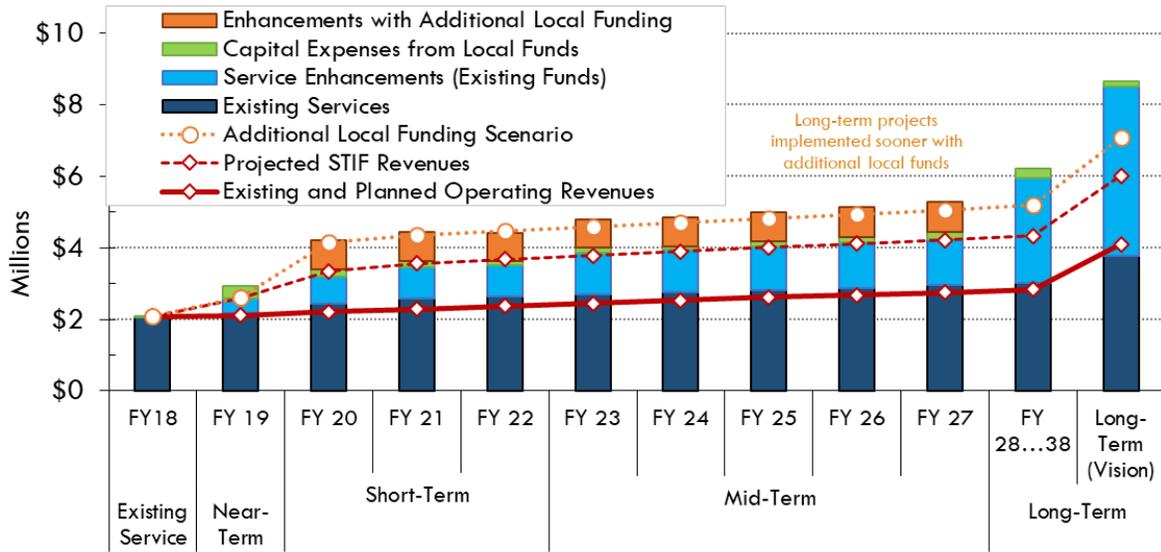
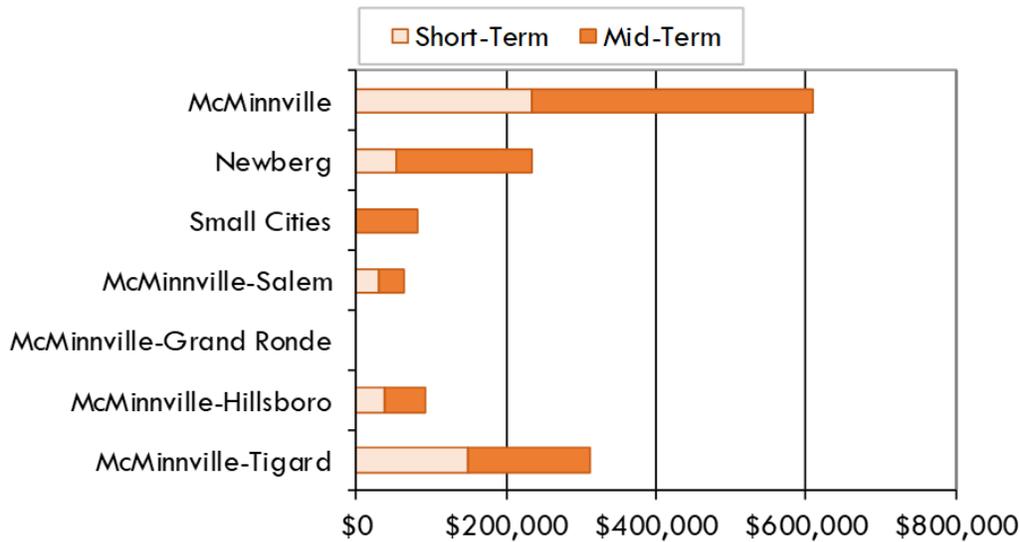


Figure 8-11 provides a breakdown of the potential enhancement costs by service area.

Figure 8-11 Potential Funding Scenario Costs by Service Area



9 SUPPORTING PROGRAMS, TECHNOLOGY, AND PARTNERSHIPS

Transit-supportive programs leverage investments in YCTA transit service and capital facilities. This chapter addresses improvements that can be made to enhance existing services through programs, advanced public transportation technology, and partnerships.

Figure 9-1 summarizes TDP recommendations for YCTA programmatic actions; the following sections discuss these actions in more detail.

Figure 9-1 Summary of YCTA Programmatic Actions

Category	Action	Cost	Partners	Time Frame
System Access (Pedestrian and Bicycle)	Develop a Safe Routes to Transit program to prioritize and fund (with partners) safe and comfortable access routes to transit stops.	Staff Time ¹ and variable capital costs	Local Jurisdictions	Short-term and ongoing
System Access (Park-and-Ride)	Identify cost-effective park-and-ride locations through partnerships with churches and other institutions.	Staff Time ¹	Churches and other institutions	Short-term and ongoing
TDM	Coordinate with Cherriots to promote Emergency Ride Home, Ride Sharing, and Vanpool Programs.	Staff Time ¹	Cherriots	Near-term and ongoing
TDM	Coordinate with major employers to provide transit and supporting program information and understand employee needs.	Staff Time ¹	Cherriots, Spirit Mountain Casino, agricultural and other employers	Near-term and ongoing
TDM, Fare Policies and Programs	Develop employer and other transit group pass programs.	Staff Time ¹ , Electronic Fare System	-	Short-term and ongoing
TDM	Provide staff time to support TDM and other programs; Cherriots has some budgetary funds that be used for a shared, part-time resource.	Staff Time ¹	Cherriots	Short-term and ongoing
Fare Policies and Programs	Explore electronic fare payment technology, to enable group and low-income/honored citizen passes, integration with adjacent agencies, and increase customer convenience. Mobile payment could be an initial option with minimal upfront investment, with a more full-featured system as a later phase.	Capital costs ranging from none to \$50,000 to \$75,000	-	Near-term or short-term
Customer Information	Update route brochures and other printed and online information, including in Spanish.	Staff Time ¹ Graphic Design	-	Immediate and ongoing

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Category	Action	Cost	Partners	Time Frame
Customer Information	Identify key locations to make printed transit information available and periodically refresh available materials. Various suggestions provided in TDP focus group notes, including Housing Office, Colleges, Libraries, etc.	Staff Time ¹ Printing Costs	Human and Social Service Providers and other institutions	Near-term and ongoing
Education, Promotion, and Travel Training	Develop programs to make information on transit and other transportation options more widely available, and facilitate better understanding of how to use the transit system. Suggestions from TDP focus groups are included in TDP Volume II, Section 2: TM #2.	Staff Time ¹	Human and Social Service Providers, Chambers of Commerce, and other institutions	Near-term and ongoing
Advanced Public Transportation Technology	Implement technology to support real-time information and system alerts.	\$120,000 to \$150,000	ODOT	Near-term
Advanced Public Transportation Technology	Evaluate software solutions to more easily implement service change and efficiently schedule fixed-route buses and drivers, and explore joint funding partnerships or obtaining a tool through YCTA's service contract.	\$10,000 - \$12,000 annually	ODOT, Other Providers / NW Oregon Transit Alliance	Short-term
Regional Transit Coordination	Coordinate with transit providers and/or local jurisdictions to improve amenities, wayfinding, and stop facilities (see Figure 9-9 for specific opportunities).	Cost-neutral to low-cost	TriMet, Cherriots, TCTD, SMART, RideConnection, and local jurisdictions	Near-term and ongoing
Regional Transit Coordination	Explore feasibility and potential benefits of joining the Northwest Connector (nwconnector) alliance of transit agencies.	Staff Time ¹ , annual NWOTA contribution (TBD)	NW Oregon Transit Alliance (NWOTA), ODOT	Later short-term to mid-term and ongoing Feasibility can be explored in near-term or short-term
Service Delivery and Organizational Capacity	Increase YCTA staffing to improve contract oversight and ability to perform other transit agency functions (including above actions).	Staff Time ¹ (from existing 2.5 FTE to 6.0 FTE)	Yamhill County	Near-term and ongoing

Notes: [1] Included in overall recommended increase in YCTA staff (see Service Delivery and Organizational Capacity)

SYSTEM ACCESS

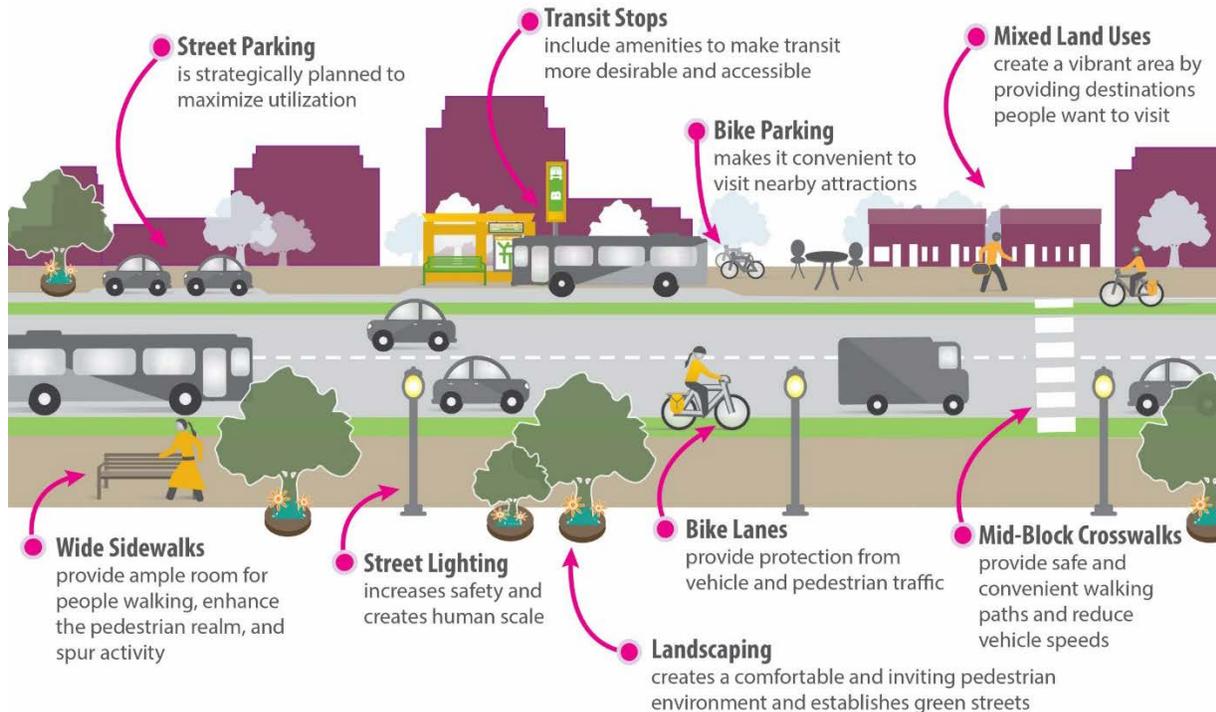
Access to transit refers to the various ways transit riders get to/from a transit stop and their trip origin and destination. This section identifies programmatic actions for YCTA to enhance the ability for potential riders to access its service, in collaboration with local jurisdictions and other partners. Appendix C (Bus Stop Design Guidelines) provides additional guidance and resources.

Safe and accessible pedestrian facilities allow people to access transit stops and key destinations—every transit rider is a pedestrian at some point in their trip. The pedestrian network includes sidewalks that are sufficiently wide and well-lit, with curb ramps that provide a transition between sidewalks and the street; well-marked, convenient, and adequately spaced street crossings; and wayfinding that helps direct passengers to transit and destinations. Street trees, landscaping, and a mix of uses create comfortable, attractive streets where people want to walk.

Designing for Disability (also known as inclusive design) refers to designing streets and transit facilities for use by all people regardless of ability. This means ensuring that sidewalks are not impeded by bus stops, utility poles, or other elements; reducing driveway cross-slopes; providing tactile treatments on curb ramps, stop platforms, and other conflict points; and providing information in audio, visual, and tactile formats, considering cultural and language differences as well as people with restricted mobility, visual, and/or audible ability (e.g., signage, audible stop announcements, real-time information, etc.).

Safe and convenient bicycle access routes to transit stops and both short-term and secure, long-term **bicycle parking** expand the distance people can travel to access transit.

Figure 9-2 Best Practices for Transit-Supportive Street Design



Source: Nelson\Nygaard

Park-and-ride facilities provide all-day parking for transit riders who need to travel by car for a portion of their trip. The TDP does not identify specific locations, but recommends incorporating context-appropriate parking into new YCTA transit center facilities (see Chapter 7) and identifying park-and-ride locations through partnerships with churches and other institutions whose parking is not fully utilized during times of peak transit demand.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a general term for strategies that increase overall transportation system efficiency by encouraging people to shift from single-occupant vehicle (SOV) trips to non-SOV modes, or by shifting auto trips out of peak periods. These strategies are often very cost-effective.

Emergency ride home, ride sharing (carpool), and vanpool programs are available to Yamhill County employees and/or residents through the Cherriots' [Trip Choice](#) program:

- The **Emergency Ride Home Program** is available to all employees who live in Yamhill County and use any option other than driving alone to work (e.g., carpool, vanpool, transit). The program provides participants with a voucher for a free ride home in the event of an emergency.
- **Carpools and vanpools** serving destinations not directly connected by YCTA service can be facilitated through [Drive Less Connect](#), Oregon's online ride-matching tool. [Valley Vanpool](#) lists existing vanpools serving Yamhill County, provided by Enterprise. Current vanpools serve Sheridan (Federal Correctional Institution) from Salem and Sherwood. Cherriots can subsidize 50% of the vanpool lease cost for vanpools serving the Salem area, although McMinnville-Salem is not viable (distance is too short).

Coordinate schedules with major employers. Ensuring that large organizations have access to information about YCTA service and supporting programs can help them best meet their employee needs and increase ridership. Cherriots' [Employer Services](#) program works with Yamhill County employers. As noted in Figure 9-1, Cherriots may be able to provide partial funding for a staff resource.

FARE POLICIES AND PROGRAMS

This section provides recommendations for YCTA fare policies. The existing fare structure is covered in Chapter 3, and the sidebar below (see Figure 9-4) provides a comparison of YCTA fares to several peer agencies. Key findings include:

- YCTA local fares (\$1.25) are in the middle of the peer range. Some providers have lower fares (\$1.00) while others are slightly higher (\$1.50 to \$1.60). Based on TDP outreach, YCTA fares are generally perceived as affordable.
- YCTA currently does not offer any discounted fares for seniors, person with disabilities, veterans, or youth. Based on TDP outreach, fares can be expensive for families (due to lack of a youth fare) and there was general support for making fares more affordable for families, veterans, seniors, and low-income people.
- Other providers charge more than YCTA for longer-distance trips, particularly outside of their service area.

TDP fare policy and program recommendations include:

Sell fares in-person at additional locations. YCTA currently sells fares on buses, via mail, and in-person at two locations in McMinnville. There is no location to purchase passes in Newberg; YCTA and the City of Newberg could explore future opportunities, such as with a potential future transit center in Newberg or in partnership with a local retailer(s). An electronic fare system (see below) could provide additional flexibility for purchasing passes and other fares outside of McMinnville.

Raise fares in the future. Once YCTA has installed signage at all bus stops, upgraded its vehicle fleet, and addressed key operational and on-time performance issues through changes to route design, service levels, and schedules (by the end of the near-term or early short-term time frame), it could consider increasing the adult one-way fare by up to 25 cents or increasing fares on its longer-distance, intercity

services (particularly for trips outside of Yamhill County). YCTA could also consider increasing its average fares by an average of 5 cents per year going forward. This will allow it to keep up with increasing costs (due to inflation) and maintain the share of costs that is covered through fares.

Implement reduced fares and passes for honored citizens (seniors and veterans), students/youth, and low-income persons. Offering discounted fares will mitigate the impact of increasing the regular fare. Providing discounted fares could improve access to transit for these groups of people, who are more likely to depend on transit for their mobility needs. Improving affordability for low-income persons and students is also a STIF goal.

Develop fare pass programs. Fare pass programs can improve access to transit by making it more convenient and affordable. Programs are typically available to employees, students, and people with low incomes. Major employers, institutions, and social/human service providers may be interested in group pass programs. George Fox University and Linfield College may be interested in a student pass program. A fare pass program for low-income individuals could improve access to transit for the 16% of Yamhill County residents that have an annual income below the federal poverty level (FPL) of \$12,060.^{19,20} An electronic fare system may make it easier for YCTA to implement and administer pass programs.

Explore fare reciprocity between connecting providers. Fare reciprocity between transit agencies can simplify rider connections between transit systems and improve the user experience. Some of the transit agencies that are part of the Northwest Oregon Transit Alliance (NWOTA) offer fare reciprocity. Sunset Empire Transit District (SETD) and Columbia County Rider offer fare reciprocity where their services connect. SETD and Tillamook County Transportation District (TCTD) honor each other’s monthly passes. YCTA could explore fare reciprocity agreements with other connecting agencies, such as Cherriots. Electronic fare systems may make these types of arrangements more feasible.

Explore electronic fare media and mobile ticketing. Electronic fare media and mobile ticketing provide transit riders with more convenient and flexible options to pay for their ride while on the go, and also enable easier administration of fare pass programs, discounted fares, and fare reciprocity agreements, and potentially reduce YCTA costs for processing cash fares. Electronic fare media options can be categorized into RFID Smart Cards and Mobile Ticketing options.

TriMet implemented the Hop Fastpass electronic fare media system in 2017, which includes physical card readers at transit stations and on vehicles as well as mobile ticketing options. ODOT studied the cost of expanding the Hop Fastpass system to smaller providers; the study estimated extremely high capital and ongoing operating costs that would be prohibitive for small to medium-sized agencies (see Figure 9-3). ODOT also evaluated a similar alternative solution called Touchpass (Delerrok). A preliminary cost estimate for the TDP indicates implementation costs could range from \$50,000 to \$75,000 (high-end assuming one-time system integration costs, which may or may not be required) with ongoing costs of \$16,000 to \$23,000. On an annualized basis, operating and capital costs range from \$25,000 to \$34,000 per year (average of 11 cents per passenger including the high-end of the capital cost estimate—between 6 to 8% of the average fare).

A mobile ticketing option (no physical card) would provide similar capabilities but would require customers to have a mobile phone; based on an estimate for one vendor (Hopthru), there are no upfront costs. Annual transaction costs would range from approximately \$17,000 to \$29,000 over the first five

¹⁹ ACS 2011-2015 estimate. Table B17021. Percentage of the population for whom poverty status is determined, which excludes institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old.

²⁰ The United States Department of Health and Human Services (HHS) issues an income measure known as the Federal Poverty Level (FPL) each year; government agencies use the FPL to assess eligibility for a variety of programs and benefits. <https://www.healthcare.gov/glossary/federal-poverty-level-fpl/>

years (average cost of 15 to 18 cents per transaction assuming adoption by 40 to 50% of passengers— between 12 to 13% of the average fare). Figure 9-3 provides a summary of some electronic fare media options that are used in the Pacific Northwest, including a preliminary cost analysis of smart card/mobile payment system costs (e.g., Delerrok Touchpass) and mobile ticketing costs (e.g., Hopthru). Additional details are provided in Appendix F.

A mobile payment system could be an initial option with minimal upfront investment and risk for YCTA, with a more full-featured system as a later phase.

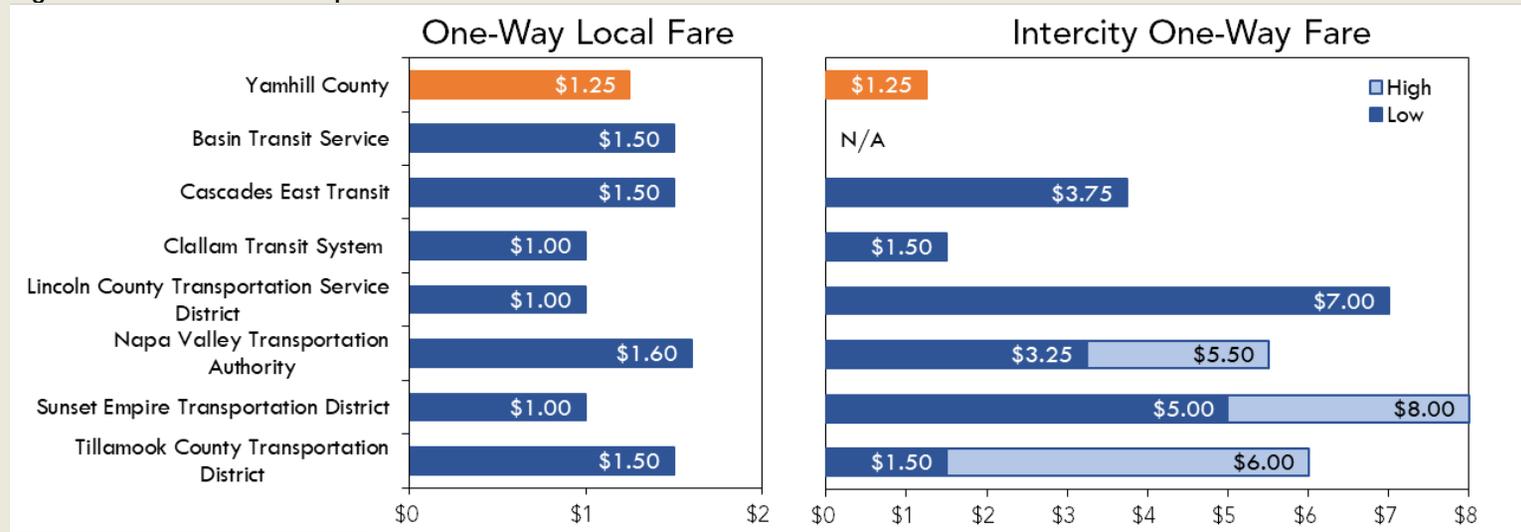
Figure 9-3 Electronic Fare Media Options

Format	Name	Currently Used By	Preliminary Cost Estimates for YCTA ¹	Other Potential Vendors
Physical card, mobile application, or pre-printed one-time use paper tokens	Hop Fastpass	<ul style="list-style-type: none"> ▪ TriMet (Portland, OR) ▪ Portland Streetcar (Portland, OR) ▪ C-Tran (Vancouver, WA and Portland, OR) 	<ul style="list-style-type: none"> ▪ Implementation: \$450,000 to \$660,000 ¹ ▪ Annual operating costs: Over \$100,000 ¹ 	N/A
	Touchpass (Delerrok)	<ul style="list-style-type: none"> ▪ Rouge Valley Transit District (Medford, OR) ▪ Cascades East Transit (Bend, OR) 	<ul style="list-style-type: none"> ▪ Implementation: \$55,000 to \$85,000 (high-end includes a \$30,000 contingency for one-time integration costs, if required) ^{2,3} ▪ Annual operating costs: \$9,000 - \$18,000 ^{2,3} ▪ Annualized operating and capital cost: \$23,000 - \$25,000 (years 1-5) and up to \$30,000 in year 10 ² 	-
Mobile application	Hopthru	<ul style="list-style-type: none"> ▪ CAT (Hood River, OR) ▪ Pierce Transit (Tacoma, WA) ▪ Seattle Monorail (Seattle, WA) ▪ Sonoma County Transit (Sonoma, CA) ▪ Vine Transit (Napa, CA) 	<ul style="list-style-type: none"> ▪ Implementation: None ▪ Annual transaction costs: \$20,000 – \$25,000 (years 1-5), and up to \$46,000 in year 10 ⁴ 	Moovel Masabi

[1] Cost estimates for Hop Fastpass provided by: ODOT and CH2M, “eFare – Hop Program, ODOT Regions 1 and 2 Gap Analysis – Hop Fastpass Feasibility”, August 31, 2017. [2] TDP analysis in consultation with Delerrok. Annualized capital cost-estimate assumed a five-year equipment lifetime based on the warranty period. [3] The ODOT/CH2M analysis (see note #1) identified Touchpass implementation costs of \$270,000 to \$760,000 and annual operating costs: \$36,000 to \$42,000. Based on discussions with Delerrok, the TDP analysis is a more appropriate preliminary estimate for YCTA. [4] TDP analysis, in consultation with Hopthru.

Peer Comparison: Fares

Figure 9-4 Peer Fare Comparison



Agency	Local Fixed-Route			Discounted Fare		Intercity Service			ADA / Dial-A-Ride	
	Single Ride	Day Pass	Monthly	Single Ride	Monthly	Single Ride	Day Pass	Monthly	Single Ride	Monthly
Yamhill County (YCTA) ¹	\$1.25	\$2.50	\$35	-	-	\$1.25	\$2.50	\$35.00	\$1.75	\$40
Basin Transit Service ²	\$1.50	\$3.00	\$54	\$0.75	\$27	-	-	-	\$3.00	-
Cascades East Transit (CET) ³	\$1.50	\$2.50	\$30	\$0.75	\$15	\$3.75	\$6.25	\$100	\$2.50	-
Clallam Transit System ⁴	\$1.00	\$3.00	\$36	\$0.50	\$18	\$1.50	\$3.00	\$54.00	\$2.00	-
Lincoln County Transp. Service District ⁵	\$1.00	-	-	-	-	\$7.00	-	-	\$1.00	-
Napa Valley Transp. Authority ⁶	\$1.60	\$6.50	\$53.00	\$0.80	\$14	\$3.25 - \$5.50	\$6.50	\$65 - \$120	\$3.20 - \$6.40	-
Sunset Empire Transp. District (SETD) ⁷	\$1.00	\$3.00	\$30	\$1.00	\$20	\$5.00 - \$8.00	-	-	\$2.00	-
Tillamook County Transp. District (TCTD) ⁸	\$1.50	\$1.50	\$40	-	\$30	\$1.50 - \$6.00	-	-	\$3.00	-

Notes: [1] YCTA, see Chapter 3. [2] Basin Transit, <http://www.basitransit.com/routesrates.shtml>. [3] CET, <http://cascadeseastransit.com/fares>. Multi-zone system for intercity fares. [4] Clallam Transit, <http://www.clallamtransit.com/Fares-Passes>. \$3.75 per mile for Dial-A-Ride trips beyond a ¼-mile distance from fixed-route service. [5] Lincoln County, \$1 per zone for intercity routes, with 9 zones. <http://www.co.lincoln.or.us/transit/page/fare-schedule>. [6] Napa Valley, <http://www.ridethevine.com/fares-passes>. [7] SETD, <http://www.nworegontransit.org/wp-content/uploads/2018/06/Fare-Policy-Outreach.pdf>. SETD revised fares on 7/1/2018, lowering local day passes from \$5.00 to \$3.00 and monthly passes from \$45 to \$30. General public Dial-A-Ride one-way fare is \$8.00 for 0-10 miles and \$12.00 for 11-20 miles. [8] TCTD, <https://www.nworegontransit.org/passess-tctd/>. TCTD charges \$15 for a one-way trip to Portland, and \$20 for a round trip.

CUSTOMER INFORMATION, MARKETING, AND BRANDING

Transit information makes using the transit system more intuitive, particularly for infrequent riders. The following strategies will help existing riders and bus operators navigate the system, and make transit more accessible to a broader audience. YCTA has enhanced its branding and information in 2018 using ODOT grant funds for information technology, communications and marketing services; as of August 2018, these enhancements are in the process of being rolled out.

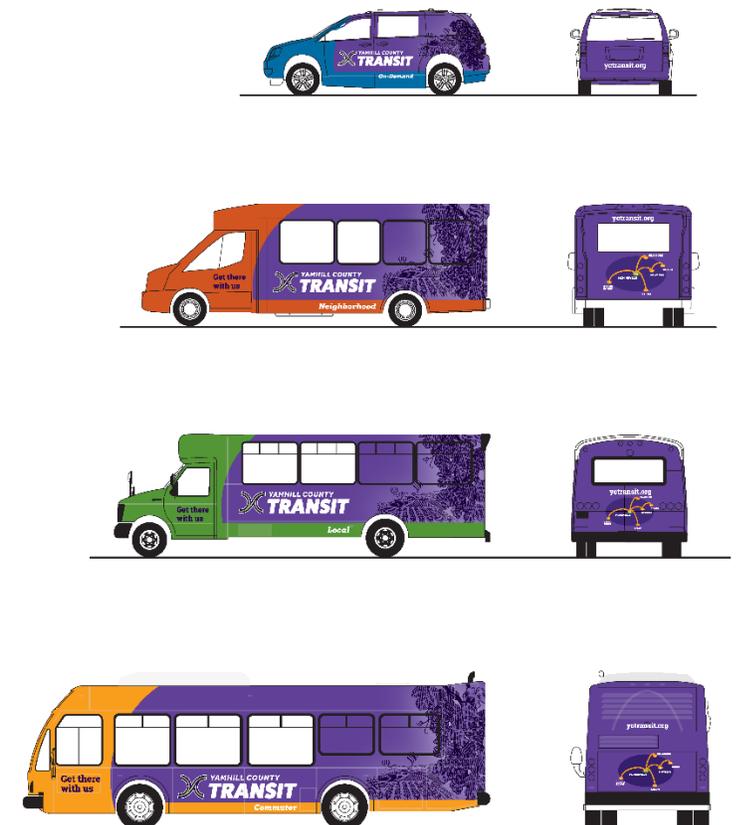
System Branding

YCTA bus stop signs, vehicles, and customer information should all have a consistent YCTA logo and branding that builds an awareness of local and regional transit service. YCTA developed a new logo and other marketing materials in 2018 (example shown at right) along with a bus branding scheme (shown below). Action items include:



- Mark or sign all bus stops (near-term action). Develop YCTA stickers (preferably service-specific) for placement on TriMet bus stops (see Appendix F for specifications and coordination information).
- Include the NW Connector logo at all stops shared with NW Connector routes (e.g., Spirit Mountain Casino and Grand Ronde Community Center).
- Wrap all buses with the new YCTA branding (see Figure 9-5 for the service-specific branding developed by YCTA).

Figure 9-5 YCTA Vehicle Branding (Draft)



Website

An increasing number of people obtain transit information online—including over 50% of YCTA riders (see TDP Volume II, Section 2: TM #2, Chapter 4, Figure 4-8). TDP outreach, including to members of the Latino community, indicated that many people who do not have computers are able to access information via a smartphone. YCTA has been enhancing its website, which already includes links to route and system maps, route schedule brochures, announcements, rider alerts, and information on Dial-A-Ride and ADA Paratransit service. The following enhancements are recommended:

- Integrate real-time bus arrival and status information into the website (see Technology section below).
- Update online mapping to ensure that online trip planners provide accurate information.
- The website includes a translation capability, but other materials need to be translated into Spanish (or other common languages as identified in the YCTA’s outreach plans).

System & Route Maps

YCTA has a system map on its website and plans to post system maps at major transit stops and shelters. The current route map and schedule brochures are color-coded and include some major activity centers, but need to be updated. The TDP recommends that YCTA update and enhance its route brochures including:

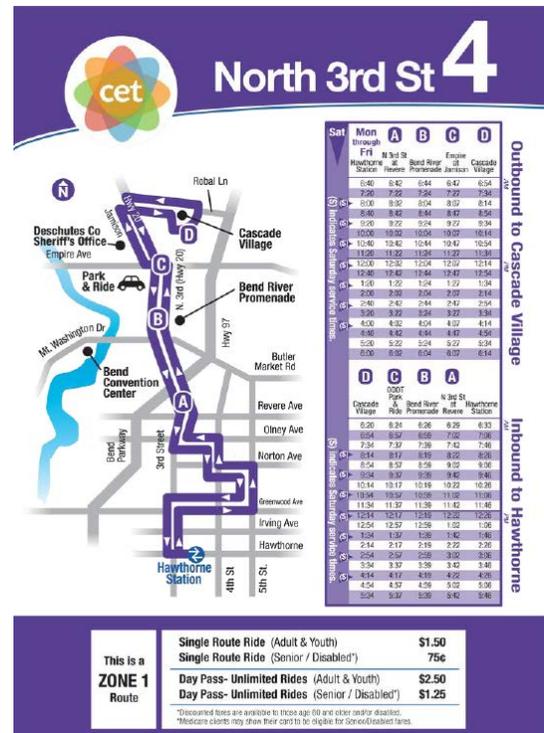
- Show the direction of the bus on route maps and include additional activity centers and the local street network so riders can more easily find stops. This is particularly helpful when routes loop and cross multiple times.
- Add stop numbers or letters for major timepoints to route maps and schedules to allow riders to easily find these stops on the map.
- Reduce the number of stops on schedules. Currently the schedules have too many stops listed in some cases; this is true for both local and intercity routes. In many cases, it should be sufficient to just list major timepoints.
- Ensure that brochures are translated into Spanish, at a minimum.

Wayfinding

In places where there is not line-of-sight visibility between bus stops in each direction, wayfinding signage with directional arrows or a map helps passengers navigate to the appropriate stop. Locations where wayfinding signage should be considered include where:

- Routes operate on a couplet (or pair of one-way streets), such as OR 99W in McMinnville (Adams and Baker Streets) and downtown Newberg (Hancock and 1st Streets)
- YCTA stops are located adjacent to a transit center, such as at Tigard Transit Center

Figure 9-6 Route Map and Schedule Example



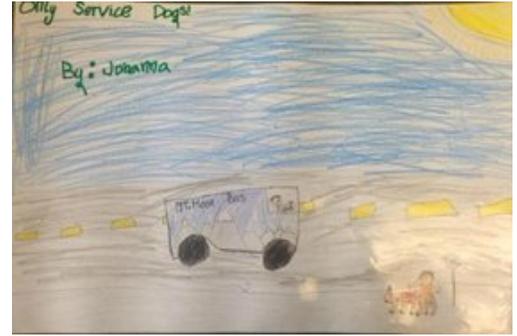
Color-coded individual route map and schedule. Stops labeled with numbers corresponding to the schedule help passengers understand how a route travels.

Source: Cascades East Transit

EDUCATION, PROMOTION, AND TRAVEL TRAINING

Outreach and education programs improve awareness of existing services and programs, and promote understanding of how to use the transit system. A lack of knowledge and understanding are often the greatest barriers to transit use. Potential programs that YCTA could develop to promote awareness of transit include:

- Public information campaigns to provide information, education, and resources on transit and other transportation option for residents, employees, and visitors
- Bring a friend/rider rewards program.
- Customer appreciation events. In 2018, YCTA held its first annual customer appreciation day (to be held each year on the first Monday in August). This even honored the memory of Mark Schiffmacher, a transit advocate who served on YCTA's Special Transportation Committee.



Sandy 2nd and 3rd graders helped Sandy Transit illustrate etiquette rules as part of a public information campaign.

Source: City of Sandy, <https://tinyurl.com/ydewzv3s>



The 1st Annual Yamhill County Transit Customer Appreciation Day honored a longtime rider advocate and showcased one of YCTA's new vehicles.

August 6, 2018



ReMARKable Rider Day August 6, 2018
**YAMHILL COUNTY
TRANSIT**
www.yctransitarea.org 503-474-4900

August 6, 2018
**1st Annual
ReMARKable Rider Day
Ride Free!**

Yamhill County Transit will hold its first annual customer appreciation day on August 6, 2018. All rides on all services are **free** on ReMARKable Rider Day. This event honors Mark Schiffmacher, a transit advocate who served on YCTA's Special Transportation Advisory Committee and was dedicated to improving bus service for all.

*YCTA created this annual event to be held on the first Monday of August every year to say
Thank You to our customers and the special people like Mark who are advocates for improving public transit in Yamhill County.*

www.yctransitarea.org



Yamhill County Transit Area
535 NE 5th Street, McMinnville,
Or 97128 503-474-4910 or
503-554-7897
ycta@co.yamhill.or.us

ADVANCED PUBLIC TRANSPORTATION SYSTEM TECHNOLOGIES

YCTA secured a technology grant that it began to implement in 2018 to upgrade its technology infrastructure to increase access, convenience, and efficiency. The TDP budgets additional funds (near- and short-term) to continue investing in technology initiatives.

Key public transportation technologies include:

- Two-way radios for driver communications, upgraded in 2018.
- Vehicle information system with automatic vehicle location (AVL) reporting through a global positioning system (GPS), automatic passenger counters (APCs), and automatic bus stop announcements on the bus.
- Real-time bus arrival information and system alerts, enabled by the AVL system, let people know when the bus will arrive, which is particularly important given congestion along OR 99W that can delay service. YCTA currently provides alerts using Facebook and the YCTA website, but could improve and expand its capability to “push” alerts to riders for specific routes.
- On-demand dispatching software to facilitate dynamic on-demand services and help formalize YCTA’s volunteer driver program (currently only in Yamhill/Carlton).
- Security cameras.
- Electronic fare collection (see Fare Policies and Programs).
- Scheduling software to optimize how YCTA fixed-route trips are assigned to buses and driver shifts, allowing service changes to be implemented more easily. Economies of scale could potentially be found in partnership with other transit providers (including other northwest Oregon transit agencies), ODOT, or the YCTA service contractor.

Figure 9-7 summarizes the status of YCTA technology initiatives.



SETD (Clatsop County) and TCTD (Tillamook County) recently launched real-time information access

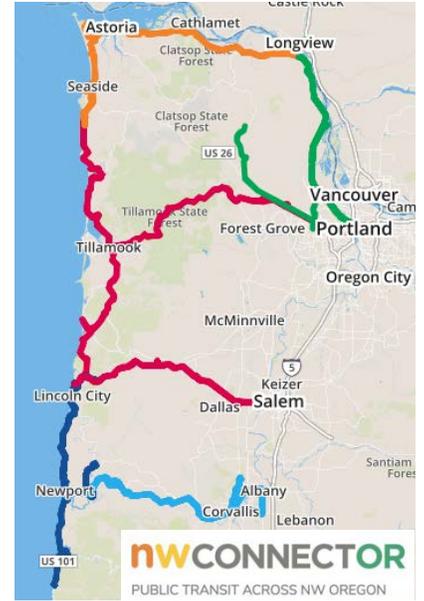
Figure 9-7 Summary of YCTA Existing, Planned, and Future Technology Initiatives

Category	Existing	YCTA Initiatives / Funding	Notes	Potential Vendors (Partial List)	Implementation Time Frame
Radios		<ul style="list-style-type: none"> Technology Grant 		Silky	Installed Winter 2018
Website/Customer Information		<ul style="list-style-type: none"> Technology Grant 			Implementation in progress in 2018
Paratransit Dispatch	First Transit Proprietary	<ul style="list-style-type: none"> Technology Grant 	Vendor selected	CTS	Implementation starting Fall 2018
AVL, Real-Time Information, Audible Announcements	None	<ul style="list-style-type: none"> Technology Grant 	About \$120-\$150k available in technology grant funds	Connectionz ETA TransitApp Trillium/Swiftly (partnership)	Hanover LED Destination Signs are on new buses Mobile Data Terminals (MDTs) are on order RFP issued for real-time information in Fall 2018
On-Demand/Flex Services/Volunteers	None	<ul style="list-style-type: none"> Future STIF or other funds 	\$50-\$60k to pilot TAP Ride for Yamhill/Carlton volunteer program	Doublemap / TapRide	
Electronic Fares (e-fares)	None	<ul style="list-style-type: none"> Future STIF or other funds 		Touchpass, Hopthru, Moovel, Masabi	
Camera System	DriveCam LYTX	<ul style="list-style-type: none"> STIF Funds (2019) 	\$85k to replace	3-4 vendors under consideration (Safety Vision, Lytx, Schetky NW, Angel Trax, Seon, Apollo)	YCTA to go to bid in FY 2018-2019
Scheduling Software	None	<ul style="list-style-type: none"> Future STIF or other funds 	Potentially \$10-\$12k in partnership with other providers, or through service contractor	Remix scheduling software or other vendors	To be determined

Explore viability of joining the NW Oregon Transit Alliance

(NWOTA). The Northwest Connector is an alliance of five transit agencies that coordinate to improve regional connections between the Willamette Valley and the Oregon Coast and between northwest Oregon communities. The alliance recently launched a common website (<https://www.nworegontransit.org/>) integrating information for all participating agencies. YCTA was not included in the alliance, but the TDP recommends that YCTA explore feasibility and potential benefits of joining the alliance, such as integrated customer information; joint promotion opportunities including a visitor pass and marketing through TravelOregon and other media; and potential coordination around stop improvements and other capital purchases.

At a minimum, there would be financial, administrative, and reporting requirements for YCTA to join the alliance. For example, YCTA would need to make a financial contribution in the vicinity of \$25,000 annually, attend monthly meetings of the NWOTA Coordinating Committee, and provide additional reporting. The YCTA staffing level (see Service Delivery section in this chapter) and financial resources to support joining NWOTA would likely be available to YCTA no earlier than the short-term plan time frame.



Source: <http://www.nworegontransit.org/interactive-map/>

Figure 9-9 identifies specific opportunities for each YCTA intercity route or travel market.

Figure 9-9 Summary of Coordination Opportunities

Provider or Partner	Category	Specific Opportunities and Actions	Additional Partners
Cherriots	Schedules/General Service Changes	<ul style="list-style-type: none"> Align YCTA Route 11 schedules with Cherriots Route 17 service in West Salem (frequent service route). After extending service to downtown Salem, consider serving intercity rail and bus connections (Amtrak and Greyhound), possibly only at specific times where connections are available. Cherriots is supportive of YCTA coming into downtown Salem and also stopping on-street in West Salem near the West Salem transit center. Rename YCTA Route 11 to avoid confusion with Cherriots Route 11, e.g., to 80x. Coordinate with Cherriots to ensure online and printed materials reflect upcoming and future service changes. 	
	Facilities/Infrastructure	<ul style="list-style-type: none"> Cherriots is planning to install a shelter for the bay currently utilized by YCTA in West Salem in 2018, including a schedule/map. 	
	Transit Information and Wayfinding	<ul style="list-style-type: none"> YCTA could be integrated in electronic displays and provide printed schedules for placement at the downtown transit center. 	
	E-Fares/Fare Reciprocity	<ul style="list-style-type: none"> YCTA and Cherriots can explore coordination of fare reciprocity and other opportunities, likely in conjunction with electronic fare technology. 	

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Provider or Partner	Category	Specific Opportunities and Actions	Additional Partners
	Programs	<ul style="list-style-type: none"> Share information on Yamhill County employers/contacts with Cherriots, identify Yamhill County staff who could assist in outreach with guidance from Cherriots, explore the potential for Cherriots to contribute to a part-time staff person in the future, identify potential locations where information on commute options/emergency ride home program could be placed in Yamhill County. 	Spirit Mountain Casino
Grand Ronde Tribe	Schedules/General Service Changes	<ul style="list-style-type: none"> Identify opportunities to align Route 22 schedule with needs of Grand Ronde residents. Work with Grand Ronde Casino to better coordinate Route 22 schedules with Casino work shifts, particularly in the later evening. See also Coastal Connector and the Grand Ronde Express 	TCTD
	Transit Information and Wayfinding	<ul style="list-style-type: none"> Improve and maintain transit information at the Grand Ronde Community Center and Casino stops. Consider developing a transit hub at the Spirit Mountain Casino. 	TCTD
SMART	Schedules/General Service Changes	<ul style="list-style-type: none"> Connections to Wilsonville can currently be made using WES (in Tigard) or the 1X service co-operated by SMART and Cherriots (in Salem), during commute hours only. This should be included in YCTA's regional transit information. In the future SMART plans to operate its 2X service between Wilsonville, Tualatin, and Tigard TC, which would provide a single-transfer connection between Yamhill County and Wilsonville outside of peak commute hours. 	
	E-Fares/Fare Reciprocity	<ul style="list-style-type: none"> No immediate opportunities, but possible future coordination in shared e-fare system initiatives. 	
Tillamook County Transportation District (TCTD)	Schedules/General Service Changes	<ul style="list-style-type: none"> Coordinate schedules with Coastal Connector (60X Lincoln City – Salem) and Grand Ronde Express (70X Grand Ronde - Salem) routes in Grand Ronde or at Spirit Mountain Casino, and ensure these connections are reflected in printed and online materials. 	Grand Ronde Tribe Spirit Mountain Casino
	Transit Information and Wayfinding	<ul style="list-style-type: none"> Update printed and online materials to reflect new 60X and 70X services. 	
	Other	<ul style="list-style-type: none"> Possible future coordination on long-distance non-emergency medical trips. 	
TriMet	Facilities/Infrastructure	<ul style="list-style-type: none"> TriMet can include YCTA route stickers at shared stops, e.g., OR 99W in Sherwood/Tigard and TV Hwy in Forest Grove (see Appendix F). Explore integrating YCTA into a future Tigard Transit Center when Southwest Corridor service (MAX line to Portland) opens. 	

Provider or Partner	Category	Specific Opportunities and Actions	Additional Partners
		<ul style="list-style-type: none"> Explore integrating YCTA into Hillsboro Central Station; Central Station is currently at capacity but TriMet could incorporate YCTA when considering future needs. The City of Hillsboro is also working to provide two-way access into Central Station as part of the Regional Enhanced Transit Corridor initiative, using the City-owned parking area where YCTA currently stops. Coordinate with the City of Hillsboro and TriMet to secure a bay in the expanded space available when this change occurs. 	City of Hillsboro
	Schedules/General Service Changes	<ul style="list-style-type: none"> Expanded evening service is a priority for the City of Gaston. Coordinate with Gaston and Washington County for possible funding support of Route 33 enhancements. 	Washington County City of Gaston
	Transit Information and Wayfinding	<ul style="list-style-type: none"> Coordinate on improving wayfinding to YCTA service in Tigard (adjacent to Tigard TC) and work to add a shelter at the YCTA stop in Tigard. 	City of Tigard

Emerging Mobility Services

This section identifies strategies that YCTA can use to integrate emerging mobility services with the transit system and develop strategic partnerships with service providers. These services provide opportunities to incorporate cost-effective and innovative approaches to meeting transportation needs.

- Ride-hailing services** are point-to-point transportation services that are most often scheduled and paid for using an online application or platform, such as smart phone apps (but are similar to traditional taxis in some respects). On-demand service providers including Lyft and Uber (also known as transportation network companies or TNCs) are starting to become available outside of major urban areas, including in Yamhill County. These providers also offer shared ride services that match passengers requesting trips along similar routes (e.g., UberPool and LyftLine).
- Car sharing services** are typically programs that allow members to reserve and drive a vehicle themselves, and pay on an hourly or daily basis; as of 2018, these services are not currently available in Yamhill County. The vehicles are located in accessible locations and keyless entry is provided with a smart card or smart phone app. Early station-based car sharing programs (e.g., Zipcar) required the car be returned to the same location. More recent programs (e.g., Car2Go and ReachNow) allow a vehicle to be returned to any location within the service area, facilitating one-way trip use along with public transportation. Transit agency partnerships include offering parking spaces for car sharing vehicles in or adjacent to transit facilities.
- Bike and scooter sharing** serves short-distance point-to-point trips. Initial bike share systems required that bikes be picked up and returned at any of the dock stations in the service area. Recent trends are for dockless bike share (e.g., Jump and [Lime](#)) as well as [scooters \(e.g., Bird, Skip, and others\)](#), allows people to pick-up and drop-off bikes anywhere in the service area. People use a smart phone app to find, unlock, and ride the bikes. Bike share complements transit by enabling passengers to complete the first or last mile of a transit trip beyond a convenient walk from transit.

YCTA (and/or local jurisdictions) can take the following actions to coordinate with these services and ensure they are implemented consistent with YCTA and other local goals:

- Develop pilot programs and/or partnerships with private or non-profit transportation providers**, including ride-hailing companies and taxis, to fill in spatial and

temporal gaps in transit service, such as later evenings or transit access in small cities. Potential markets include first-last mile connections generally, shift workers, and college students with late evening classes. YCTA would need to conduct a competitive procurement process (e.g., RFP) to solicit vendors. An initial RFQ/RFI (Request for Qualifications/Information) process could be used to gauge interest and have a more collaborative discussion around accessibility, mobile device and payment alternatives, and other considerations described below. A formal agreement would need to address any potential YCTA liability.

- **Develop policies around the use of any YCTA subsidies for trips on private providers, such as:**
 - Encourage providing shared rides where feasible.
 - Use “geo-fencing” and electronic fare payment media to ensure that subsidized trips are limited to transit trips (such as to/from a YCTA transit center, secondary transit hub, or intercity bus stop).
 - Determining the subsidy mechanism, which could be on a percentage of trip cost up to a maximum amount and/or there could be a flat subsidy with a maximum overall credit per month with a cap per trip. Lyft has a \$4 minimum; the fare structure is \$.45 base charge, \$.95 per mile and \$.11 per minute. Consider whether some types of subsidies should be means-tested, e.g., limited based on income.
 - Encourage availability of accessible vehicles and ensure an equivalent service for people with disabilities; the FTA issued a “Dear Colleague” letter in 2016 that made it clear that ADA requirements must be met regardless of receiving federal assistance. This means that TNCs must either offer wheelchair accessible trips when in contract with an agency, or provide an equivalent service through a third-party.
 - Provide an alternative to reserving trips using a smart phone app; this will require working out [implementation of restrictions on subsidies](#).
 - Provide a method of booking and payment that does not require a cell phone or credit card; the FTA issued a [“Dear Colleague” letter](#) in 2016 stating that projects that use federal assistance must meet Federal requirements, such as Title VI. A YCTA fare payment card may be a possible approach.
 - Ensure that mobile device applications support multiple languages.
 - **Integrate microtransit-type technology to increase the convenience and effectiveness of YCTA services.** A proposed flex-route serving the low-density, primarily employment and light-industrial areas east of Lafayette Avenue in McMinnville is an example of a service that would benefit from dynamic vehicle routing based on rider requests.
 - **Include space for emerging mobility service providers** when designing new or expanded transit centers or secondary transit hubs (see Chapter 7). Design elements include pick-up and drop-off areas, mobility device parking and electric charging stations, and trip planning kiosks.
- Develop policies to manage shared mobility providers’ use of the public right-of-way, including streets and sidewalks.**

The National Associate of City Transportation Officials (NACTO) has developed guidelines to help cities manage shared mobility devices including dockless bikes and scooters. NACTO plans to update the guidelines based on experience in this rapidly evolving landscape. <https://nacto.org/home/shared-active-transportation-guidelines/>

Partnerships

Local and regional partnerships will be critical to implementing the TDP, and include:

- **Cities in Yamhill County, and adjacent counties and cities** served by YCTA intercity routes, to facilitate permitting, installation, and maintenance of stops and amenities (e.g., shelters), and possibly to contribute funding to help expand service in their community.
- **Confederated Tribes of the Grand Ronde** to enhance service the McMinnville-Grand Ronde corridor, and partner to facilitate implementation of the Grand Ronde Transit Plan (expected completion in 2018).
- **Educational institutions and major employers** including Linfield College, George Fox University, and Chemeketa Community College, Willamette Valley Medical Center, Providence Newberg Medical Center, Grand Ronde Casino and others, around opportunities to promote transit and other travel options, coordinate schedules with work shifts, and develop group pass programs.
- **Northwest Oregon Connector Alliance (NWOTA)** to improve integration between YCTA and other transit providers in northwest Oregon.
- **Travel Oregon**, to help promote transit as an option for visitors.
- **Human and Social Service Agencies** to provide transit information and develop convenient and affordable fare payment options for their clients.
- **Chambers of Commerce** to support employee and customer access to local businesses, special events, and leverage transit for economic development.
- **Churches** to designate park-and-rides to facilitate transit access and support informal carpooling.
- **Emerging mobility service providers** to accommodate these services at transit facilities, cost-effectively meet demand at low-demand times, and increase access to transit.

SERVICE DELIVERY AND ORGANIZATIONAL CAPACITY

Service Delivery Approach

YCTA contracts with a third-party transit provider (currently First Transit) to operate service in the county. YCTA is planning to conduct a formalized procurement process (e.g., Request for Proposals) to solicit bids to operate and maintain the system, by June 30, 2019. Such a process allows the agency to confirm that it is receiving the best value from a customer perspective, and should recognize that the lowest bid is not always the best at meeting an agency's goals.

Roles, Responsibilities, and Staffing

Contracting for service delivery still requires significant YCTA administrative staff time and resources to oversee the contractor and perform other transit functions that are not be part of the contract. Figure 9-10 summarizes typical transit functions by category, identifies who is responsible—service contractor staff, YCTA staff, or other Yamhill County staff—and provides the current and projected staffing level. The TDP Financial Plan (Chapter 8) assumes an average cost per service hour consistent with these staffing levels. Additional staffing will help YCTA improve oversight for its transit operations and maintenance contract(s) to ensure accurate reporting, communication, and corrective actions to deliver high quality service and facilities. Adequate staffing is also necessary to accomplish the transit-supportive programs identified in the TDP.

Figure 9-10 Transit Agency Functions and Estimated FTE

Category	Typical Functions	Who Performs?	Typical Positions / Roles	Current / Projected Staffing		
				Existing	Near-Term	Short- to Mid-Term
Vehicle operations	Transportation administration and support, safety and training, resolve customer complaints, ADA eligibility	Service Contractor	<ul style="list-style-type: none"> ▪ Operations Manager ▪ Safety/Training ▪ Field Supervisors 	3 FTE	4 FTE	6 FTE
	Route planning and service design; technology operations (website, real-time information, automated passenger counting and vehicle location systems)		<ul style="list-style-type: none"> ▪ Transit Planner³ ▪ Operations Specialist 	-	1 FTE	1 FTE
	Vehicle operations, monitoring, dispatch, scheduling, etc. Fare collection		<ul style="list-style-type: none"> ▪ Operators ▪ Scheduler/Dispatcher 	24 FT / 4 PT 3 FTE	26 FT / 6 PT 4 FTE	26-28 FT, 6-8 PT 4 FTE
Vehicle maintenance	Administration, record-keeping, work procedures, training Inspection and maintenance Servicing (cleaning, fueling, etc.) vehicles	YCTA	<ul style="list-style-type: none"> ▪ Maintenance Supervisor ▪ Mechanics ▪ Bus Washer 	3.0 FTE	3.5 FTE	3.5 – 5.0 FTE
Non-vehicle maintenance	Administration, maintenance, repair of facilities and operational equipment		<ul style="list-style-type: none"> ▪ Bus, Bus Facilities, Shelter Cleaning Tech 	1.0 FTE	1.0 FTE	1.0 FTE
General administration	Strategic Planning Customer Relations/Outreach Advisory Committee Support Board Support Marketing/Promotion/Customer Information Service and Capital Planning Regulatory Compliance, including ADA Procurement Contract Procurement/Oversight Finance/Budgeting/Accounting ¹ Grants Administration ¹ Human Resources Oversight ¹	Yamhill County	<ul style="list-style-type: none"> ▪ Transit Manager ▪ Administrative Assistant ▪ Program Coordinator² ▪ Grants^{1, 2} ▪ Service Planning^{2, 3} ▪ Intern² 	1.5 FTE	2.5 FTE	2.5 to 5.0 FTE
	Grant Support Finance/Accounting Support Human Resources Support Legal Services		Grant Specialist Accountant HR Specialist Legal Counsel	Varies	Varies	Varies

Notes: FTE: Full-time Employee Equivalent. [1] Yamhill County staff can provide support in these areas. [2] Position does not exist today. [3] Planning function could be wholly or in part performed by the YCTA service contractor and/or by a YCTA staff position.

Source: Adapted from National Transit Database (NTD), Uniform System of Accounts (USOA), and YCTA Staffing Projections.

YCTA Board Oversight Structure

The YCTA Transit Manger is responsible for day-to-day operations. The Yamhill County Board of Commissioners, which serves as the YCTA Board, has a Transit Liaison who attends YCTA Advisory Committee meetings, provides regular oversight of YCTA performance, and assists the Transit Manager with other issues as required. The YCTA Board reviews YCTA performance at regular meetings and makes major policy decisions, including approving the annual transit budget. Figure 9-11 provides an overview of typical roles and responsibilities.

Figure 9-11 Transit Manager and Oversight Board Roles and Responsibilities

Area	Transit Manager	Board Transit Liaison	YCTA Board
Executive	<ul style="list-style-type: none"> ▪ Runs all day-to-day operations ▪ Informs Board to help shape policy and mission 	<ul style="list-style-type: none"> ▪ Makes hiring and governance recommendations to full board ▪ When requested, offers input to assist the Transit Manager in day-to-day decisions 	<ul style="list-style-type: none"> ▪ Makes major governance and policy decisions with input from Transit Manager
Finance/ Audit	<ul style="list-style-type: none"> ▪ Manages day-to-day finances ▪ Proposes budget ▪ Reports spending against budget 	<ul style="list-style-type: none"> ▪ Reviews budget in detail ▪ Oversees audit and aids Transit Manager in ensuring appropriate financial controls are in place 	<ul style="list-style-type: none"> ▪ Discusses and approves budget ▪ Reviews financial and other performance indicators (at each meeting)
Public Relations	<ul style="list-style-type: none"> ▪ Manages day-to-day public relations activities ▪ Plans for ongoing public relations activities and requests assistance on specific tasks from the Board Transit Liaison 	<ul style="list-style-type: none"> ▪ Helps Transit Manager plan for public relations needs and carries out specific requests for assistance 	<ul style="list-style-type: none"> ▪ Approves and supports public relations activities as required
Personnel/ Human Resources	<ul style="list-style-type: none"> ▪ Manages everyday personnel activities and makes staff hiring/firing decisions ▪ Suggests personnel policies and procedures 	<ul style="list-style-type: none"> ▪ Ensures appropriate personnel policies and procedures are in place 	<ul style="list-style-type: none"> ▪ Approves personnel policies and procedures as required

Source: Adapted from Transportation Research Board, TCRP Report 85, Public Transit Board Governance Guidebook, 2002, Figure 8

10 SUPPORTING PUBLIC TRANSIT WITH LOCAL LAND USE POLICIES

Coordinated land use and development policies can strengthen YCTA’s voice in local land use changes, as well as the maintenance of bus stops and the space around them. Providing input on local zoning and development reviews, and coordinating with local business alliances can be effective in encouraging transit-supportive land uses and drawing businesses to active transit corridors. This chapter addresses transit-supportive land use policies and development code language. It identifies policy and development code elements related to transit-supportive land use and provides “model” or recommended code language that is consistent with TDP recommendations and is suitable for adoption by local jurisdictions with some modifications. Based on this model language, the project team evaluated existing comprehensive plans and development codes of jurisdictions in the YCTA service area in order to gauge what changes may be needed in order to most effectively implement the TDP.

TRANSIT-SUPPORTIVE POLICY AND CODE LANGUAGE

The vision, strategies, and solutions developed during the TDP process are implemented in a number of ways, including through local land use policies, procedures, and development requirements. Given that the local jurisdictions within the YCTA service area have land use planning and development authority, the TDP should recommend local land use policy and procedures that support transit and are consistent with the recommendations from this planning process.

Comprehensive plan policies provide long-range land use and transportation planning direction. Specific policies are recommended to provide consistency with the TDP as well as a solid foundation for transit-supportive land use and transportation implementation going forward.

Development requirements support the implementation of transit-supportive improvements in several ways, including locally adopted provisions required by the Oregon Transportation Planning Rule (TPR) for communities with existing or planned transit service.²¹ Adopting transit-supportive development requirements may entail replacing or otherwise modifying existing local development requirements, adding to existing requirements, or some combination thereof.

Recommended Comprehensive Plan Policies

The recommended policies below draw from a number of references and resources and reflect the TDP project scope, TDP recommendations, and TPR requirements. Model policies also provide a basis for recommended development code amendments, discussed in the next sub-section. Recommended policy language addresses the following overarching topic areas:

- Planning for transit-dependent populations
- Establishing the YCTA TDP as a guidance document
- Coordinating with YCTA
- Implementing transit-supportive improvements

²¹ Oregon Administrative Rules (OAR) 660-012-0045(4)

The full suite of recommended policies is not necessarily appropriate in the smallest communities in the YCTA service area, where transit service may be limited and it is sufficient to more broadly address the topic areas represented by the recommended policies. All policies can be modified to fit local plan format and better reflect specific local conditions and interests.

Figure 10-1 Recommended Comprehensive Plan Policies

Planning for Transit-Dependent Populations	
1.	The [City/County] will facilitate transit service for its community members, with special attention to the needs of members who may be classified as “transit dependent” due to factors such as age, income, and/or disabilities.
Establishing the YCTA TDP as a Guidance Document	
2.	The Yamhill County Transit Area Transit Development Plan provides the policy and implementation direction for [City/County] transit planning, which includes route development, financing, and physical improvements necessary to maintain and improve public transit service for [City/County] residents, businesses, and visitors.
3.	Transit improvements within the [city/county] shall be guided by the findings and recommendations of the Yamhill County Transit Area Transit Development Plan.
4.	The [City/County] will seek to implement, through capital improvement projects and private development requirements, improvements that encourage increased transit use and are consistent with and supportive of the Yamhill County Transit Area Transit Development Plan recommendations.
5.	The [City/County] will support higher-density and mixed-use land use around transit stops and in transit corridors to make transit service more feasible and effective.
6.	In lower-density areas, the [City/County] will support park-and-ride/rideshare facilities, demand-responsive and flexible transit services, and other facilities and services that are appropriate where it is less feasible to serve the area with fixed-route transit.
Coordinating with YCTA	
7.	The [City/County] will invite transit service providers to participate in long-range and comprehensive land use planning projects in order to optimally coordinate land use and transit service.
8.	The [City/County] will invite transit service providers to participate in the review of land use applications that may have implications for transit service or impacts to transit facilities.
9.	In planning for and implementing capital projects, the [City/County] will coordinate with Yamhill County Transit Area, Oregon Department of Transportation (ODOT), and other road authorities if applicable to preserve or improve existing and planned transit stop amenities and connections (e.g., sidewalks).
10.	The [City/County] will work with Yamhill County Transit Area to site and implement needed transit stops and park-and-ride lots within the [city/county] in support of the district-wide public transit system, with an emphasis on sites that are safe and convenient for riders.
11.	The [City/County] will participate in Yamhill County Transit Area’s efforts to promote and implement rideshare and other transportation demand management programs for reducing motor vehicle travel demand on State highways.
Implementing Transit-Supportive Improvements	
12.	The [City/County] will prioritize the improvement of pedestrian and bicycle network gaps and substandard facilities along and adjacent to transit corridors in its long-range transportation planning and capital improvement programming.
13.	The [City/County] will support improvements such as pedestrian and bicycle connections, shelters, easements for shelters and/or landing pads, and lighting to complement transit service and encourage increased transit use. Transit stop improvements shall be coordinated with the transit service provider.
14.	The [City/County] will work to improve safety for transit riders through the local planning and development review process, helping to ensure safe locations of transit stops and safe connections to transit stops, including roadway crossings.
15.	The [City/County] will prioritize improvements to the [City’s/County’s] pedestrian environment that increase safe and attractive access to transit, including lighting, landscaping, public art, marked and protected crossings, and curb ramps.
16.	The [City/County] will establish and implement development requirements that provide preferential parking for ridesharing and allow parking areas to be used for park-and-ride, rideshare, and transit-related facilities.

Summary of Local Policy Assessment

Existing transportation policies (Comprehensive Plans and Transportation System Plans or TSPs) were reviewed for consistency with recommended policies. Key findings are provided below; Appendix G provides the overall assessment (Figure G-1).

Overall, the evaluation found that all the jurisdictions should adopt more specific transit-supportive policies into their comprehensive plan policies, particularly related to establishing transit plans as guiding documents and instituting planning and permitting coordination between local jurisdictions and transit agencies. The following is an overview of evaluation findings by policy category and by jurisdiction size:

- **Planning for transit-dependent populations.** This policy area showed the most consistency between existing and recommended policy. Many jurisdictions make supportive policy statements about low-income, disabled, and senior populations in their communities, although not always explicitly in relation to transit service.
- **Establishing the YCTA TDP as a guidance document.** Existing policies were partially to minimally consistent in this category; typically, while policy may commit to improving and promoting transit, transit plans are not identified as a basis for these actions.
- **Coordinating with YCTA.** The highest levels of inconsistency were found in this category, where coordination with transit service providers is generally not addressed, whether for land use planning and development, transit-supportive improvements, or transit-supportive programs.
- **Implementing transit-supportive improvements.** Jurisdictions varied widely (from minimally to mostly consistent) in how their policies committed to transit-supportive requirements, including transit stop improvements, safe crossings, pedestrian environment improvements, prioritization of improved pedestrian and bicycle connections to transit, park-and-ride facilities, and TDM/ridesharing programs.
 - McMinnville provides the strongest transit-supportive policy basis of the larger jurisdictions. However, as discussed in the development code review (see Appendix G), its development code does not appear to have been updated recently and it does not robustly reflect these policies.
 - Of the smaller jurisdictions, Carlton’s and Willamina’s policies are among the most consistently transit-supportive. Their policies commit to serve the transportation-disadvantaged, ensure transportation improvements are consistent with transportation plans, coordinate with transit service providers in addressing transit service needs, and implement transit-supportive improvements.

Local policies, even those found to be largely consistent with recommended policies, should be strengthened using recommended transit-supportive language when amendment opportunities arise (e.g., a TSP update). These opportunities are further discussed in the Best Practices section below.

See Appendix G for detailed policy language recommendations and the assessment of local policies (Figure G-1).

Recommended Development Code Language

This section identifies areas of the development code that relate to transit (see Figure 10-2); Appendix G provides sample code language that reflects the TDP objectives and the recommendations, is supported by the Comprehensive Plan policies recommended above, and is consistent with the TPR. The recommended development code language is intended to be a reference for code updates in all of the jurisdictions in the YCTA service area.

Figure 10-2 Recommended Development Code Language

Coordination with Transit Agencies
1. Pre-Application Conference
2. Application Review
3. Hearing Notice
Access to Transit and Transit-Supportive Improvements
Site Access
4. Access between the Site and the Street
5. Access to the Transit Stop and Supportive Improvements
Area Access
6. Off-Site Access to Transit Stops
Other Transit-Related Development Requirements
Vehicle Parking
7. Transit-Related Uses/Facilities in Parking Areas
8. Carpool/Vanpool Parking
9. Maximum Parking Requirements
10. Reduced Parking Requirements
11. Parking Area Landscaping
Bicycle Parking
12. Minimum Bicycle Parking Requirements
Urban Form
13. Maximum Building Setbacks

See Appendix G for detailed recommended development code language.

Summary of Local Development Code Assessment

An evaluation of existing development code language in YCTA service area jurisdictions revealed the need for strengthened language related to transit. This section provides key findings; Appendix G (Figure G-2) provides the detailed evaluation.

As established in Technical Memo #3 (Planning Framework) and summarized in TDP Chapter 2, the largest amount of development is expected to occur in Newberg and McMinnville. These two cities are a focus of service improvements proposed in the TDP; consequently, the evaluation of existing development code also focused on these cities. The evaluation, provided in Appendix G (Figure G-2), shows varying levels of consistency between recommended transit-supportive development code language and existing Newberg and McMinnville development code language. Even though McMinnville is the larger of the two jurisdictions, it appears that Newberg’s development code has been updated more recently and has sets of transit-specific development requirements that McMinnville’s does not. However, both of the cities can improve the transit orientation of their communities by adopting recommended development code language into code sections found to be less than consistent, either as new code sections or as modifications to existing code sections.

The evaluation indicates several opportunities for McMinnville and Newberg to improve existing development code provisions, particularly regarding application review coordination and requirements for transit stop improvements and other transit-related improvements. The following is an overview of evaluation findings by development code category:

- **Coordination with transit agencies.** Newberg and McMinnville may have a practice of consulting with YCTA about land use applications, but this practice is not formalized in their development codes. In addition, code requirements that address coordination and notification do not clearly differentiate notice of application review from notice of public hearing, which are potentially two separate opportunities in which to engage transit agencies.
- **Access to transit and supportive improvements.** While both Newberg and McMinnville require pedestrian access from development sites to the street, only Newberg has requirements specific to transit access and transit stop improvements. McMinnville more strongly supports off-site access to transit in terms of smaller required block sizes and clearer language about pedestrian and bicycle access ways.
- **Other transit-supportive requirements:**
 - **Vehicle parking.** Only Newberg has code provisions allowing transit-related uses in parking areas and requiring preferential parking for carpools and vanpools. Neither jurisdiction establishes maximum off-street parking requirements. However, the cities have adopted other effective forms of parking management (e.g., no parking requirements and large reductions in requirements in the densest parts of the cities).²² Both cities require some level of parking lot landscaping; these requirements could be enhanced to provide even better pedestrian environments.
 - **Bicycle parking.** Existing development code requirements in Newberg address bicycle parking for transit transfer stations, but not regular transit stops. McMinnville’s code requires bicycle parking for uses only in commercial zones and does not address transit uses in any zone.
 - **Urban form.** Newberg requires minimum setbacks and relatively large maximum setbacks in commercial zones; McMinnville establishes maximum setbacks in the central commercial zone only in downtown. Both cities should review existing setback requirements and consider setbacks for development on OR 99W that will enhance the pedestrian environment and promote transit.

Incorporating more transit-supportive language into each city’s development code could be dovetailed with a legislative amendment process such as a TSP update. This is discussed in more detail in the Best Practices section.

See Appendix G for detailed development code language recommendations and the assessment of local development codes (Figure G-2).

²² While existing development code language in Newberg and Dundee does not include maximum off-street parking requirements, there are cases where the cities do not require off-street parking, which is an even more robust measure for managing parking and encouraging transit, or they allow drastically reduced parking requirements. (See the evaluation summarized in Figure G-2 for more details.) It is recognized that these parking strategies are most appropriate and effective in the densest, most urbanized parts of the YCTA service area.

BEST PRACTICES FOR TRANSIT-SUPPORTIVE LAND USE

Best practices to strengthen the connection between transit and land use generally fall into two arenas: increased collaboration between transit agencies and local jurisdictions during long-range transit and land use planning and transit agency participation in land use (development) permitting.

Long-Range Planning

Both transit agencies and local jurisdictions engage in long-range planning processes, and transit and land use can become more integrated through coordination between agencies during their respective long-range planning activities. Transit agencies can engage a variety of local jurisdiction staff, in addition to other community stakeholders, in their long-range planning processes. Local jurisdiction staff can include departments such as planning and community development, public works and engineering, and business and finance. In some unique cases, cities and counties have staff dedicated to transit services and coordination. Cities and counties conduct multiple long-range, comprehensive planning processes that can have a bearing on transit. Including transit agencies on advisory committees is particularly important for the development of concept or area plans and TSPs. Concept and area plans are prepared for new urban growth areas. TSPs, pursuant to the TPR, must include a transit element. Therefore, both of these planning processes present prime opportunities to create more transit-oriented land use and transportation plans.

Transit-Supportive Policy and Code

Long-range transit and land use planning processes should involve the development and adoption of transit-supportive policy and code language. These plans are typically adopted through a legislative process that involves public hearings, which is also the level of review needed for changes to city and county comprehensive plan policies and development code language.

While the TDP policy and code language constitutes a strong base of model language to draw from, the language is built on best practices to-date. Model language should continue to be strengthened, and one example of this is related to development code thresholds for requiring developers to make or plan for transit stop improvements. Conversations with transit and transportation planners have suggested that the threshold be not just sites that are adjacent to existing or planned transit stops (and more particularly stops with frequent service), but sites where a minimum number of employees are projected. Additionally, the thresholds could include comprehensive plan and zoning changes that increase density.

As found in the reviews of policy and development code consistency (previous section), all jurisdictions in the YCTA service area could benefit from integrating recommended transit-supportive policy language and development requirements into their comprehensive plan policies and development codes. A TSP update process provides a natural opportunity to address implementation measures, including new transit-supportive policies and code. However, if a jurisdiction has been through a TSP update process in the last few years, another update is not likely in the near term. For these jurisdictions, adoption of recommended policy and code language could potentially be folded in with other legislative amendment procedures (e.g., other comprehensive plan and development code updates).

Development Permitting

Development permitting presents numerous opportunities for collaboration between transit agencies and local jurisdictions. As indicated in the recommended transit-supportive development requirements, there are multiple points in the development permitting process during which transit service providers could participate—at the pre-application stage where the development proposal is first vetted with the local jurisdiction; after the development proposal is submitted and the jurisdiction’s review of the proposal begins; and shortly before and during the public hearing and permitting decision stage, when the local jurisdiction’s staff report is being completed and testimony regarding the proposal is collected.

Involvement at these points in the process can translate into needed transit improvements being identified early and, thus, included in the development proposal and/or transit improvements being required as a condition of development approval.

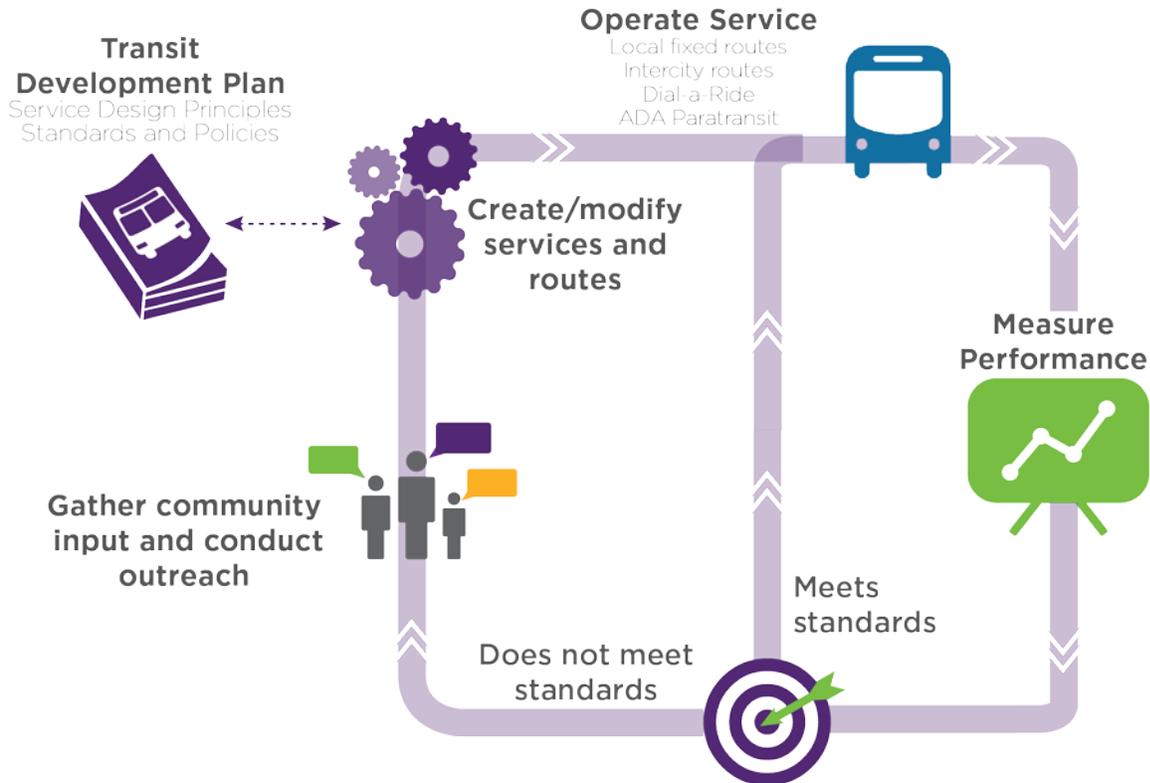
In some transit districts, local jurisdiction planning staff already have a practice of informing transit service providers about development applications, or transit service providers routinely inquire about new development applications, whether through informal contact with planning staff or through relationships with developers. In this way, transit service providers can be involved in the development process and advocate for transit improvements that are generally or specifically called for in a transit plan. In some cases, notice and involvement is required by the development code and in some cases, it is not. Similarly, in some instances, transit-supportive improvements are required in code (e.g., transit stop access and improvements) and the transit agencies ensure that the requirement is fulfilled consistent with their own transit planning. When the improvements are not required in code, it is still possible that they will be implemented if planning staff or the transit service provider are present at key points in the development review process to identify improvements called for in the agency’s transit plan. These cases underline that, while transit-supportive coordination and improvements may occur without codification, their implementation will be stronger and more consistent if codified.

11 MONITORING IMPLEMENTATION OF THE TDP

System goals, objectives, performance measures, public input, and actual operation of service are all part of an ongoing process to continually evaluate and improve service (see Figure 11-1). YCTA will need to determine an appropriate but level and frequency of service evaluation that is meaningful without being burdensome to staff. Major service changes, including implementation of projects identified in the TDP, should include public outreach to obtain input on routing and schedule details. Minor adjustments based on input from the public, drivers, and other staff as well as performance monitoring should be implemented periodically to ensure that routes are running as expected. Changes should ideally be implemented only every 4 to 6 months to avoid overly frequent changes for riders. All major and minor service changes should be clearly communicated to riders.

This section incorporates the existing conditions analysis, peer evaluation, and industry standards into performance measures and standards that YCTA can use to regularly assess system and route-level performance and progress towards TDP implementation.

Figure 11-1 Process for Ongoing Monitoring



More information on benchmarks including a peer review of YCTA performance compared to comparable providers can be found in Chapter 3 of the TDP and TDP Volume II, Section 2: TM #2, Chapters 3 and 5 and Appendix C.

SERVICE STANDARDS

Performance measures and standards are defined as follows:

- **Performance measures quantify transit operating characteristics and provide a basis for comparison** – to a desired goal, to peer systems, or to past performance. The most useful measures are typically ratios of product provided (e.g., transit trips) to resources expended (e.g., “revenue” hours of bus driver time). Productivity (ridership per revenue hour), for example, is a nearly universal measure in the transit industry. A good set of performance measures should rely on readily available data and focus on key aspects of operations.
- **Performance standards (also known as targets or benchmarks) are quantifiable values for specific performance measures.** They set the expectations for acceptable levels of performance. Using the productivity example, routes performing below a standard of 10 to 15 boardings per revenue hour may merit attention. A single performance measure may have multiple standards based on the service type, operating period, or geographic zone being evaluated. YCTA performance standards need to balance industry norms, YCTA’s own goals and objectives, and any requirements from funding or other sources. For example, farebox recovery standards may be set below those of peer systems if local policy-makers agree to higher subsidies to address affordability concerns. Alternatively, YCTA needs to balance affordability with the requirement to generate revenue to cover its operating costs.

The tables below display performance measures for several categories of performance measures, including a brief definition, where to collect the data, how YCTA currently performs on the measures, comparisons to peers (where applicable), and guidance on metrics for each service type. In some cases benchmarks are the same for each service type, while in other cases the performance measure is the same but the metrics are different.

Service Design Standards

The design standards in Figure 11-2 help ensure service that is convenient and well-matched to passenger needs. A route’s hours of operation and frequency, along with other service level characteristics, play a major role in attracting riders. Passengers value convenience and reliability. Service every three hours or service that ends at 6 PM does not provide a convenient option. Service hours and frequencies have a major impact on cost; however, too little investment in service levels or service in areas with insufficient density of people or jobs results in empty buses.

Figure 11-2 Service Design Standards

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing	Performance Standards ¹			
					Intercity Fixed-Route	Local Fixed-Route	Flex Route / Shuttle	DAR or ADA Paratransit
Service area land use density	1.4, 2.1	Concentration of people and jobs in area served; higher densities support higher levels of transit.	Census ^{5,6}	Routes serve population centers with overall density of 2-8 people and up to 2 jobs per acre	Serves major corridors and urban clusters; 8-12 people or jobs per acre within ¼-mile of stops	6-8 people or jobs per acre within ¼-mile of route (stops)	4+ people or jobs per acre within ¼-mile of route (stops)	>0.5 people or jobs per acre
Minimum span of service – Weekday	1.2	Service start and end times	Service schedules	Local: 7 AM - 7 PM Intercity: 6 AM-7 PM or 6 AM-9 PM (varies by route)	6 AM - 8 PM or 8 AM - 10 PM	6 AM - 8 PM	8 AM – 5 PM	Same as local fixed route
Minimum span of service – Weekend	1.2	Service start and end times	Service schedules	Local: None Intercity: 8 AM – 7 PM (46s) 9:30 AM – 4 PM (24s)	8 AM - 6 PM	8 AM - 6 PM	8 AM – 5 PM	Same as local fixed route
Service frequencies – Weekday ²	1.3, 1.4	How often a bus arrives in each direction	Service schedules	Local: 60 min Intercity: 60 min – 4.5 hours (varies by route)	60-120 minutes	60-120 minutes	Varies	Same as local fixed route
Service frequencies – Weekend ²	1.3, 1.4	How often a bus arrives in each direction	Service schedules	Local: None Intercity: 2h 50m (varies)	60-120 minutes	60-120 minutes		Same as local fixed route
Vehicle loading ²	-	What percent of seated capacity is utilized (having a seat is more important on longer intercity routes)	Ridecheck (in future, APC data)	Local: Generally <100% Intercity: 12-25 (some trips may exceed 100%)	100%	120%	100%	100%

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing	Performance Standards ¹			
					Intercity Fixed-Route	Local Fixed-Route	Flex Route / Shuttle	DAR or ADA Paratransit
Vehicle type (see Chapter 7)	2.2	Match vehicle to service type and route context	N/A	Varies	Large cutaway or 30-foot bus	Large cutaway or 30-foot bus	Small cutaway	Van or small cutaway
Stop spacing	-	Close stops provide more access (shorter walking distance) but increase travel times; a balance is needed	YCTA Stop Inventory; GTFS and GIS Data	Not tracked	> ½ - 1 mile within communities	> 1/8 mile	Varies based context	N/A
Travel time ratio (bus to auto)	1.3	Ratio of bus to auto travel time for a particular route or trip; if the bus travel time far outweighs driving time, those with a choice are likely to drive	Schedules and Google maps	N/A	1.3	1.5-2.5	1.5 - 3	2-3

Note: These metrics can be applied when designing or redesigning services, with the exception of passenger loading which can be evaluated monthly or quarterly once passenger counts are automated.

Cost Efficiency and Cost Effectiveness Standards

Cost efficiency and cost-effectiveness standards evaluate YCTA’s level of output (service hours and miles) against the cost to operate service.

Figure 11-3 Cost Efficiency and Cost Effectiveness Standards

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing YCTA Performance	Existing Performance Compared to Peers (2015 NTD)	Performance Standards ¹			
						Intercity Fixed-Route	Local Fixed-Route	Flex Route / Shuttle	DAR, ADA Paratransit
Operating cost per revenue hour	6.2	Cost of providing service, divided by the number of hours each bus is in service	NTD ⁷ , YCTA Reporting ⁸	\$55 Fixed-Route: \$65 Dial-A-Ride: \$42	68% of peer median (\$79)	\$75 (2018, adjusted for inflation)	\$65 (2018, adjusted for inflation)	\$65 (2018, adjusted for inflation)	
Operating cost per trip	6.2	Cost of providing service, divided by the number of passenger trips provided	NTD ⁷ , YCTA Reporting ⁸	\$6.85 Fixed-Route: \$6 Dial-A-Ride: \$10	94% of peer median (\$7.27)	\$5-7 (2018, adjusted for inflation)	\$7-10 (2018, adjusted for inflation)	\$10-25 (2018, adjusted for inflation)	

Note: These metrics can be tracked annually, with peer comparisons updated at least every 5 years.

Service Efficiency Standards

Transit services utilize public dollars and are responsible to operate in an efficient manner; service efficiency standards measure efficient use of resources.

Figure 11-4 Service Efficiency Standards

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing YCTA Performance	Existing Performance Compared to Peers (2015 NTD)	Performance Standards ¹			
						Intercity Fixed-Route	Local Fixed-Route	Flex Route / Shuttle	DAR or ADA Paratransit
Passengers per revenue hour	1.1	Average number of passengers a bus carries for each hour it is in service	NTD ⁷ , YCTA Reporting ⁸	7.9 Intercity and Local Fixed Route: 11.8 Dial-A-Ride: 3.2	79% of peer median (10.1)	8-12	8-16	4-10	2-4
Passengers per revenue mile	1.1	Average number of passengers a bus carries for each mile it travels	NTD ⁷ , YCTA Reporting ⁸	0.4 Intercity: 0.4 Local: 0.9 Dial-A-Ride: 0.3	83% of peer median (0.5)	0.3 - 0.5	1	0.4 – 0.8	0.3
Farebox recovery ratio	2.7, 6.1	Percent of operating expenses covered by passenger fares	NTD ⁷ , YCTA Reporting ⁸	15% (System-Wide)	107% of peer median (11%)	10-15%			

Note: These metrics can be tracked monthly or quarterly, with peer comparisons updated at least every 5 years.

Passenger Comfort/Safety Standards

This set of benchmarks tracks customer satisfaction.

Figure 11-5 Passenger Comfort and Safety Standards

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing YCTA Performance	Performance Standards ¹			
					Intercity Fixed-Route	Local Fixed-Route	Flex Route / Shuttle	DAR or ADA Paratransit
On-time performance	6.2	How often a vehicle leaves early or late. Typically no more than 1 minute early or 5 minutes late counts as "on time."	Ridecheck, YCTA Reporting	Local: 58-83% Intercity: 44-71% Dial-A-Ride: 89.9%	80-95%	85-95%	85%	90-95%
Customer information	3.1, 3.3	Online and printed materials (e.g., website, brochures, mobile apps etc.) translated into other languages as determined in YCTA Title VI and LEP plan, or translation available through a spoken or electronic translation service.	Review of YCTA Online and Printed Materials and Applications	Spoken language translation available	100%			
Passenger complaints	3.5	Number of customer complaints received (indicator of customer satisfaction)	YCTA Reporting	19 driver or system complaints per 100,000 boardings	No more than 25 legitimate complaints per 100,000 boardings			
Safety	4.1	Bus accidents disrupt service and indicate operator training needs or street design problems	YCTA Reporting	0.51 Safety Issues or Incident Reports per 100,000 revenue miles	No more than: 1 preventable accident per 100,000 miles; 2 accidents per 100,000 revenue miles; 2 major accidents per 1,000,000 revenue miles			
Road calls / maintenance	4.3	Number of times a vehicle must be taken out of service.	YCTA Reporting	4 road calls per 100,000 revenue miles	No more than 10 per 100,000 revenue miles.			
No show / late cancellation rate	-	Percent of scheduled trips where the passenger is a no-show or failed to provide adequate notice to cancel a trip (indicates unproductive vehicle time)	YCTA Reporting	5.24% for ADA, DAR	N/A		< 5%	< 5%
Trip denials	2.2	ADA trips where YCTA was unable to provide a request ride within 1 hour of the time requested by the passenger (no ADA trips should be denied)	YCTA Reporting	0% for ADA	N/A			No patterns of denied service allowed per ADA

Note: These metrics can be tracked monthly or quarterly.

Other Measures: Transit Access and Service Provided/Consumed

This set of measures tracks access to transit (share of population and jobs that live within ¼-mile of a bus stop) and the amount of service provided (service hours) and consumed (ridership) relative to Yamhill County’s population within urban growth boundaries (UGBs).

Figure 11-6 Transit Access and Utilization Measures

Performance Measure	Goal and/or Objective	Definition	Data Source	Existing YCTA Performance	Existing Performance Compared to Peers (2015 NTD)	Performance Standards ¹			
						Intercity Fixed-Route	Local Fixed-Route	Flex-Route / Shuttle	DAR or ADA Paratransit
Service hours per capita	2.4	Annual service hours divided by population with UGBs (how much service is provided)	Census, PSU, and/or NTD ^{7,8,9}	0.42 (based on UGB population)	58% of peer median (0.73) Range: 0.28 to 1.24	Increasing trend and comparison to peer median			
Ridership per capita	2.4	Annual riders divided by population within UGBs (how much service is used)	Census, PSU, and/or NTD ^{7,8,9}	2.9	30% of peer median (9.9) Range: 2.9 to 16.8	Increasing trend and comparison to peer median			
Service Availability ^{2,3}	2.5, 5.1	What percent of the population lives within a ¼- and ½ mile of a transit stop	Census ^{4,5}	70% of employees within ¼-mile of a transit stop (2014 US Census LEHD) 60% of residents in cities within ¼-mile of a transit stop (2010 US Census) Approximately 60% low-income population (200% of federal poverty level) within ¼-mile of a transit stop.	N/A	Increasing trend as TDP is implemented. A standard of 75% of employees, 70% of residents, and 70% of low-income population is recommended within ¼-mile access and 90% or more within ½-mile access. (FTA does not require a certain standard, but does require tracking progress. Standards can be defined locally.)			N/A
Transit mode share	-	The percent of trips taken via transit shows transit's role in achieving Transportation Planning Rule goals of reducing VMT	American Community Survey ACS 5-Year Estimates (Table S0801) ⁵	Yamhill County: 1% Incorporated Communities: 1% (2011-2015 average)	Statewide average: 4%	Increasing trend and comparison to peers			

Notes for Figure 11-2 to Figure 11-6:

¹ Standards are preliminary thresholds of acceptable performance based on peer systems and industry norms.

² Represents a Title VI required measure (system-wide service standard per FTA Circular 4702.1B). FTA does not prescribe the benchmark itself, but the tracking of such metrics.

³ Measure for STIF program

⁴ US Census, 2010 (updated every decade); this data has finer geographic units than American Community Survey data, which is a sample of the population and has large boundaries in parts of the YCTA service area.)

⁵ American Community Survey, 2011-2015 5-Year Estimate (rolling 5-Year estimates on an annual basis).

⁶ US Census Bureau, Longitudinal Household Employer Dynamics (LEHD), 2014 (updated annually)

⁷ National Transit Database (NTD), 2015

⁸ YCTA Reporting, 2016

⁹ PSU Population Research Center (PRC), 2017

APPENDICES



Image: Doug Kerr

Yamhill County Transit Area Transit Development Plan

Volume I Appendices

October 2018



**Yamhill County
Transit Area**

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APPENDIX A

YCTA Fleet Inventory

APPENDIX A YCTA FLEET INVENTORY, VEHICLE TYPE ASSUMPTIONS, AND REPLACEMENT SCHEDULE

Figure A-1 YCTA Vehicle Fleet Inventory and Replacement Schedule

Delivery Year	Agency Vehicle #	Make and Model	Odometer Mileage	Assumed Source	Assumed Year for New Grants	Grant Notes	Type	Vehicle Class	Seating Capacity [1]	Status	Condition	Est. Repl. Year [2]
EXISTING FLEET (As of 10/2018)												
2001	592	Gillig Phantom	458,205	Existing		N/A	Bus - Medium	A	30+	spare	Fair / Marginal / Poor	2014
2001	524	BlueBird	0	Existing		N/A	Bus - Medium	A	35	spare	Good / Excellent	2014
2002	400	EIDorado Escort	339,755	Existing		N/A	Bus - Medium	A	21 / 2	end-of-life	Fair / Marginal / Poor	2015
2002	203	Ford E450 Starcraft Allstar	337,597	Existing		N/A	Cutaway - Small	D	0	active	Good / Excellent	2008
2004	305	Ford E450 EIDorado Aerotech	384,863	Existing		21950	Cutaway - Large	C	16 / 3	end-of-life	Fair / Marginal / Poor	2012
2005	201	Chervrolet Venture	139,530	Existing		N/A	Van	E	5/1	end-of-life	Adequate	2010
2006	102-s	Ford Freestar Liberty	201,400	Existing		FTA	Van	E	5	spare	Fair / Marginal / Poor	2011
2006	601	Freightliner Champion CTE	30,182	Existing		N/A	Bus - Medium	A	0	spare	Good / Excellent	2019
2006	602	Freightliner Champion CTE	7,380	Existing		N/A	Bus - Medium	A	0	spare	Good / Excellent	2019
2006	603	Ford E450 EIDorado Aerotech	234,862	Existing		N/A	Cutaway - Large	C	16	spare	Fair / Marginal / Poor	2014
2007	102	Chevrolet Uplander	127,035	Existing		FTA-OR-03	Van	E	5/2	active	Adequate	2012
2008	114	Ford E450 EIDorado	306,199	Existing		N/A	Cutaway - Large	C	16/2	spare	Fair / Marginal / Poor	2016
2008	116-v	Chevrolet Uplander	118,468	Existing		FTA-OR-04	Van	E	5/1	spare	Adequate	2013
2009	404	Chevy 5500 EIDorado	599,701	Existing		24283	Bus - Medium	A	21 / 2	active	Fair / Marginal / Poor	2022
2010	300	Ford E450 EIDorado Aerotech	319,863	Existing		ARRA 25650-2	Cutaway - Large	C	16 / 2	spare	Fair / Marginal / Poor	2018
2010	401	Eldorado Easy rider	497,910	Existing		25650	Bus - Medium	A	31 / 2	active	Adequate	2023
2010	402	Eldorado Easy rider	526,979	Existing		25650	Bus - Medium	A	31 / 2	active	Adequate	2023
2010	405	Eldorado Easy rider	439,502	Existing		25650	Bus - Medium	A	31 / 2	end-of-life	Adequate	2018
2013	1301	Ford E450 EIDorado Aerotech	179,181	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019
2013	1302	Ford E450 EIDorado Aerotech	178,731	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019
2013	1303	Ford E450 EIDorado Aerotech	177,792	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019
2013	1304	Ford E450 EIDorado Aerotech	165,300	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019
2013	1305	Ford E450 EIDorado Aerotech	192,048	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019

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Delivery Year	Agency Vehicle #	Make and Model	Odometer Mileage	Assumed Source	Assumed Year for New Grants	Grant Notes	Type	Vehicle Class	Seating Capacity [1]	Status	Condition	Est. Repl. Year [2]
2013	1306	Ford E450 ElDorado Aerotech	189,970	Existing		28542	Cutaway - Small	D	14/2	active	Good / Excellent	2019
2014	1307	Chevrolet Champion	88,407	Existing		FTA OR 04-0022	Cutaway - Large	C	17/2	active	Good / Excellent	2022
2017	1701D	Ford Transit 350HD Arboc SOI	2,035	County Purchase		N/A	Cutaway - Small	D	10 / 2	active	Good / Excellent	2023
2017	1702D	Ford Transit 350HD Arboc SOI	4,725	County Purchase		N/A	Cutaway - Small	D	10 / 2	active	Good / Excellent	2023
2017	1703D	Ford Transit 350HD Arboc SOI	4,199	County Purchase		N/A	Cutaway - Small	D	10 / 2	active	Good / Excellent	2023
2017	1704D	Ford Transit 350HD Arboc SOI	2,518	County Purchase		N/A	Cutaway - Small	D	10 / 2	active	Good / Excellent	2023
2018	1805C	Ford E450 Champion LF Transport	2,745	Existing	2018	31460-5339	Cutaway - Large	C	17 / 2	active	Good / Excellent	2026
2018	1806C	Ford E450 Champion LF Transport	2,550	Existing	2018	31460-5339	Cutaway - Large	C	17 / 2	active	Good / Excellent	2026
2018	1807C	Eldorado EZ Rider	1,255	Existing	2018	N/A	Bus - Medium	A	23 / 2	active	Good / Excellent	2031
2018	1808C	Eldorado EZ Rider	1,121	Existing	2018	N/A	Bus - Medium	A	23 / 2	active	Good / Excellent	2031
2018	1809C	Eldorado EZ Rider	1,148	Existing	2018	N/A	Bus - Medium	A	23 / 2	active	Good / Excellent	2031
2018	1810C	Eldorado EZ Rider	1,081	Existing	2018	N/A	Bus - Medium	A	23 / 2	active	Good / Excellent	2031
GRANTS SECURED (As of 10/2018)												
2019		Champion LF, Low-Floor		Grant - Secured	2018	32845-5339	Cutaway - Large	C	17 / 2	active	N/A	2027
2019		Champion LF, Low-Floor		Grant - Secured	2018	32845-5339	Cutaway - Large	C	17 / 2	active	N/A	2027
2019		Champion LF, Low-Floor		Grant - Secured	2018	32856-STP	Cutaway - Large	C	17 / 2	active	N/A	2027
2019		Champion LF, Low-Floor		Grant - Secured	2018	32856-STP	Cutaway - Large	C	17 / 2	active	N/A	2027
2019		TBD Van, Accessible		Grant - Secured	2019	32845-5339	Van	E	5 / 2	active	N/A	2024
2019		TBD Van, Accessible		Grant - Secured	2019	32845-5339	Van	E	5 / 2	active	N/A	2024
2020		El Dorado EZ Rider II, Low-Floor		Grant - Secured	2017	STIP Enhance, 2018-2021	Bus - Medium	A	23 / 2	active	N/A	2033
2020		El Dorado EZ Rider II, Low-Floor		Grant - Secured	2017	STIP Enhance, 2018-2021	Bus - Medium	A	23 / 2	active	N/A	2033
2021		El Dorado EZ Rider II, Low-Floor		Grant - Secured	2018	2019 TBD-5339	Bus - Medium	A	23 / 2	active	N/A	2034
2021		El Dorado EZ Rider II, Low-Floor		Grant - Secured	2018	2019 TBD-5339	Bus - Medium	A	23 / 2	active	N/A	2034
2021		El Dorado EZ Rider II, Low-Floor		Grant - Secured	2018	2019 TBD-5339	Bus - Medium	A	23 / 2	active	N/A	2034
ADDITIONAL FLEET (Assumed)												
2019		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2019		Cutaway - Small	D	10 / 2	active	N/A	2025
2019		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2019		Cutaway - Small	D	10 / 2	active	N/A	2025
2019		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2019		Cutaway - Small	D	10 / 2	active	N/A	2025
2019		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2019		Cutaway - Small	D	10 / 2	active	N/A	2025
2020		El Dorado EZ Rider II, Low-Floor		Grant - Unsecured	2020		Bus - Medium	A	23 / 2	active	N/A	2033
2020		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2020		Cutaway - Small	D	10 / 2	active	N/A	2026
2020		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2020		Cutaway - Small	D	10 / 2	active	N/A	2026
2020		TBD Van, Accessible		Grant - Unsecured	2020		Van	E	5 / 2	active	N/A	2025
2023		Champion LF, Low-Floor		Grant - Unsecured	2022		Cutaway - Large	C	17 / 2	active	N/A	2031
2024		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2023		Cutaway - Small	D	10 / 2	active	N/A	2030
2025		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2024		Cutaway - Small	D	10 / 2	active	N/A	2031

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Delivery Year	Agency Vehicle #	Make and Model	Odometer Mileage	Assumed Source	Assumed Year for New Grants	Grant Notes	Type	Vehicle Class	Seating Capacity [1]	Status	Condition	Est. Repl. Year [2]
2025		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2024		Cutaway - Small	D	10 / 2	active	N/A	2031
2025		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2024		Cutaway - Small	D	10 / 2	active	N/A	2031
2026		TBD Van, Accessible		Grant - Unsecured	2025		Van	E	5 / 2	active	N/A	2031
2026		TBD Van, Accessible		Grant - Unsecured	2025		Van	E	5 / 2	active	N/A	2031
2027		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2026		Cutaway - Small	D	10 / 2	active	N/A	2033
2027		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2026		Cutaway - Small	D	10 / 2	active	N/A	2033
2027		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2026		Cutaway - Small	D	10 / 2	future	N/A	2033
2027		TBD Van, Accessible		Grant - Unsecured	2026		Van	E	5 / 2	future	N/A	2032
2028		Champion LF, Low-Floor		Grant - Unsecured	2027		Cutaway - Large	C	17 / 2	future	N/A	2036
2028		Champion LF, Low-Floor		Grant - Unsecured	2027		Cutaway - Large	C	17 / 2	future	N/A	2036
2028		Champion LF, Low-Floor		Grant - Unsecured	2027		Cutaway - Large	C	17 / 2	future	N/A	2036
2028		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2027		Cutaway - Small	D	10 / 2	future	N/A	2034
2028		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2027		Cutaway - Small	D	10 / 2	future	N/A	2034
2029		Gillig 35-foot bus		Grant - Unsecured	2028		Bus - Large	A	32 / 2	future	N/A	2042
2029		Gillig 35-foot bus		Grant - Unsecured	2028		Bus - Large	A	32 / 2	future	N/A	2042
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Champion LF, Low-Floor		Grant - Unsecured	2028		Cutaway - Large	C	17 / 2	future	N/A	2037
2029		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2028		Cutaway - Small	D	10 / 2	future	N/A	2035
2029		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2028		Cutaway - Small	D	10 / 2	future	N/A	2035
2029		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2028		Cutaway - Small	D	10 / 2	future	N/A	2035
2029		Arboc Spirit of Independence, Low-Floor		Grant - Unsecured	2028		Cutaway - Small	D	10 / 2	future	N/A	2035
2029		TBD Van, Accessible		Grant - Unsecured	2028		Van	E	5 / 2	future	N/A	2034

Notes: [1] Seated / Wheelchairs. [2] End-of-life based on FTA mileage or age criteria.

Source: YCTA Fleet Inventory, Updated October 2018, and TDP Fleet Schedule

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Figure A-2 Detailed Vehicle Type Assumptions by Time Frame: Vehicles Operated in Maximum Service

ROUTE	EXISTING				NEAR-TERM				SHORT-TERM				MID-TERM					LONG-TERM					
	Van	Cutaway - Small	Cutaway - Large	Bus - Medium	Van	Cutaway - Small	Cutaway - Large	Bus - Medium	Van	Cutaway - Small	Cutaway - Large	Bus - Medium	Van	Cutaway - Small	Cutaway - Large	Bus - Medium	Bus - Large	Van	Cutaway - Small	Cutaway - Large	Bus - Medium	Bus - Large	
McMinnville - 2W (2)			0.5				0.5				0.5				0.5					1			
McMinnville - 2E (4)			0.5				1				1				1					1			
McMinnville - 3N (3)			0.5				1				1				1						1		
McMinnville - 3S (1)			0.5				0.5				0.5				0.5					1			
McMinnville - New (5) (Lafayette Ave/Baker Creek/Hill Rd)																				1			
McMinnville - New (E. of Lafayette Ave)																		1					
Newberg - 5/6 (15/16)			0.5				1				1				1					1			
Newberg - 7/8 (17/18)			0.5				1				1				1					2			
Intercity - 11 (80x)				1				1				1				1						2	
Intercity - 22				1				1				1				1						1	
Intercity - 33				1				1				1				1						2	
Intercity - 44/45x				4				4				4				4							4
McMinnville DAR	2	3			2	3			2	3			2	3				2	3				
Newberg DAR		2				1			1	1			1	1				2	2				
Small City Flex / Shopper Shuttles						2				3				3					5				
Vehicles in Service	2	5	3	7	2	6	5	7	3	7	5	7	3	7	5	7	0	4	11	7	6	4	4
Spares - Minimum	0	2	1	2	1	2	2	2	1	2	3	3	1	3	3	3	0	1	3	3	2	2	2
Total with Spares	2	7	4	9	3	8	7	9	4	9	8	10	4	10	8	10	0	5	14	10	8	6	6
Spare Ratio	0%	40%	33%	29%	50%	33%	40%	29%	33%	29%	60%	43%	33%	43%	60%	43%	0%	25%	27%	43%	33%	50%	50%

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Figure A-3 Detailed Fleet Expansion and Replacement Plan, 2018 - 2028

Year and Time Frame	Additional Required Fleet	Required Fleet in Service	Active Fleet 1	Minus End of Life Vehicles	Plus Vehicles from Existing Grants	Total Fleet Available	Fleet Required with Spares	Net Fleet Req't	Additional Vehicles to be Purchased	Funded by Existing Grants			Funded by New Grants			Total Existing and New Grants			
										Cost of Vehicles 2	Grant Amount	Local Match	Cost of Vehicles 2	Total Grant Funding Requirement	Assumed Local Match	Total # of Vehicles	Total Vehicle Costs	Total Grants	Total Local Match
2018 - Existing																			
Bus - Large	0	0	0	0	0	0	0	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	7	0	0	7	9	2		\$1,360,000	\$1,323,346		\$0	\$0	\$0	0	\$1,360,000	\$1,323,346	\$0
Cutaway - Large	0	3	3	0	0	3	4	1		\$280,000	\$280,000		\$0	\$0	\$0	0	\$280,000	\$280,000	\$0
Cutaway - Small	0	5	11	0	0	11	7	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	2	1	0	0	1	2	1		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	17	22	0	0	22	22	4	0	\$1,640,000	\$1,603,346	\$0	\$0	\$0	\$0	0	\$1,640,000	\$1,603,346	\$0
2019 - Near-Term																			
Bus - Large	0	0	0	0	0	0	0	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	7	0	0	7	9	2		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	2	5	3	0	4	7	7	0		\$560,000	\$486,317	\$68,628	\$0	\$0	\$0	4	\$560,000	\$486,317	\$68,628
Cutaway - Small	1	6	11	6	0	5	8	3	4	\$0			\$340,000	\$302,000	\$38,000	4	\$340,000	\$302,000	\$38,000
Van	0	2	1	0	2	3	3	0		\$100,000	\$85,453	\$14,547	\$0	\$0	\$0	2	\$100,000	\$85,453	\$14,547
TOTAL	3	20	22	6	6	22	27	5	4	\$660,000	\$571,770	\$83,175	\$340,000	\$302,000	\$38,000	10	\$1,000,000	\$873,770	\$121,175
2020 - Short-Term																			
Bus - Large	0	0	0	0	0	0	0	0		\$0	\$0		\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	7	0	2	9	10	1	1	\$696,000	\$707,072	\$80,928	\$348,000	\$309,000	\$39,000	3	\$1,044,000	\$1,016,072	\$119,928
Cutaway - Large	0	5	7	0	0	7	8	1	1	\$0	\$0		\$143,000	\$127,000	\$16,000	1	\$143,000	\$127,000	\$16,000
Cutaway - Small	1	7	9	0	0	9	9	0		\$0	\$0		\$0	\$0	\$0	0	\$0	\$0	\$0
Van	1	3	3	0	0	3	4	1	1	\$0	\$0		\$51,000	\$45,000	\$6,000	1	\$51,000	\$45,000	\$6,000
TOTAL	2	22	26	0	2	28	31	3	3	\$696,000	\$707,072	\$80,928	\$542,000	\$481,000	\$61,000	5	\$1,238,000	\$1,188,072	\$141,928
2021 - Short-Term																			
Bus - Large	0	0	0	0	0	0	0	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	10	0	3	13	10	0		\$1,068,000	\$960,000	\$110,115	\$0	\$0	\$0	3	\$1,068,000	\$960,000	\$110,115
Cutaway - Large	0	5	8	0	0	8	8	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Small	0	7	9	0	0	9	9	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	3	4	0	0	4	4	0		\$0			\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	22	31	0	3	34	31	0	0	\$1,068,000	\$960,000	\$110,115	\$0	\$0	\$0	3	\$1,068,000	\$960,000	\$110,115
2022 - Short-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	13	1	0	12	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	1	0	7	8	1	1				\$150,000	\$133,000	\$17,000	1	\$150,000	\$133,000	\$17,000
Cutaway - Small	0	7	9	0	0	9	9	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	3	4	0	0	4	4	0					\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	22	34	2	0	32	31	1	1	\$0	\$0	\$0	\$150,000	\$133,000	\$17,000	1	\$150,000	\$133,000	\$17,000

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Year and Time Frame	Additional Required Fleet	Required Fleet in Service	Active Fleet 1	Minus End of Life Vehicles	Plus Vehicles from Existing Grants	Total Fleet Available	Fleet Required with Spares	Net Fleet Req't	Additional Vehicles to be Purchased	Funded by Existing Grants			Funded by New Grants			Total Existing and New Grants			
										Cost of Vehicles 2	Grant Amount	Local Match	Cost of Vehicles 2	Total Grant Funding Requirement	Assumed Local Match	Total # of Vehicles	Total Vehicle Costs	Total Grants	Total Local Match
2023 - Mid-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	12	2	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	0	0	8	8	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Small	0	7	9	4	0	5	10	5	5				\$465,000	\$413,000	\$52,000	5	\$465,000	\$413,000	\$52,000
Van	0	3	4	0	0	4	4	0					\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	22	33	6	0	27	32	5	5	\$0	\$0	\$0	\$465,000	\$413,000	\$52,000	5	\$465,000	\$413,000	\$52,000
2024 - Mid-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	0	0	8	8	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Small	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	3	4	2	0	2	4	2	2				\$112,000	\$99,000	\$13,000	2	\$112,000	\$99,000	\$13,000
TOTAL	0	22	32	2	0	30	32	2	2	\$0	\$0	\$0	\$112,000	\$99,000	\$13,000	2	\$112,000	\$99,000	\$13,000
2025 - Mid-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	0	0	8	8	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Small	0	7	10	4	0	6	10	4	4				\$388,000	\$345,000	\$43,000	4	\$388,000	\$345,000	\$43,000
Van	0	3	4	1	0	3	4	1	1				\$57,000	\$50,000	\$7,000	1	\$57,000	\$50,000	\$7,000
TOTAL	0	22	32	5	0	27	32	5	5	\$0	\$0	\$0	\$445,000	\$395,000	\$50,000	5	\$445,000	\$395,000	\$50,000
2026 - Mid-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	2	0	6	8	2	2				\$328,000	\$291,000	\$37,000	2	\$328,000	\$291,000	\$37,000
Cutaway - Small	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	3	4	0	0	4	4	0					\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	22	32	2	0	30	32	2	2	\$0	\$0	\$0	\$328,000	\$291,000	\$37,000	2	\$328,000	\$291,000	\$37,000
2027 - Mid-Term																			
Bus - Large	0	0	0	0	0	0	0	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Bus - Medium	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	0	5	8	4	0	4	8	4	4				\$672,000	\$598,000	\$74,000	4	\$672,000	\$598,000	\$74,000
Cutaway - Small	0	7	10	0	0	10	10	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Van	0	3	4	0	0	4	4	0					\$0	\$0	\$0	0	\$0	\$0	\$0
TOTAL	0	22	32	4	0	28	32	4	4	\$0	\$0	\$0	\$672,000	\$598,000	\$74,000	4	\$672,000	\$598,000	\$74,000

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Year and Time Frame	Additional Required Fleet	Required Fleet in Service	Active Fleet ¹	Minus End of Life Vehicles	Plus Vehicles from Existing Grants	Total Fleet Available	Fleet Required with Spares	Net Fleet Req't	Additional Vehicles to be Purchased	Funded by Existing Grants			Funded by New Grants			Total Existing and New Grants			
										Cost of Vehicles ²	Grant Amount	Local Match	Cost of Vehicles ²	Total Grant Funding Requirement	Assumed Local Match	Total # of Vehicles	Total Vehicle Costs	Total Grants	Total Local Match
2028 - Long-Term																			
Bus - Large	4	4	0	0	0	0	6	6	2				\$1,104,000	\$982,000	\$122,000	2	\$1,104,000	\$982,000	\$122,000
Bus - Medium	-1	6	10	0	0	10	8	0					\$0	\$0	\$0	0	\$0	\$0	\$0
Cutaway - Large	2	7	8	1	0	7	10	3	3				\$516,000	\$459,000	\$57,000	3	\$516,000	\$459,000	\$57,000
Cutaway - Small	4	11	10	0	0	10	14	4	4				\$416,000	\$370,000	\$46,000	4	\$416,000	\$370,000	\$46,000
Van	1	4	4	0	0	4	5	1	1				\$61,000	\$54,000	\$7,000	1	\$61,000	\$54,000	\$7,000
TOTAL	10	32	32	1	0	31	43	14	10	\$0	\$0	\$0	\$2,097,000	\$1,865,000	\$232,000	10	\$2,097,000	\$1,865,000	\$232,000

Notes: [1] Active fleet includes existing purchases (funded by existing grants in 2018). [2] Based on unit costs and quantities.

APPENDIX B

Additional Transportation Service Provider Information and Transportation Project Details

APPENDIX B ADDITIONAL TRANSPORTATION SERVICE PROVIDER INFORMATION

Figure B-1 Yamhill County Social Service Agencies Involved in Transportation Services

Organization	Transportation Services	People Services Are Available For
McMinnville		
Yamhill County Health and Human Services - Abacus Program	5 vans/cars in operation for medical treatment and employment	People with disabilities
Yamhill County Health and Human Services – Developmental Disability Service	Not a current provider of transportation services, but may become one if necessary grants can be obtained to fund it	People with disabilities
Yamhill Community Action Partnership	Bus passes provided	Older adults, people with low-income, people with disabilities
Head Start of Yamhill County	Provides bus for students to/from school, as well as bus passes	Children of families with low-income
Yamhill County Special Olympics	Transportation to/from athletic events, provided by rental vehicles	People with disabilities
Yamhill Community Care Organization	Medical and wellness trips provided to members by First Transit, who operates 15 wheelchair accessible vans	Oregon Health Plan (OHP) members
Oregon Mennonite Residential Services (OMRS)	11 vans used for transportation of residents of OMRS group homes	People with disabilities
MV Advancements	Many MV clients use YCTA for transportation. MV also operates 25 vans/min-buses for work crews, community activities, and some medical appointments	People with disabilities
Salem		
Willamette Valley Transport (WVT)	5 wheelchair-accessible vans for general purpose demand response services	People with physical injuries or disabilities preventing them from transporting themselves
United Way of the Mid-Willamette Valley	Bus passes	General public, with specified interest programs

Source: YCTA TDP, TM #2, Figure 3-33 and Yamhill County Coordinated Public Transit – Human Services Transportation Plan, 2016

Figure B-2 Wine Tour Shuttle Services

Wine Tour Service	City / Cities Service is Based In
Yamhill County Based Services	
A Nose for Wine Tours	Hillsboro
A Vineyard Wine Tour	McMinnville
Aspen Limo Tours	Dundee, McMinnville, Newberg, Portland
Backcountry Wine Tours	McMinnville, Newberg, Portland
Beautiful Willamette Tours	Portland, Salem, Vancouver
Black Tie Tours	Newberg
Cellar Door Wine Tours	Lafayette
Embrace Oregon	McMinnville
Insiders Wine Tour	McMinnville
Oregon Select Wine Tours	Newberg
Summit Wine Tours	Newberg
Triangle Wine Country Tours	McMinnville, Newberg, Portland
Wine Country Car Service	Newberg
Multnomah County Based Services	
Evergreen Escapes	Portland
First Nature Treks & Tours	Portland
Grape Escape	Portland
Lucky Limousine & Town Car Service	Portland
My Chauffeur Wine Tours	Portland
Oregon Wine Guides	Portland
Sea to Summit Tours & Adventures	Portland
Tesla Custom Winery Tours	Portland
Uncorked Northwest Wine Tours	Portland
Winemaker Tours	Portland
Washington County Based Services	
Prestige Wine Tours LLC	Beaverton
Vino Ventures	Beaverton
Services Based Out of State	
Main Street Designated Drivers & Wine Tours	New York, NY

Source: Willamette Valley Wineries Association

APPENDIX C

Bus Stop Design Guidelines

APPENDIX C BUS STOP DESIGN GUIDELINES

BUS STOP DESIGN PRINCIPLES

The following principles identify key characteristics of good bus stop design and locations. Bus stops should:

- **Be placed in convenient, comfortable, and safe locations:** Bus stops should ideally be located where passengers will feel comfortable and safe waiting for transit service. Stop locations should be well lit and offset from fast-moving traffic when possible. Transit customers often view stops that are conveniently located near major activity centers (e.g., shopping areas, schools, or workplaces) as the most attractive and safe.
- **Be visible and easily identifiable:** Bus stops should be located in places where passengers can easily find them. Passengers waiting for the bus should also be easily visible to bus drivers. Bus stops should present a strong brand identity, through signage and other amenities, which assists customers in identifying stop locations and available services. Riders should feel familiar with the elements present at each transit stop, even if the exact amenities vary somewhat between locations.
- **Provide information on available services:** All bus riders and potential riders need basic information in order to use a transit service: Can I get to where I want to go from this stop? Is the route running at this time of day? When will the next bus arrive? While much of this information can now be accessed using a smart phone, transit riders continue to value basic route and schedule information at each bus stop. Such information helps reduce confusion about transit service and can act as low-cost advertising to potential new transit customers. Advanced information systems, such as real-time passenger information, can further enhance the transit experience and increase customer satisfaction.
- **Be easily accessible by people walking, bicycling, and rolling:** Nearly all transit riders are pedestrians or bicyclists at some point in their journey. Therefore, it is important that each bus stop have a safe and defined pathway to and from local destinations that is accessible to riders of all abilities. Most stops should have accessible and safe sidewalk access and be located near a crosswalk. Ideally, this pedestrian infrastructure should extend far beyond the stop location, ensuring that riders can safely travel to their destination. It is also important to consider how bicyclists will access each bus stop, and add infrastructure such as bike lanes and storage racks where appropriate.
- **Be well-integrated with their surroundings:** Bus stops are most effective when actively integrated with surrounding development. Well-placed stops can enhance the transit experience and attract new riders, while poorly placed stops can hinder bus operations and decrease customer safety. Developers and planners should consider bus stop location early in the design process of a new project, rather than placing stops at later stages of construction. Similarly,

planners should consider how road and sidewalk reconstruction and new bicycle infrastructure could affect stop quality and transit operations.

- **Provide amenities to make the wait comfortable:** Providing amenities at or very near stops makes using transit more convenient and comfortable. Well-designed bus stops can actually decrease the amount of time customers perceive they have been waiting for the bus. Chapter 7 of the TDP outlines a wide-range of potential bus stop amenities and the sections below provide additional guidelines for placing these amenities based on stop ridership and location.

BUS STOP LOCATION CONSIDERATIONS

Location Relative to Intersection (Far-Side, Near-Side, Mid-Block)

Bus stop placement directly impacts the convenience and accessibility of the transit system. Determining the proper location of bus stops involves choosing between near-side, far-side, and mid-block stops. While many other factors should be considered when choosing a bus stop location, including adjacent land use, space availability, and pedestrian access, the location of the stop relative to the intersection is an important consideration. If all other factors are equal, far-side stops are preferable.

Figure C-1 illustrates near-side-, far-side, and mid-block stop placement. Key considerations are summarized below, with additional details in Figure C-2

- **Near-side** bus stops are located before an intersection, allowing passengers to load and unload while the vehicle is stopped at a red light or stop sign. Near-side bus stops can minimize interference when traffic is heavy on the far-side of an intersection. At traffic signal-controlled locations, near-side stops eliminate “double stopping” (before and after the traffic signal) as passengers can board the bus while it is stopped. However, buses at near-side stops may create conflicts with right-turning vehicles and restrict sight distances for vehicles and crossing pedestrians. Passengers may also cross the street in front of the bus, increasing bus travel time.
- **Far-side** bus stops are located after an intersection, allowing the bus to travel through the intersection before stopping to load and unload passengers. When the bus pulls away from the stop at an intersection controlled by a traffic signal, the signal generates gaps in traffic allowing buses to more easily re-enter the traffic lane. Far-side stops also encourage pedestrians to cross behind the bus and take up the least amount of curbside space. Although transit signal priority (TSP) is not currently used in Yamhill County, far-side bus stops are preferred in conjunction with TSP. Additionally, far-side stops avoid conflicts between buses and right-turning vehicles. Far-side stops are generally the preferred stop location, if the traffic signal and roadway configuration is favorable.

Mid-block bus stops are located between intersections. Mid-block stops minimize sight distance problems for vehicles and pedestrians. Additionally passenger waiting areas located mid-block often experience less pedestrian congestion. However, mid-block stops require both deceleration and acceleration areas, requiring additional distances for no parking restrictions or increased turnout construction costs. Mid-block stops also increase walking distances for patrons crossing at intersections, or result in patrons crossing the street mid-block away from a designated crossing. Mid-block stops should generally be used under special circumstances, such as where large destinations justify high-volume access or when the distance between adjacent intersections exceeds stop spacing recommendations.

Figure C-1 Near-Side, Far-Side, and Mid-Block Examples

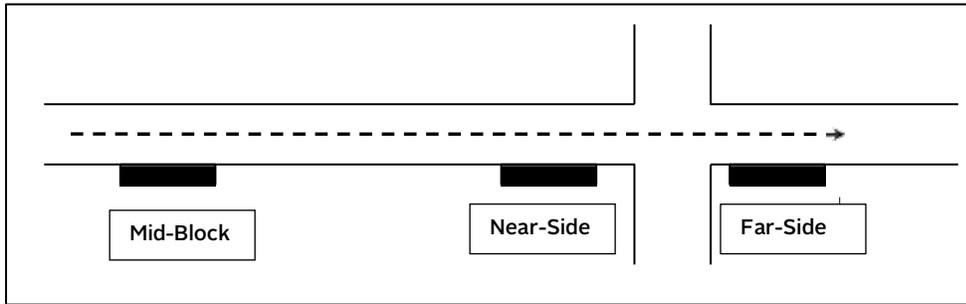


Figure C-2 Near-Side, Far-Side, and Mid-Block Bus Stop Tradeoffs

	Advantages	Disadvantages	Where Recommended
Near-Side Stop	<ul style="list-style-type: none"> Minimizes interference when traffic is heavy on far side of intersection Allows bus boarding closest to crosswalk. Pedestrians waiting to cross do so while the bus is stopped and not moving into the stop. Width of the intersection is available for the bus to pull away from curb and merge with traffic Allows customers to board/alight while the bus is stopped at a red light 	<ul style="list-style-type: none"> Increases sight line problems for crossing pedestrians Increases conflicts with right-turning vehicles passing and turning in front of the bus May result in stopped buses obscuring curbside traffic control devices and crossing pedestrians May block the through lane during peak periods with queuing buses May obscure sight lines for vehicles approaching from the side street to the right of the bus 	<ul style="list-style-type: none"> Traffic is heavier on the far-side of the intersection Pedestrian conditions and movements are better than on the far-side Bus route continues straight through the intersection or the stop is set back a reasonable distance to enable right-turn Curb extension prevents vehicles from turning right directly in front of a bus Multiple concurrent buses at a far-side stop could spill over into the intersection
Far-Side Stop	<ul style="list-style-type: none"> Minimizes conflicts with turning vehicles Provides additional right-turn capacity by making curb lane available for traffic Encourages pedestrians to cross behind the bus, instead of in front of the bus (improved sightlines for approaching vehicles) Creates shorter deceleration distances for buses and minimizes area needed for curbside bus zone Buses can take advantage of the gaps in traffic flow created at signalized intersections behind the stop 	<ul style="list-style-type: none"> May result in traffic queued into intersection when a bus is stopped in travel lane (near-side stop preferred at non-signalized intersections where bus would block a single travel lane) May obscure/increase sight distance at the far-side crosswalk and for side streets Pedestrians stepping off the curb to cross the street as the bus approaches the bus stop (applies to unsignalized intersections) Vehicles occupying right-turn only lanes and deciding to proceed straight instead of turning, and cutting off bus Can result in the bus stopping twice; at red light and then at the far-side stop 	<ul style="list-style-type: none"> Traffic is heavier on the near-side of an intersection At heavy right-turns on major approach, or heavy left and through movements from side street Pedestrian conditions are better than the near-side Intersections with priority treatments including queue jump lanes and transit signal priority (TSP), e.g., extending green time at a signal to allow a bus to make it through the intersection (not currently used in Yamhill County) Removes buses from conflicts at complex intersections with multi-phase signals or dual turn lanes
Mid-Block Stop	<ul style="list-style-type: none"> Minimizes sight line obstructions for vehicles and pedestrians Conflicts with intersection traffic minimized 	<ul style="list-style-type: none"> Encourages unsafe pedestrian crossing unless a crosswalk or other crossing opportunity is provided Increases walking distance to intersection crossing Requires greatest amount of curb space and potential parking restrictions 	<ul style="list-style-type: none"> Traffic or street/sidewalk conditions at the intersection are not conducive to a near or far-side stop Customer traffic generators are located mid-block and/or adjacent intersections are too far apart

Bus Pullouts

Bus pullouts provide an area for buses to pull out of the traffic flow to stop. Bus pullouts have both advantages and disadvantages in that they can be helpful for overall roadway operations, but can cause delays for transit passengers because the bus must exit and re-enter the traffic stream. To balance the advantages and disadvantages, bus pullouts are most often used on higher-speed roadways (urban arterials and rural highways with speeds of 40 mph or more and/or traffic volumes of 250 or more vehicles per hour) and at stops with higher passenger volumes. Key locations include:

- Stops located at the intersection of major urban arterials (such as near OR-99W and Lafayette Avenue in McMinnville or OR-99W and Springbrook Road in Newberg)
- Stops located along major urban arterial and collector roads at or near a major activity center
- Rural bus stops along state highways

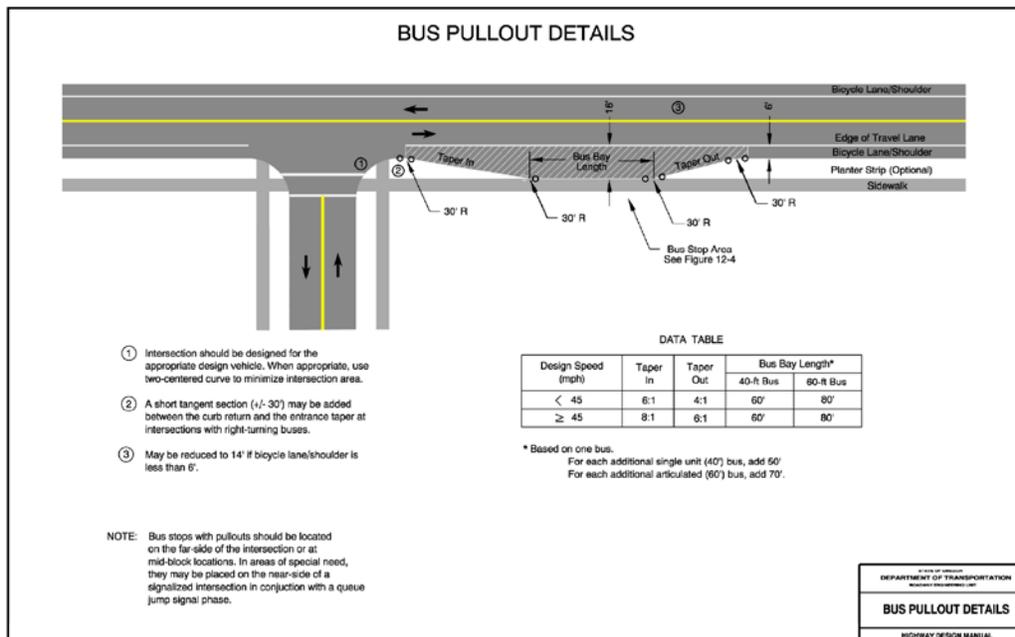
To avoid delays to right-turning traffic, bus pullouts should be developed at the far side of intersections. Where possible, they should also be located within existing auxiliary lanes (for example, a right-turn lane into a shopping center) or merge lanes.

Figure C-3 Bus Pullout Examples



Source: Left – Google Maps, Island Transit, Whidbey Island, WA. Right – OR 99W & SW Langer Drive, Sherwood

Figure C-4 ODOT Bus Pullout Sample Drawing

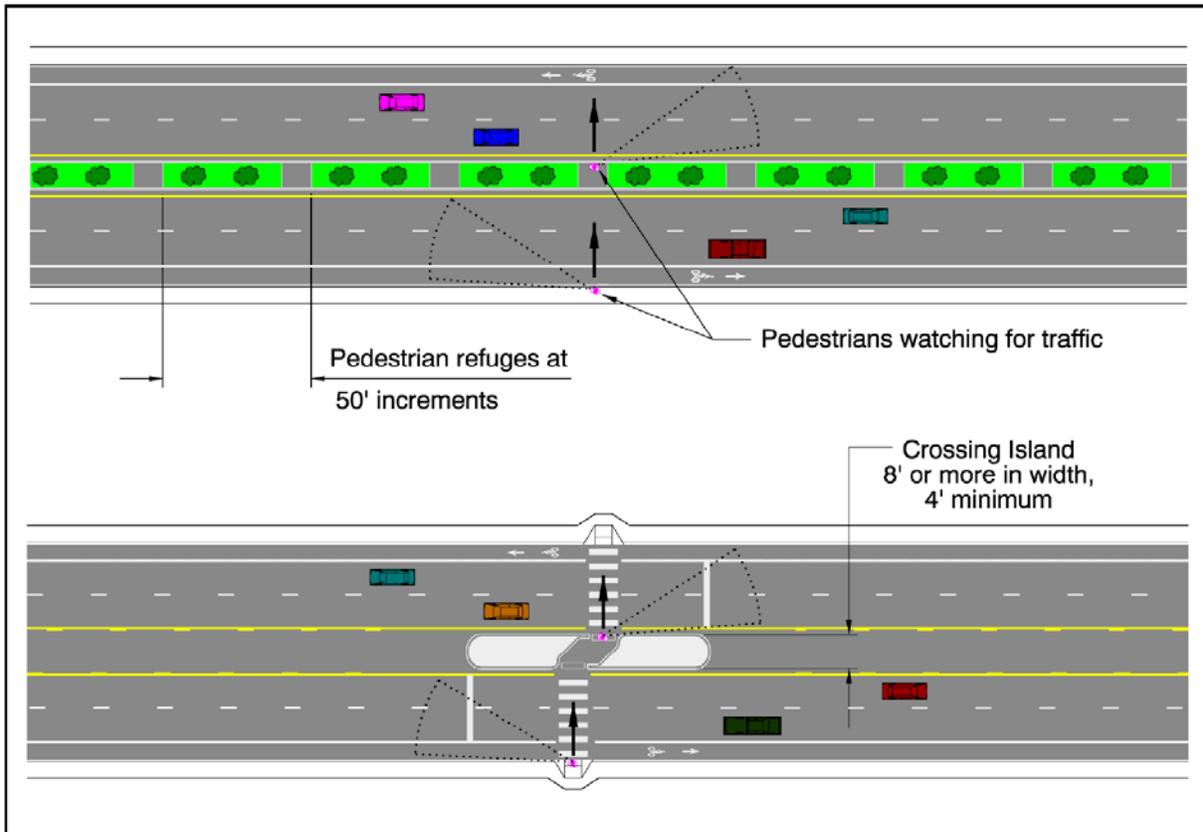


Source: ODOT, Highway Design Manual, Figure 12-1: Minimum Bus Pullout Details. <https://tinyurl.com/yawlruij>

Pedestrian Crossings away from Intersections

On major arterials, bus stops should be located at signalized intersections (preferably the far-side as discussed above) to make it easy for transit passengers to cross the street. At locations where there are no nearby signalized or stop sign-controlled intersections (such as along many parts of OR 99W in McMinnville and Newberg), crossings with pedestrian refuge islands should be provided (see Figure C-3 for an example). Stops on the far-side of the crosswalk are preferred to maximize visibility of/for crossing pedestrians. Appropriate pedestrian signal treatments should be considered based on roadway travel speeds and lane configurations.

Figure C-5 Mid-Block Crossing and Refuge Island Example



Source: ODOT, Highway Design Manual, Figure 13-4. <https://tinyurl.com/ya3khqfg>

New Roadway Construction

Where new roadways are constructed, if it is likely that transit will be provided along that roadway at some point in the future, the design of the roadway should provide adequate right-of-way for the subsequent development of bus stop facilities and bus pullouts.

BUS STOP ACCESSIBILITY GUIDANCE

Accessibility requirements come from multiple overlapping sources that include both general guidelines and specific guidance when introducing or altering bus stops. Several national sources authoritatively

dictate the rules and standards on accessibility; however, there is little in the way of direct, clear guidance on the requirements, with many open to interpretation. Sources include:

The **ADA Accessibility Guidelines for Transportation Facilities (ADAAG)** is the primary source for federal guidance on accessibility issues, and the US Department of Transportation (DOT) has adopted ADAAG as the standard for ADA compliance.¹ ADAAG requires that "bus boarding and alighting areas" be "connected to streets, sidewalks, or pedestrian paths by an accessible route" (ADAAG 810.2.3).

The **Federal Transit Administration (FTA)** also provides accessibility standards, which are the interpretation of the ADAAG standards, more specific for transportation facilities.² DOT requirements only apply to facilities and systems that are subject to the DOT ADA regulations.

General minimum ADAAG requirements include:

- **Section 810.2.1: Surface.** "Bus stop boarding and alighting areas shall have a firm, stable surface."
- **Section 810.2.2: Dimensions.** "Bus stop boarding and alighting areas shall provide a clear length of 96 inches [8 feet] minimum, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches [5 feet], measured parallel to the vehicle roadway."
- **Section 810.2.3: Connection.** "Bus boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route complying with [402](#) [Accessible Routes]."
- **Section 810.2.4: Slope.** "Parallel to the roadway, the slope of a bus stop boarding and alighting area shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the bus stop boarding and alighting area shall not be steeper than 1:48 [~2%]."
- **Section 810.3: Bus Shelters.** "Bus shelters shall provide a minimum clear floor or ground space complying with [305](#) [Clear Floor or Ground Space] entirely within the shelter. Bus shelters shall be connected by an accessible route complying with [402](#) [Accessible Routes] to a boarding and alighting area complying with [810.2](#)."
- **Section 810.4: Bus Signs.** "Bus route identification signs shall comply with 703.5.1 through 703.5.4, and 703.5.7 and 703.5.8. In addition, to the maximum extent practicable, bus route identification signs shall comply with 703.5.5." The standards include finish, contrast, and legibility standards.

Another source for accessibility guidance is the concept of Designing for Disability, also known as universal or inclusive design. Universal design guidelines intended to create environments that are most usable by all people, including people with disabilities. Universal design provides a higher level of access for people with disabilities, and many municipalities strive to meet these accommodations. Universal design guidelines include:

- Bus stop areas should be clear of all obstacles, street furniture should maintain a maximum clear width of 48 inches and clear headroom of 80 inches from the pedestrian pathway to the stop.
- The sidewalk adjacent to stops should be wide enough to accommodate expected levels of pedestrian activity and for two wheelchair users to pass each other traveling in opposite directions.
- Door clearances for front and rear bus doors should be kept clear of trees, poles, hydrants, etc.

¹ ADA Accessibility Guidelines for Transportation Facilities (ADAAG); <https://tinyurl.com/zupmy25>

² USDOT Final Rule Adopting New Accessibility Standards (2006) http://www.fta.dot.gov/12325_5936.html

Application of Accessibility Guidance

In 2015, the FTA issued [Circular 4710.1](#) providing recipients of FTA financial assistance with guidance on implementing the ADA.³ Along with the ADAAG, it helps clarify transit agency responsibilities in situations including:

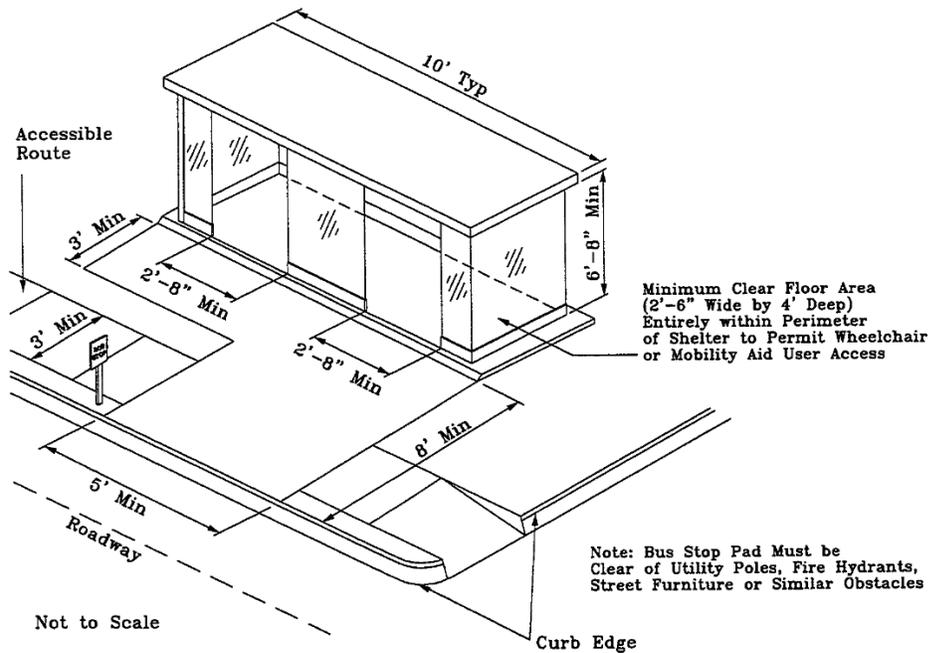
- **Adding amenities and modifying existing on-street bus stops:** Adding a sign, trash barrel, or bench to an existing stop likely does not trigger accessibility requirements, such as adding a sidewalk or path. Alterations are defined by changes to a facility that affects the usability of the facility. "Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility." (ADAAG [106.5](#)) The principle of Designing for Disability also suggests avoiding creating an obstruction within an existing pedestrian path when placing amenities and ensure that required minimum clear width is maintained.
- **Installing of shelters:** The ADA Circular considers that shelters are usually under a transit agency's control, therefore ADA-compliant shelters and an accessible route between the shelter and the boarding and alighting areas are required. Adding shelters likely qualifies as an alteration. If shelters are installed at existing bus stops, the boarding and alighting area itself should comply "to the maximum extent practicable" (ADAAG [209.2.3](#)). ADAAG Section [810.3](#) specifies that:
 - The minimum clear floor or ground space must be entirely within the shelter to accommodate individuals using wheelchairs; Section [305](#) [Clear Floor or Ground Space] requires clear floor/ground space to be a minimum of 30 inches by 48 inches.
 - The bus boarding and alighting area must be connected to streets, sidewalks, or pedestrian paths by an accessible route; Section [402](#) [Accessible Routes] outlines specific requirements for walking surfaces, ramps, curb ramps, and slope.
 - The bus boarding and alighting areas must provide a clear length of 96 inches minimum, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches minimum, measured parallel to the vehicle roadway (ADAAG [810.2.2](#)).
- **Siting new bus stops:** The scope of the accessibility requirements for a new or relocated on-street bus stop requires that the stop comply with requirements in Section 810.2 for surface, dimensions, connection, and slope (ADAAG [810.2.1 – 810.2.4](#)). The requirement to have an accessible boarding and alighting area is qualified as "to the maximum extent practicable" (ADAAG [209.2.3](#)) and "to the extent the construction specifications are within their control" (ADAAG [810.2.2](#)).
- **Connectivity:** Bus boarding and alighting areas must be connected to streets, sidewalks, or pedestrian paths by an accessible route (ADAAG [810.2.3](#)). Existing sidewalks, whether ADA-compliant or non-compliant, that connect to bus boarding and alighting areas are not required by ADAAG to be brought into compliance unless an alteration is undertaken at the stop. However, the ADA Circular recognizes sidewalks and other pedestrian elements as "essential elements" even though they are often outside a transit agency's jurisdiction, and encourages agencies to inventory stop accessibility and "coordinate with owners of public rights-of-way (e.g., local municipalities) to help ensure connections to stops are as accessible as possible."

³ FTA Circular 4710.1, 2015. <https://tinyurl.com/z9gqo86>

Bus Stop and Shelter Placement Illustration

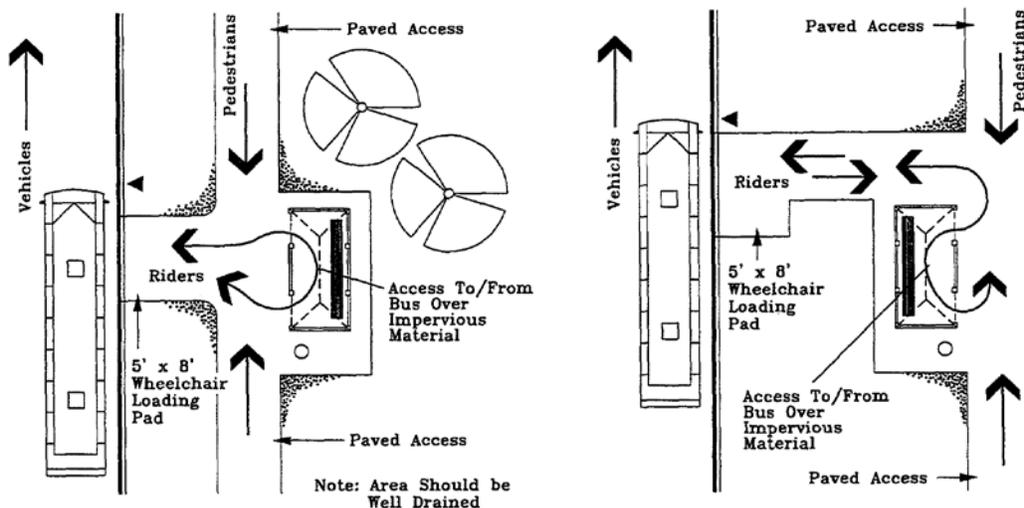
Figure C-6 illustrates the desired clearances around different bus stop elements, including a minimum loading pad of 5 feet by 8 feet to accommodate wheelchair loading and a minimum 30-inch by 48-inch clear zone within the shelter. Shelters may be placed front-facing or rear-facing, depending on conditions. Figure C-7 illustrates circulation from the shelter to the loading zone. A minimum 4-foot clear sidewalk zone is required either behind or in front of the shelter. The Oregon Bicycle and Pedestrian Design Guide recommends a 6-foot sidewalk clear zone and a continuous 8-foot wide sidewalk along the length of a bus stop. The maximum cross-slope is 2%, for at least a 4-foot wide area across driveways, curb ramps, and crosswalks.

Figure C-6 Minimum Bus Stop Pad and Shelter Dimensions



Source: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, Figure 28. <https://tinyurl.com/ycn9uwna>

Figure C-7 Front and Rear-Facing Shelter Circulation



Source: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, Figure 25. <https://tinyurl.com/ycn9uwna>

ADDITIONAL RESOURCES

US Access Board, ADA Standards for Transportation Facilities. <https://tinyurl.com/zupmy25>. E.g., Section 810 Transportation Facilities.

FTA, ADA Circular 4710.1. <https://tinyurl.com/z9gqo86>

National Aging and Disability Transportation Center (NADTC), Toolkit for the Assessment of Bus Stops Accessibility and Safety, <https://tinyurl.com/yc8q3so6>

ODOT Highway Design Manual and Bicycle Pedestrian Design Guide:

- Chapter 12. Public Transportation. <https://tinyurl.com/yawlruijx>. E.g., Section 12.3 Transit Stops and 12.4 Transit Accessibility and Amenities.
- Chapter 13. Pedestrian and Bicycle. <https://tinyurl.com/ya3khqfg>. E.g., Section 13.5 Street Crossings.
- Appendix L. Oregon Bicycle and Pedestrian Design Guide. <https://tinyurl.com/y7aq9l8q>. E.g., Transit Stop Connections in Chapter 4.

Oregon Transportation and Growth Management Program, Transit in Small Cities: Primer for Planning, Siting, and Designing Transit Facilities in Oregon. <https://tinyurl.com/ybwlgxgb>

Transit Cooperative Research Program (TCRP), Report 19, Guidelines for the Location and Design of Bus Stops. <https://tinyurl.com/ycn9uwna>

TriMet, Bus Stop Design Guidelines, 2010. <https://tinyurl.com/ycl8sao4>

APPENDIX D

Service Design Details

APPENDIX D SERVICE DESIGN DETAILS

This appendix provides service design details for service plan provided in Chapter 6 of the TDP. It is an update of information originally presented in TM #5. It is organized into the following sections, one for each city or corridor, and is intended to provide each jurisdiction with information for local plans:

- McMinnville Local Service
- Newberg Local Service
- Intercity Corridors
 - McMinnville-Newberg-Tigard
 - McMinnville-Salem
 - McMinnville-Grand Ronde
 - McMinnville-Hillsboro
- Service within/between Smaller Cities

MCMINNVILLE LOCAL SERVICE

Key Improvements

- Additional routes make service more reliable, more frequent, and cover more of the city
- Earlier and later weekday hours and Saturday service

Key Outreach Ideas/Findings

- Addressing Route 3 issues and enhancing local service are among the top priorities among survey respondents.
- Service on Riverside Drive would be desirable sooner than the long-term.
- Some concerns about eliminating flag stops.
- Most people wanted buses to start running at 5:30 a.m. or by 6:00 a.m. (roughly split) and for the last bus to leave the transit center at 8 p.m. (although approximately 25% of people wanted it to run later).

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-1 summarizes local service improvements in McMinnville, by time frame.

Yamhill County Transit Development Plan | Appendix D

Figure D-1 Summary of Service Actions: McMinnville Local Service – Table

Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SI1	1	-	McMinnville Local Service Adjustments	McMinnville	Fixed-Route	Interline McMinnville local routes and adjust schedules, to help address capacity and schedule issues on Route 3: <ul style="list-style-type: none"> ▪ One bus serves 2 East and 3 South ▪ One bus serves 2 West and 3 North 	-	-	-	-
SI1	2	-	McMinnville Local Service Adjustments	McMinnville	Fixed-Route	Stop and minor routing adjustments: <ul style="list-style-type: none"> ▪ Revise Route 3 South routing at Booth Bend Rd ▪ Revise Route 2 East to use Dunn Pl; new Housing Authority bus stop ▪ Various other minor stop adjustments 	-	-	-	-
SI2	1	-	McMinnville bus stops closer to store front doors	McMinnville	Fixed-Route	Local buses serve stops for WinCo/Walmart near store front doors, subject to identifying suitable locations and reaching agreements with stores. (Safeway could be a later phase, contingent on Route 3 redesign)	Figure D-2	-	-	-
Near-Term										
SN1	1	1	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Renumber McMinnville local routes: <ul style="list-style-type: none"> ▪ Renumber Route 3 South to Route 1 ▪ No change to Route 2 East - remains Route 2 ▪ No change to Route 3 North - remains Route 3 ▪ Renumber Route 2 West to Route 4 	Figure 6-10 (TDP Vol. I)	-	-	-
SN1	2	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 1 (formerly Route 3 South) to provide bidirectional service on Ford St south of downtown. This would provide a faster connection between the Transit Center and Linfield College. Route 1 would no longer serve 2 nd St or Adams St, which would still be served by Route 4 (formerly Route 2 West).	Figure D-3	-	-	-

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SN1	3	1	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 3 to provide more service to Winco/Walmart area, two-way service on Evans and 27 th St, and service on McDaniel Ln (Senior Center). Requires additional half bus.	Figure D-4	1,430	\$107,000	1 large cutaway
SN1	4	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	Modify Route 4 (current 2 West) to extend along 2 nd St west of Hill Rd, providing service for additional residents, and south to Booth Bend Rd to provide direct access to Roths, Bi-Mart, and Albertsons. Accomplished using the remaining half bus from the Route 3 modification.	Figure D-7	1,430	\$107,000	
SN1	5	2	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Fixed-Route	1 additional hour for Route 2 and 4 (start at 7:00 AM)	N/A	260	\$20,000	
SN4	1	2	Route 44 serves OR 99W in McMinnville	McMinnville -Tigard	Fixed-Route	Route 44 runs on OR 99W instead of Lafayette Ave in McMinnville, and stops at OMI (5th & Cowls) in both directions; assumes concurrent introduction of local service on Lafayette Ave in McMinnville.	See Figure 6-19 (TDP Vol. I)	-	-	-
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Short-Term										
SS1	1	1	McMinnville Local Service East Extension	McMinnville	Fixed-Route	<ul style="list-style-type: none"> ▪ Redesign Route 2 (East) to serve NE Cumulus St (e.g., Virginia Garcia Clinic, Fircrest Senior Living, etc.). Contingent on capital improvement to access road/gate. ▪ Coordinate with Evergreen Museum to explore possibility of a walking path from a bus stop located at the intersection of Cumulus Ave and NE Cumulus Ave (southwest of the museum). 	Figure D-6 Capital project	-	-	Modifications to access roadway and gate
SS2	1	1	Early Evening Service	McMinnville	Fixed-Route	Extend McMinnville local fixed-route service hours by one hour to 7 PM (last trips leave transit center at 6:00 or 6:30 PM). Assumes 3 fixed-route buses.	N/A	780	\$60,000	-
SS2	2	1	Early Evening Service	McMinnville	Demand-Response	Extend McMinnville demand-response service hours by one hour to 7 PM; assumes 2 Dial-a-Ride vehicles.	N/A	520	\$30,000	-
SS4	1	2	Phase out flag stops	McMinnville/ Newberg	Fixed-Route	After stops are marked or signed, transition away from flag stops in McMinnville and Newberg. This will help service run faster and stay on schedule.	N/A	-	-	Mark or sign all bus stops
Mid-Term										
SM1	1	1	McMinnville Saturday Service	McMinnville	Fixed-Route	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	N/A	1,040	\$78,000	-
SM1	2	1	McMinnville Saturday Service	McMinnville	Demand-Response	Add local service on Saturdays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6PM.	N/A	520	\$30,000	-
Long-Term										
SL6	2	2	Expand Shopper Shuttle Days of Operation	McMinnville	Flex-Route	Expand shopper shuttle to a 5 day per week flex-route service. Assumes 4 hours per day.	N/A	832	\$48,000	0.5 van

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Project ID	Task 1	Priority Tier 1	Project Name 1	Service Area(s)	Service Type	Project/Task Description 1	Map or Other Details	Additional Annual Hours 1	Additional Annual Operating Cost 1,2	New Capital Requirements
SL7	1	1	Early Morning and Later Evening Service	McMinnville	Fixed-Route	Start McMinnville local fixed-route service at 6 AM. Assumes 3 buses.	N/A	780	\$60,000	-
SL7	2	1	Early Morning and Later Evening Service	McMinnville	Demand-Response	Start McMinnville demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	N/A	260	\$15,000	-
SL7	3	2	Early Morning and Later Evening Service	McMinnville	Fixed-Route	Extend McMinnville local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses (reduced coverage or lower frequency than daytime operation).	N/A	1,040	\$78,000	-
SL7	4	2	Early Morning and Later Evening Service	McMinnville	Demand-Response	Extend McMinnville demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	N/A	520	\$30,000	-
SL8	1	1	McMinnville Lafayette Ave On-Demand Flex-Route Pilot	McMinnville	Flex-Route	<ul style="list-style-type: none"> ▪ Develop a pilot flex-route serving the area east of Lafayette Ave (e.g., YCAP, McMinnville Power & Light, Dental Clinic, Pet Stop Inn, etc.), with some fixed stops and on-demand dispatch software that enables ride requests within a 2-hour window or on a subscription basis. ▪ Could be designed to serve employment areas at key shift times. ▪ Cost assumes 7 AM – 6 PM operation, but could be implemented in two phases (peak hours and midday). ▪ YCTA should seek grant funding for emerging mobility projects to provide funding for this service. 	See Figure 6-19 (TDP Vol. I)	2,860	\$165,000	1 van

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SL9	1	2	New Route or Extension Serving Hill Rd / Baker Creek Rd Area	McMinnville	Fixed-Route	<ul style="list-style-type: none"> ▪ Extend service to the Hill Rd and Baker Creek Rd area. Cost assumes a new route along Baker Creek Rd that would connect to the WinCo/Walmart/Safeway area via NE 27th St and to the transit center via Lafayette Ave. ▪ This new route would also allow Route 3 to be modified to operate a shorter route, including service on 19th St. and improving access to McMinnville High School. 	Figure D-8 Figure D-5	3,900	\$293,000	1 large cutaway
Long-Term (Vision)										
SV2	3	3	Expand Saturday service	McMinnville	Demand-Response	Add a second Dial-A-Ride bus in McMinnville on Saturdays	N/A	520	\$30,000	
SV3	6	3	Implement Sunday Service	McMinnville	Fixed-Route	Add local service on Sundays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6 PM.	N/A	1,040	\$78,000	
SV3	7	3	Implement Sunday Service	McMinnville	Demand-Response	Add local service on Sundays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6 PM.	N/A	520	\$30,000	
SV4	1	3	Local Service Expansion	McMinnville	Fixed-Route	Add one additional bus in McMinnville to provide additional frequency and capacity, if and where needed based on service standards, e.g., Routes 2 and 4 (existing 2 East and West). Assumes 12 service hours per day, but could also be implemented during peak hours only for multiple routes.	N/A	3,120	\$234,000	1 Large Cutaway

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

Route Maps and Details

Figure D-2 Stops Near Winco/Walmart (Immediate or Near-Term/Short-Term)

Immediate or Near-Term:

- Stop in Winco parking lot on existing Route 3
- Existing sidewalk can be used
- Contingent on obtaining store approval
- Feasibility of right-turn from OR 99W into parking lot needs to be tested, given concrete median and channelized right-turn island



Short-Term:

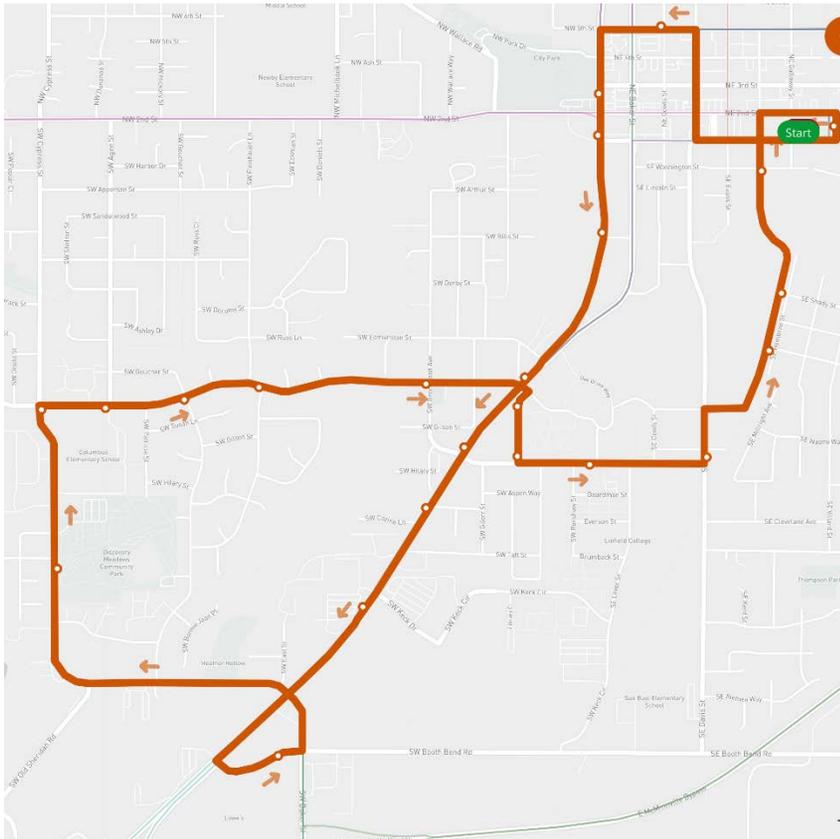
- Add stop in Safeway parking lots on future Route 3
- Previous concept revised to avoid unprotected left turn onto Lafayette
- Contingent on identifying a suitable stop location, obtaining store approval, and having sufficient time in the route for the deviation



Figure D-3 Proposed Route 1 (3 South) (Near-Term)

- Route 3 South (left panel) currently runs in a “Figure 8” pattern. It duplicates service provided by Route 2 between McMinnville Transit Center and Linfield College (along SE Adams Street), in one direction only. It serves SE Ford Street in only one direction.
- The only Immediate time frame modification to Route 3 South (included in the left panel) is to reverse the loop on SW Booth Bend Road and serve a new stop across the street from Carl’s Jr.
- In the near-term (right panel), Route 3 South would be renamed to Route 1 and be modified to provide bidirectional service along SE Ford Street between McMinnville and Linfield College. This would make the route easier to understand, provide more direct service to Linfield College, and improve service to residents along SE Ford Street. This change should be coordinated with near-term modifications to Route 4 (2 West) that would extend it to SW Booth Bend Road.

Immediate Route 3 South



Near-Term Route 1

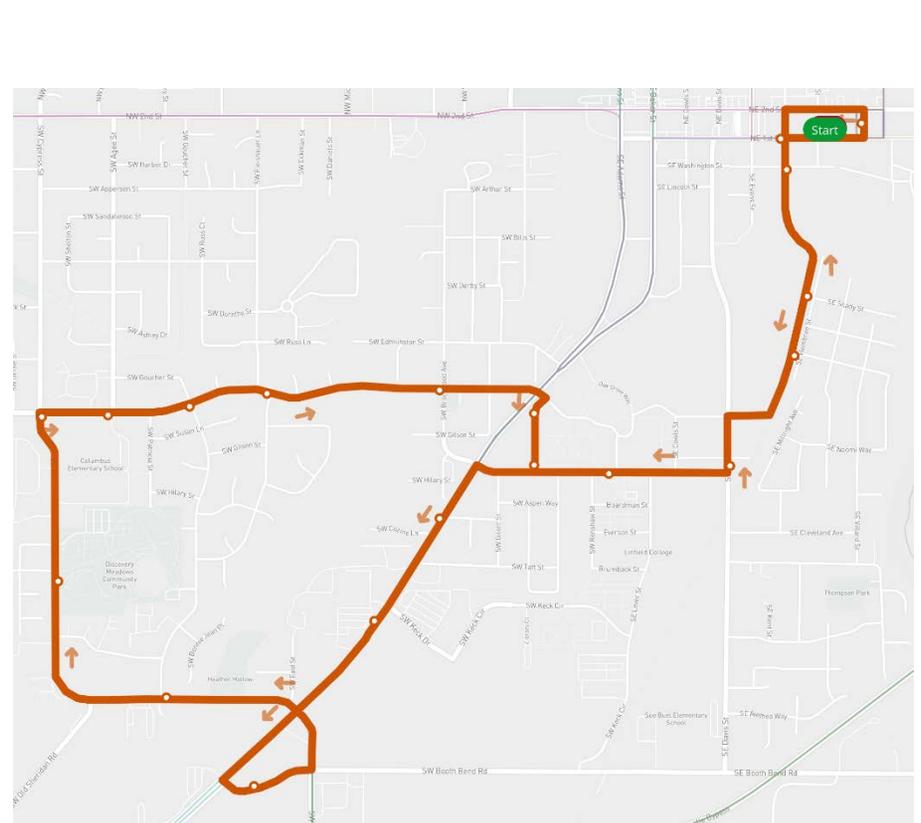
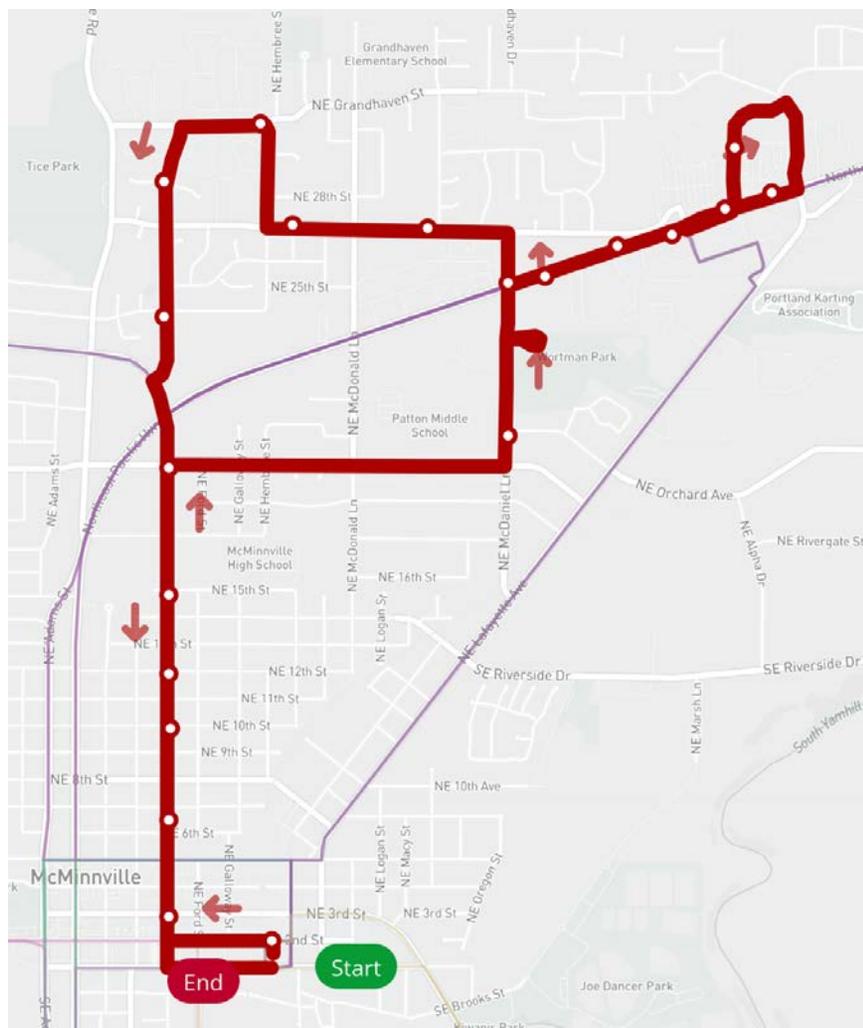


Figure D-5 Proposed Route 3 (North) (Long-Term)

- If a Lafayette Avenue/Baker Creek Road route is implemented (see Figure D-8), the Route 3 bidirectional loop could be shortened since the new route would serve Lafayette Avenue.
- Route 3 would continue to serve the Senior Center along McDaniel Lane, but could then serve NW 19th Street. This would improve service to McMinnville High School and residential areas between OR 99W and Lafayette Avenue.

Counter-Clockwise



Clockwise

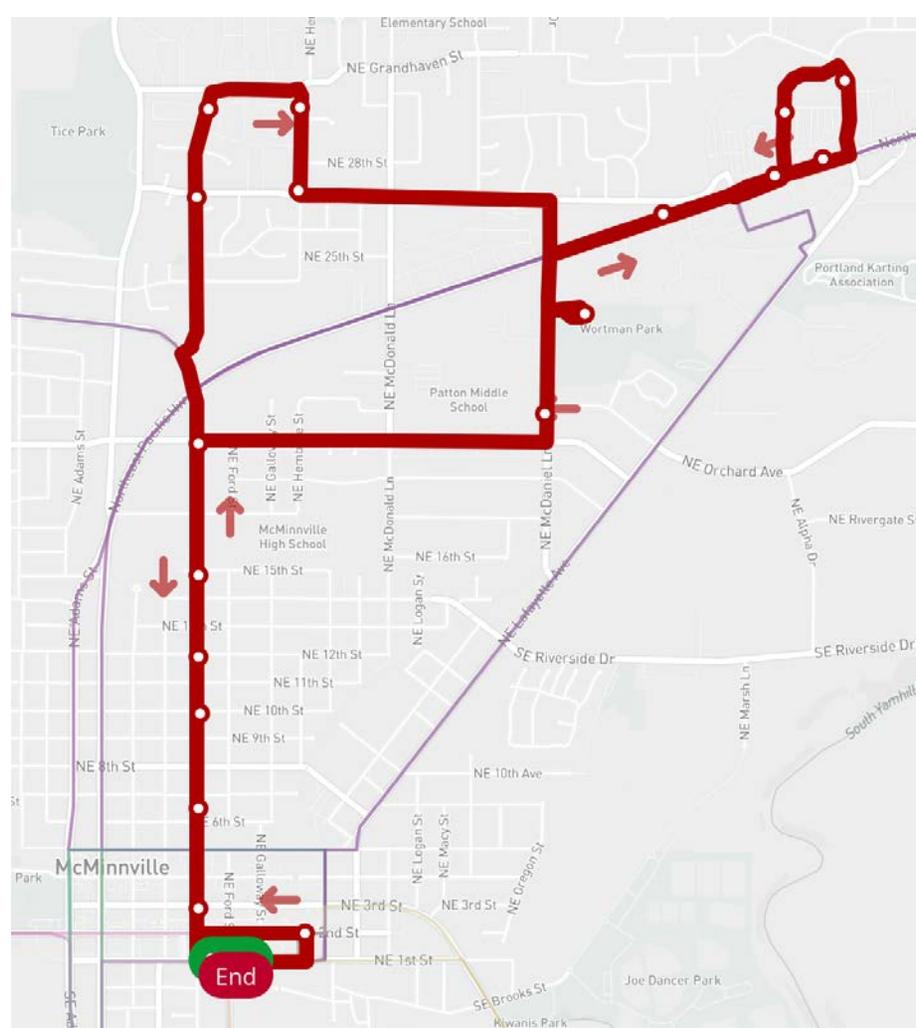
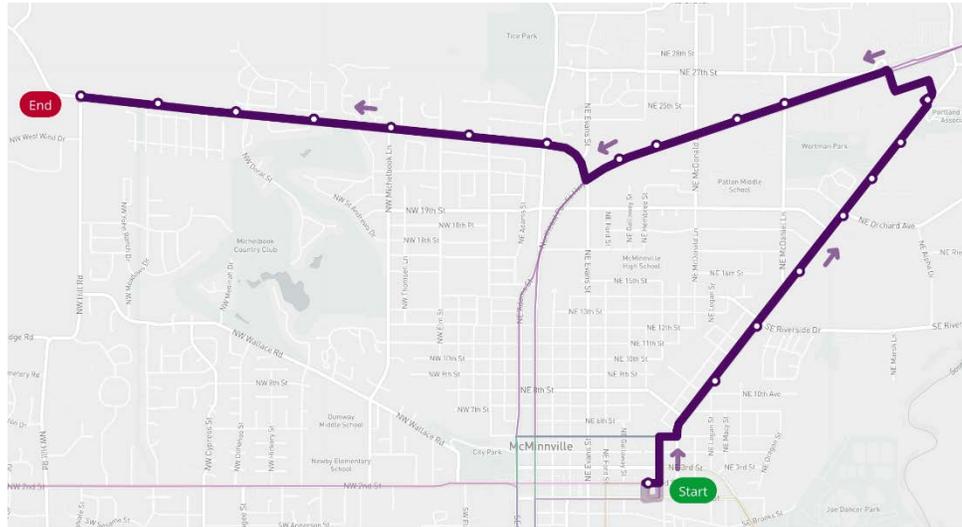


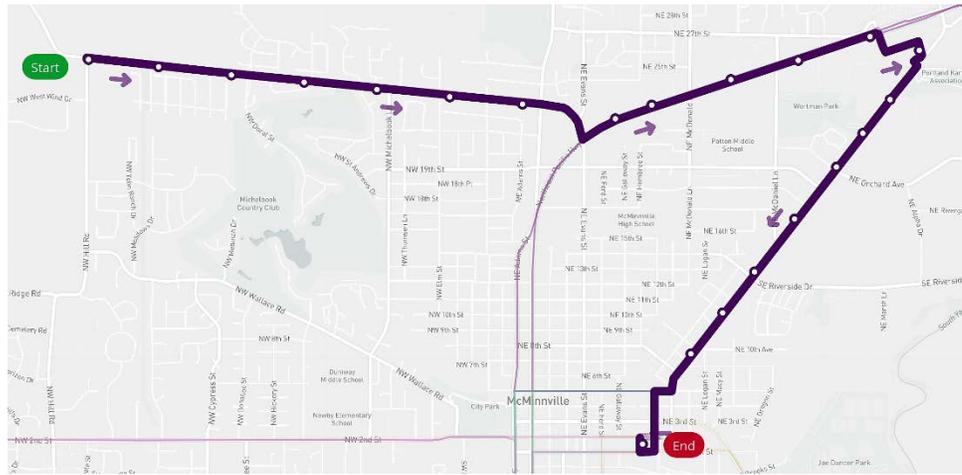
Figure D-8 Proposed Options to Serve Hill Road/Baker Creek Road Area (Long-Term)

- Long-term concept to serve the Hill Road / Baker Creek Road area, connecting to the Winco/Walmart/Safeway area and downtown McMinnville via Lafayette Avenue.
- The routing shown assumes a stop in the Safeway parking lot. Ability to also serve a stop in the Winco/Walmart parking lot depends on available time in the schedule.
- Route could complement or be an alternative to the Route 2W long-term option (Figure D-8), also shown in the background at right.
- Route 3 could be modified if this route is implemented.

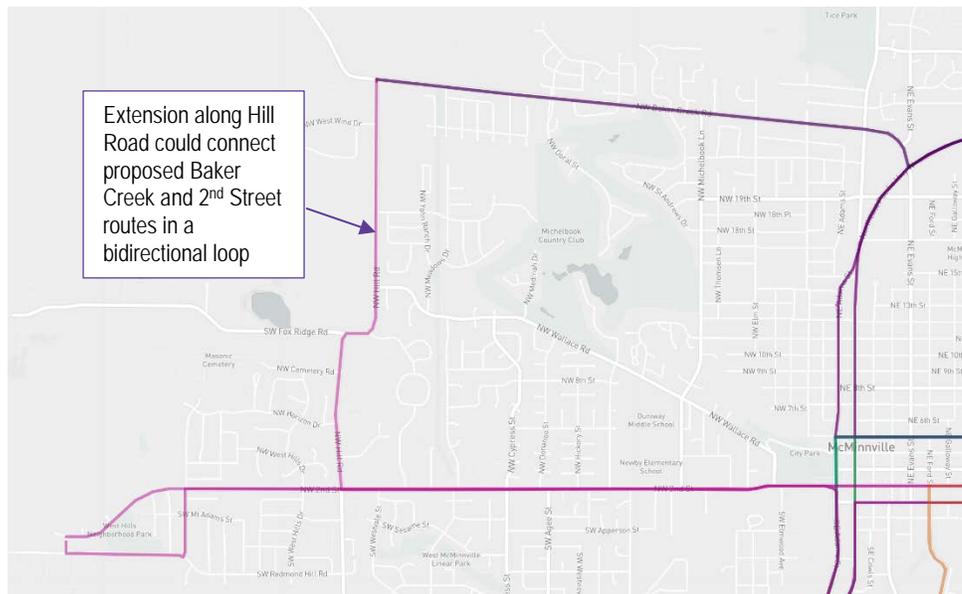
Outbound (To Baker Creek Road / Hill Road):



Inbound (To Downtown McMinnville Transit Center):



- An alternative / complementary option would be to connect this new route with Route 4 (current 2 West) along Hill Road, creating a bidirectional loop.



NEWBERG LOCAL SERVICE

Key Improvements

- Additional routes make service more reliable and cover more of the city, including northeast Newberg

Key Outreach Ideas/Findings

- Overall support, but some concerns about maintaining service for seniors with moving a dial-a-ride bus to the fixed routes.
- Some concerns about eliminating flag stops.
- Comment about serving affordable housing on Haworth (addressed in change to proposed Route 8).

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-9 summarizes local service improvements in Newberg, by time frame.

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Figure D-9 Service Changes: Newberg Local Service

Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SI3	1		Newberg Local Service Adjustments	Newberg	Fixed-Route	Schedule adjustments for Routes 5 and 7	-	-	-	-
Near-Term										
SN2	1	1	Newberg Local Service Redesign	Newberg	Fixed-Route	<ul style="list-style-type: none"> ▪ Four approximately 30-minute routes, each running every hour (2 buses; 1 bus converted from Dial-A-Ride). ▪ Routes operate counter-clockwise and generally serve each quadrant of Newberg. ▪ Shorter western routes interlined with longer eastern routes, e.g., NW-SE (5-7) and SW-NE (6-8). ▪ Renumber routes to 15, 16, 17, and 18; see Figure 6-20 (TDP Vol. I) ▪ Coordinated transfers with intercity services in downtown (Route 44). ▪ Provide a westbound stop on Hancock St for all local and intercity routes. The eastbound stop at Nap's Thriftway only serves eastbound routes. (This could transition later to a downtown transit center) ▪ Consider stops near selected store front door for local routes, subject to identifying suitable locations and reaching agreements with stores. Locations TBD, e.g., Fred Meyer and Safeway. 	Figure D-10 Figure D-11 Figure D-12 Figure D-14	-	-	1 large cutaway

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Project ID	Task 1	Priority Tier 1	Project Name 1	Service Area(s)	Service Type	Project/Task Description 1	Map or Other Details	Additional Annual Hours 1	Additional Annual Operating Cost 1,2	New Capital Requirements
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS3	1	2	Early Evening Service	Newberg	Fixed-Route	Extend Newberg local fixed-route service hours by a half-hour to 7 PM (last trips leave transit center at 6:00 or 6:30 PM). Assumes 2 fixed-route buses.	N/A	260	\$20,000	-
SS3	2	2	Early Evening Service	Newberg	Demand-Response	Extend Newberg demand-response service hours by a half-hour to 7 PM; assumes 1 Dial-a-Ride vehicle.	N/A	130	\$8,000	-
SS4	1	2	Phase out flag stops	McMinnville/ Newberg	Fixed-Route	After stops are marked or signed, transition away from flag stops in McMinnville and Newberg. This will help service run faster and stay on schedule.	N/A	-	-	Mark or sign all bus stops
Mid-Term										
SM2	1	3	Newberg Dial-A-Ride Capacity	Newberg	Demand-Response	Contingency project to restore Newberg Dial-a-Ride to two vehicles, assuming that fixed-route ridership meets standards and additional paratransit capacity is required based on service standards.	N/A	2,080	\$121,000	-

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Long-Term										
SL6	1	1	Expand Shopper Shuttle Days of Operation	Newberg / Dundee	Flex-Route	Expand shopper shuttle to a 5 day per week service. Assumes 4 hours per day.	N/A	832	\$48,000	0.5 van
SL7	5	1	Early Morning and Later Evening Service	Newberg	Fixed-Route	Start Newberg local fixed-route service at 6 AM. Assumes 2 buses.	N/A	520	\$40,000	-
SL7	6	1	Early Morning and Later Evening Service	Newberg	Demand-Response	Start Newberg demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	N/A	260	\$15,000	-
SL7	7	2	Early Morning and Later Evening Service	Newberg	Fixed-Route	Extend Newberg local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses.	N/A	1,040	\$78,000	-
SL7	8	2	Early Morning and Later Evening Service	Newberg	Demand-Response	Extend Newberg demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	N/A	520	\$30,000	-
Long-Term (Vision)										
SV2	4	1	Expand Saturday service	Newberg	Fixed-Route	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	N/A	1,040	\$78,000	
SV2	5	1	Expand Saturday service	Newberg	Demand-Response	Add local service on Saturdays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 8 AM-6PM.	N/A	520	\$30,000	
SV3	8	3	Implement Sunday Service	Newberg	Fixed-Route	Add local service on Sundays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 10 AM-6PM.	N/A	1,040	\$78,000	

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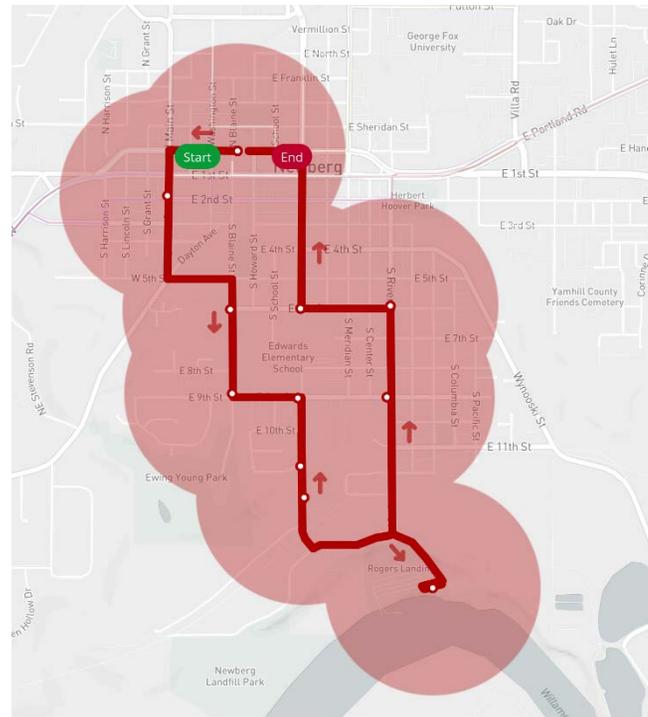
Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SV3	9	3	Implement Sunday Service	Newberg	Demand-Response	Add local service on Sundays. Assumes 1 Dial-a-Ride vehicle for 10 hours, e.g., 10 AM-6PM.	N/A	520	\$30,000	
SV4	2	3	Local Service Expansion	Newberg	Fixed-Route	Add one additional bus in Newberg to provide additional frequency and capacity, if and where needed based on service standards. Assumes 12 service hours per day.	N/A	3,120	\$234,000	1 Large Cutaway
SV4	3	3	Local Service Expansion	Newberg	Demand Response	Add additional Dial-a-Ride capacity in Newberg, if needed based on service standards (assumes 1 additional van and 1 additional cutaway in service, each for 8 service hours per day)	N/A	4,160	\$241,000	

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

Southwest: Proposed Route 6

- Counter-clockwise loop, every 60 minutes
- Interlined with Route 8
- Deviations could be allowed
- Route 6 would be split from existing Route 5 and provide additional coverage in southwest Newberg.
- The City of Newberg proposed serving Rogers Landing Park. Based on likely demand this could be served seasonally or on weekends (assuming future Saturday or Sunday service).
- There are also some operational concerns:
 - Seasonal parking enforcement would be needed to ensure the bus is able to turn around.
 - The hill leading into the park would need to be avoided in winter weather conditions (snow/ice).

Figure D-11 Proposed Route 6: Southwest Newberg



Northeast: Proposed Route 8

- Counter-clockwise loop, every 60 minutes
- Interlined with Route 6
- Option #1 is recommended.
- South of OR 99W, the route serves Elliott Avenue (CPRD offices, FISH Emergency Services) and PCC, with a transfer to Route 7 on Brutscher near Fred Meyer (and/or Route 45x if it is re-routed to use the Bypass in the future).
- It could be possible to serve a stop in the Safeway parking lot with this route.
- North of OR 99W, the route serves multifamily housing on Haworth Avenue, Newberg Schools, Head Start, A-dec, Allison Inn, and the CPRD Aquatic and Fitness Center.

Figure D-12 Proposed Route 8: Northeast Newberg (Option #1) - Recommended

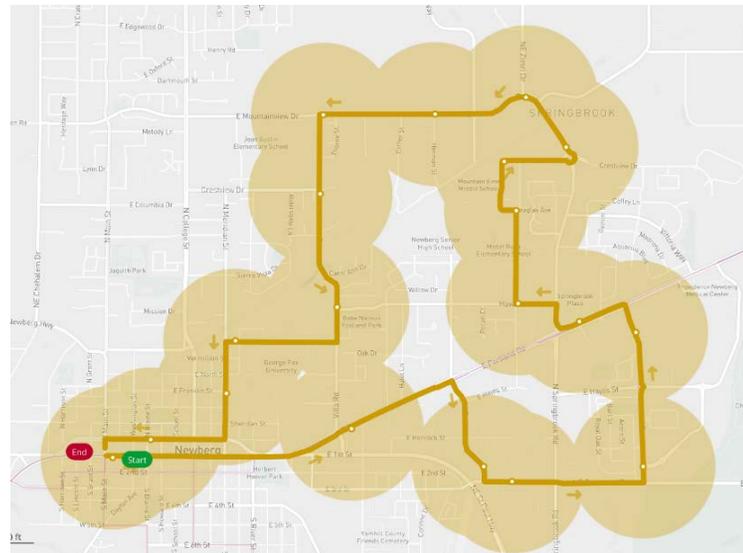
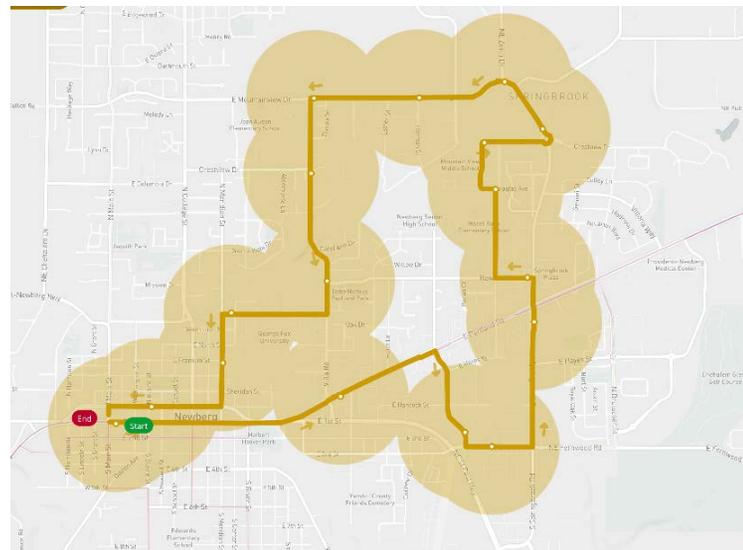


Figure D-13 Proposed Route 8: Northeast Newberg (Option #2)



MCMINNVILLE-NEWBERG-TIGARD CORRIDOR INTERCITY SERVICE: ROUTES 44/45X/46S

Key Improvements

- More frequent service between McMinnville and Newberg on Route 44, filling in existing long gaps in service
- Route 45x has additional morning and afternoon commute trips, potentially using Dundee Bypass
- One additional evening trip to/from Tigard on Route 44

Key Outreach Ideas/Findings

- Filling mid-morning and mid-afternoon service gaps is seen as a priority.
- Concerns about bypassing Dundee with Route 45x service
- Design Route 45x schedules to accommodate needs of Linfield students, arriving before 8 a.m. classes
- Improve timing to McMinnville local routes
- Need alternate service on Lafayette Avenue, if Route 44 runs on OR 99W in McMinnville
- Among weekend service options, Sunday service in this corridor is a relatively high priority

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-16 summarizes intercity service improvements for the OR 99W corridor, between McMinnville, Dayton, Lafayette, Dundee, Newberg, and Tigard, by time frame, including local service improvements in Dayton, Lafayette, and Dundee.

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Figure D-16 Service Changes: McMinnville-Newberg-Tigard Corridor Intercity Service (Routes 44/45x) - Table

Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SI7	1		Tigard Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Tigard	Fixed-Route	Schedule adjustments for Routes 44 and 45x	-	-	-	-
SI7	2		Tigard Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Tigard	Fixed-Route	Modify southbound stop at Langer Pkwy in Sherwood to run in the opposite direction, saving several minutes of time in the southbound direction	-	-	-	Stop Improvements
SI7	3		Tigard Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Tigard	Fixed-Route	Convert on-call stop at Providence Hospital to a regular stop. Stops on OR 99W. YCTA will need to coordinate pedestrian access improvements with ODOT & City of Newberg.	-	-	-	Stop Improvements
SI7	4		Tigard Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Tigard	Fixed-Route	Convert on-call stop at Dayton RV Park to a regular stop. Stops on OR-18. YCTA will need to coordinate shoulder improvements with ODOT.	-	-	-	Stop Improvements
SI7	5		Tigard Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Tigard	Fixed-Route	Modify Route 45x to serve Linfield College stops on OR 99W at Fellows St	-	-	-	Stop Improvements
Near-Term										
SN3	1	1	McMinnville-Newberg Connector	McMinnville-Tigard	Fixed-Route	Add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	N/A	1,040	\$78,000	-

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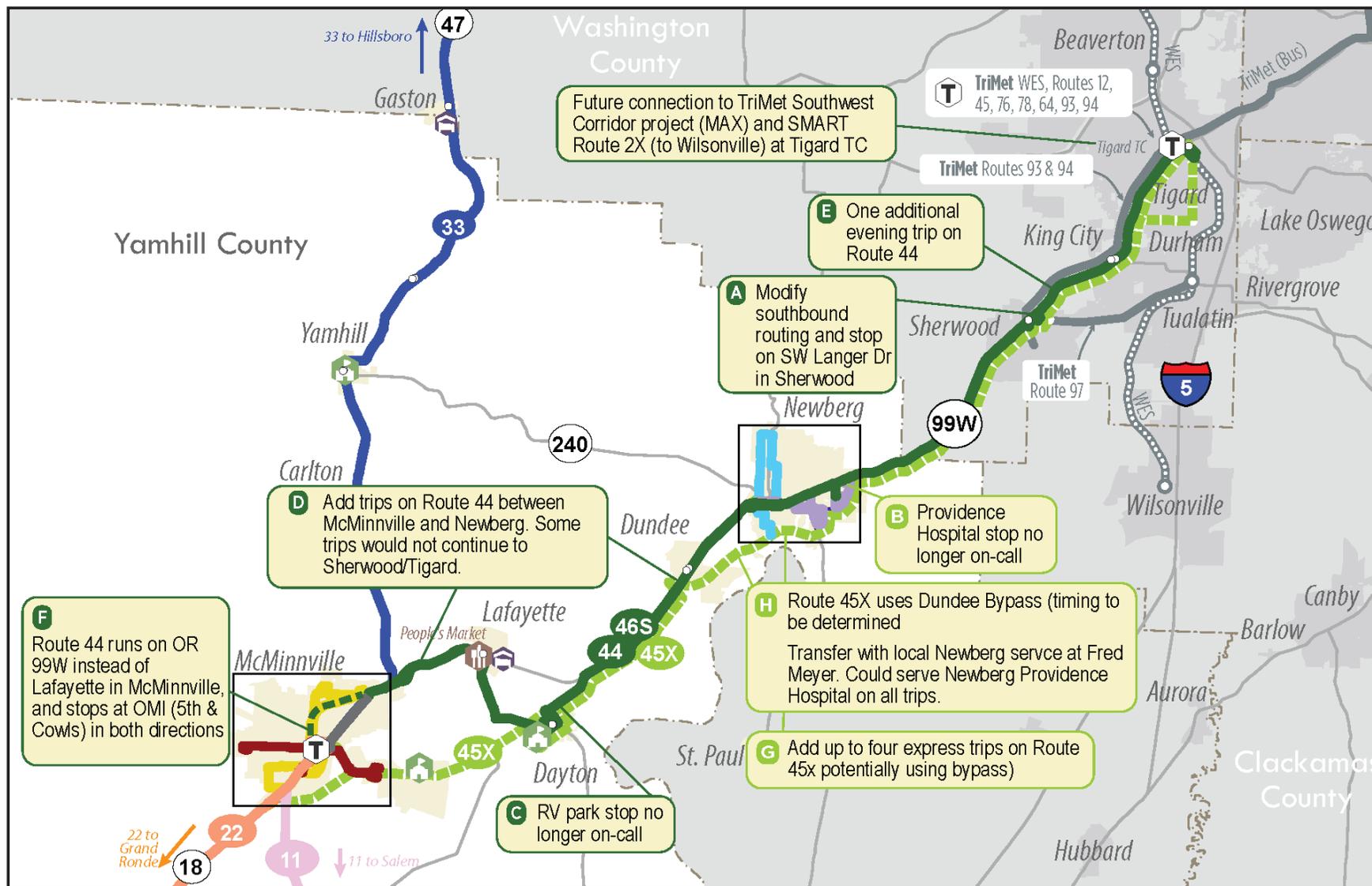
Project ID	Task 1	Priority Tier 1	Project Name 1	Service Area(s)	Service Type	Project/Task Description 1	Map or Other Details	Additional Annual Hours 1	Additional Annual Operating Cost 1,2	New Capital Requirements
SN4	1	2	Route 44 serves OR 99W in McMinnville	McMinnville -Tigard	Fixed-Route	Route 44 runs on OR 99W instead of Lafayette Ave in McMinnville, and stops at OMI (5th & Cowls) in both directions; assumes concurrent introduction of local service on Lafayette Ave in McMinnville.	See Figure 6-19 (TDP Vol. I)	-	-	-
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS5	1	1	McMinnville-Newberg Connector	McMinnville -Tigard	Fixed-Route	Phase 2 of near-term project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	N/A	1,040	\$78,000	-
Mid-Term										
N/A										
Long-Term										
SL1	1	1	Additional intercity later evening service	McMinnville -Tigard	Fixed-Route	Add 1 additional evening trip	N/A	780	\$59,000	-

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
SL3	1	1	Additional express service	McMinnville-Tigard	Fixed-Route	<ul style="list-style-type: none"> ▪ Add up to four total express trips on Route 45x in morning and afternoon commute hours ▪ Express could potentially using bypass if traffic conditions warrant it in the future. Using bypass means express trips would not serve Dundee and downtown Newberg. There would be a timed transfer with local service in eastern Newberg (e.g., Fred Meyer). Route 44 would continue to serve Dundee and downtown Newberg. ▪ Express service provides direct access to Willamette Medical Center and other activity centers on the OR 18 Bypass, and reduces travel times between the County's largest population centers. 	N/A	1,213	\$91,000	-
SL5	1	1	Implement/Expand and Local Flex Routes	Dayton / Lafayette	Flex-Route	Expand shopper shuttle pilot to three days per week, 10 hours per day operation in a third geographic area (Dayton/Lafayette assumed). Amity could be included in Dayton/Lafayette service area and/or Sheridan/Willamina service area.	N/A	1,352	\$78,000	1 van
Long-Term (Vision)										
SV2	1	1	Expand Saturday service	McMinnville-Newberg	Fixed-Route	Add frequency on Route 44 between McMinnville and Newberg on Saturdays	N/A	416	\$31,000	-
SV3	1	2	Implement Sunday Service	McMinnville-Tigard	Fixed-Route	Operate Route 44 on Sundays (McMinnville-Tigard). Assumes 4 round trips. This would be the highest priority for Sunday service on intercity routes.	N/A	624	\$47,000	-
SV3	2	3	Implement Sunday Service	McMinnville-Newberg	Fixed-Route	Add frequency on Route 44 between McMinnville and Newberg on Sundays	N/A	416	\$31,000	-

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

Figure D-17 Service Changes: McMinnville-Newberg-Tigard Corridor Intercity Service (Routes 44/45x) - Map



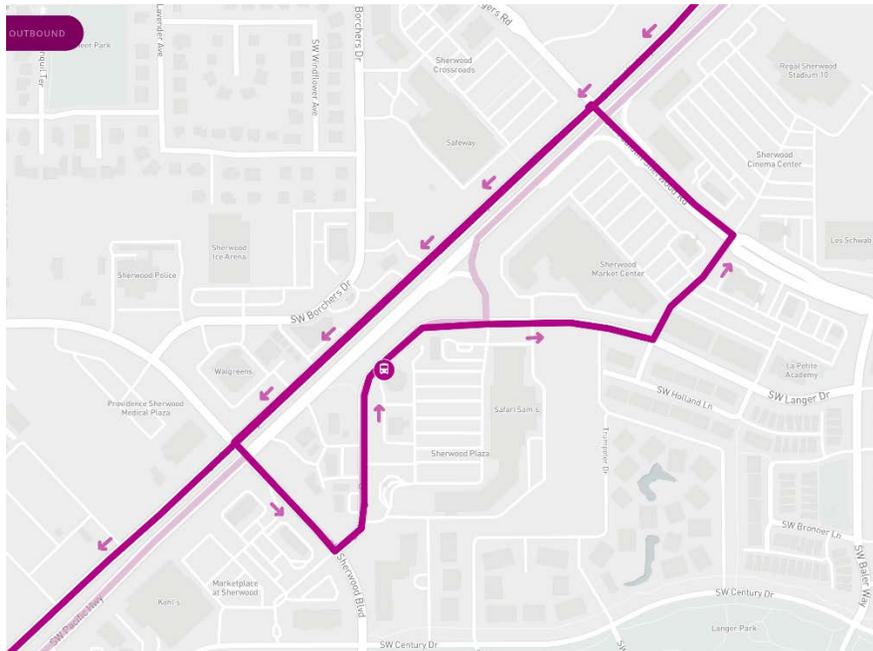
Route Maps and Details

Route 44 Southbound / Langer Drive

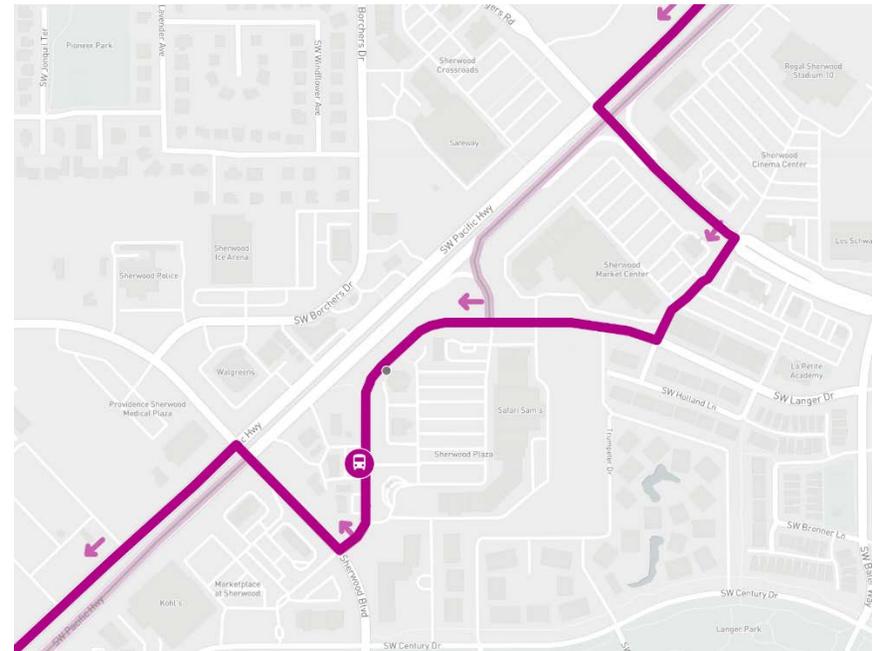
- Redesign the deviation to Sherwood Plaza (Shari's) on SW Langer Drive in Sherwood, which requires approximately three minutes northbound and five or more minutes southbound.
- This will require stopping on the opposite side of the street from the current stop. There is a TriMet bus zone, but no sidewalk. A TriMet stop located further south opposite Dutch Bros. can be used. This change would also need to be coordinated with TriMet.

Figure D-18 Existing and Proposed Route 44 Change at SW Langer Drive

Existing - Southbound



Proposed - Southbound



MCMINNVILLE-SALEM INTERCITY SERVICE: ROUTE 80X (CURRENT 11)

Key Improvements

- Extend Route 11 to Downtown Salem Transit Center
- Add trips during morning and afternoon commute hours, including early evening

Key Outreach Ideas/Findings

- Request to fill mid-morning and mid-afternoon service gaps (no departures from McMinnville between 7:30 a.m. and noon, or between noon and 4:00 p.m.)
- Comments supporting extending to downtown Salem sooner, and potentially serving Greyhound/Amtrak
- Desire for service from Dayton to Salem (suggestion to use OR 221)
- Among weekend service options, Saturday service in this corridor is a relatively high priority

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-19 summarizes intercity service improvements between McMinnville and Salem, by time frame, including local service improvements in Amity.

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Figure D-19 Service Changes: McMinnville-Salem Corridor Intercity Service (Routes 11 / Future 80x) - Table

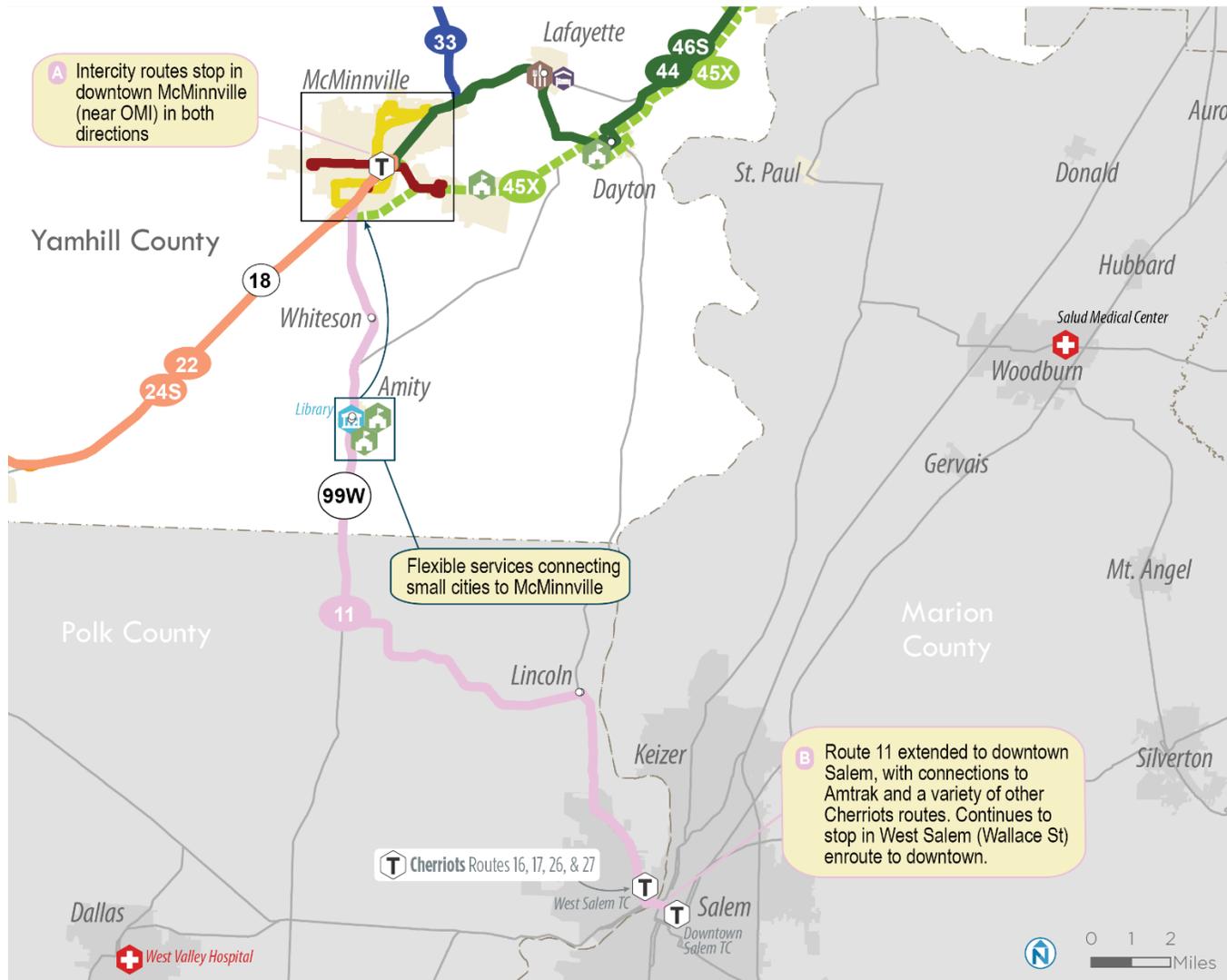
Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SI4	1		Salem Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Salem	Fixed-Route	Schedule adjustments for Route 11	-	-	-	-
SI4	2		Salem Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Salem	Fixed-Route	Add a Route 11 stop at OMI (5th & Cowls) in both directions	-	-	-	-
Near-Term										
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS6	1	2	Extension to Downtown Salem	McMinnville-Salem	Fixed-Route	<ul style="list-style-type: none"> ▪ Extend Route 11 to Downtown Salem Transit Center. Route 11 would still stop along Wallace Rd in West Salem. ▪ In conjunction with this change, rename Route 11 (e.g., to 80X) to avoid confusion with Cherriots Route 11. 	Figure D-21 Figure D-22	758	\$57,000	-
Mid-Term										
N/A										

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Long-Term										
SL1	2	1	Additional intercity later evening service	McMinnville-Salem	Fixed-Route	Add 1 additional early evening trip	N/A	403	\$30,000	-
SL2	1	1	Additional intercity morning and/or afternoon trips	McMinnville-Salem	Fixed-Route	Add 1 additional morning and 1 additional afternoon trip; no additional vehicles required; depending on YCTA's financial and capital resources, and future productivity of these routes, consider adding an additional vehicle to increase frequency during morning and afternoon peak periods (see SV1 - Long-Term Vision).	N/A	806	\$60,000	-
SL4	1	2	Saturday Service Expansion	McMinnville-Salem	Fixed-Route	Add Saturday service between McMinnville and downtown Salem. Assumes 4 round trips.	N/A	322	\$24,000	-
Long-Term (Vision)										
SV1	1	2	Increase peak period frequency to Salem and Hillsboro	McMinnville-Salem	Fixed-Route	Add trips on Route 11 during morning and afternoon commute hours; this would increase frequency. Requires an additional bus on the route.	N/A	806	\$60,000	1 medium bus
SV3	4	2	Implement Sunday Service	McMinnville-Salem	Fixed-Route	Operate Route 11 on Sundays. Assumes 4 round trips.	N/A	322	\$24,000	

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

Figure D-20 Service Changes: McMinnville-Salem Corridor Intercity Service (Routes 11) - Map



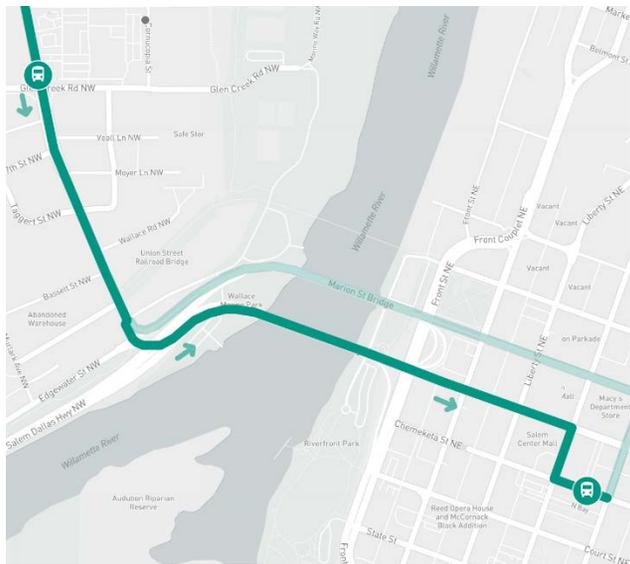
Route Maps and Details

Figure D-21 illustrates the extension of current Route 11 to downtown Salem as Route 80. The route would stop on Wallace Road near Glen Creek Transit Center, and at the Downtown Salem Transit Center. The actual stop location at the Downtown Salem Transit Center would need to be determined in coordination with Cherriots.

The route could also serve the Salem Amtrak station at certain times of day, an addition of approximately 10 minutes each way. See Figure D-22.

Figure D-21 Route 80x (Current Route 11) Extension to Downtown Salem

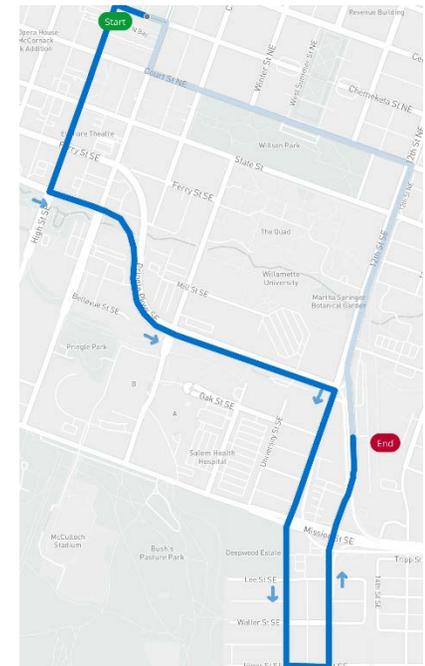
Glen Creek – Downtown Salem– Southbound



Glen Creek – Downtown Salem - Northbound



Figure D-22 Route 80x Potential Extension to Salem Amtrak Station



MCMINNVILLE-GRAND RONDE INTERCITY SERVICE: ROUTE 22/24S

Key Improvements

- Add stops serving west Sheridan and Wandering Spirit RV Park (others depend on shoulder improvements)
- Align schedule with YCTA Route 44/45x in McMinnville and Tillamook County Route 60x in Grand Ronde
- Add an additional evening trip serving Casino work shifts

Key Outreach Ideas/Findings

- Desire for stops at Dairy Queen, High School, Deer Meadow Assisted Living, and Oldsville Road, and a shelter across from TJs in Sheridan

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-23 summarizes intercity service improvements between McMinnville and Grand Ronde, by time frame, including local service improvements in Sheridan, Willamina, and/or Amity.

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Figure D-23 Service Changes: McMinnville-Grand Ronde Corridor Intercity Service (Route 22) – Table

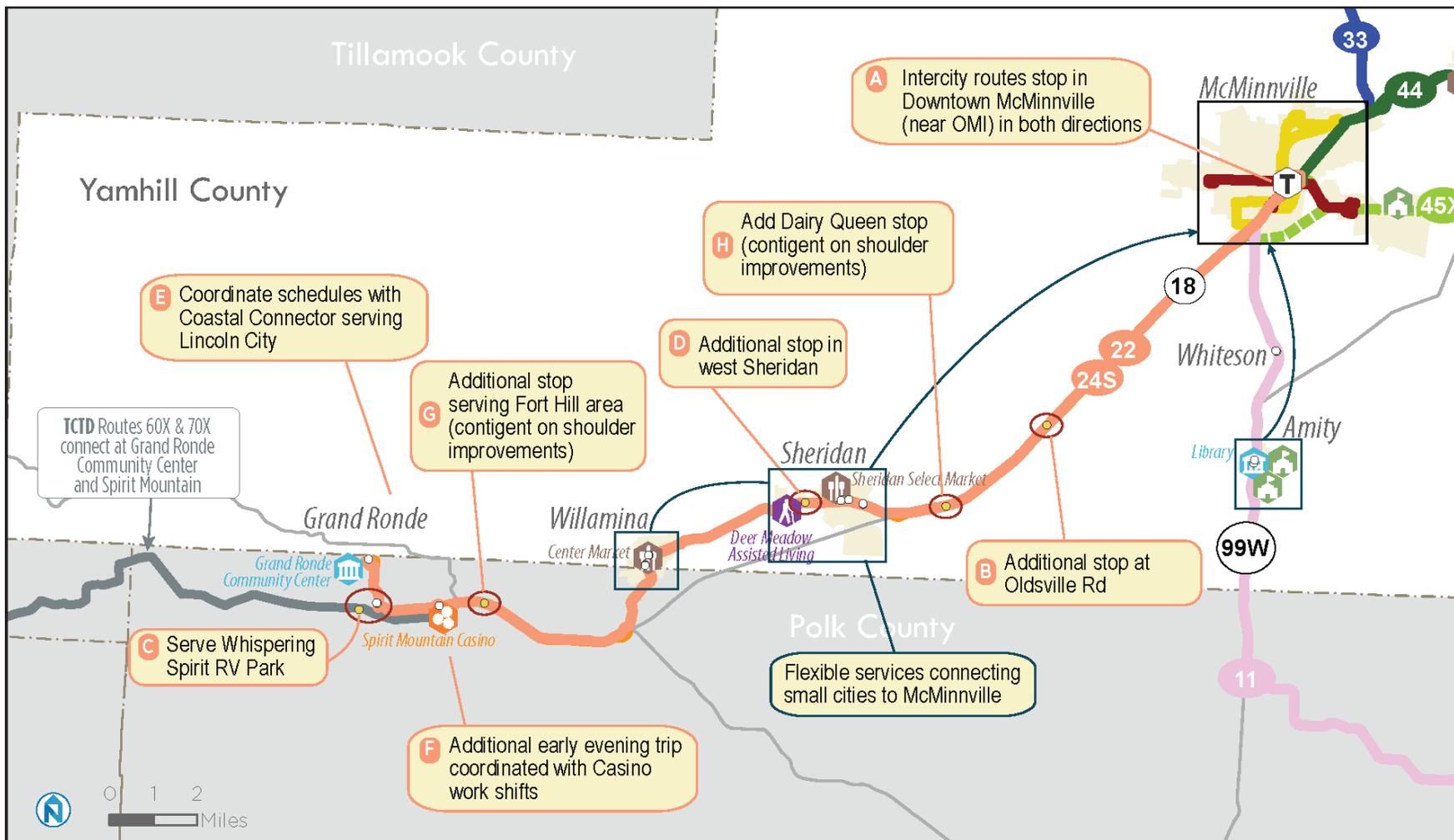
Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SI5	1		Grand Ronde Intercity Schedule, Stop, and Routing Adjustments	Figure D-21 Figure D-22.	Fixed-Route	Schedule adjustments for Route 22 including better timing with other intercity routes	-	-	-	-
SI5	2		Grand Ronde Intercity Schedule, Stop, and Routing Adjustments	Figure D-21 Figure D-22.	Fixed-Route	<ul style="list-style-type: none"> ▪ Add a stop at OMI (5th & Cows) in both directions ▪ Add a stop at Wandering Spirit RV Park (west of Grand Ronde Road) ▪ Add a stop at Oldsville Road 	-	-	-	-
Near-Term										
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS7	1	1	Additional Grand Ronde evening trip	McMinnville -Grand Ronde	Fixed-Route	Add an additional evening trip, timed to serve work shifts at the Spirit Mountain Casino and improve connections to/from TCTD 60X Coastal Connector route serving Lincoln City (at Spirit Mountain Casino or Grand Ronde Community Center). Timing should be determined in consultation with TCTD and Spirit Mountain. Improves regional coordination and job access.	N/A	503	\$38,000	-

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Project ID	Task 1	Priority Tier 1	Project Name 1	Service Area(s)	Service Type	Project/Task Description 1	Map or Other Details	Additional Annual Hours 1	Additional Annual Operating Cost 1,2	New Capital Requirements
SS8	2	2	Implement Local Flex Route	Sheridan / Willamina	Flex-Route	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Willamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	N/A	1,352	\$78,000	1 van
Mid-Term										
N/A										
Long-Term										
SL5	2	1	Implement/Expand Local Flex Routes	Sheridan / Willamina	Flex-Route	Expand local flex-route to operate 5 days per week in Sheridan/Willamina.	N/A	1,040	\$60,000	
Long-Term (Vision)										
SV3	3	2	Implement Sunday Service	McMinnville -Grand Ronde	Fixed-Route	Operate Route 22 between McMinnville and Grand Ronde on Sundays. This would be the second highest priority for Sunday service on intercity routes.	N/A	624	\$47,000	

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

Figure D-24 Service Changes: McMinnville-Grand Ronde Corridor Intercity Service (Route 22) - Map



Route Maps and Details

Figure D-25 Photos of Proposed Stop Locations on Route 22 that require shoulder improvements

Map ID	Time Frame	Location	Photo
G	Contingent on shoulder improvements	Fort Hill Road area. Shoulders are narrow and roadway is divided with a barrier in segments.	 <p>Source: Google Street View</p>
H	Contingent on shoulder improvements	Dairy Queen North shoulder is narrow.	 <p>Source: Google Street View</p>

MCMINNVILLE-HILLSBORO INTERCITY SERVICE: ROUTE 33

Key Improvements

- Improve facilities/signage at Hillsboro Transit Center
- Add trips during the morning and afternoon/early evening commute hours

Key Outreach Ideas/Findings

- Time Route 33 to allow connections to Salem or Hillsboro in the morning (e.g., 9 am), and to Tigard route
- Desirable to connect Yamhill/Carlton to Newberg

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-26 summarizes intercity service improvements between McMinnville and Hillsboro, by time frame.

Washington County has communicated a desire from the City of Gaston for additional service (e.g., SL1.3), and may be able to contribute funding support. If additional partner funding can be identified; it may be possible to implement this project sooner. Washington County and Gaston also plan to explore submitting a discretionary application for a park & ride/stop enhancement in Gaston.

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Figure D-26 Service Changes: McMinnville-Hillsboro Corridor Intercity Service (Route 33) – Table

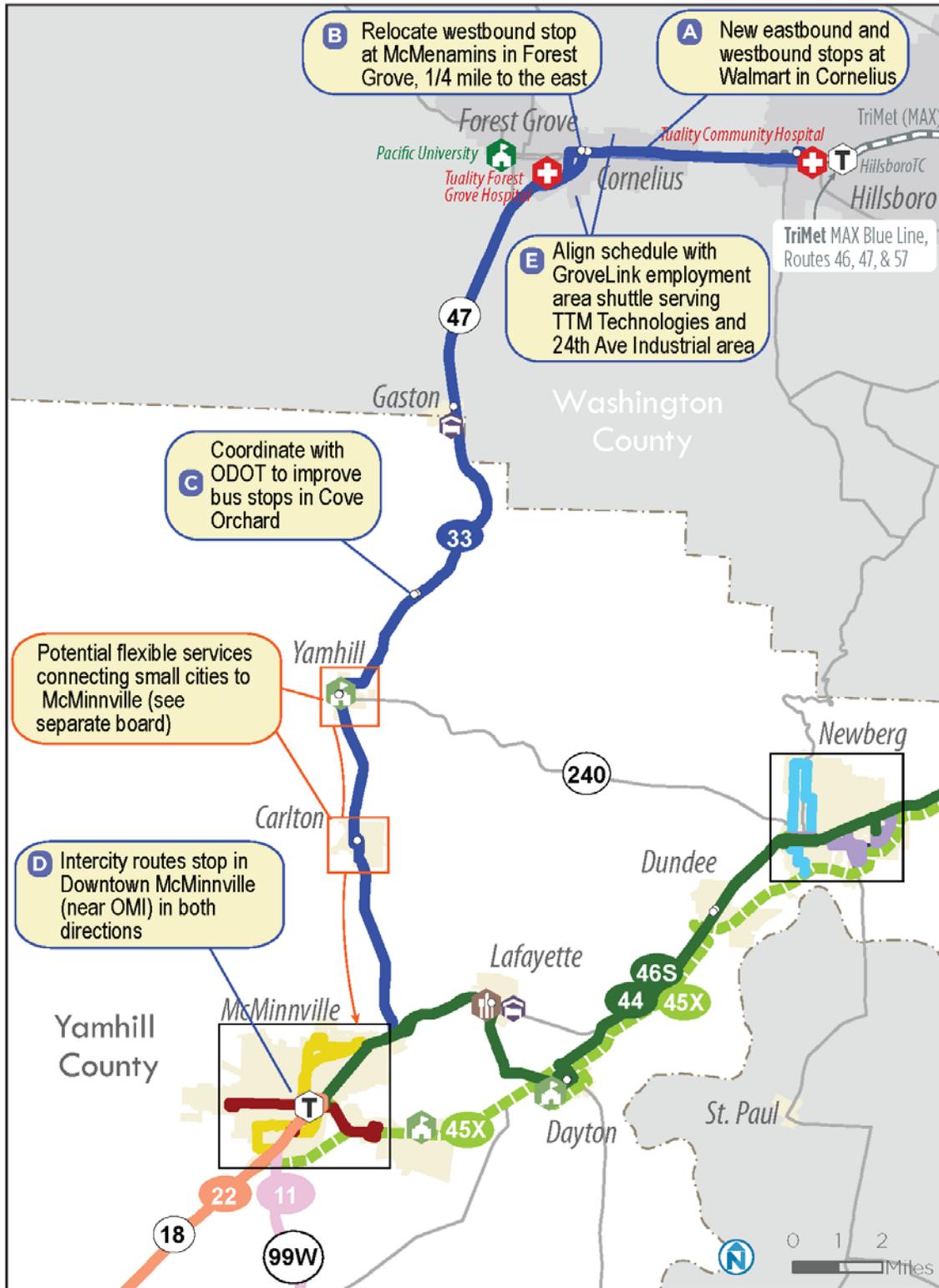
Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Immediate										
SL6	1	-	Hillsboro Intercity Schedule, Stop, and Routing Adjustments	McMinnville-Hillsboro	Fixed-Route	<ul style="list-style-type: none"> Schedule adjustments for Route 33, including adjusting schedules of the current 10:30 am and 12:30 pm trips from McMinnville to reduce the current 4h 30 min gap between the 6 AM and 10:30 AM trips. Add a stop at OMI (5th & Cowls) in both directions 	-	-	-	-
Near-Term										
SN5	1	2	Route 33 bus stop and routing changes	McMinnville-Hillsboro	Fixed-Route	<ul style="list-style-type: none"> Relocate westbound Route 33 stop in Forest Grove. Eliminate westbound stop at McMinnville Grand Lodge (west of Hwy 47). Add new westbound stop at the TriMet bus stop 1/4 mile east of Hwy 47. Modify westbound routing to save travel time. Add eastbound and westbound stops at Walmart (4th Ave) in Cornelius. 	Figure D-28	-	-	-
SN5	2	3		McMinnville-Hillsboro	Fixed-Route	Coordinate with ODOT on shoulder and other improvements to enhance safety of the Cove Orchard stop.	N/A	-	-	-
Short-Term										
None										
Mid-Term										
None										
Long-Term										
SL1	3	1		McMinnville-Hillsboro	Fixed-Route	Add 1 additional early evening trip. This was initially a mid-term priority, but was deferred to the long-term given funding availability;	N/A	520	\$39,000	-

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Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
						however, Washington County and Gaston are able to provide approximately \$20,000 towards the cost of adding this trip, which would serve Gaston High School and students returning from after school activities. This has been included in the Near-Term STIF plan (subject to YCTA STIF Advisory Committee approval).				
SL2	2	1	Additional intercity morning and/or afternoon trips	McMinnville-Hillsboro	Fixed-Route	Add 1 additional morning trip; no additional vehicles required; depending on YCTA's financial and capital resources, and future productivity of these routes, consider adding an additional vehicle to increase frequency during morning and afternoon peak periods (see SV1 - Long-Term Vision).	N/A	520	\$39,000	-
SL4	2	2	Saturday Service Expansion	McMinnville-Hillsboro	Fixed-Route	Add Saturday service between McMinnville and Yamhill/Carlton. Assumes 4 round trips. Phase 1 of Saturday service to Hillsboro.	N/A	159	\$12,000	-
Long-Term (Vision)										
SV1	2	2	Increase peak period frequency to Salem and Hillsboro	McMinnville-Hillsboro	Fixed-Route	<ul style="list-style-type: none"> ▪ Add trips on Route 33 during morning and afternoon commute hours; this would increase frequency. Requires an additional bus on the route. ▪ Improve coordination with Grovelink employment area trips. 	N/A	1,040	\$78,000	1 medium bus
SV2	2	3	Expand Saturday service	McMinnville-Hillsboro	Fixed-Route	Extend Route 33 to Hillsboro on Saturdays. Hours/cost in addition to Phase 1 (SL4, McMinnville-Yamhill only)	N/A	257	\$19,000	-
SV3	5	3	Implement Sunday Service	McMinnville-Hillsboro	Fixed-Route	Operate Route 33 on Sundays. Assumes 4 round trips.	N/A	451	\$34,000	-

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

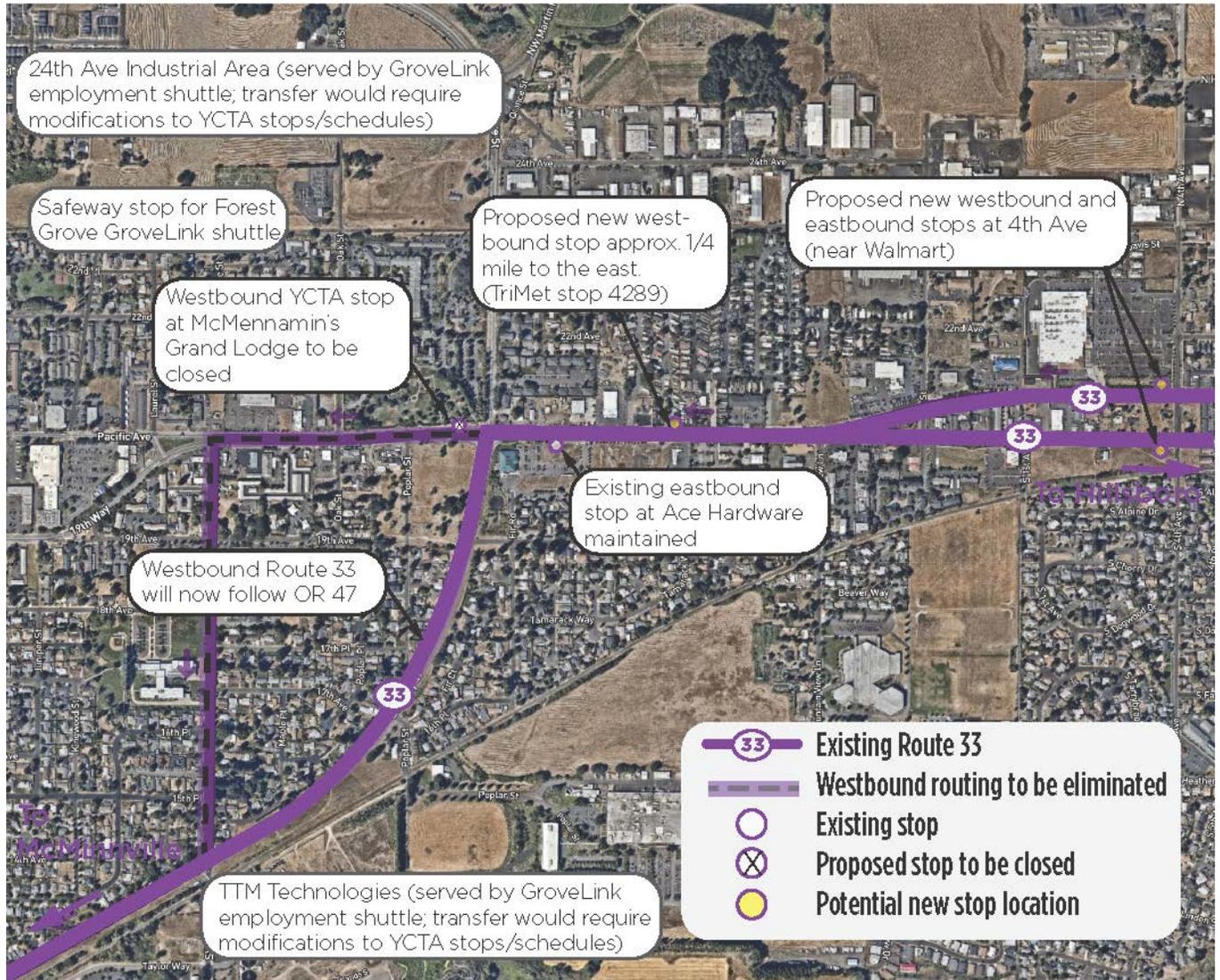
Figure D-27 Service Changes: McMinnville-Hillsboro Corridor Intercity Service (Route 33) - Map



Route Maps and Details

Route 33 Forest Grove and Cornelius Stop and Routing

Figure D-28 Proposed Changes to Route 33 in Forest Grove and Cornelius



SERVICE WITHIN/BETWEEN SMALL CITIES

Key Improvements

- Shopper shuttle pilot services and community-driven process to design services connecting small cities to intercity transit routes and/or key destinations/services in McMinnville and Newberg

Key Outreach Ideas/Findings

- Over 60% of online survey respondents preferred a Rural Flex Route model, while 27% supported a rural shopper/medical shuttle

Additional community input is summarized in TDP Volume II, Section 4: TM #4, Chapter 6 and Appendix A.

Figure D-29 summarizes service improvements aiming at increasing connectivity within/between small cities and McMinnville/Newberg, by time frame.

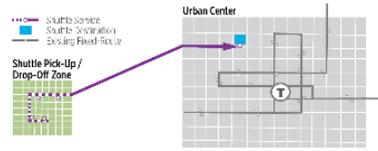
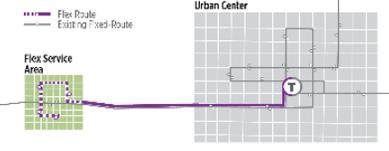
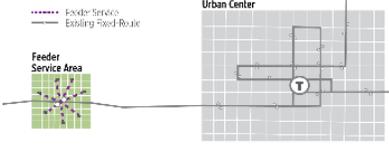
Several service models were proposed in TM #4 and taken out to the community for their input in March 2018 (see Figure D-30). In general, there was a preference for the Rural Flex Route model, but based on public comments, some aspects of the other service models, e.g., serving as a feeder to intercity routes, also have appeal in smaller cities. There was general support for using a pilot shopper/medical shuttle to help develop the specific design for each service, which could incorporate a community-driven process (or set of communities). This could evolve into a service that operates more frequently over time in the communities and markets where it is well-utilized.

The service would utilize small vans, which would allow them to serve destinations that are inaccessible in a large bus, such as Deer Meadows Assisted Living in Sheridan.

The service would incorporate on-demand technology to allow them to be used in a more real-time manner, as opposed to traditional demand-response service where reservations are required the previous day.

Note: A shopper/medical shuttle pilot is also included in the McMinnville and Newberg local service sections; due to its proximity Dundee is included in the cost of the Newberg service.

Figure D-30 Small City Service Model Options

SERVICE MODEL	RURAL SHOPPER/MEDICAL SHUTTLE	RURAL FLEX ROUTE		RURAL FEEDER SERVICE	
Description	Door-to-door service in small cities, with advance reservations, to selected major shopping and medical destinations in McMinnville or Newberg	Scheduled stops in small cities (deviations and curb-to-curb service with advance reservations) directly serving McMinnville or Newberg Transit Centers and selected major shopping and medical destinations		Curb-to-curb service within small cities, with advance reservations, making timed transfers with intercity buses in each city, and offering trips between points within each city	
Image					
# Vehicles					
Service Days/Hours	Limited days and hours of service: 1 day per week in each service area*, approx. 4 hours per day	Regular all-day service: 2-3 days per week in each service area, approx. 8-5 pm	Regular all-day service: 5 days per week in each service area, approx. 8-5 pm	Regular all-day service: 2-3 days per week in each service area, approx. 8-5 pm	Regular all-day service: 5 days per week in each service area, approx. 8-5 pm
Cost	\$	\$\$\$\$ (\$\$ per vehicle)	\$\$\$\$\$\$ (\$\$ per vehicle)	\$\$\$\$ (\$\$ per vehicle)	\$\$\$\$\$\$ (\$\$ per vehicle)

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Figure D-31 Service between Small Cities – Table

Project ID	Task ¹	Priority Tier ¹	Project Name ¹	Service Area(s)	Service Type	Project/Task Description ¹	Map or Other Details	Additional Annual Hours ¹	Additional Annual Operating Cost ^{1,2}	New Capital Requirements
Near-Term										
SN6	1	2	Shopper Shuttle	McMinnville, Newberg, Small Cities	Flex Route	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.).	N/A	1,040	\$60,000 + \$48,000 (\$108,000 total)	1 van (+ 1 existing van)
Short-Term										
SS8	1	1	Implement Local Flex Route	Yamhill / Carlton	Flex-Route	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Willamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	N/A	1,352	\$78,000	1 van
SS8	2	2	Implement Local Flex Route	Sheridan / Willamina	Flex-Route		N/A	1,352	\$78,000	1 van
Mid-Term										
N/A										
Long-Term										
SL5	2	1	Implement/Exp and Local Flex Routes	Sheridan / Willamina	Flex-Route	Expand local flex-route to operate 5 days per week in Sheridan/Willamina.	N/A	1,040	\$60,000	-

Notes: [1] Element required for STIF Plan. STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding. Preliminary recommendation to be confirmed by YCTA Advisory Committee. [2] Costs in this table reflect an average cost per hour of \$75 for fixed-route, \$58 for Dial-a-Ride, and \$56 for flex-routes, which is the assumed cost for FY 2020. The TDP financial plan assumes costs that are escalated to implementation year.

FY 2019-2021 STIF PLAN INFORMATION

Recommended Definition of a High-Percentage of Low-Income Households

The Statewide Transportation Investment Fund (STIF) guidance⁴ and STIF Advisory Committee Bylaws template⁵ define a low-income household as:

A household the total income of which does not exceed 200% of the poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2) for the 48 Contiguous States and the District of Columbia.

The STIF guidance provides local discretion for defining a “high-percentage” of low-income households, which is among the criteria used to evaluate STIF projects submitted for funding. The definition must be provided in section 4.3 of the STIF funding plan. The TDP recommends the following methodology for determining a high-percentage of low-income households, or population; the recommended language refers to both population and households based on data availability and to provide YCTA and the YCTA STIF Advisory Committee with more flexibility.⁶

A community with a high percentage of low-income households (or population) is defined as having an equal or higher low-income percentage than the county-wide percentage of low-income households (or population). Within a city comprised of multiple Census tracts (i.e., McMinnville and Newberg), an area with a high percentage of low-income households (or population) is defined as a Census tract with an equal or higher percentage of low-income households (or population) than the city-wide percentage of low-income households (or population).

Figure 2-3 of the TDP (Chapter 2) provides demographic information for Yamhill County. Based on low-income population (see footnote below), communities with an equal or higher low-income (200% of poverty) percentage than the county-wide percentage (36%) are: McMinnville (43%), Newberg (36%), Sheridan (57%), Lafayette (41%), Dayton (39%), and Willamina (43%). Communities with a lower percentage are: Carlton (30%), Dundee (28%), Amity (28%), and Yamhill (19%). (It would be possible for the YCTA STIF Advisory Committee to use a different method or standard to make this determination.) In

⁴ ODOT, STIF Application Guidance.

<https://www.oregon.gov/ODOT/RPTD/RPTD%20Committee%20Meeting%20Documents/STIF-Application-Guidance.pdf>

⁵ ODOT, Model STIF Advisory Committee Bylaws Template. <https://tinyurl.com/ydgs9w45>

⁶ The STIF regulations enacted by the Oregon Legislature in HB 2017 refer to low-income households. The American Community Survey (ACS) provides poverty information for households, families, and individuals; however, a breakdown of 200% of the federal poverty level (the STIF definition of low-income) is only available for families (Table S1702) and population (Table S1701). Households include all person who occupy a housing unit including a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. Population data is for the population for whom poverty status is determined, which excludes institutionalized people (e.g., prisons), people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old. In addition, based on the same data availability limitations, the Remix software calculates the share of the population within a 1/2-mile of transit stops. It is possible to convert from population to households based on average household size (calculated as people in occupied housing units [96,886] divided by total housing units [35,002], from 2016 ACS 5-Year Estimate, Table DP04, equal to 2.8 people per household, rounded to nearest 0.1).

addition, within McMinnville and Newberg it is possible to use Census Tract data to identify different areas in these larger cities that have a high-percentage of low-income households; the recommended comparison is to the city-wide percentage of low-income population.

FY 2019-2021 STIF Plan Summary

STIF Plans (applications) must be received by ODOT no later than November 1, 2018 for the first round of funding opportunity or May 1, 2019 for the second round of funding opportunity. The template requires that projects submitted in the STIF Plan identify which of the following STIF Criteria and Oregon Public Transportation Plan (OPTP) goals (and policies; not listed) are met. The table below lists the preliminary STIF revenue projections for YCTA in the current funding cycle, and 130% of the projected funding level (recipients are encouraged to submit a “130%” list in case revenues exceed projections, and the request can exceed 130% if desired).

Figure D-32 STIF Revenue Projections for Yamhill County

Year	TDP Time Frame	Preliminary Revenue Projection	130% of Projection
FY 2019	Near-Term	\$496,000	\$645,000
FY 2020	Short-Term	\$1,127,000	\$1,465,000
FY 2021	Short-Term	\$1,275,000	\$1,658,000

Figure D-33 summarizes funding requested through STIF. Actual funding is constrained by revenue received.

Figure D-33 STIF Plan Project Summary

Category	Fiscal Year		
	2019	2020	2021
100% List	\$640,161	\$1,100,699	\$1,173,115
100% with Planning/Administration	\$43,300	\$26,800	\$12,900
Total 100% List	\$683,461	\$1,127,499	\$1,186,015
130% List	\$35,000	\$365,000	\$425,000
130% List with Planning/Administration	\$0	\$0	\$19,100
Total 130% List	\$35,000	\$365,000	\$444,100
Overall Total	\$718,461	\$1,492,499	\$1,630,115
Preliminary Revenue Projection	\$496,000	\$1,127,000	\$1,275,000
130% of Projection	\$645,000	\$1,465,000	\$1,658,000

YCTA needs to rate the projects based on STIF criteria established in the legislation. Figure D-34 summarizes the allocations. A minimum of 1% of funding needs to serve students in Grades 9-12 and the YCTA STIF Plan should exceed that threshold. Not all project types are allocated to STIF criteria, so the amounts are less than the total STIF plan requested funding amount.

Figure D-34 STIF Criteria and YCTA STIF Plan Draft Allocations

STIF Criteria		FY 2019	FY 2020	FY 2021	Total	% of Total
Criterion 1	Increased frequency of bus service to areas with a high percentage of Low-Income Households.	\$334,750	\$619,750	\$603,600	\$1,558,100	47%
Criterion 2	Expansion of bus routes and bus services to serve areas with a high percentage of Low-Income Households.	\$148,500	\$511,500	\$607,000	\$1,267,000	38%
Criterion 3	Fund the implementation of programs to reduce fares for public transportation in communities with a high percentage of Low-Income Households.	\$0	\$0	\$0	\$0	0%
Criterion 4	Procurement of low or no emission buses for use in areas with 200,000 or more.	\$0	\$0	\$0	\$0	0%
Criterion 5	The improvement in the frequency and reliability of service between communities inside and outside of the Qualified Entity's service area.	\$26,250	\$57,750	\$70,700	\$154,700	5%
Criterion 6	Coordination between Public Transportation Service Providers to reduce fragmentation in the provision of transportation services.	\$0	\$28,500	\$40,700	\$69,200	2%
Criterion 7	Implementation of programs to provide student transit service for students in grades 9-12.	\$32,500	\$111,500	\$116,000	\$260,000	8%
Total		\$542,000	\$1,329,000	\$1,438,000	\$3,309,000	100%

Each project also needs to be evaluated based on meeting one or more of the following Oregon Public Transportation Plan (OPTP) Goals. Draft ratings are provided, but are omitted from the draft STIF input tables below due to space limitations.

Goal 1 Mobility: Public Transportation User Experience -- People of all ages, abilities, and income levels move reliably and conveniently between destinations using an affordable, well-coordinated public transportation system. People in Oregon routinely use public transportation to meet their daily needs.

Goal 2: Accessibility and Connectivity -- Riders experience user-friendly and convenient public transportation connections to and between services and travel modes in urban, suburban, rural, regional, and interstate areas.

Goal 3: Community Livability and Economic Vitality -- Public transportation promotes community livability and economic vitality by efficiently and effectively moving people of all ages to and from homes, jobs, businesses, schools and colleges, and other destinations in urban, suburban, and rural areas.

Goal 4: Equity -- Public transportation provides affordable, safe, efficient, and equitable transportation to jobs, services, and key destinations, improving quality of life for all Oregonians.

Goal 5: Health -- Public transportation fosters improved health of Oregonians by promoting clean air, enhancing connections between people, enabling access to services such as health care and goods such as groceries, and by giving people opportunities to integrate physical activity into everyday life through walking and bicycling to and from public transportation.

Goal 6: Safety and Security -- Public transportation trips are safe; riders feel safe and secure during their travel. Public transportation contributes to the resilience of Oregon communities.

Goal 7: Environmental Sustainability -- Public transportation contributes to a healthy environment and climate by moving more people with efficient, low-emission vehicles, reducing greenhouse gases and other pollutants.

Goal 8: Land Use -- Public transportation is a tool that supports Oregon's state and local land use goals and policies. Agencies collaborate to ensure public transportation helps shape great Oregon communities providing efficient and effective travel options in urban, suburban, and rural areas.

Goal 9: Funding and Strategic Investment -- Strategic investment in public transportation supports the overall transportation system, the economy, and Oregonians' quality of life. Sustainable and reliable funding enables public transportation services and infrastructure to meet public needs.

Goal 10: Communication, Collaboration, and Coordination -- Public and private transportation providers and all levels of government within the state and across state boundaries work collaboratively and foster partnerships that make public transportation seamless regardless of jurisdiction.

FY 2019-2021 STIF Plan Inputs

Figure D-35 provides information for YCTA to use in completing the ODOT STIF formula funds application template.⁷ The table is spread across four pages (two across); some columns are not included below due to space limitations. Figure D-36 provides additional detail for rolling stock (bus) projects. The final submission may vary from these values.

⁷ ODOT, STIF Application Template. <https://www.cognitoforms.com/ODOT2/STIFPlanTemplate>

Figure D-35 FY 2019-2021 STIF Application Template Information, Near-Term/Short-Term Projects: Page 1/4

TDP Project ID	TDP Task	TDP Time Frame	Initial Impl. Year	Project Name	Service Area(s)	Project/Task Description	Plan Page #	STIF Plan Project & Task	100% or 130% List ²	Committee Rank (10/18/18)	Project Rank within 100% or 130% List ²	One-Time Planning/ Admin Cost (10%) ⁴	Hold for Future STIF Plan Period	Share to Improve/ Expand Service	Service Type	STIF % of Funding	# of Years	Total Revenue Hours (STIF Plan Period)	Total Revenue Miles (STIF Plan Period)	Total Rides (STIF Plan Period) ³	Population with Access to Transit ⁴	Low-Income House-Holds Access to Transit ⁴	New Shared Stops with Other Providers (#)
CN1	-	Near-Term to Short-Term	2019	Bus Local Match	System-wide	Replace end-of-life vehicles with low-floor vehicles branded for and matched to each service type; Acquire new vehicles to support SN1.3, SN 1.4, and SN 6.1. [See STIF Bus Task Detail for task level inputs]	7-5, 7-12	1	100%	1	1	-	No	100%	N/A	100%	3	N/A	N/A	N/A	N/A	N/A	N/A
SN1	3	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Modify Route 3 to provide more service to Winco/Walmart area, two-way service on Evans and 27 th St, and service on McDaniel Ln (Senior Center). Requires additional half bus.	6-28, D-9, D-10	2.1	100%	2	2.1	Yes	No	100%	Fixed-Route	100%	3	4,290	101,244	67,800	9,207	1,828	No
SN1	4	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Modify Route 4 (current 2 West) to extend along 2 nd St west of Hill Rd, providing service for additional residents, and south to Booth Bend Rd to provide direct access to Roths, Bi-Mart, and Albertsons. Accomplished using the remaining half bus from the Route 3 modification.	6-28, D-12	2.2	100%	2	2.2	Yes	No	100%	Fixed-Route	100%	3	4,290	49,764	56,100	3,294	738	No
SN1	5	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Morning Service: 1 additional hour for Route 2 and 4 (start at 7:00 AM).	6-28	2.3	100%	2	2.3	-	No	100%	Fixed-Route	100%	3	780	4,524	10,200	3,294	738	No
CN2	1	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Planning.	7-7, 7-12	3.1	100%	3	3	Yes	No	100%	N/A	100%	1	N/A	N/A	N/A	N/A	N/A	N/A
CN2	2	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Signing/Marking.	7-7, 7-12	3.2	100%	3	3	No	No	100%	N/A	100%	3	N/A	N/A	N/A	N/A	N/A	N/A
CN2	3	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Shelters and other stop improvements.	7-7, 7-12	3.3	100%	3	3	No	No	100%	N/A	100%	2	N/A	N/A	N/A	N/A	N/A	N/A
CN3	1	Near-Term to Short-Term	2019	Technology Enhancements	System-wide	Technology Enhancements (1) Mobile surveillance solution for reliable, real time tracking for 33 buses to increase efficiency and camera coverage inside & out to promote passenger safety. (2) Automated Stop Announcements.	9-11 to 9-12	4.1	100%	4	4	No	No	100%	N/A	100%	2	N/A	N/A	N/A	N/A	N/A	N/A
SN3	1	Near-Term	2019	McMinnville-Newberg Connector	McMinnville-Tigard	Phase 1 of project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	6-28, D-24	5.1	100%	5	5	Yes	No	100%	Fixed-Route	100%	3	3,120	51,174	34,800	27,426	4,222	No
SN6	1	Near-Term	2019	Implement Shopper Shuttles/Local Flex Routes	McMinnville, Newberg, Small Cities	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.)	6-29, D-45	6.1	100%	6	6	Yes	No	100%	Demand-Response	100%	3	5,616	64,099	23,400	77,716	10,388	No
SM1	1	Mid-Term	2020	McMinnville Saturday Service	McMinnville	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	6-29	7.1	100%	7	7	Yes	No	100%	Fixed-Route	100%	2	2,080	18,304	30,000	12,501	2,566	No
SM1	2	Mid-Term	2020	McMinnville Saturday Service	McMinnville	Add local service on Saturdays. Assumes 1 Demand-Response vehicles for 10 hours, e.g., 8 AM-6PM.	6-29	7.2	100%	8	8	Yes	No	100%	Demand-Response	100%	2	1,040	11,870	3,200	33,185	4,835	No
CN4	4	Near-Term	2019	CCC Access Gate	McMinnville	Gate access and roadway improvements at Chemeketa Community College in McMinnville. Enables service to Virginia Garcia clinic and other housing east of Norton Lane.	7-7, 7-12	8.1	100%	9	9	Yes	No	100%	N/A	100%	1	N/A	N/A	N/A	N/A	N/A	N/A
CN5	3	Near-Term	2019	Marketing	System-wide	Support vehicle and other branding and marketing.	7-12, 9-8	9.1	100%	10	10	Yes	No	100%	N/A	100%	0	N/A	N/A	N/A	N/A	N/A	N/A
SS7	1	Short-Term	2021	Additional Grand Ronde evening trip	McMinnville-Grand Ronde	Add an additional evening trip, timed to serve work shifts at the Spirit Mountain Casino and improve connections to/from TCTD 60X Coastal Connector route serving Lincoln City (at Spirit Mountain Casino or Grand Ronde Community Center). Timing should be determined in consultation with TCTD and Spirit Mountain. Improves regional coordination and job access.	6-29	10.1	100%	11	11	Yes	No	100%	Fixed-Route	100%	1	503	7,410	4,400	11,512	2,261	No
SS2	1	Short-Term	2020	McMinnville Evening Service	McMinnville	Early Evening Service: Add 1 additional hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 3 buses (all routes).	6-29	11.1	100%	12	12.1	-	No	100%	Fixed-Route	100%	2	1,560	11,960	22,600	25,686	5,037	N/A

Figure D-35 FY 2019-2021 STIF Application Template Information, Near-Term/Short-Term Projects: Page 2/4

TDP Project ID	TDP Task	TDP Time Frame	Initial Impl. Year	Project Name	Service Area(s)	Project/Task Description	Plan Page #	STIF Plan Project & Task	100% or 130% List ²	Committee Rank (10/18/18)	Project Rank within 100% or 130% List ²	One-Time Planning/ Admin Cost (10%) ⁴	Hold for Future STIF Plan Period	Share to Improve/ Expand Service	Service Type	STIF % of Funding	# of Years	Total Revenue Hours (STIF Plan Period)	Total Revenue Miles (STIF Plan Period)	Total Rides (STIF Plan Period) ³	Population with Access to Transit ⁴	Low-Income House-Holds Access to Transit ⁴	New Shared Stops with Other Providers (#)
SS2	2	Short-Term	2020	McMinnville Evening Service	McMinnville	Early Evening Service: Add 1 additional hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 3 buses (all routes).	6-29	11.2	100%	12	12.2	-	No	100%	Demand-Response	100%	2	1,040	5,935	3,200	33,185	4,835	N/A
SS5	1	Short-Term	2020	McMinnville-Newberg Connector	McMinnville-Tigard	Phase 2 of near-term project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	6-29, D-24	12.1	100%	13	13	-	No	100%	Fixed-Route	100%	2	2,080	34,116	23,200	27,426	4,222	N/A
SS3	1	Short-Term	2020	Newberg Early Evening Service	Newberg	Add 1/2 hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 2 buses (all routes).	6-29	13.1	100%	14	14.1	-	No	100%	Fixed-Route	100%	2	520	2,340	3,200	19,571	2,695	N/A
SS3	2	Short-Term	2020	Newberg Early Evening Service	Newberg	Add 1/2 hour of demand-response service in the evening; this includes complementary ADA Paratransit. Assumes 1 vehicle.	6-29	13.2	100%	14	14.2	-	No	100%	Demand-Response	100%	2	260	2,968	800	22,566	2,744	N/A
SS8	1	Short-Term	2020	Implement Shopper Shuttles/Local Flex Routes	Yamhill / Carlton	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Wilamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	6-29, D-45	14.1	100%	15	15	Yes	No	100%	Demand-Response	100%	2	1,040	59,351	12,400	3,001	271	No
SS8	2	Short-Term	2021	Implement Shopper Shuttles/Local Flex Routes	Sheridan / Wilamina	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Wilamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	6-29, D-45	15.1	100%	16	16	Yes	No	100%	Demand-Response	100%	1	1,352	20,179	6,200	9,417	1,316	No
SS6	1	Short-Term	2020	Extension to Downtown Salem	McMinnville-Salem	Extend Route 11 to Downtown Salem Transit Center. Route 11 would still stop along Wallace Rd in West Salem. In conjunction with this change, rename Route 11 (e.g., to 80x) to avoid confusion with Cheriots Route 11.	6-29, D-31	16.1	100%	17	17	Yes	No	100%	Fixed-Route	100%	2	1,517	69,403	12,800	13,784	2,782	Yes (1)
SL1	3	Long-Term	2019	Additional intercity later evening service	McMinnville-Hillsboro	Add 1 additional early evening trip. This was deferred to the long-term given funding availability; however, Washington County and Gaston are able to contribute towards the cost of adding this trip, which would serve Gaston High School and students returning from after school activities. Cost represents the total cost to YCTA (before Washington County/Gaston contributions).	6-30, D-41	17.1	130%	18	1	-	No	100%	Fixed-Route	100%	3	1,560	24,860	15,600	18,751	3,602	No
CS1	1	Short-Term	2021	Capital Reserve	System-wide	Establish and contribute to a capital reserve fund (e.g., to be used for local matching funds for vehicle grants)	7-7, 7-12	19.1	130%		2	No	Yes	100%	N/A		2	N/A					
SM3	1	Mid-Term	2021	Newberg Demand-Response Capacity	Newberg	Restore Newberg Dial-a-Ride to two vehicles, assuming that fixed-route ridership meets standards and additional paratransit capacity is required based on service standards.	6-29, D-16	18.1	130%	19	3	No	No	100%	Demand-Response	100%	2	4,160	47,481	12,400	22,566	2,744	No
SL7	1	Long-Term	2021	McMinnville Early Morning Service	McMinnville	Start McMinnville local fixed-route service at 6 AM. Assumes 3 buses.	6-30	20.1	130%		4	Yes	No	100%	Fixed-Route	100%	2	1,560	0	22,600	25,686	5,037	No
SL7	2	Long-Term	2021	McMinnville Early Morning Service	McMinnville	Start McMinnville demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	6-30	20.2	130%		5	Yes	No	100%	Demand-Response	100%	2	520	5,935	1,600	33,185	4,835	No
SL7	3	Long-Term	2021	McMinnville Evening Service	McMinnville	Extend McMinnville local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses (reduced coverage or lower frequency than daytime operation).	6-30	21.1	130%		6	Yes	No	100%	Fixed-Route	100%	2	2,080	0	28,600	16,479	3,209	No
SL7	4	Long-Term	2021	McMinnville Evening Service	McMinnville	Extend McMinnville demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	6-30	21.2	130%		7	Yes	No	100%	Demand-Response	100%	2	1,040	11,870	3,200	33,185	4,835	No

Notes
 [1] Priority tier is a TDP recommendation, which should be confirmed by the YCTA advisory committee for submission in YCTA's STIF Plan (see "Rank within 100% or 130% list").
 [2] The STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding, in order to help prioritize depending on actual funds available. The list and ranking is a YCTA STIF Advisory Committee decision.
 [3] Assumes productivity based on the ridecheck conducted in April/May 2017; ranges from 13.1 to 15.8 riders per hour on McMinnville local routes and 8.5 to 11.2 riders per hour on intercity routes. Productivity was assumed to be 3 riders per hour for Dial-A-Ride, 4 riders per hour for flex-route/shuttles, and 6 riders per hour for Newberg local routes.
 [4] Transit access within 1/2 mile of fixed-route stops, or within the service area (typically city or cities) for demand-response or flex-route services.
 [5] 10% allowance for administration and planning are included where needed to implement the project.

Yamhill County Transit Development Plan | Appendix D

Figure D-35 FY 2019-2021 STIF Application Template Information, Near-Term/Short-Term Projects: Page 3/4

TDP Project ID	TDP Task	TDP Time Frame	Initial Impl. Year	Project Name	Service Area(s)	Project/Task Description	Plan Page #	STIF Plan Project & Task	Supports Grade 9-12 Student Transp.	# Students Served	Category	Category Description (Lookup)	Activity Type	Activity Type Description (Lookup)	Activity Detail	Activity Detail Description (Lookup)	Annual Operating or One-Time Capital Cost (Escalated to year-of-expenditure dollars)			Planning & Admin (10% one-time) ⁵
																	FY 2019	FY 2020	FY 2021	
CN1	-	Near-Term to Short-Term	2019	Bus Local Match	System-wide	Replace end-of-life vehicles with low-floor vehicles branded for and matched to each service type; Acquire new vehicles to support SN1.3, SN 1.4, and SN 6.1. [See STIF Bus Task Detail for task-level inputs]	7-5, 7-12	1	N/A	-	111-00	Bus Rolling Stock	See STIF Bus Task Detail	#N/A	See STIF Bus Task Detail	#N/A	\$128,451	\$136,699	\$110,115	\$0
SN1	3	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Modify Route 3 to provide more service to Winco/Walmart area, two-way service on Evans and 27 th St, and service on McDaniel Ln (Senior Center). Requires additional half bus.	6-28, D-9, D-10	2.1	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$95,000	\$107,000	\$110,000	\$11,000
SN1	4	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Modify Route 4 (current 2 West) to extend along 2 nd St west of Hill Rd, providing service for additional residents, and south to Booth Bend Rd to provide direct access to Roths, Bi-Mart, and Albertsons. Accomplished using the remaining half bus from the Route 3 modification.	6-28, D-12	2.2	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$95,000	\$107,000	\$110,000	\$11,000
SN1	5	Near-Term	2019	McMinnville Local Service Capacity, Coverage, and Service Hours	McMinnville	Morning Service: 1 additional hour for Route 2 and 4 (start at 7:00 AM).	6-28	2.3	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$17,000	\$20,000	\$20,000	\$0
CN2	1	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Planning.	7-7, 7-12	3.1	N/A	-	442-00	Planning	44.22	Planning	44.22.00	Planning	\$10,000	\$0	\$0	\$1,000
CN2	2	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Signing/Marking.	7-7, 7-12	3.2	N/A	-	113-00	Bus Stations/Stops/Terminals	11.33	Construction of Bus Stations / Terminal	11.33.09	Bus Route Signing	\$20,000	\$10,000	\$10,000	\$0
CN2	3	Near-Term to Short-Term	2019	Bus Stop Improvements	System-wide	Sign and Mark Bus Stops; communicates where vehicles stop and the presence of transit in the community. Stop improvement program (benches, shelters, pads, and other amenities) provides comfortable, dignified places for passengers to catch the bus. Shelters and other stop improvements	7-7, 7-12	3.3	N/A	-	113-00	Bus Stations/Stops/Terminals	11.33	Construction of Bus Stations / Terminal	11.33.10	Bus Passenger Shelters	\$0	\$25,000	\$25,000	\$0
CN3	1	Near-Term to Short-Term	2019	Technology Enhancements	System-wide	Technology Enhancements (1) Mobile surveillance solution for reliable, real time tracking for 33 buses to increase efficiency and camera coverage inside & out to promote passenger safety. (2) Automated Stop Announcements.	9-11 to 9-12	4.1	N/A	-	113-00	Bus Stations/Stops/Terminals	11.42	Acquisition	11.42.09	Surveillance / Security (Bus)	\$100,000	\$50,000	\$0	\$0
SN3	1	Near-Term	2019	McMinnville-Newberg Connector	McMinnville-Tigard	Phase 1 of project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	6-28, D-24	5.1	Yes	330	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$69,000	\$78,000	\$80,000	\$8,000
SN6	1	Near-Term	2019	Implement Shopper Shuttles/Local Flex Routes	McMinnville, Newberg, Small Cities	Implement shopper shuttle pilot projects in McMinnville, Newberg / Dundee, Yamhill / Carlton, Amity / Sheridan / Willamina, and Dayton / Lafayette (4 hours per day, 1 day per service area; 5 days per week, with up to two additional days in Yamhill/Carlton and Sheridan/Willamina to support medical trip needs such as dialysis where patients may have three appointments per week. Total of 9 days.)	6-29, D-45	6.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$101,000	\$106,000	\$108,000	\$10,800
SM1	1	Mid-Term	2020	McMinnville Saturday Service	McMinnville	Add local service on Saturdays. Assumes 2 fixed-route vehicles for 10 hours, e.g., 8 AM-6PM.	6-29	7.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$84,000	\$84,000	\$8,400
SM1	2	Mid-Term	2020	McMinnville Saturday Service	McMinnville	Add local service on Saturdays. Assumes 1 Demand-Response vehicles for 10 hours, e.g., 8 AM-6PM.	6-29	7.2	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$36,000	\$36,000	\$3,600
CN4	4	Near-Term	2019	CCC Access Gate	McMinnville	Gate access and roadway improvements at Chemeketa Community College in McMinnville. Enables service to Virginia Garcia clinic and other housing east of Norton Lane.	7-7, 7-12	8.1	N/A	-	113-00	Bus Stations/Stops/Terminals	11.33	Construction of Bus Stations / Terminal	11.33.07	Surveillance / Security Equipment	\$15,000	\$0	\$0	\$1,500
CN5	3	Near-Term	2019	Marketing	System-wide	Support vehicle and other branding and marketing.	7-12, 9-8	9.1	N/A	-	300-00	Operations	30.09	Operating Assistance	44.26.14	Communications	\$0	\$0	\$0	\$0
SS7	1	Short-Term	2021	Additional Grand Ronde evening trip	McMinnville-Grand Ronde	Add an additional evening trip, timed to serve work shifts at the Spirit Mountain Casino and improve connections to/from TCTD 60X Coastal Connector route serving Lincoln City (at Spirit Mountain Casino or Grand Ronde Community Center). Timing should be determined in consultation with TCTD and Spirit Mountain. Improves regional coordination and job access.	6-29	10.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$0	\$39,000	\$3,900
SS2	1	Short-Term	2020	McMinnville Evening Service	McMinnville	Early Evening Service: Add 1 additional hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 3 buses (all routes).	6-29	11.1	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$60,000	\$60,000	\$0

Figure D-35 FY 2019-2021 STIF Application Template Information, Near-Term/Short-Term Projects: Page 4/4

TDP Project ID	TDP Task	TDP Time Frame	Initial Impl. Year	Project Name	Service Area(s)	Project/Task Description	Plan Page #	STIF Plan Project & Task	Supports Grade 9-12 Student Transp.	# Students Served	Category	Category Description (Lookup)	Activity Type	Activity Type Description (Lookup)	Activity Detail	Activity Detail Description (Lookup)	Annual Operating or One-Time Capital Cost (Escalated to year-of-expenditure dollars)			Planning & Admin (10% one-time) ⁵
																	FY 2019	FY 2020	FY 2021	
SS2	2	Short-Term	2020	McMinnville Evening Service	McMinnville	Early Evening Service: Add 1 additional hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 3 buses (all routes).	6-29	11.2	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$30,000	\$34,000	\$0
SS5	1	Short-Term	2020	McMinnville-Newberg Connector	McMinnville-Tigard	Phase 2 of near-term project to add trips on Route 44 to provide more frequent, consistent service between McMinnville and Newberg. Added trips would not continue to Sherwood/Tigard. Uses existing buses serving Routes 44/45x.	6-29, D-24	12.1	Yes	330	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$78,000	\$80,000	\$0
SS3	1	Short-Term	2020	Newberg Early Evening Service	Newberg	Add 1/2 hour of service in the evening (last trip leaves at 6:00 or 6:30 pm). Assumes 2 buses (all routes).	6-29	13.1	Yes	1,619	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$20,000	\$20,000	\$0
SS3	2	Short-Term	2020	Newberg Early Evening Service	Newberg	Add 1/2 hour of demand-response service in the evening; this includes complementary ADA Paratransit. Assumes 1 vehicles.	6-29	13.2	Yes	1,619	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$8,000	\$9,000	\$0
SS8	1	Short-Term	2020	Implement Shopper Shuttles/Local Flex Routes	Yamhill / Carlton	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Willamina/Amity are recommended for the short-term. One area could be implemented in the second or third year based on available resources in Year 1.	6-29, D-45	14.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$88,000	\$90,000	\$9,000
SS8	2	Short-Term	2021	Implement Shopper Shuttles/Local Flex Routes	Sheridan / Willamina	Expand shopper shuttle pilot to three days per week, 8 to 10 hour per day operation. Either Yamhill/Carlton or Sheridan/Willamina/Amity are recommended for the short-term. One area could be implemented in the first year of the short-term and the second could be implemented in the second or third year based on available resources in Year 1.	6-29, D-45	15.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$0	\$90,000	\$9,000
SS6	1	Short-Term	2020	Extension to Downtown Salem	McMinnville-Salem	Extend Route 11 to Downtown Salem Transit Center. Route 11 would still stop along Wallace Rd in West Salem. In conjunction with this change, rename Route 11 (e.g., to 80x) to avoid confusion with Cherriots Route 11.	6-29, D-31	16.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$57,000	\$58,000	\$5,800
SL1	3	Long-Term	2019	Additional intercity later evening service	McMinnville-Hillsboro	Add 1 additional early evening trip. This was deferred to the long-term given funding availability; however, Washington County and Gaston are able to contribute towards the cost of adding this trip, which would serve Gaston High School and students returning from after school activities. Cost represents the total cost to YCTA (before Washington County/Gaston contributions).	6-30, D-41	17.1	Yes	1,171	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$35,000	\$39,000	\$40,000	\$0
CS1	1	Short-Term	2021	Capital Reserve	System-wide	Establish and contribute to a capital reserve fund (e.g., to be used for local matching funds for vehicle grants)	7-7, 7-12	19.1	-	-	111-00	Bus Rolling Stock	N/A	#N/A	N/A	#N/A	\$0	\$0	\$50,000	\$0
SM3	1	Mid-Term	2021	Newberg Demand-Response Capacity	Newberg	Restore Newberg Dial-a-Ride to two vehicles, assuming that fixed-route ridership meets standards and additional paratransit capacity is required based on service standards.	6-29, D-16	18.1	No	-	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$144,000	\$144,000	\$0
SL7	1	Long-Term	2021	McMinnville Early Morning Service	McMinnville	Start McMinnville local fixed-route service at 6 AM. Assumes 3 buses	6-30	20.1	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$59,000	\$60,000	\$6,000
SL7	2	Long-Term	2021	McMinnville Early Morning Service	McMinnville	Start McMinnville demand-response service hours at 6 AM. Assumes 1 Dial-a-Ride vehicle.	6-30	20.2	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$15,000	\$17,000	\$1,700
SL7	3	Long-Term	2021	McMinnville Evening Service	McMinnville	Extend McMinnville local fixed-route service hours to 9 PM (last trips leave transit center at 8:00 or 8:30 PM). Assumes 2 buses (reduced coverage or lower frequency than daytime operation).	6-30	21.1	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$78,000	\$80,000	\$8,000
SL7	4	Long-Term	2021	McMinnville Evening Service	McMinnville	Extend McMinnville demand-response service hours to 9 PM; assumes 1 Dial-a-Ride vehicle.	6-30	21.2	Yes	2,176	300-00	Operations	30.09	Operating Assistance	30.09.01	Operating Assistance	\$0	\$30,000	\$34,000	\$3,400

Notes

- [1] Priority tier is a TDP recommendation, which should be confirmed by the YCTA advisory committee for submission in YCTA's STIF Plan (see "Rank within 100% or 130% list).
- [2] The STIF Plan requires that projects be ranked and allows projects to be submitted at 100% and 130% of projected funding, in order to help prioritize depending on actual funds available. The list and rank are based on the ridecheck conducted in April/May 2017; ranges from 13.1 to 15.8 riders per hour on McMinnville local routes and 8.5 to 11.2 riders per hour on intercity routes. Productivity is based on 1/2 mile of fixed-route stops, or within the service area (typically city or cities) for demand-response or flex-route services.
- [3] Assumes productivity based on the ridecheck conducted in April/May 2017; ranges from 13.1 to 15.8 riders per hour on McMinnville local routes and 8.5 to 11.2 riders per hour on intercity routes. Productivity is based on 1/2 mile of fixed-route stops, or within the service area (typically city or cities) for demand-response or flex-route services.
- [4] Transit access within 1/2 mile of fixed-route stops, or within the service area (typically city or cities) for demand-response or flex-route services.
- [5] 10% allowance for administration and planning are included where needed to implement the project.

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Figure D-36 FY 2019-2021 STIF Application Template Information, Bus Detail

STIF Plan Project & Task	Category	Category Description (Lookup)	Activity Type	Activity Type Description (Lookup)	Activity Detail	Activity Detail Description (Lookup)	Quantity	STIF Funds			Federal Funds (Secured Grants Only)			Other Funds			Total (Check)
								2019	2020	2021	2019	2020	2021	2019	2020	2021	
1.1	111-00	Bus Rolling Stock	11.12	Buy Replacements - Capital Bus	11.12.03	Bus 30 FT	5	\$0	\$80,928	\$110,115	\$0	\$707,072	\$960,000	\$0	\$0	\$0	\$1,858,114
1.2	111-00	Bus Rolling Stock	11.13	Buy Expansion - Capital Bus	11.12.03	Bus 30 FT	1	\$0	\$35,809	\$0	\$0	\$0	\$0	\$0	\$312,191	\$0	\$35,809
1.3	111-00	Bus Rolling Stock	11.12	Buy Replacements - Capital Bus	11.12.04	Bus < 30 FT	5	\$68,628	\$14,715	\$0	\$486,317	\$0	\$0	\$0	\$128,285	\$0	\$569,660
1.4	111-00	Bus Rolling Stock	11.12	Buy Replacements - Capital Bus	11.12.04	Bus < 30 FT	2	\$17,493	\$0	\$0	\$0	\$0	\$0	\$152,507	\$0	\$0	\$17,493
1.5	111-00	Bus Rolling Stock	11.13	Buy Expansion - Capital Bus	11.12.04	Bus < 30 FT	2	\$17,493	\$0	\$0	\$0	\$0	\$0	\$152,507	\$0	\$0	\$17,493
1.6	111-00	Bus Rolling Stock	11.12	Buy Replacements - Capital Bus	11.12.15	Vans	3	\$14,547	\$5,248	\$0	\$85,453	\$0	\$0	\$0	\$45,752	\$0	\$105,248
Total							18	\$118,161	\$136,699	\$110,115	\$571,770	\$707,072	\$960,000	\$305,014	\$486,228	\$0	
									\$364,975			\$2,238,842			\$791,242		
										\$3,395,059							

Rolling Stock Make and Model Detail

STIF Plan Project & Task	Activity Detail	Activity Detail Description (Lookup)	Activity Type	Activity Type Description (Lookup)	TDP Bus Category	Quantity	Make	Model	Length	Seats	Total ADA	Fuel Type
1.1	11.12.03	Bus 30 FT	11.12	Buy Replacements - Capital Bus	Bus - Medium	5	El Dorado	EZ Rider II, Low-Floor	30	23	2	Diesel
1.2	11.12.03	Bus 30 FT	11.13	Buy Expansion - Capital Bus	Bus - Medium	1	El Dorado	EZ Rider II, Low-Floor	30	23	2	Diesel
1.3	11.12.04	Bus < 30 FT	11.12	Buy Replacements - Capital Bus	Culaway - Large	5	Champion	LF, Low-Floor	21	17	2	Gas
1.4	11.12.04	Bus < 30 FT	11.12	Buy Replacements - Capital Bus	Culaway - Small	2	Arboc	Spirit of Independence, Low-Floor	24	10	2	Gas
1.5	11.12.04	Bus < 30 FT	11.13	Buy Expansion - Capital Bus	Culaway - Small	2	Arboc	Spirit of Independence, Low-Floor	24	10	2	Gas
1.6	11.12.15	Vans	11.12	Buy Replacements - Capital Bus	Van	3	TBD	Van, Accessible	< 20	5	2	Gas

CONCEPTUAL SCHEDULES

McMinnville Local Routes

To be added

Newberg Local Routes

To be added

Route 80x (Current Route 11): Salem

To be added

Route 22: Grand Ronde

To be added

Route 33: Hillsboro

To be added

Route 44/45x: Tigard

To be added

APPENDIX E

Public Transportation Funding Sources

APPENDIX E PUBLIC TRANSPORTATION FUNDING SOURCES

Figure E-1 summarizes potential funding options that could be used to support public transportation in Yamhill County. The information is limited to resources YCTA is eligible for either directly or with local partners and describes solicitation schedules, eligible activities, local match, and how the source applies to YCTA. Funds may be available at the local and state levels with or without formal grant solicitation processes, and YCTA can check directly with funding partners on an as-needed basis.

Figure E-1 Public Transportation Funding Options

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Federal Grants				
FTA 5310 Enhanced Mobility of Seniors & Individuals with Disabilities ⁸	<ul style="list-style-type: none"> Grants for public transit agencies that provide transportation services specifically for older adults and people with disabilities. ODOT allocates funds every two years by formula based on population. ODOT may offer discretionary grants through this program, currently on an irregular schedule. Local match is 20% capital (including purchased service) and 50% operating (limited eligibility). 	<ul style="list-style-type: none"> Designated STF agencies receive funds and manage local award process 	<ul style="list-style-type: none"> Capital Operations (limited) Nontraditional programs (e.g., travel training, mobility management) 	<ul style="list-style-type: none"> This is a long-time source of operating funding for YCTA through the FTA's "purchased service" rules allowing YCTA to pay third-party vendor costs at a capital match rate. Local agencies are eligible to apply for FTA 5310 funding via YCTA as the regional Special Transportation Fund (STF) agency. Though considered a stable funding source, program could be subject to changes in state highway funding. Over 80% of Oregon's \$5310 program is Federal Highway funds the state moves to this FTA program.
FTA \$5311 Formula Grants for Rural Areas ⁹	<ul style="list-style-type: none"> Capital, planning, and operations assistance that supports public transportation in rural communities with populations less than 50,000 Training and technical assistance through the Rural Transportation Assistance Program (RTAP) ODOT allocates funds every two years by formula based on ridership, population and miles. Local match is 20% capital and 50% operating 	<ul style="list-style-type: none"> Recipients <ul style="list-style-type: none"> States Native tribes or villages Subrecipients: <ul style="list-style-type: none"> Local government authorities (including Yamhill County) Nonprofit organizations Public transportation operators (including YCTA) 	<ul style="list-style-type: none"> Planning Capital Operations 	<ul style="list-style-type: none"> This is a long-time source of operating funding for YCTA.

⁸ Federal Transit Administration, Fact Sheet: Enhanced Mobility of Seniors and Individuals With Disabilities, Chapter 53 Section 5310, U.S. Department of Transportation, 2015. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grants/37971/5310-enhanced-mobility-seniors-disabled-fact-sheet_0.pdf

⁹ Federal Transit Administration, Fact Sheet: Formula Grants for Rural Areas, Chapter 53 Section 5311, U.S. Department of Transportation, 2015. <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/5311%20Rural%20Program%20Fact%20Sheet%20FAST.pdf>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
FTA §5311(f) Rural Intercity Bus	<ul style="list-style-type: none"> ▪ ODOT uses these funds for state-supported intercity transit service (i.e., POINT routes) and for a statewide discretionary grant program. Discretionary program funds are generally very limited (i.e. < \$2 million) ▪ Rural intercity bus routes are those serving multiple jurisdictions with stops generally 5 miles apart or more. ▪ Local match is 20% capital and 50% operating 	<ul style="list-style-type: none"> ▪ State ▪ Nonprofit organizations ▪ Public transportation operators (i.e., YCTA) ▪ Intercity bus service companies 	<ul style="list-style-type: none"> ▪ Capital ▪ Operations ▪ Planning 	<ul style="list-style-type: none"> ▪ YCTA has not received §5311(f) funds. ▪ YCTA routes to Hillsboro, Tigard, Salem, Grand Ronde and between Newberg and McMinnville would be eligible for §5311(f) funding. ▪ This program may change as ODOT implements STIF programs. This program is not likely to be a significant or sustainable source of ongoing funding for YCTA.
FTA 5339 Buses and Bus Facilities Grants Program ¹⁰	<ul style="list-style-type: none"> ▪ Replace, rehabilitate, and purchase transit vehicles and related equipment ▪ Construct transit-related facilities ▪ ODOT awards funds through a statewide discretionary program every 1 to 3 years. ▪ Local match is 20% capital. 	<ul style="list-style-type: none"> ▪ Public transportation operators ▪ State and local government entities ▪ Tribes that are eligible to receive 5307 or 5311 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ YCTA has received funds through this program. ▪ Though discretionary and competitive, YCTA can expect some funding through this program to replace aging vehicles, particularly those exceeding both age and miles useful life thresholds.
USDOT TIGER Grants Program ¹¹	<ul style="list-style-type: none"> ▪ Competitive grant program for capital projects that will have a significant impact on a region, metropolitan area, or the nation. ▪ Local agencies and ODOT typically propose projects independently directly to the USDOT. ▪ TIGER program is available every 2-5 years. ▪ Local match may vary. 	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities (including Yamhill County) ▪ Public transportation operators ▪ Tribal governments ▪ Metropolitan planning organizations ▪ Can be multi-jurisdictional 	<ul style="list-style-type: none"> ▪ Capital 	<ul style="list-style-type: none"> ▪ Could be used for major projects such as a transit center. ▪ Chances of award to YCTA are low.

¹⁰ Federal Transit Administration, Fact Sheet: Grants for Bus and Bus Facilities, Chapter 53 Section 5339, U.S. Department of Transportation, 2015. <https://www.transit.dot.gov/sites/fta.dot.gov/files/5339%20Bus%20and%20Bus%20Facilities%20Fact%20Sheet.pdf>

¹¹ U.S. Department of Transportation, TIGER Grants Overview, 2015. https://www.transportation.gov/sites/dot.gov/files/docs/TIGER%20Fact%20Sheet_2015.pdf

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
USDOT TIFIA Program ¹²	<ul style="list-style-type: none"> Federal credit assistance program for surface transportation projects for: Secured loans, loan guarantees, and lines of credit. Local agencies and ODOT typically propose projects independently directly to the USDOT. 	<ul style="list-style-type: none"> States US Territories Local government authorities (including Yamhill County) Public transportation operators Private entities undertaking projects sponsored by public authorities 	<ul style="list-style-type: none"> Capital 	<ul style="list-style-type: none"> Could be used for major projects such as a transit center. YCTA may be more competitive and face fewer compliance hurdles through the Oregon Transportation Infrastructure Bank.
State				
State Transportation Investment Fund (STIF) ¹³	<ul style="list-style-type: none"> HB2017 passed in 2017 by the Oregon Legislature created a dedicated funding source for public transportation from a payroll tax of one-tenth of one percent on wages paid to employees. 90% will be distributed by formula to eligible agencies, 5% through a discretionary program, and 4% through a discretionary program for intercity transit. ODOT will use 1% for a transit technical resource center. 	<ul style="list-style-type: none"> Mass transit districts, transportation districts, counties without a mass transit district or transportation district, and federally-recognized Indian tribes in Oregon (same as STF Agencies). 	<ul style="list-style-type: none"> To improve or expand public transportation service in Oregon. 	<ul style="list-style-type: none"> This will be a significant source of public transportation funding for YCTA by January 1, 2019. YCTA will need to manage the local project solicitation and evaluation process, as with Oregon's STF and FTA 5310 programs. The program is effective as of July 1, 2018.
Oregon Special Transportation Fund (STF) - Formula ¹⁴	<ul style="list-style-type: none"> ODOT awards funds every two years to STF agencies by formula based on population. 	<ul style="list-style-type: none"> Designated STF agencies receive funds and manage local award process to any public or non-profit transit providers. 	<ul style="list-style-type: none"> Capital Operations Planning 	<ul style="list-style-type: none"> This is a long-time source of operating funds in Yamhill County. Funds may be used to match Federal funding programs. This is considered a stable funding source, though funds declined 10% between 2015-2017 and 2017-2019 funding cycles.

¹² Federal Highway Administration, Transportation Infrastructure Finance and Innovation Act (TIFIA), U.S. Department of Transportation, 2015. <https://www.fhwa.dot.gov/fastact/factsheets/tifiafs.cfm>

¹³ Statewide Transportation Improvement Fund, OAR 732-040-0030. <https://tinyurl.com/y928h4ay>

¹⁴ Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. <http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Oregon Special Transportation Fund (STF) - Discretionary ¹⁵	<ul style="list-style-type: none"> Grants for transit agencies providing service to older adults and people with disabilities. ODOT awards funds at irregular intervals based on available funding. Funding criteria target innovative capital, start up and pilot programs, though subject to change. 	<ul style="list-style-type: none"> Public and non-profit local transit providers apply through the local STF agency. 	<ul style="list-style-type: none"> Capital Operations Planning 	<ul style="list-style-type: none"> YCTA received a significant award for public information and technology activities in 2016. This is not considered a sustainable funding source, though a good resource for one-time, irregular funding needs.
State Transportation Improvement Program (STIP) ¹⁶ Enhance Program	<ul style="list-style-type: none"> The Enhance program provides funding to projects that enhance, expand, or improve the transportation system. This has included public transportation capital needs. ODOT Area Commissions on Transportation prioritize and recommend Enhance projects. ODOT offers the Enhance program every 1-2 years as funding allows. The program is related to ODOT's maintenance (Fix-It) program, which includes ODOT-selected projects to maintain the roadway system statewide, including bicycle and pedestrian infrastructure. Local match is typically 20% but may vary. 	<ul style="list-style-type: none"> Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> Capital Sidewalk infrastructure 	<ul style="list-style-type: none"> YCTA received a significant award for 40-foot replacement buses in 2016. This program is primarily used for roadway infrastructure projects, including pedestrian infrastructure. This is not considered a sustainable funding source, though a possible resource for vehicles.
ConnectOregon	<ul style="list-style-type: none"> Lottery-backed bonds to support multimodal transportation, including rail, marine, aviation and bicycle and pedestrian capital infrastructure. Local match is 30% and may vary. 	<ul style="list-style-type: none"> Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> Multimodal transportation projects Previously included transit centers 	<ul style="list-style-type: none"> Public transportation is not expected to be a directly eligible use after ODOT implements the STIF program. YCTA bus stop access could benefit from local bicycle and pedestrian infrastructure projects.

¹⁵ Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. <http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf>

¹⁶ Oregon Department of Transportation, About the STIP. <http://www.oregon.gov/ODOT/STIP/Pages/About.aspx>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Planning Grant Program (from ODOT via FTA 5303, 5304, and 5305) ¹⁷	<ul style="list-style-type: none"> ▪ Discretionary ODOT grant program for transit plans that lead to improved public transportation systems. ▪ ODOT awards funds through irregularly-scheduled solicitations depending on available funds, or on an as-needed basis. ▪ Local match is 20% 	<ul style="list-style-type: none"> ▪ Rural, and small urban public transportation providers 	<ul style="list-style-type: none"> ▪ Planning 	<ul style="list-style-type: none"> ▪ This offers a flexible, but one-time resource to create and maintain local public transportation plans.
Oregon Transportation Infrastructure Bank (OTIB) ¹⁸	<ul style="list-style-type: none"> ▪ Statewide revolving loan fund “designed to promote innovative financing solutions for transportation needs.” Cities as well as transit districts are eligible to borrow from the bank. ▪ There is a funding pool set-aside for public transportation projects. Rates are typically very low and more favorable to local agencies than other loan programs. 	<ul style="list-style-type: none"> ▪ Cities ▪ Counties ▪ Transit districts ▪ Port authorities ▪ Special service districts ▪ Tribal governments ▪ State agencies ▪ Private for-profit and not-for-profit entities 	<ul style="list-style-type: none"> ▪ Transit capital projects (facilities, vehicles) ▪ Active transportation access projects on highway rights-of-way 	<ul style="list-style-type: none"> ▪ This has been resource for public transportation providers to cost-effectively secure a loan for major capital purposes. ▪ A sustainable, regular local funding source is required to demonstrate the provider can support ongoing interest costs.
ODOT Transportation Growth Management (TGM) Program	<ul style="list-style-type: none"> ▪ TGM Grants help local communities plan for streets and land use to foster more livable, economically vital, and sustainable communities and increase opportunities for transit, walking and bicycling. ▪ ODOT solicits proposals and awards funds annually. ▪ Local match is 20%. 	<ul style="list-style-type: none"> ▪ Counties ▪ Cities ▪ Public transportation providers 	<ul style="list-style-type: none"> ▪ Planning 	<p>YCTA received an award in 2016 to develop a consultant-led Transit Development Plan (TDP). Awards are needs-based (e.g., time since last planning process), and YCTA is unlikely to require or receive an award in the near future.</p>

¹⁷ Oregon Department of Transportation, Public Transportation Funding Options, 2017. <http://www.oregon.gov/ODOT/RPTD/Pages/Funding-Opportunities.aspx#2f96a75c-e0ff-4504-aae5-ec14cee35125>

¹⁸ Oregon Department of Transportation, Financial Services: Oregon Transportation Infrastructure Bank, 2017. <http://www.oregon.gov/odot/about/pages/financial-information.aspx>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Local				
Transit Access (Utility) Fee	<ul style="list-style-type: none"> A transit access (utility) fee is paid by households and businesses within a service district, and is designed to support a transit service provider over time. A transit access fee could be assessed for all households within the transit service district, or a subset. Transit access fees are typically a monthly charge of between \$1 to \$ 5 per household. 	<ul style="list-style-type: none"> County Cities 	<ul style="list-style-type: none"> Operations Capital Administration 	<ul style="list-style-type: none"> There are approximately 34,000 households in Yamhill County as of 2015.¹⁹ A monthly utility fee of \$1 to \$1.50 per household could generate between \$400,000 and \$600,000 in annual revenue. The City of Corvallis assesses a transit operations fee of \$2.75 for single-family residential customers and \$1.90 for multi-family residential units. The fee for industrial and commercial customers varies by the type of business. The fee generated \$1,100,000 in fiscal year 2015-2016; approximately \$400,000 replaced property tax revenue that is now used for other services (police, fire, library, etc.).²⁰
Employer Payroll Tax	<ul style="list-style-type: none"> An employer payroll tax is a progressive tax imposed directly on the employer. The tax is based on payroll for services performed within a transit district, including traveling sales representatives and employees working from home. This tax applies to covered employees and self-employed workers. 	<ul style="list-style-type: none"> Mass Transit Districts formed under Oregon Revised Statute 267. 	<ul style="list-style-type: none"> Operations Capital Administration Equity 	<ul style="list-style-type: none"> Several transit districts or providers in Oregon use a payroll tax as their primary local funding source, including TriMet, the City of Wilsonville, the City of Sandy, the South Clackamas Transportation District, the City of Canby, and Lane Transit District. YCTA is currently a Service District, and it would need to be confirmed whether it is authorized to implement a payroll tax. A payroll tax of 1/10th of a percent of annual payroll would yield about \$400,000 in 2017 dollars, costing employees about \$3.90 each year.

¹⁹ U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, Table S1101.

²⁰ City of Corvallis, <https://www.corvallisoregon.gov/modules/showdocument.aspx?documentid=4248>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Gasoline Tax	A gas tax is a tax on the sale of gasoline for use in motor vehicles. Motorists already pay federal, state, and local taxes on motor fuel so the levy would not impose a new type of tax.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Administration ▪ Equity 	<ul style="list-style-type: none"> ▪ Various cities and counties in Oregon have local gas taxes, ranging from \$0.01 to \$0.05 per gallon, including neighboring Washington and Multnomah counties.²¹ Dundee is currently the only local jurisdiction in Yamhill County assessing a gas tax; Dundee's gas tax is \$0.02 per gallon. ▪ Based on an average 1,226 gallons of gasoline consumed per US household per year, and approximately 34,000 households in Yamhill County as of 2015,^{22, 23} a \$0.01 gas tax could generate approximately \$400,000 in annual revenue. ▪ However, gas tax revenues are currently on a declining trend, due to factors such as increasing vehicle fuel efficiency, and adoption of alternative vehicle fuel sources. This long-term trend is expected to continue.²⁴
Property Tax	A property tax dedicated to funding public transportation is usually assessed at a rate per \$1,000 of property value. Property taxes may be permanent, or temporary and need to be re-approved by voters.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital ▪ Equity 	<ul style="list-style-type: none"> ▪ There are several examples of dedicated property taxes for transit in Oregon. Tillamook County has a tax of \$0.20 per \$1,000 in property value to fund operation of its transit system. Basin Transit (Klamath Falls) has a levy of \$0.38 per \$1,000 in property value. A 2001 report identified seven districts in Oregon that used property taxes to fund transit, with average annual per-capita revenues of \$14.²⁵ ▪ With countywide assessed property values of approximately \$8.3 billion,²⁶ a county property tax of \$0.05 or \$0.10 per \$1,000 of property value could raise between \$410,000 and \$830,000 in annual revenue. ▪ Property taxes in Oregon are subject to "compression," which limits the amount of property taxes that can be collected (based on state Measures 5, 47, and 50) and can reduce the amount of revenue collected.

²¹ State of Oregon, Fuels Tax Group, http://cms.oregon.gov/ODOT/CS/FTG/pages/current_ft_rates.aspx#bm3

²² U.S. Energy Information Administration, Frequently Asked Questions: How Much Gasoline Does the United States Consume, 2017. <https://www.eia.gov/tools/faqs/faq.php?id=23&t=10>

²³ U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, Table S1101.

²⁴ Oregon Department of Transportation, Oregon State Fuel Taxes, 2017. <http://www.oregon.gov/ODOT/FTG/Pages/Current%20Fuel%20Tax%20Rates.aspx>

²⁵ Goldman, Corbett, and Wachs. Local Option Transportation Taxes in the United States, Research Report UCB-ITS-RR-2001-3, March 2001. <http://www.its.berkeley.edu/publications/UCB/2001/RR/UCB-ITS-RR-2001-3.pdf>

²⁶ Yamhill County, Summary of 2016-2017 Assessment & Tax Roll. <http://www.co.yamhill.or.us/sites/default/files/2016%20Assessment%20Summary.pdf>

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Local Option Sales Tax	A tax assessed on the purchase of goods or services within the jurisdiction of a taxing authority.	<ul style="list-style-type: none"> ▪ State ▪ Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital ▪ Equity 	Sales taxes are widely used to fund transit in other states, despite not currently being used in Oregon. A specific local option sales tax can apply to tourism, collecting revenue from outside visitors. For example, Ashland collects a 9% transient occupancy tax (hotel/motel). There is an existing state lodging and hotel tax of 1%, providing an existing collection mechanism.
Motor Vehicle Registration Fee	A tax assessed on the registration of private motor vehicles within the jurisdiction of a taxing authority.	<ul style="list-style-type: none"> ▪ Counties ▪ Special districts 	<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital ▪ Equity 	As of 2016, over 113,000 private motor vehicles are registered in Yamhill County. ²⁷ A \$2 annual registration fee would generate approximately \$110,000, with the assumption that at least 50% of registrations are ineligible for the fee.
System Development Charges	Systems Development Charges (SDCs) are fees paid by land developers intended to reflect the increased capital costs incurred by a municipality or utility as a result of a development. Development charges are calculated to include the costs of impacts on adjacent areas or services, such as increased school enrollment, parks and recreation use, or transit use.	<ul style="list-style-type: none"> ▪ Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> ▪ Capital 	Cities in Yamhill County currently have transportation system development charges and other fees associated with new developments. These are not linked to public transportation.
Property Access Fee, Land Value Capture, or Benefit Assessment Districts	Property access fee, land value capture, and benefit assessment districts are mechanisms for sharing transit costs with owners of property located near a transit resource who benefit directly from the proximity to the transit resource. These mechanisms help finance transit through taxes on nearby private development, where the property value increased as a result of transit investments.	<ul style="list-style-type: none"> ▪ Local government authorities (including Yamhill County) 	<ul style="list-style-type: none"> ▪ Operations ▪ Capital ▪ Administration 	

²⁷ Oregon Department Of Transportation, Driver And Motor Vehicle Services Division, Oregon Motor Vehicle Registrations By County (Note 1), 2016. http://www.oregon.gov/ODOT/DMV/docs/2016_Vehicle_County_Registration.pdf

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Tax Increment Financing	Tax increment financing (TIF) is the primary finance tool used within urban renewal areas. TIF is generated when an urban renewal area (URA) is designated and the assessed value of all property in the area is 'frozen.' Over time, the total assessed value in the area increases above the 'frozen base' from appreciation and new development. The value in the area greater than the frozen base is called the incremental assessed value, and taxes generated on the incremental assessed value are received by the URA, rather than other taxing districts.	<ul style="list-style-type: none"> Urban Renewal Area 	<ul style="list-style-type: none"> TIF could only be used on capital transit projects that directly benefit the URA. Projects that benefit the broader area can only receive TIF funding proportional to the benefits the URA receives. 	Could be used to fund capital improvements in conjunction with an urban renewal district within a Yamhill County city, if established in the future.
Public and Private Partnership Funding Programs				
Advertising	Advertisements: Transit providers can display paid advertisements on agency properties, including the inside and outside of fleet vehicles, bus shelters, benches, and at transit stations.		<ul style="list-style-type: none"> Operations Administration Capital 	Could be a supplementary funding source for YCTA.
Employer Transit Pass Program	Employer transit pass programs are partnerships between a transit agency and private employers, and offer employers the opportunity to purchase a transit pass for all employees, often at discounted rates. The company may be able to take a tax deduction on the cost of the transit pass. The benefit to the transit agency is an increase in ridership and in revenues.		<ul style="list-style-type: none"> Operations Administration Capital Equity 	Could be a supplementary funding source for YCTA.
Transit Pass Program	Public school districts or colleges/universities and transit agencies sometimes partner to provide students with a transit pass, as a way for students to get to school or school-affiliated activities.		<ul style="list-style-type: none"> Operations Administration Capital Equity 	A transit pass program through direct agreement with the institutions such as the Willamette Valley Medical Center, Linfield College, and George Fox University could bring opportunities for steady funding streams while offering convenience to riders.

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Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Naming Rights / Sponsorships	Historically, the selling of naming rights to people or organizations that make a donation for a capital improvement was most common for large organizations, such as universities or hospitals. Selling naming rights has become more common among smaller organizations and some transit agencies sell naming rights to vehicles, stations, or transit corridors		<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital 	Selling naming rights may provide a small amount of revenue for transit.
Public-Private Partnerships and Joint Development	A public-private partnership is a mutually beneficial agreement between public and private entities that seek to improve the value of an asset. Transit funding from public-private partnerships are most likely to be for capital projects such as a mixed use development that combined a transit station or center.		<ul style="list-style-type: none"> ▪ Operations ▪ Administration ▪ Capital ▪ Equity 	

APPENDIX F

Public Transportation Funding Sources

APPENDIX F SUPPORTING PROGRAMS DETAILS

ELECTRONIC FARE PAYMENT

Chapter 9 of the TDP includes an assessment of two representative electronic fare options that YCTA could pursue—Touchpass and HopThru. The sections below provide the assumptions behind the planning-level cost estimates for that is provided in Chapter 9 (see Fare Policies and Programs). Key inputs and assumptions include:

- Ridership, ranging from existing to higher future ridership
- Share of fares that would be provided through the e-fare system
- Average fares, based on the current YCTA fare with assumed gradual increases over time
- Share of fares paid with passes vs. one-way, cash fares (implications for transaction costs)
- Capital and startup costs spread over an assumed five-year equipment lifecycle for Touchpass (equivalent to the warranty period), with any potential integration costs spread over a 10-year period. There are no upfront costs with HopThru.

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Figure F-1 Touchpass Budgetary Estimate and 10-Year Lifecycle Cost Analysis

Upfront Capital Costs									
Capital Line Items	Unit Cost	Quantities and Costs by Time Frame						Notes	
		Near-Term		+Short-Term		+Mid-Term			
		Qty w/Spares	Total Cost	Qty w/Spares	Total Cost	Qty w/Spares	Total Cost		
TouchPass Readers	\$2,000	20	\$40,000	2	\$4,000			\$0	For 16 buses (including spare vehicles), plus 4 spares; does not include Dial-A-Ride
Reader Installation Kits	\$150	16	\$2,400	2	\$300			\$0	Installed readers only; not required for spare units
Modem (Cradlepoint IBR1100)									Not included, assuming data capabilities through AVL system or other
Antenna (MobileMark LTM401)									Not included, assuming data capabilities through AVL system or other
Bluetooth NFC Reader	\$100	10	\$1,000	2	\$200	2	\$200		Adapter for tablet device on Dial-A-Ride and Shuttle services (provided separately). Android MDTs will be able to run the TouchPass Mobile Reader application, with the NFC Reader (assuming the MDTs don't have an NFC interface).
TouchPass Cards	\$2	1,595	\$3,190					\$0	Min = 1,000. 5-year life
Paper Tokens (10% of cash fares)	\$0.02	6,380	\$128					\$0	Min = 5,000
Reader Warranty Extension (5 years)	\$600	13	\$7,800	2	\$1,200	2	\$1,200		
Total Initial Capital Costs:			\$55,000		\$5,700		\$1,400		
Total Initial Capital Costs (without media)			\$52,000						
Contingency for Integration Costs:			\$30,000						May or may not be required; further investigation would be needed
Initial Costs with Contingency			\$85,000		\$5,700		\$1,400		

Ongoing Annual Costs							
Item	Unit Cost	% of Transactions or # of Units	Existing Ridership		Future Ridership		Notes
			Low	High	Low (+25%)	High (+33%)	
# of Riders			275,000	300,000	350,000	400,000	
% Fares through Touchpass			50%	75%	50%	75%	
Touchpass Transactions			137,500	225,000	175,000	300,000	
Data Plan							Not included, assuming data capabilities through AVL system or other
Reader Loan Fee							This would be for a lease option
Transaction Fees							Touchpass budgetary lump-sum estimate of \$813 / month, or \$9,756 annually (for existing ridership)
<i>Tier 1 - 0-15% of total ridership</i>	\$0.10	15%	\$2,063	\$3,375	\$2,625	\$4,500	
<i>Tier 2 - 16-60% of total ridership</i>	\$0.06	45%	\$3,713	\$6,075	\$4,725	\$8,100	
<i>Tier 3 - 61-100% of total ridership</i>	\$0.03	40%	\$1,650	\$2,700	\$2,100	\$3,600	
TouchPass Cards	\$2.00	500	\$1,000	\$1,000	\$1,000	\$1,000	5 year life, but also accounts for new riders
Paper Tokens	\$0.02	10%	\$275	\$450	\$350	\$600	Assumes 10% of fares
Total Ongoing Costs			\$8,700	\$13,600	\$10,800	\$17,800	
Cost per rider (each ride assumed to be 1 transaction)			\$0.03	\$0.05	\$0.03	\$0.04	

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Lifecycle Cost

Year	0	1	2	3	4	5	6	7	8	9	10
Ridership	275,000	287,500	300,000	312,500	325,000	337,500	350,000	362,500	375,000	387,500	400,000
% Fares through Touchpass	50%	53%	55%	58%	60%	63%	65%	68%	70%	73%	75%
Touchpass Transactions	137,500	150,938	165,000	179,688	195,000	210,938	227,500	244,688	262,500	280,938	300,000
One-Way Fare	\$1.25	\$1.50	\$1.55	\$1.60	\$1.65	\$1.70	\$1.75	\$1.80	\$1.85	\$1.90	\$1.95
Average Fare	\$1.08	\$1.30	\$1.34	\$1.38	\$1.43	\$1.47	\$1.51	\$1.56	\$1.60	\$1.64	\$1.68
Initial cost for fare media (included in operating costs in future)	\$3,318										
Annualized Capital Costs - Initial w/short-term (5 year life)	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400
Annualized Capital Costs - Short-Term (5 year life)		\$1,140	\$1,140	\$1,140	\$1,140	\$1,140	\$1,140	\$1,140	\$1,140	\$1,140	\$1,140
Annualized Capital Costs - Mid-Term (5 year life)						\$280	\$280	\$280	\$280	\$280	\$280
Annualized Capital Cost	\$13,718	\$11,540	\$11,540	\$11,540	\$11,540	\$11,820	\$11,820	\$11,820	\$11,820	\$11,820	\$11,820
Annual Transaction Cost	\$7,425	\$8,151	\$8,910	\$9,703	\$10,530	\$11,391	\$12,285	\$13,213	\$14,175	\$15,171	\$16,200
Annual Fare Media Cost	\$1,275	\$1,302	\$1,330	\$1,359	\$1,390	\$1,422	\$1,455	\$1,489	\$1,525	\$1,562	\$1,600
Annualized Capital + Operating Cost (rounded)	\$23,000	\$21,000	\$22,000	\$23,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000	\$29,000	\$30,000
Average Operating Cost per Transaction	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Avg Operating + Annualized Capital Cost per Transaction	\$0.17	\$0.14	\$0.13	\$0.13	\$0.12	\$0.12	\$0.11	\$0.11	\$0.11	\$0.10	\$0.10
Operating + Annualized Capital Cost % of 1-way fare	13%	9%	9%	8%	7%	7%	7%	6%	6%	5%	5%
Operating + Annualized Capital Cost % of avg fare	15%	11%	10%	9%	9%	8%	8%	7%	7%	6%	6%

Assuming Integration Contingency

Annualized Cost (over 10 years)	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Total Annualized Capital Cost	\$16,718	\$14,540	\$14,540	\$14,540	\$14,540	\$14,820	\$14,820	\$14,820	\$14,820	\$14,820	\$14,820
Annualized Capital + Operating Cost (rounded)	\$26,000	\$24,000	\$25,000	\$26,000	\$27,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000
Avg Operating + Annualized Capital Cost per Transaction	\$0.19	\$0.16	\$0.15	\$0.14	\$0.14	\$0.13	\$0.13	\$0.12	\$0.12	\$0.11	\$0.11
Operating + Annualized Capital Cost % of 1-way fare	15%	11%	10%	9%	8%	8%	7%	7%	6%	6%	6%
Operating + Annualized Capital Cost % of avg fare	18%	12%	11%	10%	10%	9%	8%	8%	7%	7%	7%

Source: Lifecycle cost analysis by Nelson\Nygaard. Cost inputs for budgetary estimates provided by and reviewed with Delerrok, the Touchpass vendor.

Figure F-2 HopThru Budgetary Estimate and 10-Year Lifecycle Cost Analysis

Ridership & Fare Inputs	Value
# of Rides (2016)	277,355
Fare Revenue (2016)	\$300,000
Average Fare	\$1.08
Fare Revenue (2018 Budget)	\$314,968
% Existing Day, Monthly Passes and 10 Day Pass Books	28%

	Existing Ridership		Future Ridership	
	Low	High	Low (+25%)	High (+33%)
Assumptions				
Ridership, annual	275,000	300,000	350,000	400,000
% of mobile fares	40%	65%	40%	65%
% of day, monthly passes and multi-ride books	28%	75%	35%	75%
One-way fare	\$1.25	\$1.25	\$1.75	\$1.75
Average fare	\$1.08	\$1.08	\$1.51	\$1.51
Hopthru Cost Estimates				
# of Mobile Transactions	110,000	195,000	140,000	260,000
# Mobile Transactions < \$2 (8% + 10 cents) - one-way fares	79,129	48,750	91,000	65,000
Transaction Costs	\$15,826	\$9,750	\$21,840	\$15,600
# Mobile Transactions >= \$2 (10%) - all passes	30,871	146,250	49,000	195,000
Transaction Costs	\$3,334	\$15,795	\$7,409	\$29,484
Total Annual Transaction Costs (Rounded)	\$20,000	\$26,000	\$30,000	\$46,000
Average Cost per Transaction	\$0.18	\$0.13	\$0.21	\$0.18
% of 1-way fare	15%	11%	12%	10%
% of avg fare	17%	12%	14%	12%

Lifecycle Cost

Year	0	1	2	3	4	5	6	7	8	9	10
# of Annual Riders	275,000	287,500	300,000	312,500	325,000	337,500	350,000	362,500	375,000	387,500	400,000
% of mobile fares	40%	43%	45%	48%	50%	53%	55%	58%	60%	63%	65%
% of day, monthly passes and multi-ride books	28%	33%	37%	42%	47%	52%	56%	61%	66%	70%	75%
One-Way Fare	\$1.25	\$1.30	\$1.35	\$1.40	\$1.45	\$1.50	\$1.55	\$1.60	\$1.65	\$1.70	\$1.75
Average Fare	\$1.08	\$1.12	\$1.17	\$1.21	\$1.25	\$1.30	\$1.34	\$1.38	\$1.43	\$1.47	\$1.51
# of Mobile Transactions	110,000	122,188	135,000	148,438	162,500	177,188	192,500	208,438	225,000	242,188	260,000
Mobile Transaction Cost < \$2 (8% + 10 cents) - one-way fares	\$15,826	\$16,761	\$17,564	\$18,206	\$18,660	\$18,893	\$18,875	\$18,573	\$17,950	\$16,972	\$15,600
Mobile Transaction Cost >= \$2 (10%) - all passes	\$3,334	\$4,496	\$5,897	\$7,567	\$9,535	\$11,834	\$14,495	\$17,554	\$21,046	\$25,010	\$29,484
Total Transaction Costs (Rounded)	\$20,000	\$22,000	\$24,000	\$26,000	\$29,000	\$31,000	\$34,000	\$37,000	\$39,000	\$42,000	\$46,000
Average Cost per Transaction	\$0.18	\$0.18	\$0.18	\$0.18	\$0.18	\$0.17	\$0.18	\$0.18	\$0.17	\$0.17	\$0.18
% of 1-way fare	15%	14%	13%	13%	12%	12%	11%	11%	11%	10%	10%
% of avg fare	17%	16%	15%	14%	14%	13%	13%	13%	12%	12%	12%

Notes/Source: Monthly passes fall into >= \$2 category; can purchase multiple tickets at once in single transaction. Lifecycle cost analysis by NelsonNygard. Cost inputs for budgetary estimates provided by and reviewed with HopThru.

REGIONAL COORDINATION

TriMet Sign Decal Specifications for Shared Stops

Sign Decal Specification

TriMet can include YCTA on its stop poles at shared stop locations. Preferably, YCTA would provide stickers (generic or route-specific) for TriMet to include on its route sign blades. Stickers can be sent to TriMet using the contact information provided below along with a list of stops at which they should be applied. The presence of YCTA at those stops would be recorded in TriMet’s database, so that YCTA can be notified if the sign needs to be replaced in the future or the stop needs to be closed.

Figure F-3 TriMet Shared Stop Decal Specifications and Coordination Details

Contact Information	Sticker Specifications	Route-Specific Example	Generic Example
Myleen Richardson TriMet – GIS 4012 SE 17 th Ave Portland, OR 97202 Phone: 503-962-5733 Email: Richardson, Myleen <RichardM@trimet.org>	Size: 5.45" x 4.7" Paper: Super Engineering Grade Quantity: 2 per shared stop, plus additional reserve inventory	 <p>The image shows a blue rectangular sticker with a white horizontal band across the middle. Above the band, the text 'CC Rider' is written in a stylized, green-to-blue gradient font. Below the band, the text '1 Downtown Portland' is written in white, with a large white number '1' on the left and 'Downtown Portland' to its right.</p>	 <p>The image shows a rectangular sticker with a light grey background. The letters 'SAM' are prominently displayed in a large, bold, blue-to-green gradient font. Below 'SAM', the text 'SANDY AREA METRO' is written in a smaller, blue, sans-serif font, underlined.</p>

TriMet Shared Stops

Figure F-4 identifies TriMet stops that YCTA serves. As noted above, YCTA can communicate these stop locations to TriMet and coordinate to have a YCTA route sticker placed on the stop pole and the stop noted as a shared stop in the TriMet bus stop database for coordination purposes.

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Figure F-4 TriMet Shared Stops

Service Status	YCTA Route	YCTA Route Direction	Stop Type	YCTA Stop ID	TriMet Stop ID	Stop Description	Notes
Existing	33	Northbound (Eastbound)	Bus Stop	784336	4272	FOREST GROVE - TV Hwy & Hwy 47 (TriMet stop @ Ace Hardware)	
Existing	33	Northbound	Transit Center	784359	N/A	HILLSBORO - Central Station Transit Center (Washington St & 3rd Ave.)	Adjacent to Transit Center but not currently a shared stop; YCTA is coordinating with City of Hillsboro on pole placement
Existing	33	Southbound	Transit Center	784359	N/A	HILLSBORO - Central Station Transit Center (Washington St & 3rd Ave.)	Adjacent to Transit Center but not currently a shared stop; YCTA is coordinating with City of Hillsboro on pole placement
Existing	33	Southbound (Westbound)	Bus Stop	784366	4307	FOREST GROVE - TV Hwy & Hwy 47 (TriMet stop @ Grand Lodge)	Proposed to close in the future and replace with TriMet stop 4289
Future	33	Southbound (Westbound)	Bus Stop	TBD	4289	FOREST GROVE - WB TV Hwy between 2nd Ave & Hwy 47 (TriMet Bus Stop)	Proposed stop, replacement for Trimet stop 4307
Future	33	Northbound (Eastbound)	Bus Stop	TBD	303	CORNELIUS - EB TV Hwy & 4th Ave (Walmart) (TriMet Bus Stop)	Proposed stop
Future	33	Southbound (Westbound)	Bus Stop	TBD	35	CORNELIUS - WB TV Hwy & 4th Ave (Walmart) (TriMet Bus Stop)	Proposed stop
Existing	44 / 45x / 46s	Northbound	Bus Stop	784297	12849	SHERWOOD – Langer Dr - Shari's	
Existing	44 / 45x / 46s	Northbound	Bus Stop	784362	4316	SHERWOOD – NB Hwy 99 @ 124th	
Existing	44 / 45x / 46s	Northbound	Transit Center	784334	N/A	TIGARD - Tigard Transit Center (Ballroom Studio)	Adjacent to Transit Center but not currently a shared stop
Existing	44 / 45x / 46s	Southbound	Transit Center	784334	N/A	TIGARD - Tigard Transit Center (Ballroom Studio)	Adjacent to Transit Center but not currently a shared stop
Existing	44 / 45x / 46s	Southbound	Bus Stop	784363	4260	SHERWOOD – SB Hwy 99 @ 124th	
Existing	44 / 45x / 46s	Southbound	Bus Stop	784297	12849	SHERWOOD – Langer Dr - Sherwood Shari's	Currently same as northbound stop; proposed to move to 9189 for southbound direction
Future	44 / 45x / 46s	Southbound	Bus Stop	784297	9189	SHERWOOD – Langer Dr - Sherwood Shari's	Proposed new southbound stop (currently same as northbound stop)
Future	44 / 45x / 46s	Northbound	Bus Stop	TBD	8644	TIGARD - NB Hwy 99 & Durham Rd	
Future	44 / 45x / 46s	Southbound	Bus Stop	TBD	9792	TIGARD - SB Hwy 99 & Durham Rd	
Future	44 / 45x / 46s	Northbound	Bus Stop	TBD	4308	TIGARD - SB Hwy 99 & Fischer Rd	
Future	44 / 45x / 46s	Southbound	Bus Stop	TBD	4258	TIGARD - SB Hwy 99 & Fischer Rd	

APPENDIX G

Detailed Land Use Policy Assessment

APPENDIX G DETAILED LAND USE POLICY ASSESSMENT

This section supplements Chapter 10 in the TDP. It provides an assessment of local jurisdiction's Comprehensive Plan policies and development codes for consistency with TDP objectives and recommendations.

TRANSIT-SUPPORTIVE POLICY AND CODE LANGUAGE

Recommended Comprehensive Plan Policies

Chapter 10 of the TDP provides comprehensive plan recommendations.

Recommended Development Code Language

This section presents sample development code language that reflects the TDP objectives and the recommendations, is supported by the Comprehensive Plan policies recommended above, and is consistent with the TPR. The recommended code language includes the following topic areas:

- Coordination with transit agencies
- Access to transit
- Transit-supportive improvements
- Other transit-related development requirements (vehicle parking, bicycle parking, and urban form)

The recommended development code language is intended to be a reference for code updates in all of the jurisdictions in the YCTA service area. Source material includes the State of Oregon Transportation and Growth Management Model Development Code for Small Cities, 3rd Edition ("Model Code") as well as exemplary language from other locally adopted code and ordinances in Oregon. While all of the recommended language should be reviewed for local applicability and modified as needed, language shown [in brackets] is text that must be customized to the jurisdiction.

An evaluation of existing development code language in YCTA service area jurisdictions revealed the need for strengthened language related to transit. The evaluation is summarized in Figure G-2. While the evaluation targets the two largest cities in the YCTA service area, the following sets of model development code language are intended for consideration by all the jurisdictions in the service area, as code update opportunities arise.

Coordination with Transit Agencies

Improving coordination with transit agencies is a key part of implementing the TDP and improving transit service and facilities in Yamhill County. Therefore, it is recommended that YCTA, or transportation

facility and service providers generally, be included in the development application process when applications may affect an existing or planned facility or service.

1. Pre-Application Conference

The following language would ensure that YCTA and other transportation service providers have the opportunity to be involved in development review early in the project evaluation process.

The [City/County Community Development/Planning Director/City Manager or designee] shall invite [City/County] staff from other departments to the pre-application conference to provide technical expertise applicable to the proposal, as necessary. Other staff from public agencies whose facilities or services may be affected by the proposal, including transportation and transit agency staff, shall also be invited to participate in the pre-application conference.

2. Application Review

Cities have discretion in involving other agencies in application review. Notification of transit service providers, or transportation facility providers more generally, is typically not explicitly required. The lack of requirements that would allow providers to participate in application review does not reflect the need for stronger coordination between agencies – particularly local jurisdictions, ODOT, and YCTA – that have been identified during the TDP process.

For applications that involve administrative review with notice (e.g., Type II procedures) and quasi-judicial review (e.g., Type III procedures), the following language is recommended:

Referrals [requests to review and comment on the application] shall be sent to interested and affected agencies. Interested agencies include but are not limited to [City/County] departments, police department, fire district, school district, utility companies, and applicable City, County, and State agencies. Affected agencies include but are not limited to the Oregon Department of Transportation and Yamhill County Transit Area.

3. Hearing Notice

Another opportunity for involving transit and transportation agencies in the development review process occurs at the time of public hearing, including the time soon before the hearing when the staff report is being completed. It is recommended that hearing notice provisions be clearly differentiated from application notice provisions, and that they require that notice be sent to agencies such as YCTA, whose facilities or services may be affected by the proposed land use action.

Notice of a pending quasi-judicial public hearing shall be given by the [City/County Community Development/Planning Department] in the following manner:

- A. At least [twenty] days prior to the scheduled hearing date, notice shall be sent by mail to:

Any governmental agency or utility whose property, services, or facilities may be affected by the decision. Agencies include and are not limited to: [list of agencies appropriate to jurisdiction, e.g., counterpart County or City Planning/Community Development, ODOT, ODOT Rail, ODOT Transit, railroad, Port, school district, Yamhill County Transit Area, and other transit/transportation service providers].

Access to Transit and Transit-Supportive Improvements

A fundamental set of development requirements to support transit includes provisions that ensure that community members can easily get to transit stops and that the stops are appropriately furnished with transit-supportive facilities and features. The following recommended language addresses active transportation access to transit facilities.

Site Access

4. Access between the Site and the Street

One element of providing access to transit is establishing connections between the site and the street where there is existing or planned transit service. In particular, development plans should show how pedestrians safely and conveniently travel through the site and to facilities such as sidewalks and transit stops that are adjacent to or near the proposed development. Existing development code provisions in the two cities require connections between the building entrances and street and sidewalk for at least some forms of development.

The following recommended language should be established for all development and zones that may be served with transit.

Pedestrian Access and Circulation

Standards. Developments shall conform to the following standards for pedestrian access and circulation:

- A. Continuous Walkway System. A pedestrian walkway system shall extend throughout the development site and connect to adjacent sidewalks, if any, and to all future phases of the development, as applicable.

5. Access to the Transit Stop and Supportive Improvements

Requiring safe and convenient connections between buildings and transit stops can also benefit transit riders. As suggested below, pedestrian access to transit can be part of a larger section of transit-specific development code provisions addressing building orientation, as well as the features and improvements that are needed as part of the transit stop itself. Requirements could be specified to be applicable only to existing or planned transit stops with higher-frequency service (e.g., headways of 30 minutes or less).

Transit Access and Supportive Improvements

Proposed development that includes or is adjacent to an existing or planned transit stop shall provide or plan for access to the transit stop and, where determined necessary in consultation with [applicable transit service providers], provide transit-supportive improvements consistent with adopted or approved transportation and/or transit plans. Requirements apply where the subject parcel(s) or portions thereof are within [200] feet of a transit stop. Required transit-supportive improvements may include, but are not limited to, the following:

- A. Intersection of mid-block traffic management improvements to allow for pedestrian crossings at transit stops.
- B. Reasonably direct pedestrian connections between building entrances on the site and adjacent streets with planned or existing transit stops. For the purpose of this Section, "reasonably direct" means a route that does not deviate

unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for users.

C. Building placement within [20] feet of one of the following:

1. the existing or planned transit stop;
2. a pedestrian plaza adjacent to the transit stop;
3. a street with an existing or planned transit stop;
4. a street that intersects the street with an existing or planned transit stop; or
5. a pedestrian plaza at the intersection of streets where one street has an existing or planned transit stop.

D. Transit passenger landing pads that are ADA accessible and built to transit agency standards.

E. An easement or dedication for transit stop improvements and an underground utility connection if improvements are identified in an adopted or approved plan.

F. Lighting at the transit stop, to transit agency standards.

G. Other improvements for the transit stop adjacent to the site identified in an adopted or approved plan and coordinated with the transit agency.

Area Access

6. Off-Site Access to Transit Stops

Access to transit may require improvements that extend off-site, beyond the site adjacent to the stop. Off-site access is provided through a combination of:

1. A connected roadway system (with pedestrian and bicycle facilities), which is primarily addressed in the transportation system planning process; and
2. Pedestrian and bicycle access ways between roadways, which can be addressed in the development code.

The following recommended language addresses access ways.

Pedestrian and Bicycle Access Ways

The [decision body] in approving a land use application with conditions may require a developer to provide an access way where the creation of a street consistent with street spacing standards is infeasible and the creation of a cul-de-sac or dead-end street is unavoidable. An access way provides a connection through a block that is longer than established standards or connects the end of the street to another right-of-way or a public access easement. An access way shall be contained within a public right-of-way or public access easement, as required by the [City/County]. An access way shall be a minimum of [10]-feet-wide and shall provide a minimum [6]-foot-wide paved surface or other all-weather surface approved by the [City/County decision body]. Design features should be considered that allow access to emergency vehicles but that restrict access to non-emergency motorized vehicles.

Other Transit-Related Development Requirements

Other development code provisions that can implement the TDP and policies recommended in this memorandum include requirements related to vehicle parking, bicycle parking, and urban form. These provisions may appear less directly related to transit than the previous recommendations regarding coordination with transit agencies, access to transit stops, and transit stop improvements. However, they contribute to creating safe and inviting pedestrian and bicycling environments; a successful transit system relies on safe and convenient access to transit by multiple modes. Therefore, the following suggested code requirements are part of a comprehensive set of strategies to support and promote transit in the YCTA service area.

Vehicle Parking

7. Transit-Related Uses/Facilities in Parking Areas

Bus stops and designated park-and-ride areas in parking lots may informally exist in parking areas in the YCTA service area. To codify these uses and to comply with a subsection of the TPR specifically addressing these uses²⁸, the language below is recommended for integration into code sections regarding off-street parking.

Parking spaces and parking areas may be used for transit-related uses such as transit stops and park-and-ride/rideshare areas, provided minimum parking space requirements can still be met.

8. Carpool/Vanpool Parking

As recommended in the TDP, ridesharing can complement transit and may be more accessible to parts of communities within the YCTA service area that are less dense and more distant from fixed route service. Accordingly, it is important to support ridesharing, and providing preferential parking is one way of supporting ridesharing through development requirements. The following recommended language targets commuting and reflects TPR language specific to this topic.²⁹

Parking areas that have designated employee parking and more than 20 automobile parking spaces shall provide at least 10% of the employee parking spaces (minimum two spaces) as preferential carpool and vanpool parking spaces. Preferential carpool and vanpool parking spaces shall be closer to the employee entrance of the building than other parking spaces, with the exception of ADA accessible parking spaces.

9. Maximum Parking Requirements

Maximum off-street parking requirements help manage parking and encourage the use of transit, typically in denser, urban areas. While these requirements are recommended in the YCTA service area, their applicability can be specified for sites adjacent to transit stops and transit routes and/or for more urban-oriented zones where transit stops may be most likely to be located (e.g., central or general commercial zones).

Maximum Number of Off-Street Automobile Parking Spaces. The maximum number of off-street automobile parking spaces allowed per site equals the minimum number of required spaces, pursuant to Table [], multiplied by a factor of:

²⁸ OAR 660-012-0045(4)(e)

²⁹ OAR 660-012-0045(4)(d)

- A. [1.2] spaces for uses fronting a street with adjacent on-street parking spaces; or
- B. [1.5] spaces, for uses fronting no street with adjacent on-street parking; or
- C. A factor determined according to a parking analysis.

10. Reduced Parking Requirements

Similar to maximum parking requirements, allowing reductions in off-street parking requirements – where, for example, a site is adjacent or close to a transit stop – helps manage parking and supports the use of transit.

Modification of Off-Street Parking Requirements

The applicant may propose a parking space standard that is different than the standard in Section [], for review and action by the [Community Development Director] through a [variance procedure], pursuant to []. The applicant’s proposal shall consist of a written request and a parking analysis prepared by a qualified professional. The parking analysis, at a minimum, shall assess the average parking demand and available supply for existing and proposed uses on the subject site; opportunities for shared parking with other uses in the vicinity; existing public parking in the vicinity; transportation options existing or planned near the site, such as frequent transit service, carpools, or private shuttles; and other relevant factors.

The [Community Development Director/Planning Director] may reduce the off-street parking standards without a [variance procedure] for sites with one or more of the following features:

- A. Site has a transit stop with existing or planned frequent transit service (30-minute headway or less) located adjacent to it, and the site’s frontage is improved with a transit stop shelter, consistent with the standards of the applicable transit service provider: Allow up to a 20 percent reduction to the standard number of automobile parking spaces;
- B. Site has dedicated parking spaces for carpool/vanpool vehicles: Allow up to a 10 percent reduction to the standard number of automobile parking spaces;
- C. Site has dedicated parking spaces for motorcycle and/or scooter or electric carts: Allow reductions to the standard dimensions for parking spaces and the ratio of standard to compact parking spaces;
- D. Site has more than the minimum number of required bicycle parking spaces: Allow up to a 10 percent reduction to the number of automobile parking spaces.
- E. On-street parking spaces are adjacent to the subject site in amounts equal to the proposed reductions to the standard number of parking spaces.

11. Parking Area Landscaping

Parking area landscaping is a significant, yet often underestimated, element in creating an attractive environment for walking, rolling, and taking transit. Requirements for landscaping around the perimeter of parking areas help to screen and soften the effect of large areas of pavement and create an inviting active transportation environment. Internal parking area landscaping breaks up large areas of pavement and, along with walkways, provides an inviting and less intimidating experience of crossing a parking area to access a sidewalk and a transit stop.

The following recommended language addresses both perimeter and internal parking area landscaping.

Parking Lot Landscaping. All of the following standards shall be met for each parking lot or each parking bay where a development contains multiple parking areas:

- A.** A minimum of [10] percent of the total surface area of all parking areas, as measured around the perimeter of all parking spaces and maneuvering areas, shall be landscaped. Such landscaping shall consist of canopy trees distributed throughout the parking area. A combination of deciduous and evergreen trees, shrubs, and ground cover plants is required. The trees shall be planned so that they provide [a partial / # percent] canopy cover over the parking lot within [#] years. At a minimum, one tree per [12] parking spaces on average shall be planted over and around the parking area.
- B.** All parking areas with more than [20] spaces shall provide landscape islands with trees that break up the parking area into rows of not more than [10-12] contiguous parking spaces. Landscape islands and planters shall have dimensions of not less than [48] square feet of area and no dimension of less than [6] feet, to ensure adequate soil, water, and space for healthy plant growth;
- C.** All required parking lot landscape areas not otherwise planted with trees must contain a combination of shrubs and groundcover plants so that, within [2] years of planting, not less than [50-75] percent of that area is covered with living plants; and
- D.** Wheel stops, curbs, bollards or other physical barriers are required along the edges of all vehicle-maneuvering areas to protect landscaping from being damaged by vehicles. Trees shall be planted not less than [2] feet from any such barrier.
- E.** Trees planted in tree wells within sidewalks or other paved areas shall be installed with root barriers, consistent with applicable nursery standards.

Screening Requirements. Screening is required for outdoor storage areas, unenclosed uses, and parking lots, and may be required in other situations as determined by the [City/County decision body]. Landscaping shall be provided pursuant with the standards of subsections [-], below:

- A. Parking Lots.** The edges of parking lots shall be screened to minimize vehicle headlights shining into adjacent rights-of-way and residential yards. Parking lots abutting sidewalk or walkway shall be screened using a low-growing hedge or low garden wall to a height of between [3] feet and [4] feet.

Maintenance. All landscaping shall be maintained in good condition, or otherwise replaced by the property owner.

Bicycle Parking

12. Minimum Bicycle Parking Requirements

In addition to generally encouraging active transportation and addressing TPR provisions,³⁰ establishing minimum bicycle parking requirements also supports the use of transit, accommodating customers bicycling to a transit stop. To this end, it is recommended that requirements for the minimum number of bicycle parking spaces at transit stops and transit centers be established.

³⁰ OAR 660-012-0045(3)(a)

Bicycle Parking

Table __ Minimum Required Bicycle Parking Spaces		Long- and Short-Term Bicycle Parking
Use	Minimum Number of Spaces	As % of Minimum Required Bicycle Parking Spaces
Transit Stops	2 spaces	100% short-term ^a
Transit Centers	4 spaces or 1 per 10 vehicle spaces, whichever is greater	50% long-term ^b 50% short-term ^a

a. Short-term bicycle parking is parking intended to be used for durations less than two hours. Short-term bicycle parking shall consist of a stationary rack or other approved structure to which the bicycle can be locked securely and shall be located within 50 feet of the main building entrance or one of several main entrances, and no further from an entrance than the closest automobile parking space. Shelter or cover may be required for a specified percentage of short-term parking.

b. Long-term bicycle parking is parking intended to be used for durations over two hours. Long-term parking shall consist of a lockable enclosure, a secure room in a building on-site, monitored parking, or another form of fully sheltered and secure parking.

Urban Form

13. Maximum Building Setbacks

Buildings that are built to the front property line, or close to it, are recognized as a key urban design element in creating pedestrian-friendly, walkable environments. One mechanism for achieving building presence on the street frontage is establishing maximum front yard setbacks, requiring buildings to be located no more than a certain distance from the right-of-way. Maximum setbacks in urban commercial areas typically vary from 0 to 10 feet. A related but slightly less powerful mechanism is establishing no minimum front yard setbacks, allowing buildings to be located up to the right-of-way but also allowing them to be set further back, without a limit on that distance.

This development code concept is reinforced by questions raised during the TDP process about buildings along OR 99W being set far back, making transit stops along the highway less accessible and viable. To that end, front yard setback requirements in zones that front OR 99W in Newberg and McMinnville – the Community Commercial (C-2) and Central Business District (C-3) zones in Newberg and General Commercial (C-3) zone in McMinnville – were evaluated against the recommended language presented below. While maximum setback requirements or no minimum setback requirements are established in two of these three zones, the requirements should be further strengthened specifically for development along OR 99W.

As a note, maximum setback requirements can be refined to allow for a front yard setback, or a greater setback, when a plaza or other pedestrian amenity is provided.

Development Standards.

Setback Requirements.

1. Minimum front yard setback: none
2. Maximum front yard setback: [0-10] feet

EVALUATION OF LOCAL JURISDICTION POLICIES AND DEVELOPMENT CODE

Policy Consistency

This section supplements the Summary of Local Policy Assessment section in Chapter 10 of the TDP. It describes an assessment of existing transportation policies found in the Comprehensive Plans and Transportation System Plans (TSPs) of each jurisdiction in the YCTA service area. These policies were reviewed for consistency with the recommended policies. Findings of consistency are summarized in Figure G-1.

In general, the evaluation checked to see whether existing policies address topics covered in the recommended policies. In the larger jurisdictions where more robust transit service is expected, the evaluation sought to find each of the recommended policies represented in existing policies in some way. In smaller jurisdictions, the evaluation determined whether the four categories of recommended policies were more generally represented in existing policies. To this end, findings of “consistent,” “mostly consistent,” “partially consistent,” “minimally consistent,” and “inconsistent” were made, and are supported by brief explanations in Figure G-1.

Figure G-1 Evaluation of Policy Consistency

	Planning for Transit-Dependent Populations	Establishing the YCTA TDP as a Guidance Document	Coordinating with YCTA	Implementing Transit-Supportive Improvements
Larger Jurisdictions				
Yamhill County	<p>CONSISTENT</p> <p>Existing policy addresses transit accessibility for transportation-disadvantaged groups.</p>	<p>PARTIALLY CONSISTENT</p> <p>Existing policy addresses service improvements but in a very general way and without a connection to a transit agency plan. (The Yamhill County Coordinated Human Services Public Transportation Plan is referred to in existing policy.)</p>	<p>PARTIALLY CONSISTENT</p> <p>Existing policy calls for implementing transit stops/centers and park-and-rides identified in the Coordinated Human Services Public Transportation Plan and generally for provision of basic improvements (shelters and benches).</p>	<p>MINIMALLY CONSISTENT</p> <p>An existing goal generally calls for working with transit agencies to provide transit service and improvements, but more detailed policy is not provided beyond this goal.</p>
Newberg	<p>CONSISTENT</p> <p>Existing policy commits the City to supporting a regional transit service that addresses the needs of disadvantaged residents, as well as ensuring that transit services and transportation facilities are ADA accessible.</p>	<p>PARTIALLY CONSISTENT</p> <p>Existing policy identifies a number of potential service improvements (e.g., commuter service to the Portland area) and commits to higher density development near transit corridors but does not establish that these transit-supportive actions and improvements are based on a transit plan</p>	<p>MINIMALLY CONSISTENT</p> <p>Existing policy commits the City to providing transit options for area residents, supporting the formation of a regional transit service district, and coordinating between local transit service providers and TriMet, but does not refer to land use planning and development coordination with YCTA, nor coordination of transit-related improvements or transportation demand management (TDM).</p>	<p>PARTIALLY CONSISTENT</p> <p>Existing policy establishes the City's support for planning and developing park-and-rides, enhancing commuter transit services, and instituting ridesharing and other TDM programs, but does not get down to the level of transit stop improvements. Existing policy addresses prioritization of pedestrian and bicycle improvements, but does not link them to transit corridors.</p>

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	Planning for Transit-Dependent Populations	Establishing the YCTA TDP as a Guidance Document	Coordinating with YCTA	Implementing Transit-Supportive Improvements
McMinnville	<p>MOSTLY CONSISTENT</p> <p>Existing policy addresses City support for ensuring transportation services and facilities meet the needs of the transportation-disadvantaged (transit not singled out).</p> <p>Existing policy regarding complete streets focuses on the safety of children, seniors, and people with disabilities in all phases of transportation and development project implementation.</p>	<p>PARTIALLY CONSISTENT</p> <p>Existing policy establishes City support for transit service improvements that meet residents' needs and are consistent with City goals, policies, and plans.</p> <p>Existing policy commits the City to street design and development requirements consistent with the "Transit System Plan" (which may only be a reference to the City's TSP and not to transit agency-specific planning), and does not address transit-supportive density.</p>	<p>MOSTLY CONSISTENT</p> <p>Existing policy directs the City to study the feasibility of forming a transportation district in collaboration with Yamhill County.</p> <p>Existing policy calls for coordination with YCTA in providing multimodal access to transit stops, streets and sidewalks that can accommodate transit stops and improvements, and support for TDM programs, but does not refer to land use planning and development coordination.</p>	<p>MOSTLY CONSISTENT</p> <p>Existing policy expresses support for hosting an intercity/intracity transit terminal in the city.</p> <p>Existing policy commits the City to transit-supportive development requirements with a focus on pedestrian connectivity; requirements for transit stop improvements and other transit-supportive improvements (e.g., park-and-rides) are not called out. Ways that the City can support TDM (development requirements) are also not specified.</p>
Dundee	<p>MOSTLY CONSISTENT</p> <p>Existing policy generally addresses City support for developing a transportation system that is safe, accessible, and efficient for all users including the transportation-disadvantaged (transit not singled out).</p>	<p>MINIMALLY CONSISTENT</p> <p>Existing policy addresses service improvements but does not tie those improvements to a long-range transit plan.</p>	<p>INCONSISTENT</p> <p>Coordination of land use planning, development, TDM, transit stop improvements, and/or other transit-supportive improvements with transit service providers is not addressed.³¹</p>	<p>MINIMALLY CONSISTENT</p> <p>Existing policy establishes the goal of a safe, continuous, and direct network of streets, access ways, and other facilities (including crossings) and commits to providing bike and pedestrian facility connections to local and regional travel routes, but does not specify or prioritize connecting to transit. Improvements related to transit stops, the pedestrian environment, and TDM are not addressed.</p>

³¹ Policy proposed during the Dundee TSP update process in 2015 addressed coordination of transit stop access and improvements with transit service providers. However, the policy amendments have not been adopted.

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	Planning for Transit-Dependent Populations	Establishing the YCTA TDP as a Guidance Document	Coordinating with YCTA	Implementing Transit-Supportive Improvements
Smaller Jurisdictions				
Dayton	<p align="center">MOSTLY CONSISTENT</p> <p>Existing policy commits the City to promoting transportation actions and improvements that address the needs of low-income, disabled, and senior populations (transit not specified).</p>	<p align="center">MINIMALLY CONSISTENT</p> <p>Existing policy states that the City will support public transportation but does not refer to long-range transit planning guidance.</p>	<p align="center">INCONSISTENT</p> <p>Existing policy states that the City will support public transportation programs but does not address coordination with transit service providers.</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>Existing policy prioritizes sidewalk maintenance and improvements on arterials, collectors, and where they improve connectivity, but does not address access to transit or other transit-supportive improvements and programs.</p>
Lafayette	<p align="center">CONSISTENT</p> <p>Existing policy commits to a street network that is safe, accessible, and efficient for the transportation-disadvantaged, as well as a convenient, safe, and economical public transportation system for the transportation-disadvantaged.</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>Existing policy generally addresses service improvements but does not tie those improvements to a long-range transit plan. (Public transportation policy commits to implementation of the 1998 Regional Transportation Enhancement Plan.)</p>	<p align="center">INCONSISTENT</p> <p>Coordination of land use planning, development, and/or transit-supportive improvements with transit service providers is not addressed.</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>Existing policy establishes the goal of a safe, continuous, and direct network of streets, access ways, and other facilities (including crossings) and addresses pedestrian environment improvements in the Central Business District, but does not address access to transit or other transit-supportive improvements and programs.</p>
Yamhill	<p align="center">MOSTLY CONSISTENT</p> <p>Existing policy commits the City to promoting transportation actions and improvements that address the needs of low-income, disabled, and senior populations (transit not specified).</p>	<p align="center">MINIMALLY CONSISTENT</p> <p>Existing policy states that the City will encourage carpooling and alternative forms of transit, but does not refer to long-range transit planning guidance.</p>	<p align="center">INCONSISTENT</p> <p>Existing policy states that the City will encourage carpooling and alternative forms of transit, but does not address coordination with transit service providers.</p>	<p align="center">MINIMALLY CONSISTENT</p> <p>Sidewalk improvements are prioritized for Main Street and Maple Street, but access to transit or other transit-supportive improvements and programs are not addressed.</p>
Carlton	<p align="center">CONSISTENT</p> <p>Existing policy commits the City to providing increased access, safety, and service related to walking, biking, transit, and ridesharing particularly for the transportation-disadvantaged.</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>Existing policy expresses strong support for transit service and improvements, including coordination with other agencies, but does not tie improvements or requirements to long-range transit planning.</p>	<p align="center">MOSTLY CONSISTENT</p> <p>Existing policy refers to coordination with other agencies regarding transit opportunities, including studying the needs for park-and-ride facilities, but does not specifically address coordination of land use planning and development.</p>	<p align="center">MOSTLY CONSISTENT</p> <p>Existing policy addresses transit-supportive improvements including safe crossings, park-and-ride, and TDM/ridesharing programs, but not transit-related development requirements or pedestrian facility improvements that are prioritized related to transit.</p>

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	Planning for Transit-Dependent Populations	Establishing the YCTA TDP as a Guidance Document	Coordinating with YCTA	Implementing Transit-Supportive Improvements
Amity	MOSTLY CONSISTENT Existing policy commits the City to transportation improvements that address the needs of low-income, disabled, and senior populations (transit not specified).	PARTIALLY CONSISTENT Existing policy commits the City to support and promote transit and related coordination, but does not tie these efforts to a long-range transit plan.	MOSTLY CONSISTENT Existing policy refers to coordination with YCTA regarding service changes, but does not address coordination related to other transit-supportive improvements.	PARTIALLY CONSISTENT Existing policy addresses opportunities to improve the transit system very generally, but does not provide more specific guidance related to access to transit and other transit-supportive improvements and programs.
Sheridan	MOSTLY CONSISTENT Existing policy commits the City to transportation improvements that address the needs of low-income, disabled, and senior populations (transit not specified).	MINIMALLY CONSISTENT Existing policy commits the City to support and promote transit, but does not tie these efforts to a long-range transit plan.	PARTIALLY CONSISTENT Existing policy states support for transit and commits the City to coordinating transportation planning and implementation with transportation facility and service providers, but does not address land use and development coordination nor specify transit agencies.	PARTIALLY CONSISTENT Existing policy address improvements very generally for the transportation-disadvantaged, for promoting transit, and for promoting walking and biking, but does not provide more specific guidance related to access to transit and other transit-supportive improvements and programs.
Willamina	CONSISTENT Existing policy commits the City to work with Yamhill and Polk Counties to address the transit needs of the disadvantaged.	MOSTLY CONSISTENT Existing policy commits the City to make transportation planning and improvements consistent with transportation plans, although the plans are not specified as transit plans.	MOSTLY CONSISTENT Existing policy states support for transit and commits the City to coordinating transit service and meeting the needs of the disadvantaged with Yamhill and Polk Counties, but does not address land use and development coordination.	PARTIALLY CONSISTENT Existing policy addresses improvements very generally for the transportation-disadvantaged, promoting transit, and safe and intermodal pedestrian and bicycle facilities, but does not provide more specific guidance related to access to transit and other transit-supportive improvements and programs.

Development Code Consistency

This section supplements the Summary of Local Development Code Assessment section in Chapter 10 of the TDP.

Figure G-2 Evaluation of Development Code Consistency

	Newberg	McMinnville
Coordination with Transit Agencies		
1. Pre-application conference	<p>INCONSISTENT</p> <p>A pre-application form is available on the City's website, but there are not code provisions regarding a pre-application conference, let alone specifying that transit agencies need to be invited to participate.</p>	<p>INCONSISTENT</p> <p>A pre-application form is available on the City's website, but there are not code provisions regarding a pre-application conference, let alone specifying that transit agencies need to be invited to participate.</p>
2. Application review	<p>MINIMALLY CONSISTENT</p> <p>The Community Development Director has discretion to require that notice be mailed to parties that the Director believes may be affected by the application, which could include transit agencies, but notice is not required. (Section 15.100.210(C))</p>	<p>MINIMALLY CONSISTENT</p> <p>Notice of a Director Review proposal must be sent to property owners and notice of a Public Hearing Review proposal must be sent to agencies that the Planning Director determines to have an interest in the proposal, neither of which requires notice to be sent to transit agencies or other transportation providers. (Section 17.72.110 and Section 17.72.120)</p>
3. Hearing notice	<p>(Notice of the hearing is not addressed separately from notice of the proposal. See #2 above.)</p>	<p>(Notice of the hearing is not addressed separately from notice of the proposal. See #2 above.)</p>
Access to Transit and Supportive Improvements		
Site Access		
4. Access between the site and the street	<p>CONSISTENT</p> <p>On-site walkways are required to connect from the building entrance(s) to the street and may be required to connect to adjoining development. (Section 15.440.140)</p>	<p>MOSTLY CONSISTENT</p> <p>Pedestrian walkways are required to connect between building entrances and the street/sidewalk for large format commercial development; there are no requirements related to connecting to adjoining development. (Section 17.56.050(C)(2)) Buildings are required to have a zero setback and primary entrances are required to open onto the public right-of-way in downtown. (Section 17.59.050) A similar level of connection is not required for development that is not downtown or is not large format commercial.</p>

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	Newberg	McMinnville
5. Access to transit stop and supportive improvements	<p>CONSISTENT</p> <p>Existing code includes access requirements (addressed in #4 above) and requirements for transit stop improvements including reasonably direct access, a landing pad, an easement, and lighting, consistent with the TSP or an adopted transit plan. (Section 15.505.030(V))</p>	<p>INCONSISTENT</p> <p>Other than basic requirements regarding access (addressed in #4 above), code provisions do not address transit-specific access or improvements.</p>
Area Access		
6. Access to transit stops from beyond the site	<p>MINIMALLY CONSISTENT</p> <p>Existing requirements establish maximum block lengths of 800-1,200' in residential and institutional zones, with allowances for longer blocks where there is a mid-block public walkway, but code does not require or encourage this type of access way for long blocks or other situations where a street connection is not practical. (Section 15.505.030(O))</p>	<p>CONSISTENT</p> <p>Land division standards limit block length to 400' and perimeter to 1,600'. "Pedestrian ways" (access ways) are allowed to be provided in the cases of long blocks, dead-end streets, and other sub-standard situations. (Section 17.53.103)</p>
Other Transit-Supportive Requirements		
Vehicle Parking		
7. Transit-related uses/facilities in parking areas	<p>CONSISTENT</p> <p>Transit-related uses permitted in parking areas. (Section 15.440.060(J))</p>	<p>INCONSISTENT</p> <p>Parking spaces are permitted to be used only for car parking; transit-related uses are not addressed. (Section 17.06.040)</p>
8. Preferential parking for employee ridesharing	<p>CONSISTENT</p> <p>Preferential carpool/ vanpool parking is established in existing code. (Section 15.440.010(D))</p>	<p>INCONSISTENT</p> <p>Existing code does not address carpool/vanpool parking.</p>
9. Maximum parking requirements	<p>MOSTLY CONSISTENT</p> <p>Off-street parking is not required in the Central Business District and 50 percent parking requirement reductions are permitted for non-residential uses in the Riverfront District and for commercial uses within 200 feet of a public parking lot. (Sections 15.440.010(B) and (C) and Section 15.440.050(C))</p>	<p>MOSTLY CONSISTENT</p> <p>Off-street parking is not required and 50 percent parking requirement reductions are allowed in designated parts of downtown. (Sections 17.60.060 and 17.60.100)</p>

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	Newberg	McMinnville
10. Reduced parking requirements	<p align="center">PARTIALLY CONSISTENT</p> <p>See #9 above for parking requirement reductions. Residential development is permitted to credit on-street parking when 10 spaces or more are required, and reductions are allowed for affordable housing sites with pedestrian connections or routes to a transit stop. (Section 15.440.030)</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>See #9 above for parking requirement reductions. A reduction of one vehicle parking space for each 15 required vehicle spaces is permitted for five bicycle parking spaces provided (all zones). (Section 17.60.140(A)(3))</p>
11. Parking area landscaping	<p align="center">MOSTLY CONSISTENT</p> <p>Parking areas with 10 or more spaces must provide at least 25 square feet of landscaping per parking space. Perimeter landscaping and landscaped islands are required. (Section 15.420.010(B)(3))</p>	<p align="center">PARTIALLY CONSISTENT</p> <p>Perimeter landscaping around surface parking lots is required in downtown. Otherwise, reduced or no landscaping is required in downtown. Five to seven percent of parking lot gross area is required to be landscaped (all zones), and islands are required to break up parking areas. (Section 17.59.060 and Section 17.57.070)</p>
<i>Bicycle Parking</i>		
12. Minimum requirements for transit stops and centers	<p align="center">MOSTLY CONSISTENT</p> <p>Existing code requires bicycle parking based on required vehicle parking for transit transfer stations and park-and-ride lots. (Section 15.440.100) Bicycle parking for transit centers that do not require vehicle parking and bicycle parking for standard transit stops are not addressed.</p>	<p align="center">INCONSISTENT</p> <p>Existing code only requires bicycle parking in commercial and office/residential zones and is based on the amount of required vehicle parking. (Section 17.60.140) The Planning Director is authorized to determine parking requirements for uses not listed. (Section 17.60.090) However, it is not clear whether these provisions apply to bicycle parking (they are grouped with other vehicle parking requirements), and without bicycle parking requirements explicitly established for transit stops and transit centers, bicycle parking is not guaranteed to be provided for these uses.</p>
<i>Urban Form</i>		
13. Maximum setbacks	<p align="center">PARTIALLY CONSISTENT</p> <p>Existing front yard setback requirements for the C-2 zone and C-3 zone – the zones that predominantly front OR 99W – require at least a 10-foot setback in the C-2 zone and no minimum setback plus a 20-foot maximum setback in the C-3 zone. (Section 15.410.020) Removing minimum setback requirements in the C-2 zone where adjacent to OR 99W and a maximum setback of 0-10 feet (with allowances for pedestrian amenities) in both zones where adjacent to OR 99W are not addressed.</p>	<p align="center">MOSTLY CONSISTENT</p> <p>Existing front yard setback provisions do not require front yards in the C-3 zone, which is the predominant zoning fronting OR 99W. (Section 17.33.030) Except when providing pedestrian amenities, buildings are required to have no setback in downtown. (Section 17.59.050) Maximum setbacks in the C-3 zone outside of downtown and adjacent to OR 99W are not addressed.</p>