

ROGUE VALLEY TRANSPORTATION DISTRICT TRANSIT MASTER PLAN

2019



ROGUE VALLEY TRANSPORTATION DISTRICT (RVTD) 2040 TRANSIT MASTER PLAN

Prepared For:

Rogue Valley Transportation District

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The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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- 1.1 TMP PURPOSE
- 1.2 HISTORY OF TRANSIT IN THE COMMUNITY
- 1.3 TRANSIT PROVIDER FUNDING & GOVERNANCE STRUCTURE
- 1.4 PARTNERSHIPS
- 1.5 RELATED PLANS & PROGRAMS

1.0 TMP CONTEXT



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

1.1 TMP PURPOSE

The 2040 Rogue Valley Transportation District (RVTD) Transit Master Plan (TMP) is a framework for providing transit and related services to the Rogue Valley for the next 25 years. It will be used by RVTD to identify new services, further policy discussions, inform how Statewide Transportation Improvement Funds (STIF) transit funds are spent, and monitor future funding needs. The TMP identifies near-term (2027), mid-term (2037), and long-term (2042) transit service enhancements that help meet the vision and goals for transit in the region established through the TMP process.

The TMP uses robust evaluation tools to weigh differing community needs for transit and provide a greater level of sophistication not typically seen in transit plans. Performance

measures for projects and long-term monitoring are a major part of this plan's work.

RVTD's prior plan, the "Rogue Valley Transportation District Ten-Year Long Range Plan, 2007-2017", was adopted in 2007 and was largely implemented. As such, it is outdated in terms of service planning and approaches to providing public transportation.

RVTD has opportunities to enhance transit services with the STIF transit funds and is fiscally sound but still faces future funding challenges. In 2016, voters passed a 5-year levy, which allowed RVTD to maintain services and add , improve existing route headways and add Saturday service. However, the 5-year levy expires in 2022. The TMP addresses this and other potential future funding scenarios.

1.2 HISTORY OF TRANSIT IN THE COMMUNITY

RVTD was created by public vote in 1975 to provide public transportation services in the urbanized areas of the lower Rogue Valley. It is organized as a transportation district under Oregon Revised Statutes (ORS) 267 and is governed by an elected seven-member board.

RVTD provides fixed-route, demand-responsive, non-emergency medical transportation, and other public transportation services in the greater Medford area. RVTD's fixed-route service area covers approximately 168 square miles, including the cities of Medford, Ashland,

Central Point, Talent, Phoenix, Jacksonville, and unincorporated areas such as White City. The additional area within ¾ mile of a fixed route where RVTD provides complimentary paratransit (demand-responsive) services is approximately 50 square miles.

RVTD's mission is to "provide quality public transportation, viewed by residents and visitors as a realistic and viable alternative to the personal automobile, and to thereby improve the quality of life in the Rogue Valley."

1.3 TRANSIT PROVIDER FUNDING & GOVERNANCE STRUCTURES

The RVTB district boundary is the area where property taxes are generated to help provide local transit service. The district boundary was set when the district was formed in 1975 and has changed little since that time. RVTB also provides services outside of their district boundary as they administer state and federal funds for rural transit throughout Jackson County, including the new STIF transit funds.

Figure 2 shows the RVTB service district boundary in green and compares it to the Rogue Valley Metropolitan Planning Organization (RVMPO) planning area, shown in purple, and the Jackson County boundary, shown in blue. The RVMPO planning area contains the urban and urbanizing areas of the Rogue Valley. The RVTB district boundary and RVMPO cover similar developed areas, with

the notable exception that the RVTB boundary excludes Eagle Point, along with a portion of unincorporated White City west of Table Rock Road and the unincorporated community of Tolo.

Figure 1 breaks down the funding resources available to RVTB for the annual operating budget. As shown, approximately 13 percent of the adopted 2017-2018 operating budget is provided by the property taxes collected within the RVTB service district boundary.

Figure 2 shows the locations of RVTB's fixed routes, as well as two other services, the Rogue Valley Commuter Line and the Rogue Valley Connector which connect to communities outside RVTB's service district.

Figure 1: RVTB Funding Resources (from Adopted 2017-2018 Operating Budget)

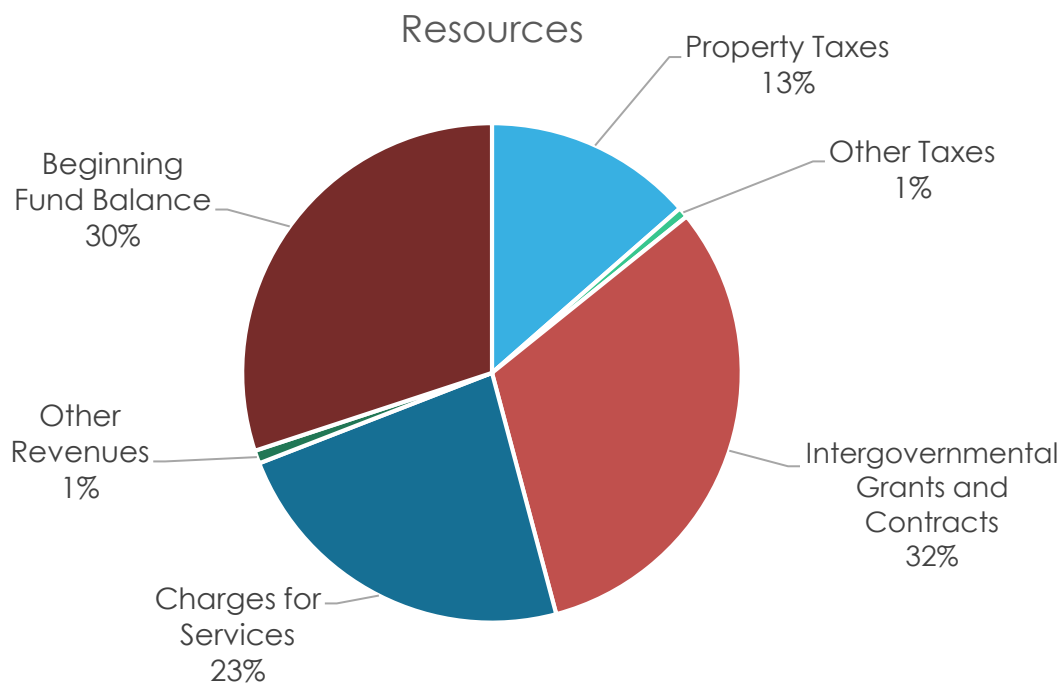
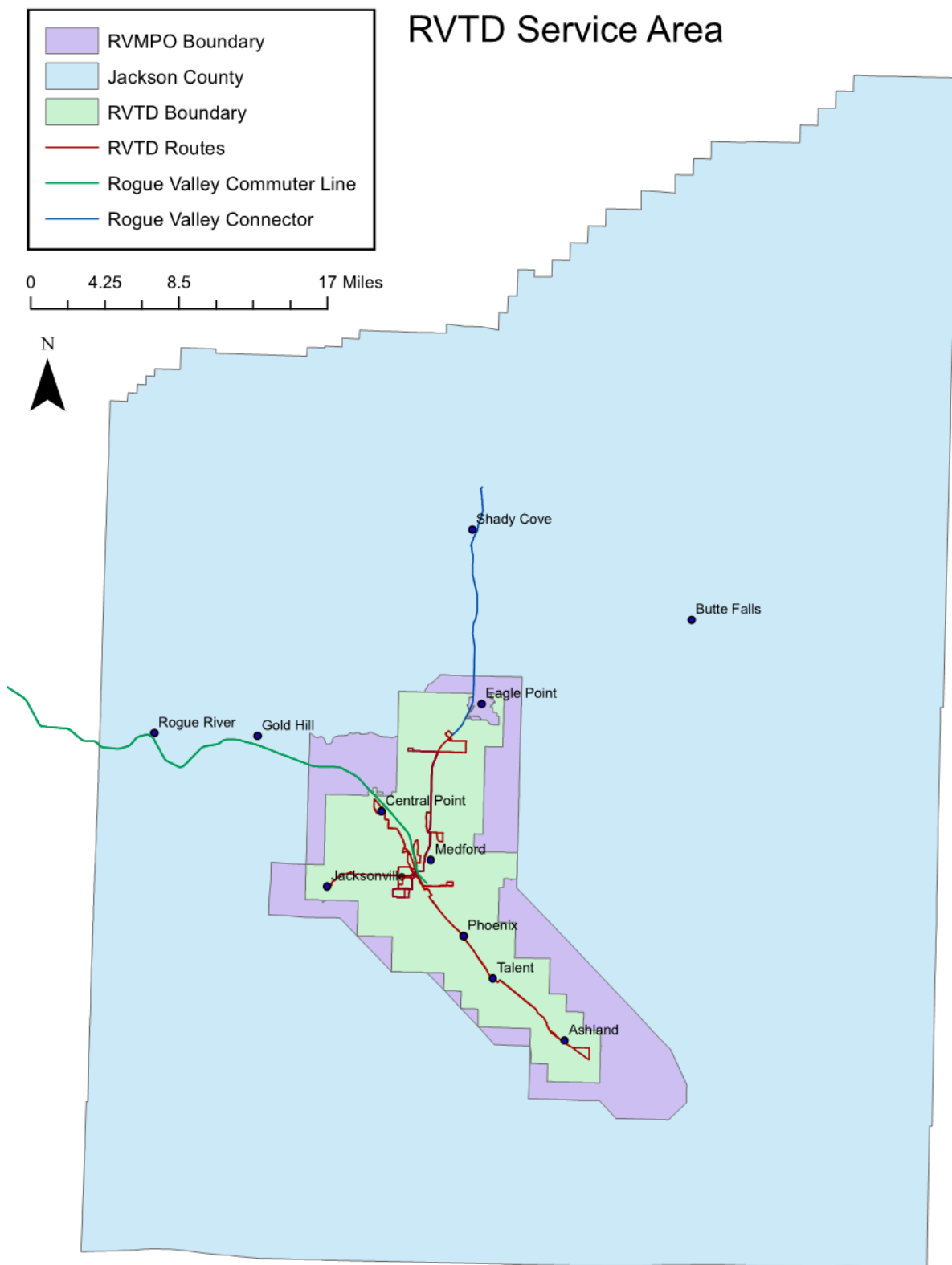


Figure 2: RVTD Service Area



1.4 PARTNERSHIPS

This section describes public transportation services offered within the RVTB service area that are provided by other operators. These services are summarized in Table 1 and described further below.

RVTB coordinates with these partners through the region's Coordinated Transportation and Human Services Plan (2017 – 2021 *United We Ride Plan in Rogue Valley*), through collaboration on the Statewide Transportation Improvement Funds (STIF) for transit, and on an on-going basis coordinating transit service. RVTB will continue to seek opportunities to improve service quality and fill service gaps through collaboration with its partners.

Table 1: Other Transportation Services

Service	Type of Service	Service Provider
RV Commuter Line	Intercounty Fixed-Route	Josephine Community Transit
SouthWest POINT	Intercounty Fixed-Route	The Shuttle/ODOT
Amtrak	Train	Amtrak
Greyhound	Interstate Fixed-Route	Greyhound
Rogue Valley International-Medford Airport	Airport	Various Airlines
Southern Oregon Transit Providers	Fixed-Route & Dial-a-Ride	Various Regional Transit Agencies

RV COMMUTER SERVICE

Josephine Community Transit (JCT) operates the RV Commuter Line, providing bus service between Grants Pass (Anne Basker Auditorium) and Medford (Front Street Station) with stops in Gold Hill and Rogue River. The service operates from 6:35 AM to 5:15 PM on weekdays. There are five runs in each direction each day, including two morning, one midday, and two

evening runs. All buses are equipped with bike racks that accommodate two bikes.

Fares are \$2 per trip and children age 6 and under ride for free. JCT offers \$20 punch cards and commuter passes, which are valid on the RV Commuter service. The RV Commuter Line issues transfers valid for 60 minutes to JCT's and RVTB's services. JCT and RVTB transfers are not valid for boarding the RV Commuter Line.

SOUTHWEST POINT

SouthWest POINT provides daily intercity bus service between Klamath Falls and Brookings, with stops in White City, Medford (airport and Front Street Station), Ashland, Gold Hill, Grants Pass, and additional cities. The service is operated by The Shuttle, a private company, and is supported by ODOT. The service uses 22- and 24-passenger buses, equipped with bicycle racks, luggage racks, personal power outlets, and Wi-Fi.

One trip is made in each direction each day. The westbound trip from Klamath Falls to Brookings arrives at Front Street Station at 12:00 PM, continues to Ashland (Southern Oregon University), and returns to Medford at 12:50 PM for a 3-hour layover before continuing west to Brookings at 4:00 PM. The eastbound trip from Brookings arrives at Front Street Station at 12:20 PM. After a nearly 4-hour layover, the bus proceeds to Ashland at 4:10 PM, returns to Medford at 5:00 PM, and proceeds toward Klamath Falls. Scheduled travel times from Medford are: Ashland, 25 minutes; Grants Pass, 1 hour; Klamath Falls 2:10; Crescent City 3:10; and Brookings 3:45.

Fares vary by distance, with a ticket from the Medford Airport to Klamath Falls Amtrak costing \$25 for an adult, \$18.75 for a child age 12 and under, and \$22.50 for seniors age 62 and above.

AMTRAK

The nearest Amtrak station is located in Klamath Falls and can be reached via the SouthWest POINT service. The Coast Starlight route operates through Klamath Falls, providing connections across the west coast from Los Angeles to Seattle.

GREYHOUND

Greyhound provides bus service north and south in the I-5 corridor from Front Street Station in downtown Medford. Direct connections are available to Portland, Redding, Seattle, and more. Buses operate 3-4 trips per day in each direction, 7 days per week.

Fares vary, with a ticket from Medford to Portland costing \$40–\$50 one-way.

ROGUE VALLEY INTERNATIONAL–MEDFORD AIRPORT

Rogue Valley International–Medford Airport currently provides non-stop flights to Portland, Seattle, Los Angeles, Phoenix–Sky Harbor, Denver, Las Vegas, and San Francisco. Seasonal service is available to Phoenix–Mesa. Medford Airport is the third busiest airport in Oregon, behind Portland and Eugene.

SOUTHERN OREGON TRANSIT PROVIDERS

Other transit providers in the region include Josephine Community Transit, Basin Transit (Klamath Falls), UTRANS (Douglas County), Curry Public Transit, and Coos County Area Transit. These agencies provide fixed-route and dial-a-ride services within their respective service areas.

1.5 RELATED PLANS & PROGRAMS

Relevant plans and programs were reviewed by RVCOG to ensure that this TMP aligns with the previous planning work completed in the study area. Technical Memorandum #3: Local and State Policies, Rules, and Regulations provides the full overview of the documents that were reviewed.

RVTD PLANS AND PROGRAMS

Table 2 lists relevant RVTD plans and programs for this TMP. In particular, this TMP replaces the RVTD Long Rang Plan 2007-2017, which was the previous document that outlined RVTD's next steps for enhancements. Further details about the transit service programs described in Table 2, see Technical Memorandum #4: Population and Demographic Trends and Forecast.

LOCAL AND ROGUE VALLEY AREA PLANS AND PROGRAMS

In addition to plans and programs completed by RVTD, RVCOG reviewed plans, programs, and studies done in the RVTD service area. Documents include interchange area management plans (IAMPs), transportation system plans at the local and regional level, comprehensive plans, urban reserve concept plans (URCPs), and other studies and plans throughout the area. Technical Memorandum #3: Local and State Policies, Rules, and Regulations provides an overview of the local and Rogue Valley area documents that were reviewed.

Table 2: RVTD Plans and Programs

Document	Key Information
2011 District Boundary Assessment	A study that looked at areas on the fringes of the district boundary that have become urbanized and could support transit services; Eagle Point was identified.
High Capacity Transit Community Engagement Project (2014)	Describes research and public engagement activities used to solicit feedback from stakeholders and the community regarding perceptions and sentiment towards RVTD, and potential transit enhancements (including bus rapid transit) in the Rogue Valley. Findings include improving reliability, amenities, and expanding service hours; collaboration with external partners and better integration with local plans.
RVTD Bus Stop Facilities Design Guide (2011)	Contains policies for stop amenities, an existing conditions report, and design guidelines for various types of bus stops, an inter-agency framework for how bus stops are improved, and a budget and timeline for making bus stop improvements. Includes a reference on the varying levels of authority RVTD has in each city.
RVTD Hazard and Security Plan (2015)	Describes RVTD's strategies and procedures for maintaining a safe and secure environment for passengers, employees/volunteers, and the surrounding community.
2017 – 2021 United We Ride Plan in Rogue Valley	Describes priority needs to improve mobility of three target populations: people with disabilities, older adults, and persons of low income.
2017 – 2021 RVTD Title VI Program	Describes how RVTD can and has taken steps to ensure that persons are not discriminated against, excluded from participation in, or denied benefits of RVTD programs and services. Includes a Limited English Proficiency (LEP) Four Factor Analysis to determine appropriate actions on the part of RVTD in order to provide "meaningful access."
Valley Lift Paratransit Program	RVTD operates a shared-ride, origin-to-destination, wheelchair-accessible transportation service for persons with disabilities who are unable to use fixed-route service. RVTD contracts with Paratransit Services, Inc. to drive and dispatch the vehicles, while RVTD handles customer service. Paratransit Services, Inc. is a national, for-profit transportation provider.
Rogue Valley (RV) Connector Service	The RV Connector provides demand-responsive service between seven locations in the communities of Trail, Shady Cove, Eagle Point, and White City, and three locations in Medford. The RV Connector is funded by Oregon's Special Transportation Fund and prioritizes older adults and people with disabilities, with the general public being served on a space-available basis. Riders must register with the RV Connector program, schedule a trip at least 24 hours in advance, and arrive at the designated stop during the scheduled pick-up time.
RVTD Plus Program	The RVTD PLUS Program provides non-medical transportation services for eligible low-income older adults and people with disabilities. The service is intended to provide independence to riders for any trip purpose, such as grocery shopping or socialization and eligibility is determined by Senior and Disability services case managers with reimbursement for transportation costs.
Veteran's Transportation	RVTD has funding available to reimburse Veteran's Transportation providers for using Translink. The program provides transportation for eligible veterans traveling to medical appointments. RVTD also has an ODOT Statewide Significant project to assist veterans with using transportation options and has launched the nation's first Go Vets individualized marketing program.
TransLink Non-Emergency Medical Transportation (NEMT)	As part of the Oregon Coordinated Care Organization medical brokerage system, RVTD provides non-emergency medical transportation through its TransLink program to eligible individuals throughout much of southwest Oregon. Depending on the situation, riders may be provided transportation via public bus, taxi cab, wheelchair van, stretcher van, or other types of transportation as necessary. Rides may be shared.

Document	Key Information
DD53 and DD57 Programs	Within the Valley Lift service area, RVTB provides employment transportation to individuals with developmental disabilities through the DD53 program. RVTB also provides one-time-only or time-limited services for individuals with intellectual or developmental disabilities for General Fund Special Projects or K-Plan Special Projects, as defined by Oregon's Standards and Procedures, through the DD57 program. Clients are determined eligible through the Jackson County Developmental Disability Service. Riders are not charged a fare.
Way to go! Program	RVTB operates the region's Transportation Demand Management program, which provides information and support to Rogue Valley residents and employers interested in non-auto travel. The program provides information on walking, biking, transit, and ridesharing. RVTB provides rideshare information in the form of Drive Less Connect, an online tool for ride-matching and trip logging.



- 2.1 PUBLIC INVOLVEMENT FRAMEWORK
- 2.2 TECHNICAL ADVISORY COMMITTEE
- 2.3 STAKEHOLDER INTERVIEWS
- 2.4 PRESENTATIONS AT BOARD AND COMMITTEE MEETINGS

2.0 STAKEHOLDER INVOLVEMENT



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

2.1 PUBLIC INVOLVEMENT FRAMEWORK

The project management team (PMT) began work on this transit master plan and its supporting memos and activities in December 2017. A summary of outreach activities conducted from December 2017 through June 2019 is provided below. For each outreach activity, a range of advertising and marketing efforts was completed to gain participation including mailed newsletters, email notifications, social media announcements, and radio announcements.

PROJECT WEBSITE

The project website (<http://rvtd2040transitplan.com>) houses information that allowed the general public and the advisory committees to stay informed about the project. Background documents, meeting materials, and finalized technical memos were provided on the website, along with the latest news about upcoming events. The website also provided an interactive map where anyone could provide comments, concerns, or suggestions for specific locations in and around the RVT system.

PASSENGER SURVEY

In February 2018, RVT administered a passenger survey to better understand the state of the existing transit system. Each run of the day on each route was surveyed for both the weekday and weekend schedules. A total of 726 valid surveys were collected. The summarized data were weighted by route ridership to adjust for over- and underrepresented response rates by route. Passengers were asked about their origin and

destination bus stops, travel mode to and from bus stops, trip purpose, transit use, employment, demographics, and fare payment. In addition, they were asked to respond to questions provided by RVT about customer service. The survey responses will be used to identify transit needs and demand and to inform the development of service alternatives. Detailed passenger survey results can be found in Technical Memorandum #8: Community Transit Vision.

CUSTOMER SATISFACTION

CUSTOMER SATISFACTION WAS HIGHEST FOR
BUS CLEANLINESS 4.45 OUT OF 5
DRIVER CUSTOMER SERVICE 4.39
TOUCHPASS FARE PAYMENT 4.28



Customer satisfaction was lowest (but still positive) for bus stop cleanliness **3.66**, available seating at bus stops **3.70**, and the OneBusAway app **3.99**

SAFETY

90% OF RIDERS INDICATED THEY FELT
“SAFE” OR “VERY SAFE” ON THE BUS



3% of riders indicated they felt “Unsafe” or “Very Unsafe” on the bus

SERVICE NEEDS

**RIDERS IDENTIFIED SUNDAY SERVICE 65%,
MORE FREQUENT SATURDAY SERVICE 35%,
LATER EVENING BUS SERVICE 29%,
AND MORE FREQUENT WEEKDAY SERVICE 20%
AS TOP PRIORITIES**



Multiple riders wrote in suggestions for new service to Eagle Point

IN-PERSON AND VIRTUAL OPEN HOUSES

There were three sets of open houses conducted through the development of the TMP to gather input from the public.

Virtual Open House #1 was available online from June 6th through 22nd, 2018. The corresponding in-person open house occurred on June 6th from 3:00 to 6:00 p.m. at the Medford Public Library. The open house activities sought input on transit needs and priorities for RVT. As part of the first set of open house meetings (in-person and virtual), a survey was conducted to better understand community member service desires. The detailed summary of the survey and first set of open house activities can be found in Technical Memorandum #8: Community Transit Vision.

Virtual Open House #2 was available online from January 19th through February 4th, 2019. The corresponding in-person open house occurred on January 22nd from 4:00 to 6:00 p.m. at the Medford Public Library. The second set of open house meetings provided the public the opportunity to review potential new routes and determine if they are a priority for the system. A survey was also conducted to understand community priorities for different service enhancement types.

Virtual Open House #3 was available online from May 31st through June 17th, 2019. The corresponding in-person open house occurred on June 5th from 3:00 to 6:00 p.m. at the Medford Public Library. The third set of open house meetings provided the public the opportunity to review the near-term, mid-term, and long-term preferred systems and projects for the TMP.

2.2 ADVISORY COMMITTEES

In addition to the Project Management Team (PMT), two advisory committees were formed to provide technical and local expertise to the project. The Technical Advisory Committee (TAC) was made up of City, County, and State transportation staff who know the area and are familiar with the type of technical analysis and planning work being completed through this project. The Citizen Advisory Committee (CAC) included representative from different community service providers, community institutions, the RVT Board, and the general public. CAC members had a range of comfort discussing the type of technical analysis being completed and more so provided knowledge of the jurisdictions and communities they serve, work, or live in.

These advisory committees reviewed each of the draft technical memorandums and guided the next steps for the PMT. The TAC and CAC each had five regular meetings and one design charrette throughout the process:

- The first set of meetings presented the existing conditions of the transit system and discussed existing measures, policies, and demographics.
- The second set of meetings was focused on discussing the vision statement, goal areas, evaluation criteria, and modeling and analysis tools.
- The third set of meetings were used to verify and review the draft transit supportive areas and community transit vision.

- A round of design charrettes were conducted to allow committee members and RVTB staff to brainstorm potential service enhancements while considering the cost of any new or enhanced service.
- The fourth set of meetings outlined the recommended near-term service enhancements.

- The fifth set of meetings focused on the draft TMP and any comments to address in the final plan.

Detailed meeting minutes for the TAC and CAC meetings can be found in Technical Memorandum #8: Community Transit Vision.

2.3 ADDITIONAL STAKEHOLDER INPUT

Additional stakeholder input was obtained through interviews with local jurisdiction staff, meetings with other agencies and organizations, and by obtaining surveying RVTB's bus operators.

LOCAL JURISDICTION INTERVIEWS

The PMT conducted several local jurisdiction interviews in parallel to the TAC, CAC, and open house meetings summarized above. Each meeting was conducted as an informal interview, including open dialogue between jurisdiction representatives and PMT members. Jurisdictions interviewed include the cities of Ashland, Medford, Central Point, and Talent. Interviews included discussion of upcoming development (especially if designated as transit-oriented development), the jurisdiction's transit priorities, and how a jurisdiction can prepare for transit with capital projects. The detailed summary of the jurisdictional interviews can be found in Technical Memorandum #8: Community Transit Vision.

MEETING WITH ORGANIZATIONS

In addition to the local jurisdiction interviews with cities served by RVTB, the PMT conducted

meetings with stakeholder group organizations. The groups included Oregon Department of Transportation (ODOT) and United Way – Transportation Impact Committee. ODOT provided high-level plans for the region, especially for OR 62 and OR 99. Both organizations discussed their priorities for future enhancements and potential new service. Detailed notes from each meeting can be found in Technical Memorandum #8: Community Transit Vision.

OPERATOR INPUT

Input about potential service enhancements was collected from RVTB bus operators during the week of October 15th, 2018. Operators were asked to post sticky notes on a map to indicate new routes, connections, or prominent destinations to add services to. In addition, written comments could be made for service-wide system improvements. Notes from the operator feedback can be found in Technical Memorandum #8: Community Transit Vision.



- 3.1 TRANSIT VISION
- 3.2 TRANSIT GOALS

3.0 VISION & GOALS



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

3.1 TRANSIT VISION

Three vision statement options were reviewed and discussed with the TAC and CAC and with the public. Their input led to the following vision statement adopted by the Board.

VISION STATEMENT

In 2040, RVTD provides quality, efficient public transportation for residents and visitors, including those who are transit-dependent, improving the quality of life and the environment in the Rogue Valley and connecting its diverse communities to jobs, opportunity, and daily needs.

3.2 TRANSIT GOALS

There are five goal areas to support the adopted vision statement; Community, Coordination, Economy, Environment, and Service Quality. Each goal area has a corresponding statement that articulates RVTD's aspirations.

GOAL I: COMMUNITY

Connect the region, focusing on increasing equitable access to transportation and improving quality of life.

GOAL II: COORDINATION

Coordinate closely with regional partners (such as the surrounding cities, Jackson County, ODOT, and other agencies), within RVTD, and with the public to ensure efficient delivery of high-quality services integrated with other modes and supportive land uses.

GOAL III: ECONOMY

Enhance RVTD's cost effectiveness and provide convenient and reliable service that supports the local economy.

GOAL IV: ENVIRONMENT

Implement a system that lessens the environmental impact of travel.

GOAL V: SERVICE QUALITY

Provide a service that is safe, comfortable and convenient for riders.

During the May 2019 RVTD Board meeting, Resolution Number 18-07 was adopted. The Resolution establishes an initial three-point strategy for RVTD to transition from CNG fossil fuels



- 4.1 DEMOGRAPHICS
- 4.2 LAND USE & DEVELOPMENT PATTERNS
- 4.3 CURRENT TRANSIT SERVICES
- 4.4 CAPITAL INVENTORY

4.0 BASELINE CONDITIONS



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

4.1 DEMOGRAPHICS

RVTD is wholly located within Jackson County in southern Oregon. The county covers 2,800 square miles and had a population of 216,900 in 2017. The county seat is Medford, which has a population of nearly 80,000. Other cities in Jackson County with over 10,000 people are Ashland and Central Point. The region has the highest concentration of incorporated cities within an MPO in Oregon outside of the Portland metropolitan region.

POPULATION DENSITY – BY GENERATION

The PEW Research Center defines generational cohorts by birth years, including “Generation Z”, “Millennials”, “Generation X”, “Baby Boomers”, and the “Silent Generation”.

Technical Memorandum #9: Service Enhancement Analysis includes figures showing population densities by generational cohort to a) identify the relationship between existing transit ridership, location, and generational population densities, and b) use this information to help develop and provide support for the planning process for determining future transit needs. The five generational cohorts are:

- “Silent Generation” – born before 1945
- “Baby Boomers” – 1946-1964
- “Generation X” – 1965-1980
- “Millennials or Generation Y” 1981-1996
- “Generation Z” – 1997-2017

AGE

Approximately 43 percent of the total County population is either under 18 years of age or over the age of 60, representing approximately

90,900 people. The 60 and over population in Jackson County represents a larger proportion of the total population (approximately 28 percent) than the Oregon statewide average of 14 percent. These two population groups are notable with respect to transit markets because they are more likely to be transit dependent. The senior population in Jackson County has grown in recent decades, due primarily to the aging of the Baby Boomers. Future forecasts project that by 2050, the senior population will increase to 34 percent of the total County population, with that segment of the population expected to exceed 100,000.

POPULATION DENSITY – BY JURISDICTION

The populations of the three largest cities (Medford, Ashland, and Central Point) represent approximately 54 percent of the total County population. The population of all cities within the RVTD service district total approximately 61 percent of the total County population. Approximately 85 percent of the County population lies within the RVTD service district boundary. As shown in Table 3 all areas within the County except for Butte Falls have experienced a population increase since 2000. Jackson County’s urbanized population is growing at twice the rate of the unincorporated areas, which supports the provision of transit services to higher-density locations.

Table 3: Jackson County Population 2000–2017

Community	Population (2000)	Population (2010)	Population (2017)	Growth (2000–2017)	% Growth (2000–2017)
Medford	63,150	74,910	79,590	16,440	26%
Ashland	19,520	20,080	20,700	1,180	6%
Central Point	12,490	17,170	17,700	5,210	42%
Eagle Point	4,800	8,470	8,930	4,130	86%
White City	5,470	7,980	8,710	3,240	59%
Talent	5,590	6,070	6,330	740	13%
Phoenix	4,060	4,540	4,610	550	14%
Shady Cove	2,310	2,900	3,110	800	35%
Jacksonville	2,240	2,790	2,950	710	32%
Rogue River	1,850	2,130	2,220	370	20%
Gold Hill	1,070	1,220	1,220	150	14%
Butte Falls	440	420	430	–10	–2%
Cities + White City	117,520	140,700	147,790	30,270	26%
Other unincorporated	63,750	62,510	69,110	5,360	8%
Jackson County (Total)	181,270	203,210	216,900	35,630	20%

Sources: United States Census Bureau. Census 2000 Gateway. <http://www.census.gov/main/www/cen2000.html>. Accessed February 19, 2018. United States Census Bureau. 2010 Census Data. <http://www.census.gov/2010census/data/>. Accessed February 19, 2018.

Table 4 shows demographic details for each jurisdiction within Jackson County.

Key demographic findings are as follows:

- Older adult populations are concentrated in smaller cities within Jackson County, especially Rogue River, Jacksonville, Shady Cove, and Phoenix, however Ashland also has a higher than average older adult population.
- Youth populations are concentrated in larger cities within Jackson County, including Medford, Central Point, and Eagle Point.
- Low-income populations are concentrated within Butte Falls, Phoenix, Medford, and Rogue River.
- Populations with disabilities are concentrated in the smallest cities within Jackson County, including Phoenix, Shady Cove, Jacksonville, Rogue River, Gold Hill, and Butte Falls.
- Ashland has a large population of people over the age of 60, a smaller population of people under 18, and a large student population that attends Southern Oregon University.
- Phoenix, Shady Cove, and Rogue River all have a population with higher than county-average older adults, low-income, and people with disabilities.

Table 4: Jackson County Demographic Details by Jurisdiction

Community	Older Adult (60 years old and over)	Children and Youth (Under 18 years old)	Low Income (Poverty 100%) ¹	Population with Disabilities ²
Medford	23%	17%*	21%*	16%
Ashland	31%*	14%	19%*	12%
Central Point	23%	20%*	12%	17%
Eagle Point	23%	18%*	17%	17%
White City	13%	27%*	14%	17%
Talent	25%	17%*	20%*	16%
Phoenix	35%*	13%	26%*	24%*
Shady Cove	42%*	3%	21%*	19%*
Jacksonville	55%*	11%	5%	27%*
Rogue River	33%*	13%	21%*	26%*
Gold Hill	22%	18%*	14%	20%*
Butte Falls	25%	19%*	34%*	31%*
Cities + White City	25%	16%	19%	17%
Other unincorporated	33%	13%	15%	18%
Jackson County (Total)	28%	15%	18%	17%

Sources: 2012-2016 ACS, *Above county average

1. Low income is based on the Census poverty status, which refers to any household that has been below the poverty level for the last 12 months.
2. Disability status is a Census variable.

POPULATION DENSITY – BY HOUSEHOLD INCOME

Table 5 shows the share of households by income ranges. As shown, over one-quarter of households earns less than \$25,000 annually. The US Census also defines a Poverty Status Index, which is based on income and household size. Approximately 26 percent of Jackson County residents live below this Census-defined index and are thus defined as living in poverty. The Oregon state average is 16 percent.

As shown in Table 5, Central Point and Eagle Point had the highest percent change in low-income population from 2000 to 2016, while Butte Falls had the highest percent of residents identified as low-income.

Table 5: Share of Households by Income Range

Income Range	Percent of Total Households
Less than \$10,000	8.0%
\$10,000 to \$14,999	6.3%
\$15,000 to \$24,999	11.7%
\$25,000 to \$34,999	12.0%
\$35,000 to \$49,999	15.5%
\$50,000 to \$74,999	19.0%
\$75,000 to \$99,999	11.0%
\$100,000 to \$149,999	10.9%
\$150,000 to \$199,999	2.8%
\$200,000 or more	2.6%

Source: 2012-2016 ACS

POPULATION DENSITY – TITLE VI OVERVIEW

Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d-1) states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In combination with subsequent federal nondiscrimination statutes, agencies receiving federal financial aid are prohibited from discriminating based on race, color, national origin, age, economic status, disability, or sex (gender).

Other relevant federal statutes include the Federal-Aid Highway Act, the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Civil Rights Restoration Act of 1987, the Americans with Disabilities Act of 1990 (ADA), Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and Executive Order 13166 Improving Access to Services for Persons with Limited English Proficiency.

RVTD receives funding from the Federal Transit Administration (FTA) and uses other types of funds from federal sources. In 2012, FTA issued new guidance (FTA C 4702.1B) to help clarify civil rights requirements for recipients of FTA grant funding. The guidance specifically relates to complying with Department of Transportation (DOT) Title VI regulations, which require impact evaluation of proposed service and fare changes on minority and limited English proficiency (LEP) riders.

RVTD also received funding from the State of Oregon Transportation Growth Management

Program, which is funded in part by monies from the Federal Highway Administration that flow through ODOT. As a result, RVTD is also required to comply with ODOT's Title VI guidance.

RVTD's Title VI Program states its primary objectives as follows:

"Ensure that the level and quality of transportation service is provided without regard to race, color, national origin, gender, age or disability;

Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects, including social and economic effects of plans, projects and activities on minority populations and low-income populations;

Promote the full and fair participation of all affected populations in transportation decision making;

Prevent the denial, reduction, or delay in benefits related to programs and activities that benefit minority population or low-income populations; and

Ensure meaningful access to program and activities by persons with Limited English Proficiency (LEP)."

Tables 6 and 7 and Figures 3 through 7 describe the Title VI populations and densities within Jackson County and the RVTD service area.

Table 6: Low-Income Distribution of Jackson County Residents

Community	Population with Incomes <200% Poverty Level (2000) ^{1, 2}	Population with Incomes <200% Poverty Level (2016) ¹	% Change (2000-2016)	Proportion of Population with Incomes <200% Poverty Level (2016) ¹
Medford	21,445	33,747	57%	42.8%
Ashland	6,829	7,547	11%	35.9%
Central Point	3,388	6,475	91%	36.4%
Eagle Point	1,618	3,036	88%	34.5%
Talent	2,615	2,960	13%	46.8%
Phoenix	1,397	1,835	31%	40.5%
Shady Cove	828	1,654	100%	55.2%
Jacksonville	453	466	3%	16.4%
Rogue River	755	1,089	44%	44.1%
Gold Hill	442	555	26%	42.6%
Butte Falls	265	199	-25%	51.6%
Cities	40,035	59,563	49%	40.4%
White City + Other Unincorporated	19,374	24,647	27%	38.7%
Jackson County (Total)	59,409	84,210	42%	39.9%

Source: US Census 2000, 2012-2016 ACS

1. Data for persons of low income reflect only a portion of the population for which poverty status is determined. Income cannot be determined for children under the age of 15 not related by birth, marriage, or adoption to a reference person within the household; therefore, their poverty status cannot be determined.
2. The data for 2000 were collected through US Census Summary File 4 (SF4). SF4 data is compiled from a sample of the total population (about 1 in 6 households) that received the Census 2000 long-form questionnaire.

Table 7: Title VI Populations in Jackson County - 2016

Limited English Proficiency (LEP) ¹	Older Adult (60 years old and over)	Children and Youth (Under 18 years old)	Minority	Hispanic/Latino (Any race)	Low-Income (Poverty 100%) ²	Disabled
4%	28%	15%	18%	12%	18%	17%

Source: 2011-2015 ACS for Limited English Proficiency, 2012-2016 ACS for other topics

1. Limited English Proficiency ACS data was not provided for 2012-2016 in Jackson County. 2011-2015 data only provided two categories – Speak English “very well” and Speak English less than “very well”.
2. Low income is based on the Census poverty status, which refers to any household that has been below the poverty level for the last 12 months.

Figure 3: Jackson County Older Adult Populations - 2016

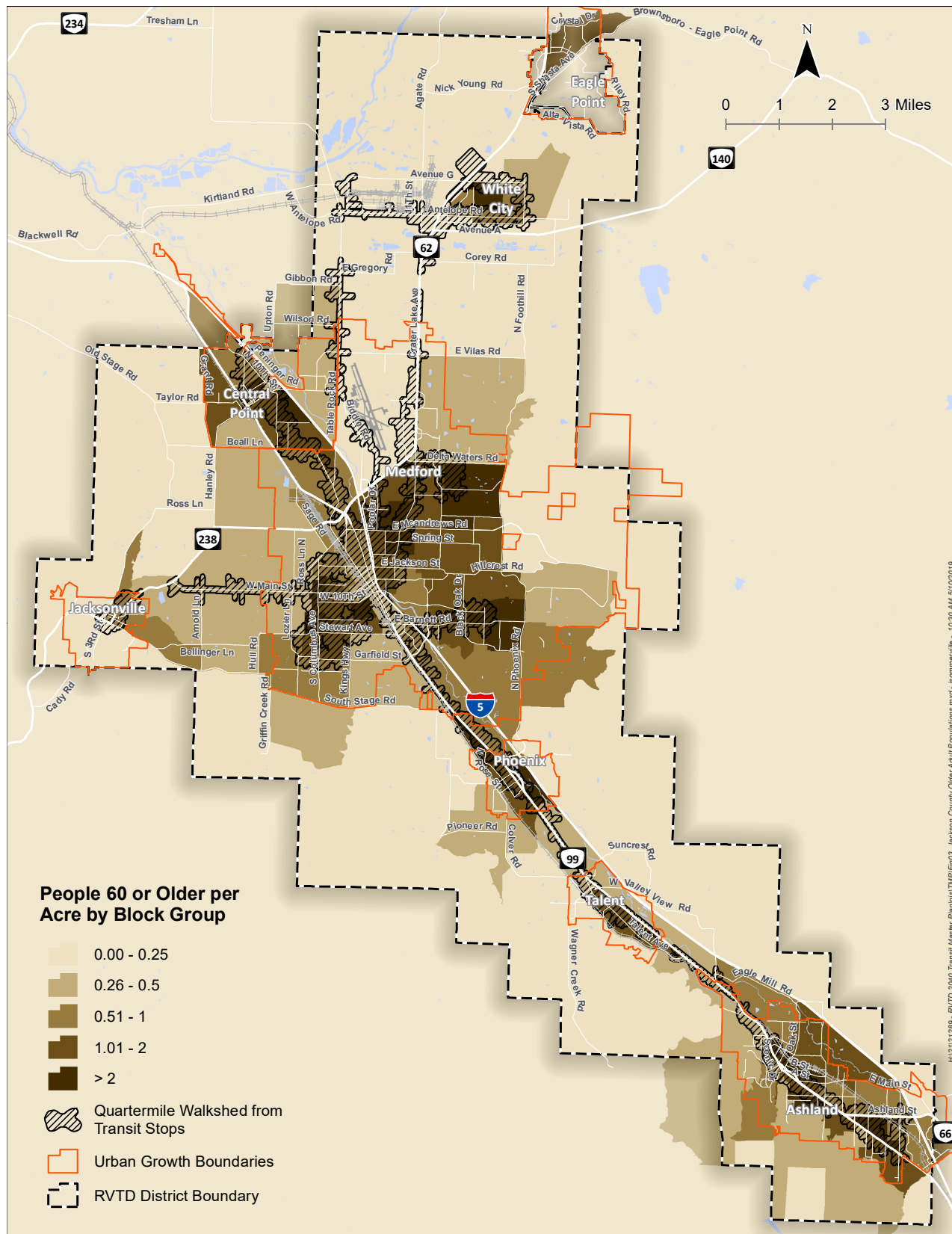


Figure 4: Jackson County Minority Populations - 2016

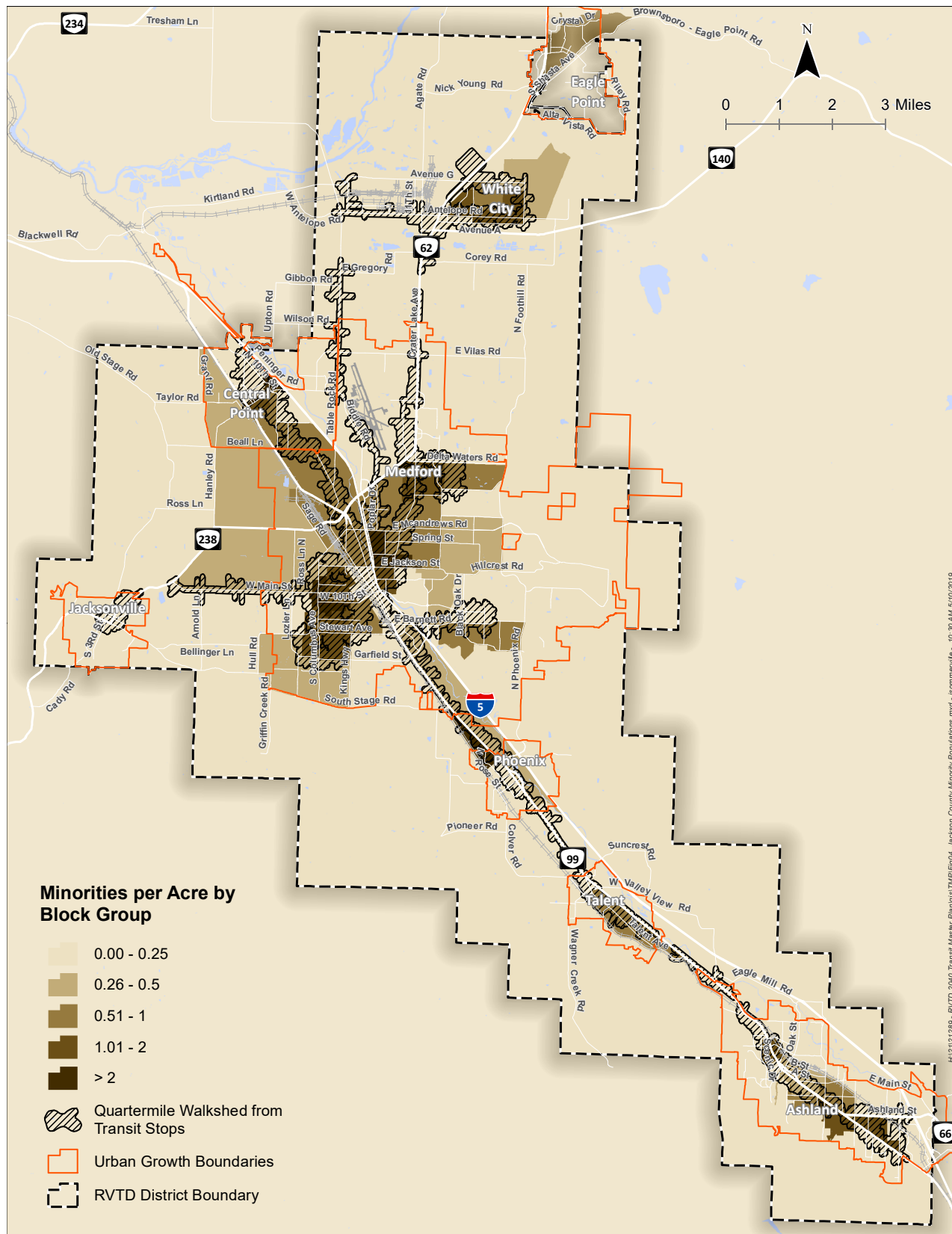
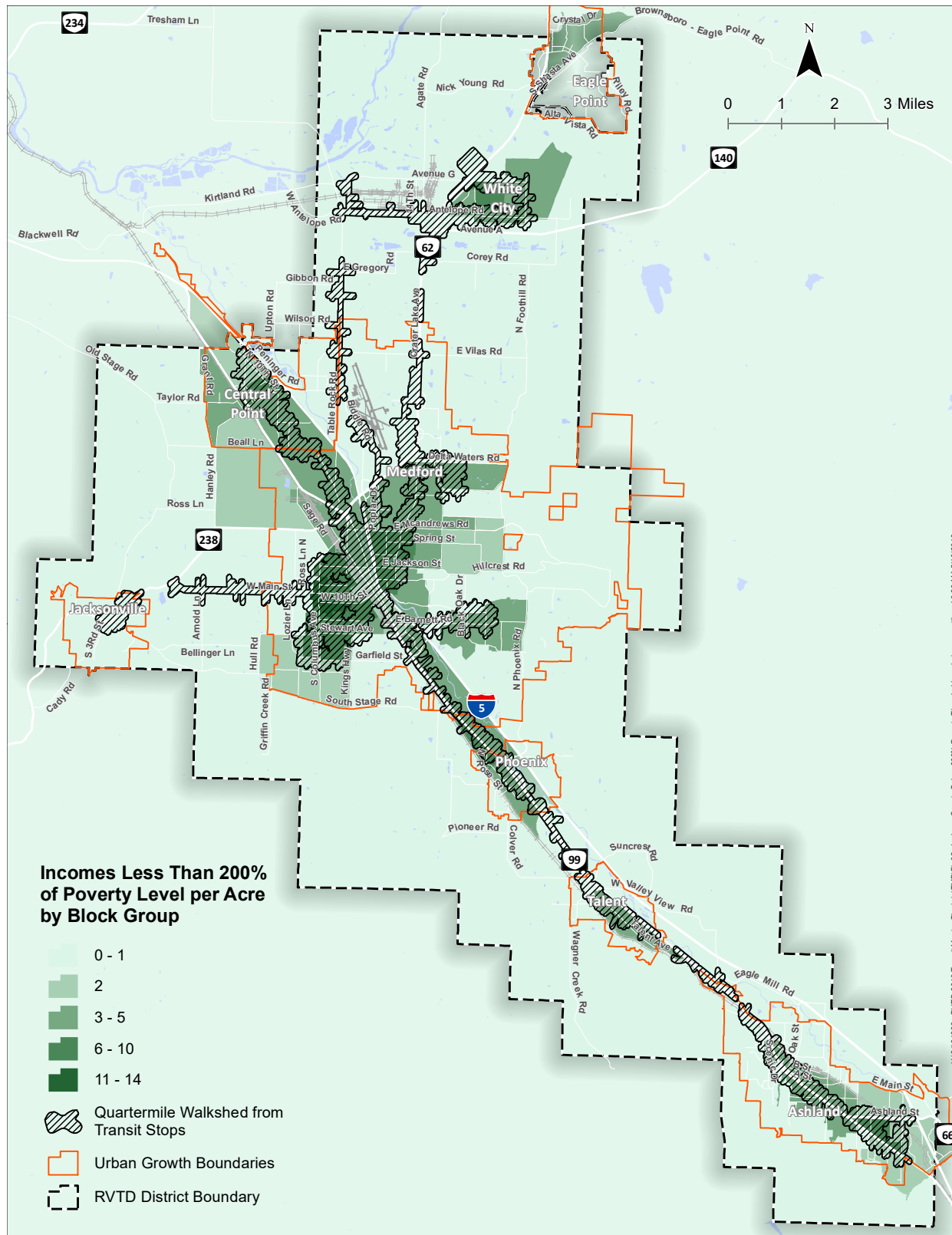


Figure 5: Jackson County Population Density Below 200% Poverty Threshold - 2016



Data shown is from the 2016 American Community Survey. Poverty thresholds are defined by the United States Census Bureau.

Figure 6: Jackson County Populations with Disabilities - 2016

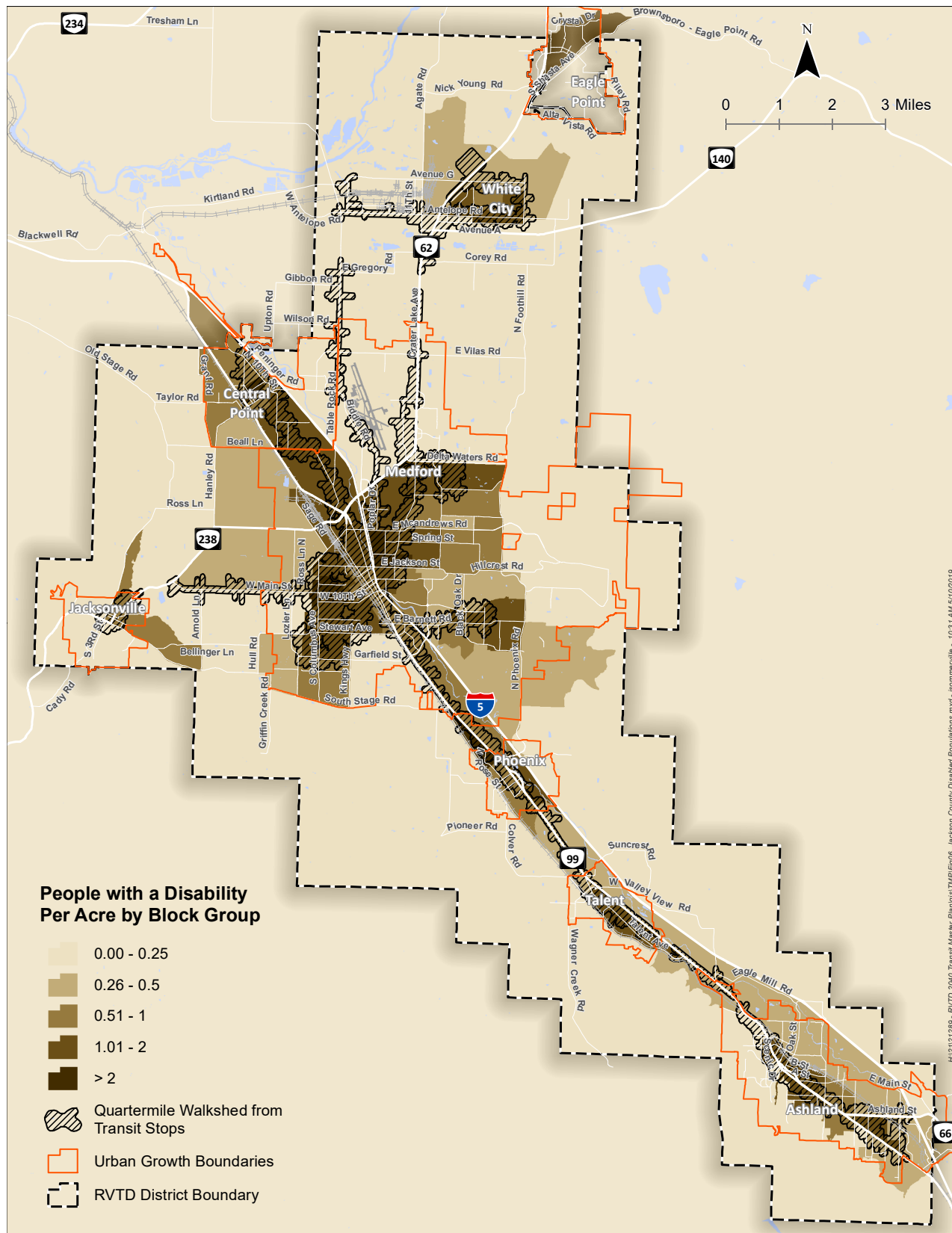
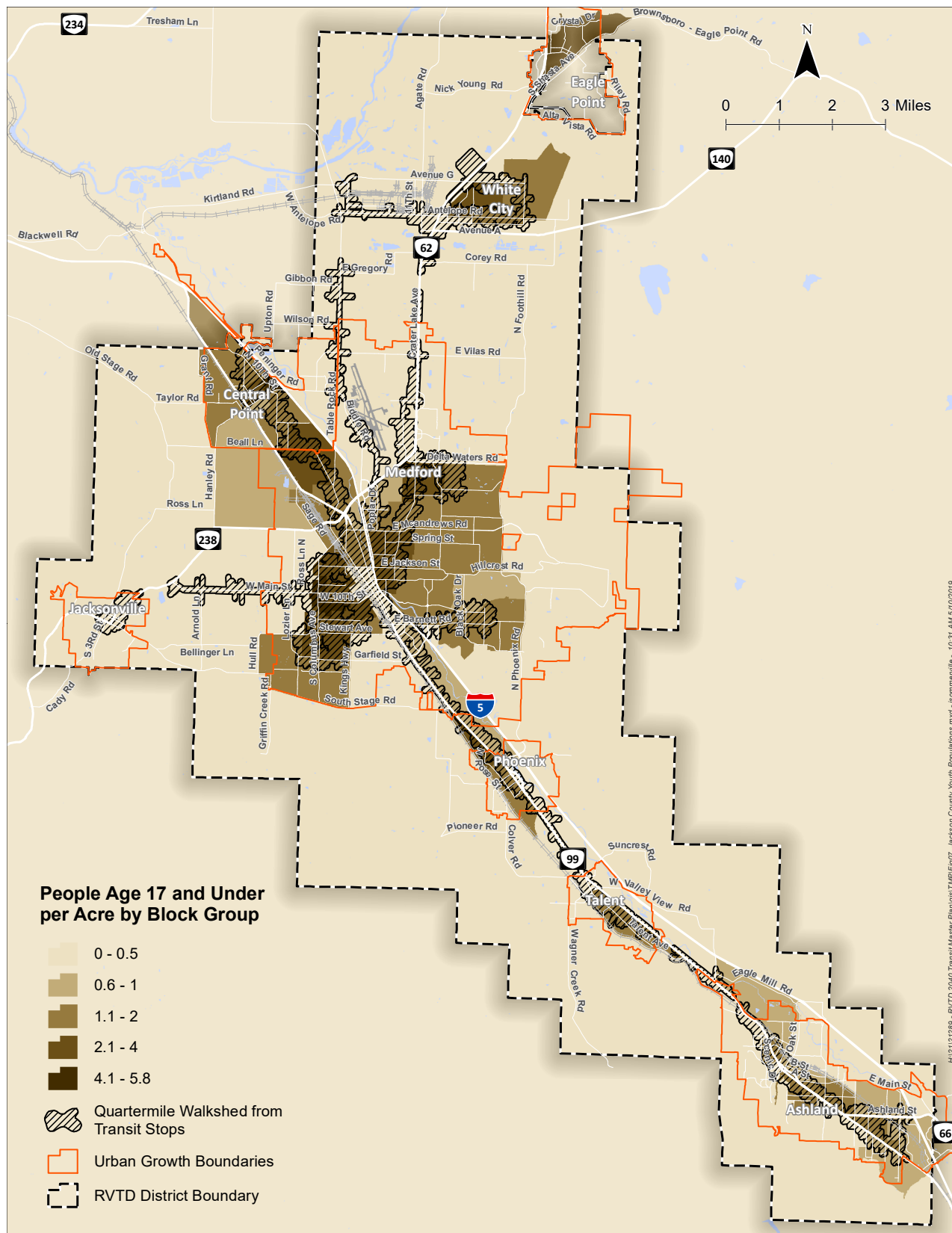


Figure 7: Jackson County Youth Populations - 2016



Title VI populations not currently served by RVTD fixed-route bus services are as follows:

- Individuals with limited English proficiency in west Central Point and west Medford.
- Older adult, youth, and minority populations in Eagle Point, west Central Point, and east Medford.
- Hispanic/Latino and low-income populations in Eagle Point, west Central Point, and northeast Medford.
- Populations with a disability in Eagle Point, west Central Point, east Medford, and northeast Ashland.

Title VI populations within the Rogue Valley area have been examined and identified for transportation services in the 2014 RVMPO Environmental Justice Title VI Plan and the 2017-2021 United We Ride Plan for the Rogue Valley. Key findings were as follows:

- The number of Jackson County residents who were low-income, disabled, or older adults increased 17% (31,298 additional residents) between 2000 and 2015.
- The low-income population increased 91.6% and seniors with disabilities increased 150% between 2000 and 2015.
- In 2007-2011, the RVMPO area had an average poverty rate of 17.5%, while Jackson County averages 15.8%. The RVTD service district is wholly contained within the RVMPO area, suggesting the RVTD service district may also have an

average poverty rate higher than that of the county.

- Medford's poverty hotspots, the three central area census tracts with poverty rates of 20% or more for two consecutive census years, contains the highest concentration of residents living in poverty in Oregon.
- Needs assessments identified a lack of public transit service as a key barrier to employment, education, and residential access, especially in western White City and portions of Eagle Point.

JOBS AND EMPLOYMENT

In 2015, 75,572 people were employed in Jackson County. Of these, 60,707 lived in Jackson County, while 14,865 traveled into the county for employment. A total of 15,534 Jackson County residents traveled outside the county for employment¹, with many of those working in Josephine or Lane counties. For those traveling into the county for employment, Josephine County is the primary home location, followed by Douglas and Klamath Counties.

As shown in Table 8, the largest employer in Jackson County is the Asante medical group with a location in Medford, as well as in Grants Pass in Josephine County. Other major employers include Lithia Motors, Harry & David, Rogue Valley Medical Center, and Allegiant Air.²

¹ US Census Bureau, LEHD On the Map, Inflow/Outflow Analysis. Accessed online: <http://onthemap.ces.census.gov/>

² Employment rankings provided by the Chamber of Medford/Jackson County's "Largest Employers" webpage,

accessed online:

http://web.medfordchamber.com/cwt/external/wcpages/business_services/largest_employers.aspx

Table 8: Top Employers in Jackson County and Nearest Transit Service

Rank	Employer	Location	Transit Provider/Route(s)
1	Asante (overall)	Medford, Grants Pass	RVTD 24, Rogue Valley Commuter Line
2	Lithia Motors, Inc.	Medford, Grants Pass	RVTD 40, 60, and 61; Rogue Valley Commuter Line
3	Harry & David	Medford	RVTD 10
4	Rogue Valley Medical Center	Medford	RVTD 24, Rogue Valley Commuter Line
5	Allegiant Air	Medford	RVTD 61
6	Providence Health System in Southern OR	Medford, Central Point, White City, Phoenix	RVTD 10, 24, 60, 61
7	Medford School District 549C	Medford	RVTD 2, 10, 24, 25, 30, 40, 60, 61; Rogue Valley Commuter Line, Rogue Valley Connector
8	Jackson County	Medford, Central Point, Phoenix	RVTD 2, 10, 24, 25, 30, 40, 60, 61; Rogue Valley Commuter Line, Rogue Valley Connector
9	Wal-Mart Stores	Medford, Grants Pass, Eagle Point	RVTD 10, 60; Rogue Valley Commuter Line, Rogue Valley Connector
10	Boise Cascade	Medford, White City	RVTD 60, 61

Longitudinal Employer–Household Dynamics (LEHD) employment data are a product of the Census Bureau, which provides valuable information about where workers live and work. Queries can be made for many employment variables, including place of work, place of residence, work industry, and commute distance. One of the most helpful visualization tools available from the LEHD is the web-based On-The-Map feature. This tool provides a means to look at jobs based on home location or work location. This data set is based on administrative records; therefore, some work locations may be over- or underrepresented. For example, if workers in Rogue River have their paychecks processed with an address in Grants Pass, their job site may be shown in Grants Pass instead of Rogue River, if there is not a local address shown in the administrative data.

COMMUTING PATTERNS BY PLACE OF RESIDENCE

The majority of Jackson County residents commute within Jackson County (80%).

However, nearly 20% of Jackson County residents commute relatively long distances to work in other counties.

As shown in Table 9, approximately nine percent of employees work in Josephine, Lane, and Multnomah Counties, which amounts to approximately 7,070 total workers.

Table 9: Work Location of Jackson County Residents

Work Location	Count	Share
Jackson County, OR	60,707	80.3%
Josephine County, OR	3,881	5.1%
Lane County, OR	1,670	2.2%
Multnomah County, OR	1,519	2.0%
Marion County, OR	902	1.2%
Douglas County, OR	873	1.2%
Washington County, OR	869	1.1%
Klamath County, OR	672	0.9%
Clackamas County, OR	600	0.8%
Deschutes County, OR	507	0.7%
All Other Locations	3,372	4.5%

Source: 2015 LEHD

Table 10 shows where Jackson County workers work within the county. The largest share work in Medford, approximately 29,800 workers or 51 percent of the workforce.

Table 10: Work Location by City: Jackson County Jobs

Work City	Jobs	Share
Medford	29,759	51.3%
Central Point	7,137	12.3%
Ashland	7,096	12.2%
White City	3,234	5.6%
Eagle Point	3,024	5.2%
Talent	2,238	3.9%
Phoenix	1,742	3.0%
Jacksonville	843	1.5%
Shady Cove	786	1.4%
Rogue River	634	1.1%
All Other Places	1,555	2.7%

Source: 2015 LEHD

Table 11 shows the distance that Jackson County residents commute. Approximately 64 percent commute less than 10 miles, while 14 percent commute more than 50 miles. Medford, Central Point, and Ashland are hubs for residential and employment sites within Jackson County; as such, Jackson County residents either live and work within these cities or commute longer distances to reach employment further away.

Table 11: Distance Home to Work

Distance Home to Work	Count	Share
Less than 10 miles	48,481	64.2%
10 to 24 miles	14,071	18.6%
25 to 50 miles	2,429	3.2%
Greater than 50 miles	10,591	14.0%
Total All Jobs	75,572	100%

Source: 2015 LEHD

Table 12 shows Jackson County residents' departure times for work. Approximately 49 percent of workers leave between 6:30 AM and 8:30 AM, which is consistent with regular business hours.

Table 12: Departure Time to Work

All Workers	Total	Share
12:00 AM to 4:59 AM	3,785	4.6%
5:00 AM to 5:29 AM	2,697	3.3%
5:30 AM to 5:59 AM	3,744	4.6%
6:00 AM to 6:29 AM	5,399	6.6%
6:30 AM to 6:59 AM	7,783	9.6%
7:00 AM to 7:29 AM	10,801	13.3%
7:30 AM to 7:59 AM	13,047	16.0%
8:00 AM to 8:29 AM	8,136	10.0%
8:30 AM to 8:59 AM	3,837	4.7%
9:00 AM to 9:59 AM	5,372	6.6%
10:00 AM to 10:59 AM	2,979	3.7%
11:00 AM to 11:59 AM	1,302	1.6%
12:00 PM to 3:59 PM	6,860	8.4%
4:00 PM to 11:59 PM	5,729	7.0%

Source: 2012-2016 ACS

4.2 LAND USE & DEVELOPMENT PATTERNS

LAND USE TRENDS

The Regional Problem Solving (RPS) Plan identified several regionally significant Transit-Oriented Development (TOD) strategies, policies, and promotion strategies in established cities and between urban reserve areas. These policies align with the “Nodal Development” land use modeling scenario in the RPS Plan, which places TOD mixed-use centers in urban reserve areas. The “Committed Densities” strategy from the RPS is expected to help produce a land use pattern in all seven participating jurisdictions that will have transit-supportive residential densities of seven dwelling units per gross acre by the year 2035. In addition, some communities are actively planning for TOD as described below and shown in Figure 8.

MEDFORD

- The Downtown TOD, which continues to undergo revitalization.
- The adopted Southeast Area Village Center, which exists as a portion of Medford’s comprehensively planned Southeast Area. The Southeast Village Center consists of 175 acres of planned high-density residential development surrounding a commercial and mixed-use core.
- The West Main TOD, an existing underdeveloped strip commercial area with residential surroundings. The nexus for this area is the intersection of Ross Lane/Lozier Lane and West Main Street. The TOD plan for this area will incorporate high-density residential development into existing development.

- The Delta Waters Road area TOD, planning for which has not yet been started.
- The Stewart Meadows project, a planned development incorporating several TOD features, including senior and high-density housing, retail, and health services.

CENTRAL POINT

- The 200-plus acre Twin Creeks TOD in northwest Central Point has nearly built out its residential components, while commercial and health care developments are in progress.
- The White Hawk TOD is an adopted master plan for 18 acres in northeast Central Point, at the corner of Gebhard Road and Beebe Road.

ASHLAND

- The Croman Mill Site is planned to feature a large employment component, high-density residential, and a station site for future bus rapid transit or passenger rail.
- Transit Triangle, the area between Tolman Creek Rd, Siskiyou Blvd, and Highway 66, is now in development. The City is considering code amendments for this area to allow for transit-oriented development.

JACKSONVILLE

- The North Gateway TOD is 17 acres adjacent to N 5th Street, including the intersections with G Street and Shafer Lane. Existing land uses include the Pioneer Village independent and assisted living senior community, hotels, and other commercial uses.

Legend:

- Quartermile Walkshed from Transit Stops
- Transit Oriented Developments and Areas
- Urban Growth Boundaries
- RVRTD District Boundary

Map Labels: Tresham Ln, Blackwell Rd, Kirtland Rd, Denman Wildlife Refuge, Nick Young Rd, Agate Rd, Crystal Dr, Brownsboro - Eagle Point Rd, Eagle Point, Pulte Rd, Vista Rd, Avenue G, Antelope Rd, Avenue A, Corey Rd, N Foothill Rd, E Vilas Rd, Gibbon Rd, El Gregory Rd, Wilson Rd, Upton Rd, Center Lake Ave, 62, Table Rd, Taylor Rd, 238, Beall Ln, Hanley Rd, Ross Ln, W Main St, S 3rd St, Jacksonville, S and, Cady Rd, Bellinger Ln, Hull Rd, Griffin Creek Rd, Lezler Ln, S Channing Rd, W 10th St, W 11th St, E Jackson St, Spring St, Hillcrest Rd, E Main St, Garfield St, Kings Hwy, South Stage Rd, Pioneer Rd, 5, I-10, I-17, I-44, Phoenix, 99, Suncrest Rd, W Valley View Rd, Wagner Creek Rd, Eagle Mill Rd, Ashland, Ashland St, E Main St, 66.

Scale: 0 1 2 3 Miles

North Arrow: N

ORIGINS AND DESTINATIONS

Jackson County provided destination data for various land use types in the Rogue Valley. Figure 9 shows a subset of destinations considered essential to meet people's daily needs. These include commercial and retail facilities; community and recreation sites; hospitals and medical facilities; houses of worship; libraries; municipal government facilities; museums and attractions; and schools. Figure 9 also indicates Activity Centers provided by the Rogue Valley Council of Governments. Each incorporated jurisdiction within the RVMPO area defines their own Activity Centers based on their understanding of commercial and employment land uses and a location's local relevance in the community. Some locations, including portions of southwest White City and south Medford, have several essential destinations outside of the designated activity centers.

Figure 10 illustrates the location of higher-density housing including, multi-family dwellings and mobile home parks. Central Medford and downtown Ashland along Siskiyou Boulevard have the highest concentrations of multi-family dwellings in the region. Concentrations of mobile home parks are found in White City, Eagle Point, and the Oregon 99 corridor between Medford and Ashland.

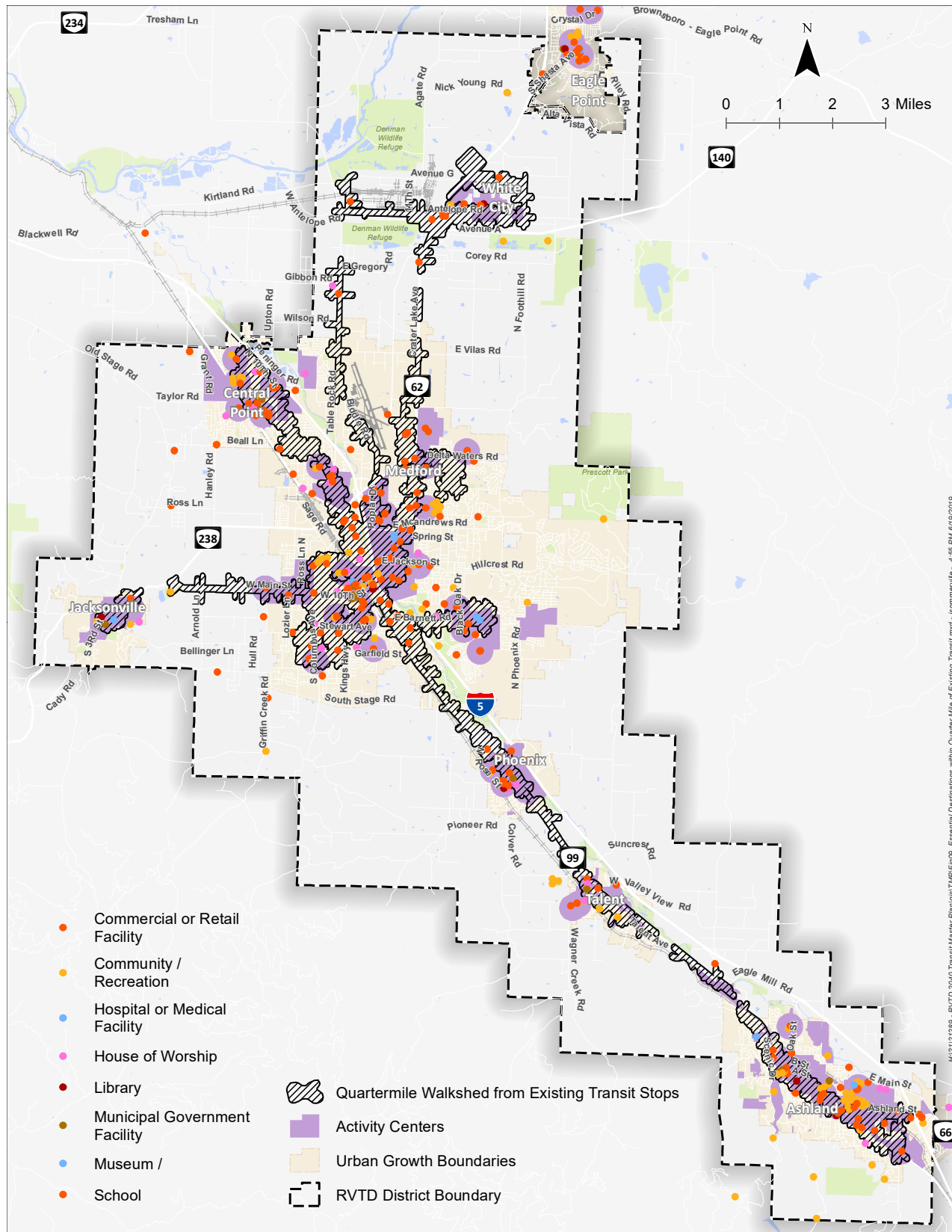
Figure 11 illustrates the location and density of households within the RVTD service area in 2017. Outside of the city urban growth boundaries, other locations with high household levels per acre are located along I-5 between Medford and Phoenix and in White City.

POPULATION AND EMPLOYMENT DENSITY

Existing population and employment density in the study area was evaluated using data from the JEMnR model, a travel demand model maintained by ODOT and the Rogue Valley MPO. The JEMnR model estimates multimodal traffic flows in the Rogue Valley and produces estimates of future travel based on future land use, population, and transportation system assumptions. Existing and future population and employment values are assigned to Transportation Analysis Zones (TAZs) in the model.

Figure 12 shows the location of transit-supportive areas, as defined by the Transit Capacity and Quality of Service Manual. An area is considered to be transit-supportive (i.e., could support at least hourly fixed-route service on weekdays) if it contains 3 or more households per gross acre or 4 or more employees per acre. Figure 12 also shows areas with higher densities of 7 or more households and 10 or more employees per gross acre, which could support more frequent transit service. For comparison, the area reachable within a ¼-mile walk of a bus stop is shown in yellow. The figure shows that every city within the RVTD service has areas beyond the current transit service corridors that potentially could support hourly fixed-route service. In addition, much of the northern half of Eagle Point, outside the RVTD boundary, is considered transit-supportive due to its higher residential densities. Tolo, also outside the RVTD boundary, is considered transit-supportive due to its concentration of employment.

Figure 9: Essential Destinations within Quarter Mile of Transit



Map of the RVT District Boundary showing transit stops, mobile home parks, multi-family dwellings, and urban growth boundaries. The map includes a legend, a scale bar (0 to 3 miles), and a north arrow.

Legend:

- Mobile Home Park (Blue dot)
- Multi-Family Dwelling (Green dot)
- Quartermile Walkshed from Existing Transit Stops (Hatched area)
- Urban Growth Boundaries (Orange area)
- RVT District Boundary (Dashed line)

Map Labels:

Roads: Tresham Ln, Kirtland Rd, W Anelopo Rd, Agate Rd, Nick Young Rd, Crystal Dr, Brownsboro - Eagle Point Rd, Rileys Rd, Alameda Ave, Ista Rd, Avenue G, Avenue A, Corey Rd, N Foothill Rd, E Vilas Rd, Santa Waters Rd, E Andrews Rd, Spring St, Hillcrest Rd, N Phoenix Rd, Suncrest Rd, W Valley View Rd, Eagle Mill Rd, Ashland St, E Main St, Pioneer Rd, Colver Rd, Wagner Creek Rd, Griffin Creek Rd, Hull Rd, Bellinger Ln, Arnold Ln, S 3rd St, Cady Rd, Old Stage Rd, Taylor Rd, Beall Ln, Ross Ln, Hanley Rd, Upton Rd, Gibbon Rd, Big Gregory Rd, Table Rock Rd, Sanger Rd, W Main St, W 10th St, W 11th St, S Columbus St, Kings Hwy, Garfield St, South Stage Rd, S 2nd St, S 3rd St, S 4th St, S 5th St, S 6th St, S 7th St, S 8th St, S 9th St, S 10th St, S 11th St, S 12th St, S 13th St, S 14th St, S 15th St, S 16th St, S 17th St, S 18th St, S 19th St, S 20th St, S 21st St, S 22nd St, S 23rd St, S 24th St, S 25th St, S 26th St, S 27th St, S 28th St, S 29th St, S 30th St, S 31st St, S 32nd St, S 33rd 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454th St, S 455th St, S 456th St

2017 Households Per Acre by TAZ

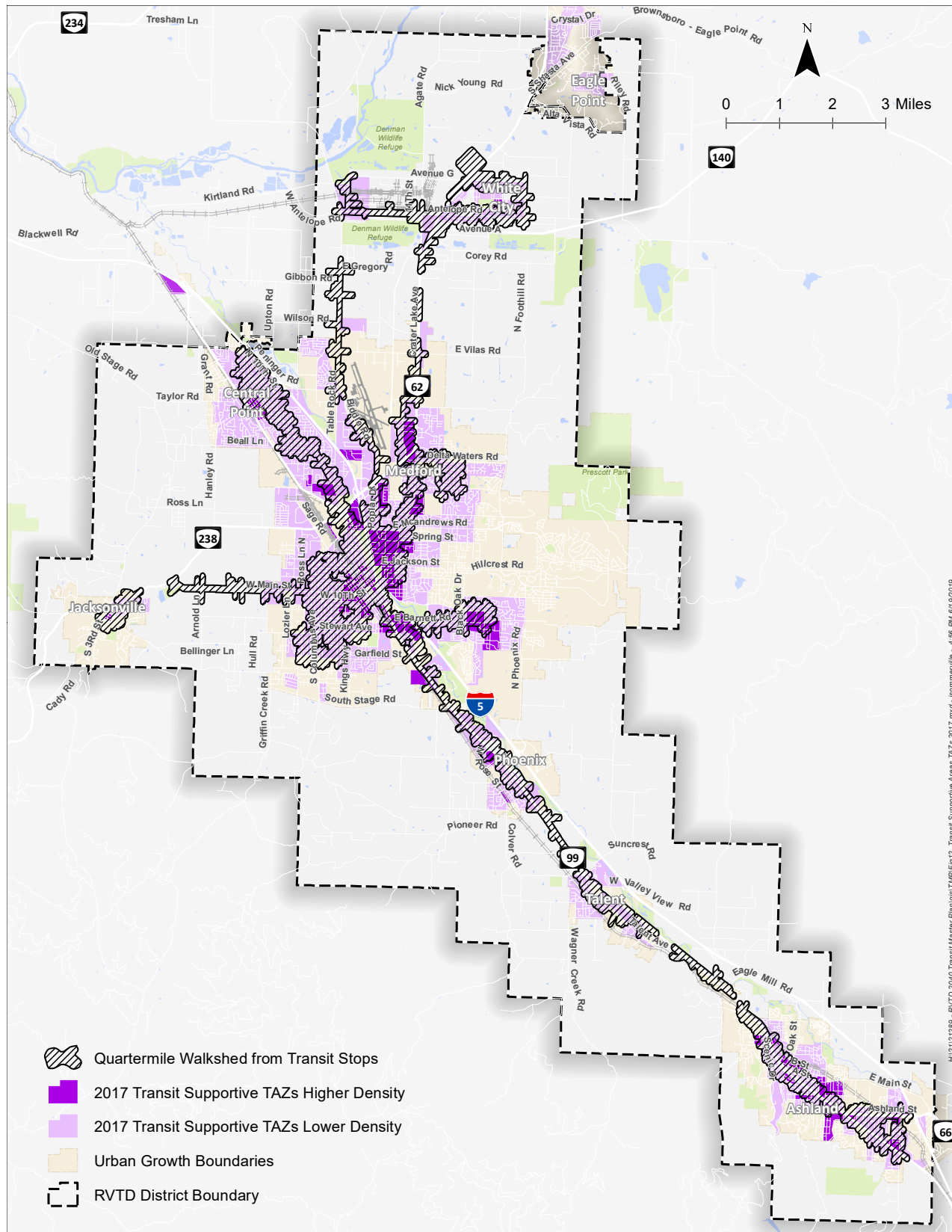
- 0 - 1
- 2 - 3
- 4 - 5
- 6 - 9
- 10 - 14

Quartermile Walkshed from Transit Stops

Urban Growth Boundaries

RVTD District Boundary

Figure 12: Transit Supportive Areas – 2017



GROWTH PROJECTIONS

Growth projection data was provided by the State of Oregon's Department of Administrative Services, Office of Economic Analysis and the Oregon Employment Department Workforce and Economic Research Division. Figure 14 indicates the forecasted residential growth (number of households) between 2017 and 2042. The greatest amount of growth is forecasted to occur along the east and north sides of Medford, in and around Eagle Point, north of Phoenix, and the west and northeast sides of Central Point. One TAZ in Ashland is also forecasted to grow by more than 500 households.

Figure 15 shows the forecasted growth in employment by TAZ between 2017 and 2042. The greatest amount of growth is forecasted to occur in north and southeast Medford, east and west of White City, areas adjacent to Eagle Point, between Central Point and Tolo,

and at the university and Croman Mill Site in Ashland.

TRANSIT-DEPENDENT DEMOGRAPHIC TRENDS

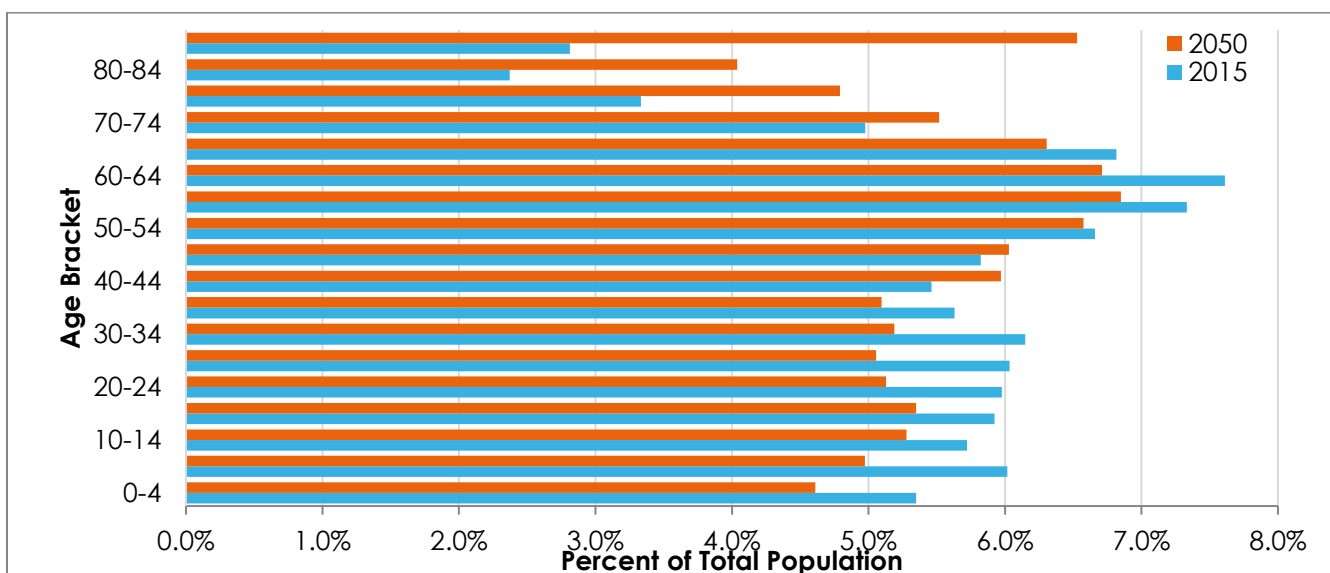
Senior populations, populations with disabilities, and low-income populations tend to depend on transit. These populations were examined and forecasted to understand potential transit-dependent populations in 2042.

SENIOR POPULATION

The Office of Economic Analysis forecasts age trends throughout Oregon. For Jackson County, more than half of the growth (41,800 people) between 2015 and 2050 is forecasted to be among people 60 years and older, creating potential higher demand for transit from this demographic group.

Figure 13 shows Jackson County's existing distribution and forecasted distribution of ages by percent of total population, reflecting the shifting ages in the county.

Figure 13: Jackson County Age Distribution Forecast



Source: *Employment Projections by Industry and Occupation 2014-2024 Rogue Valley (Jackson and Josephine Counties)*.

<https://www.qualityinfo.org/documents/10182/92203/Rogue+Valley+Industry+Employment+Projections+2014-2024?version=1.4> . Accessed February 19, 2018

Household Increase from 2017 to 2042

- 0 - 20 households
- 21 - 100 households
- 101 - 250 households
- 251 - 500 households
- > 500 households
- Urban Growth Boundaries
- RVT District Boundary

Map labels include: Tresham Ln, Blackwell Rd, Kirtland Rd, W Antelope Rd, Avenue G, Avenue A, Corey Rd, Nick Young Rd, Agate Rd, Crystal Dr, Eagle Point, White City, Central Point, Medford, Jacksonville, Phoenix, Talent, Ashland, and various local streets like Taylor Rd, Beall Ln, Ross Ln, W Main St, W 10th St, Stewart Ave, Garfield St, South Stage Rd, Griffin Creek Rd, Hull Rd, Bellinger Ln, Arnold Ln, S 3rd St, Cady Rd, Upton Rd, Wilson Rd, Gibbon Rd, E Gregory Rd, 11th St, Antelope Rd, E Vilas Rd, Delta Waters Rd, E Jackson St, Hillcrest Rd, E Barnett Rd, Black Oak Dr, N Phoenix Rd, Pioneer Rd, Colver Rd, Suncrest Rd, W Valley View Rd, Talent Ave, Eagle Mill Rd, Oak St, B St, A St, E Main St, Ashland St.

Highway shields: 234, 62, 140, 238, 5, 99, 66.

Scale: 0 1 2 3 Miles. North arrow pointing up.

Map ID: H12121289 - RVTD 2040 Transit Master Plan/Map/Map 14 - Household Growth 2017 to 2042.mxd - Jacksonville - 10:33 AM 5/10/2019

POPULATION WITH DISABILITIES

Mobility limitations are closely associated with an aging population. Estimates of the potential future population with disabilities was developed through the process shown in Figure 16 and the results are shown in Table 13. As shown, the population age 18 and over with a mobility limitation is anticipated to increase to 19.3 percent of the population, a total of 54,285 people, by 2042.

Figure 16: Jackson County Population with Mobility Limitation Projections

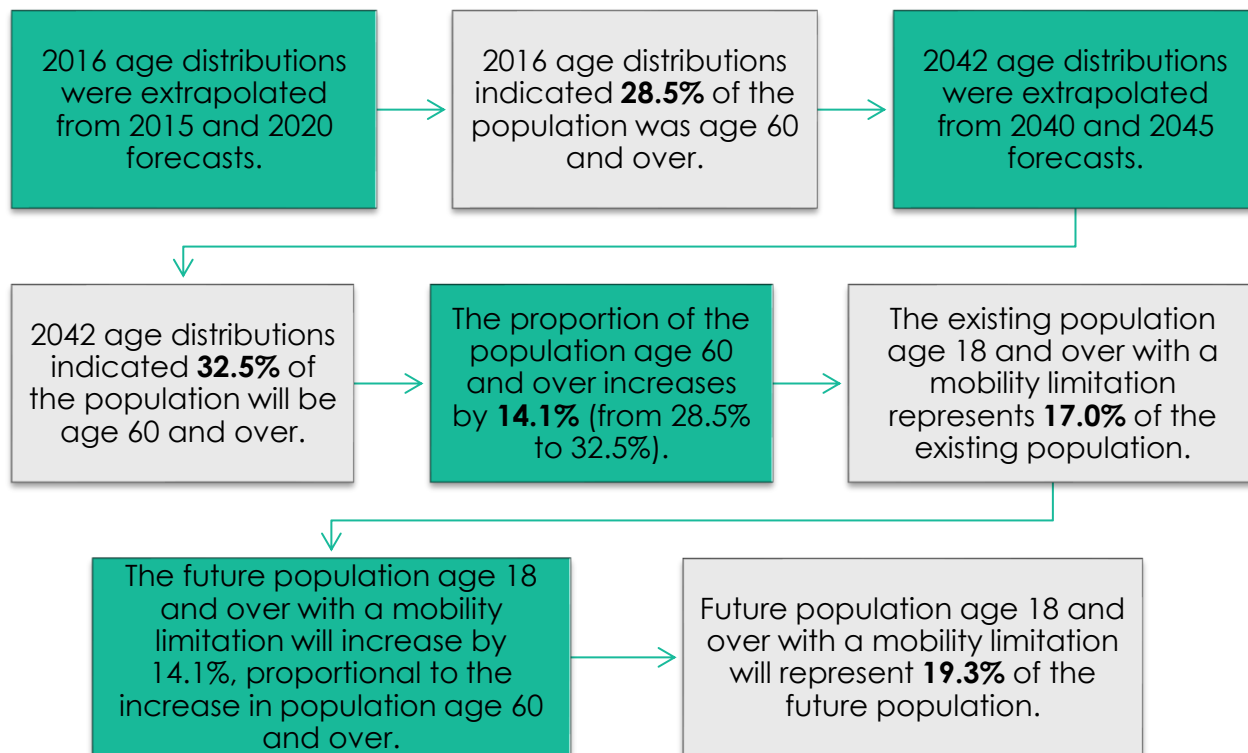


Table 13: Existing and Forecasted Jackson County Population with a Mobility Limitation

Factor	2016 Population	Percent of 2016 Population	Percent of 2042 Population	Percent Change	2042 Population
Population	212,700	—	—	+32%	280,590
Population age 60+	60,523	28.5%	32.5%		91,127
Population age 18+ with a mobility limitation	36,054	17.0%	19.3%	+14.1%	54,285

Source: 2012–2016 ACS. Office of Economic Analysis. March 28, 2013. *Forecasts of Oregon's County Populations and Components of Change, 2010–2050*. http://www.oregon.gov/das/OEA/Documents/County_forecast_March_2013.xls. Accessed February 19, 2018.

LOW-INCOME POPULATIONS

Low-income populations are anticipated to change with the availability of employment compared to the working age population. Table 14 shows existing and projected low-income populations in Jackson County.

Available employment within Jackson County, compared to working-age population, is anticipated to decrease one percent. Assuming the population below poverty level is

impacted proportionally, the percent of the population below the poverty level is anticipated to increase one percent. Thus, population below poverty level would be 17.9 percent, or 50,141 individuals in 2042. Working opportunities in adjacent regions and reliable transportation to those locations would benefit Jackson County residents and could be provided via commuter transit services.

Table 14: Existing and Forecasted Jackson County Low-Income Populations

Factor	2016 Population ¹	Percent Change	2042 Population ¹
Working-age population (20–64)	119,632	—	147,232
Employment	86,980	—	105,866
Jobs per working-age person	0.73	–1%	0.72
Percent population below poverty level	17.7%	+1%	17.9%
Population below poverty level	37,595		50,141

Source: 2012–2016 ACS. Office of Economic Analysis. March 28, 2013. *Forecasts of Oregon's County Populations and Components of Change, 2010 – 2050*. http://www.oregon.gov/das/OEA/Documents/County_forecast_March_2013.xls. Accessed February 19, 2018.

1. Low income is based on the Census poverty status, which refers to any household that has been below the poverty level for the last 12 months.

4.3 CURRENT TRANSIT SERVICES

RVTD-operated services, which include fixed-route bus service, Valley Lift paratransit service, the demand-responsive Rogue Valley Connector, and other specialized transportation services, are summarized in

Table 15. Routes, schedules, hours of operation, and fare structures vary among the different RVTD services

Table 15: Summary of RVTD Transportation Services

Service	Type of Service
Fixed-Route Bus Service	Intra-county Fixed-Route
Valley Lift	Paratransit
RV Connector	Demand-Responsive
PLUS Program	Demand-Responsive
Veteran's Transportation	Non-Emergency Medical
TransLink	Non-Emergency Medical
DD53/DD57	Employment Transportation
Way to Go! Program	Transportation Demand Management

FIXED-ROUTE TRANSIT SERVICES

RVTD operates nine fixed-route bus services. Routes operate six days a week, with limited Saturday service. Generally, weekday service operates from as early as 5:00 AM to as late as 9:30 PM, depending on the route, while Saturday service operates from 7:00 AM to 7:30 PM. RVTD observes six holidays a year when service is not provided: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas Day. Customer service representatives are available at the Front Street Station from 6 AM to 8 PM on weekdays and 7:45 AM to 6 PM Saturdays. All fixed-route buses are ADA lift-equipped and include bike racks, which can carry up to three bikes.

Figure 17 shows an overview of the fixed-route system, including runs per day, headways, and FY 2016-2017's ridership, service hours, and service miles. Note that Route 61 was only provided for January through June of FY 2016-2017. Route 61 has since been modified and began its current routing in September 2017. Route 21 began in April 2018 and annual data is not yet available. As shown, Routes 10, 40, and 60 provide the most service hours and service miles and have the highest ridership. Routes 25, 30, and 61 provide the least service hours and service miles and have the lowest ridership.

Table 16 shows the fixed-route system's peak on-time performance and rider occupancy. As shown, most routes are over 5 minutes late in returning to Front Street Station over a third of the peak hour runs, with Route 40 running over 5 minutes late on 78% of peak hour runs. Routes 2, 21, 24, and 25 are especially sensitive given their relatively short recovery times. Riders on these routes are more likely to miss transfers.

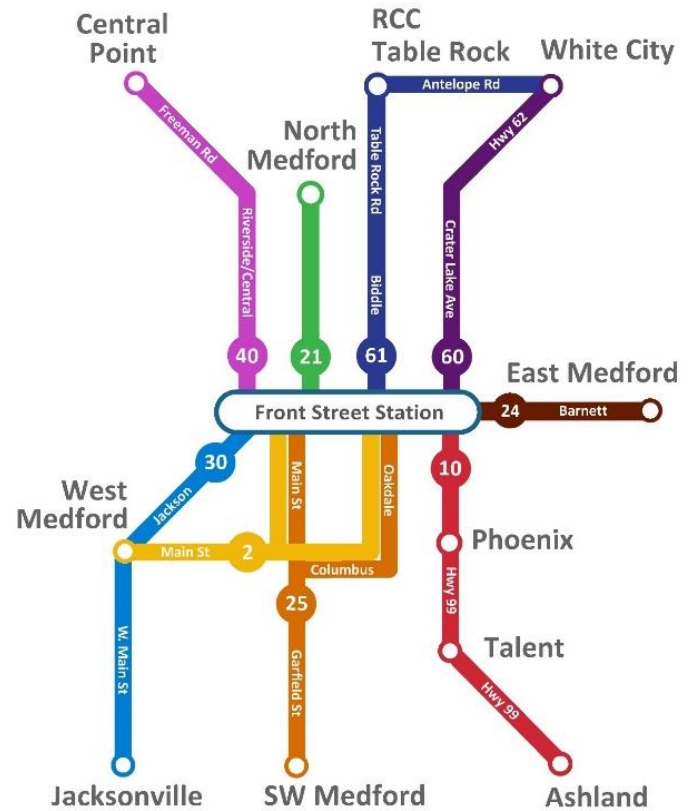


Table 16 also shows percent of time exceeding ridership capacity (over 30 passengers). Route 10 exceeds ridership capacity most often while Route 25 exceeds ridership capacity least often.

Table 16: RVTD Fixed-Route System On-Time Performance

Route	Percent of Runs Over 5 Minutes Late ¹	Recovery Time (minutes)	Percent of Time Over Capacity
2	37%	8	2%
10	36%	11	16%
21	48%	6	5%
24	27%	8	7%
25	3%	6	4%
30	39%	23	9%
40	78%	13	12%
60	50%	12	14%
61	11%	11	10%

1. Data collected during from 9/25/2017 - 5/15/2018, Peak times only (11:00 – 17:59)

Figure 17: Fiscal Year 2016-2017 Ridership, Hours, and Miles



Figure 18 shows the percent of different populations within Jackson County, the Medford Urban Area³, and within RVTD's district boundary that have access to transit within a

¼-mile and ½ mile. Currently 57% of Jackson County has access to transit within ½-mile and 75% of people within the Medford Urban Area have access to transit within ½-mile.

Figure 18: Percent of Population with Service Availability

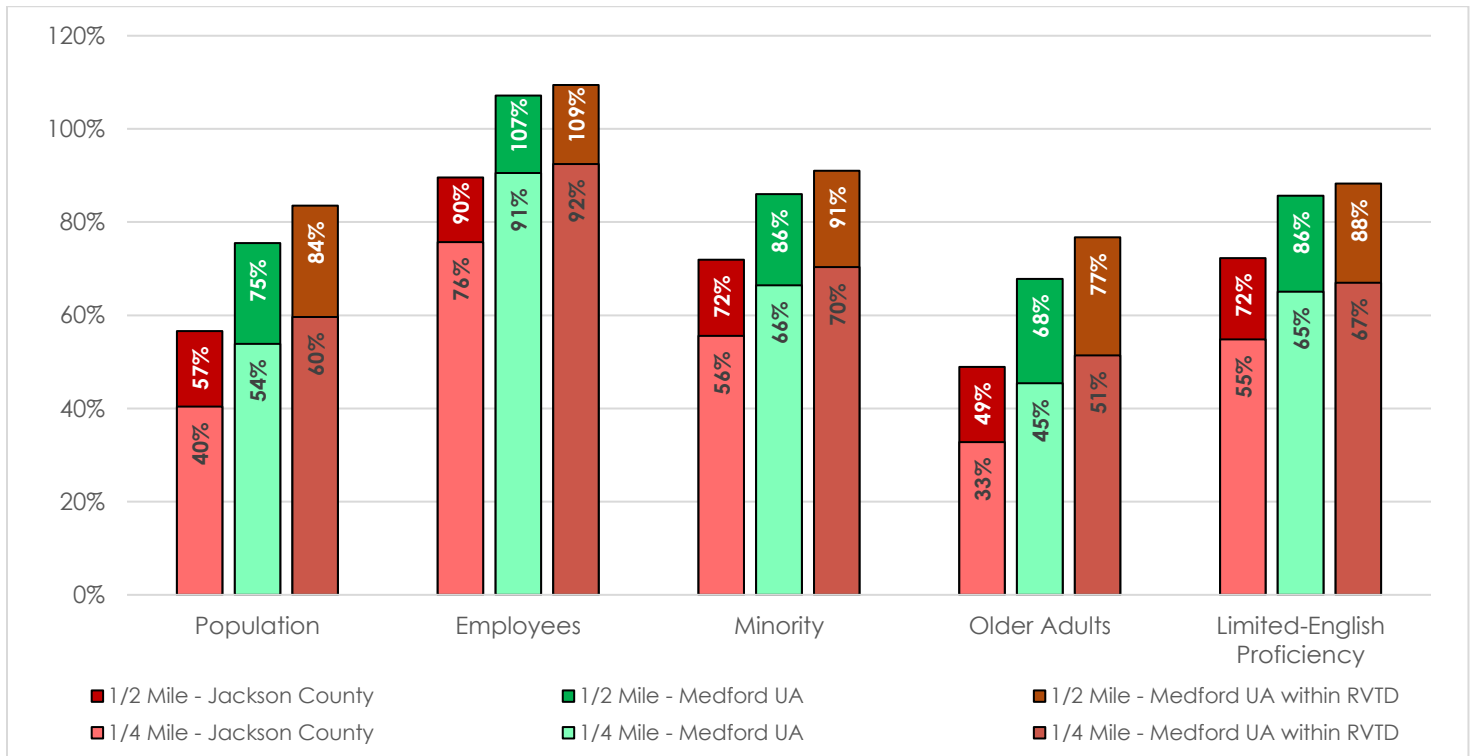


Figure 19 shows RVTD's fixed routes and available park-and-ride facilities.

ROUTE 2 – WEST MEDFORD

Route 2 is a one-way loop through West Medford. Starting at Front Street Station, Route 2 travels south on 10th Street and Oakdale Avenue, west on Stewart Avenue, north on Columbus Avenue, east on Dakota Avenue, north on Hamilton Street, and west on Main Street as far as Bi-Mart. The route then returns to Front Street Station via Main Street, Columbus Avenue, and 8th Street. Key

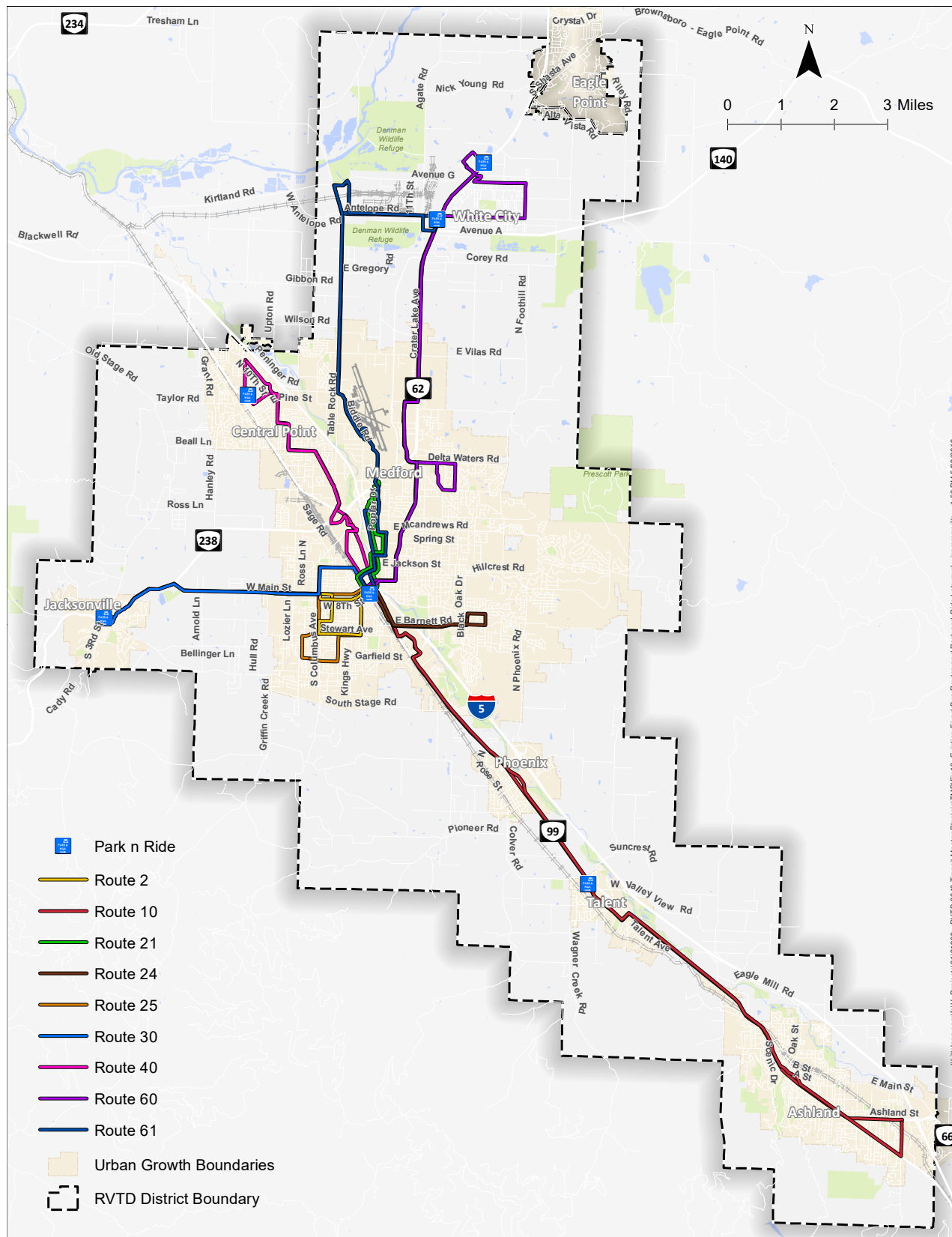
destinations served include Medford City Hall, Jackson County Offices, Albertson's, Bi-Mart, and Thunderbird.

On weekdays, Route 2 runs from 6:00 AM to 8:22 PM on 30-minute headways. On Saturdays, Route 2 runs from 7:00 AM to 6:22 PM on 60-minute headways. Approximate travel times are 13 minutes from Front Street Station to Bi-Mart and 9 minutes from Bi-Mart back to Front Street Station, with an 8-minute layover before the next trip.

³ The Medford Urban Area does not cover the same area as the Medford MPO. The urban

area boundary can be viewed in ODOT's TNEt Tool: <https://oregon.tnext.io>.

Figure 19: Existing Fixed Bus Routes and Park-and-Ride Lots



ROUTE 10 – ASHLAND

Route 10 connects Front Street Station in Medford with Phoenix, Talent, and Ashland. The route primarily travels on Highway 99 but diverts onto Center Drive in Medford to serve Wal-Mart and onto Talent Avenue to serve downtown Talent. The route turns around in Ashland via Highway 66 and Tolman Creek Road back to Highway 99. Key destinations served include Wal-Mart, Harry and David Corporation, Ray's Food Place in Phoenix, downtown Talent, Jackson Well Springs, Ashland Plaza, Southern Oregon University, and Bi-Mart in Ashland.

On weekdays, Route 10 runs from 5:00 AM to 9:49 PM on 20-minute headways between 7:00 AM and 5:00 PM and 30-minute headways otherwise. On Saturdays, Route 10 runs from 7:00 AM to 7:49 PM on 30-minute headways. Approximate travel times are 58 minutes from Front Street Station to the Ashland Bi-Mart and 51 minutes for the return back to Front Street Station. The Front Street Station layover is approximately 11 minutes on weekdays and Saturdays.

ROUTE 21 - NORTH CENTRAL MEDFORD/POPLAR SQUARE

Route 21 begins at Front Street Station, travels north on Biddle Drive, and turns around at Highway 62 and Poplar Drive. Route 21 continues south on Poplar Drive, east on McAndrews Avenue, south on Royal Avenue, west on Stevens Street, south on Biddle Road, then returns to Front Street via 4th Street. Key destinations include The Village (previously the Medford Center), Bear Creek Plaza, Blue Sky Plaza, Poplar Square, and Providence Hospital.

On weekdays, Route 21 runs from 6:30 AM to 7:41 PM on 60-minute headways. Route 61 also

serves Route 21 destinations on 60-minute headways offset from Route 21, effectively providing 30-minute headways on weekdays. No Saturday or Sunday service is provided for Route 21. Approximate travel times are 11 minutes from Front Street Station to Fred Meyer and 13 minutes for the return back to Front Street Station. The Front Street Station layover is approximately 36 minutes.

ROUTE 24 – ROGUE REGIONAL MEDICAL CENTER (RRMC)

Route 24 begins at Front Street Station, travels east on Barnett Road, and makes a loop via Black Oak Drive, Siskiyou Boulevard, and Murphy Road before returning to Front Street Station via Barnett Road. Key destinations served include Winco, Walgreen's, and RRMC.

On weekdays, Route 24 runs from 6:00 AM to 8:22 PM on 30-minute headways. On Saturdays, Route 24 runs from 7:30 AM to 5:52 PM on 60-minute headways. Approximate travel times are 10 minutes from Front Street Station to RRMC and 12 minutes back to the Front Street Station. The Front Street Station layover is approximately 8 minutes.

ROUTE 25 – SOUTHWEST MEDFORD

Route 25 is a one-way loop serving southwest Medford. Starting at Front Street Station, Route 25 travels west on Main Street, south on Columbus Avenue, west on Stewart Avenue, south on Orchard Home Drive, and east on Garfield Street to South Medford High School. Route 25 returns to Front Street Station via Garfield Street, Peach Street, Stewart Avenue, and Oakdale Avenue. Key destinations served include Medford City Hall, Jackson County Offices, and South Medford High School.

On weekdays, Route 25 runs from 6:30 AM to 7:54 PM on 30-minute headways. On Saturdays, Route 25 runs from 7:30 AM to 5:54 PM on 60-minute headways. Approximate travel times are 12 minutes from Front Street Station to South Medford High School and 12 minutes back to Front Street Station. The Front Street Station layover is approximately 6 minutes.

ROUTE 30 – JACKSONVILLE

Route 30 connects Front Street Station in Medford with Jacksonville via Front Street, Jackson Street, Columbus Avenue, Main Street, and Oregon 238. Within Jacksonville, Route 30 turns around via 5th Street (Oregon 238), E Street, N. Oregon Street, and C Street to return to 5th Street. Key destinations served include Albertson's, Bi-Mart, Thunderbird, Oak Grove Elementary School, and downtown Jacksonville.

On weekdays, Route 30 runs from 6:30 AM to 8:07 PM on 60-minute headways. On Saturdays, Route 30 runs from 7:30 AM to 6:07 PM on 60-minute headways. Approximate travel times are 17 minutes from Front Street Station to the Jacksonville Post Office and 20 minutes for the return trip to Front Street Station. The Front Street Station layover is approximately 23 minutes.

ROUTE 40 – CENTRAL POINT

Route 40 connects Front Street Station in Medford with Central Point via Table Rock Road, Merriman Road, Beall Lane, Bursell Road, Hopkins Road, and Freeman Road. Within Central Point, Route 40 loops through downtown and the northern part of the city via Pine Street, 2nd Street, 3rd Street, and 10th Street back to Freeman Road. Key destinations

served include Rogue Valley Mall, Mountain View Plaza, and downtown Central Point.

On weekdays, Route 40 runs from 6:00 AM to 8:47 PM on 30-minute headways. On Saturdays, Route 40 runs from 7:00 AM to 6:47 PM on 60-minute headways. Approximate travel times are 18 minutes from Front Street Station to 2nd & Manzanita and 29 minutes for the return trip to Front Street Station. The Front Street Station layover is approximately 13 minutes.

ROUTE 60 – WHITE CITY

Route 60 connects the residential portions of White City to Medford. Starting at Front Street Station, Route 60 travels via Main Street, Crater Lake Avenue, Delta Waters Road, Lear Way, Coker Butte Road, and Highway 62. Within White City, the route first loops around the Southern Oregon Rehabilitation Center & Clinics (SORCC) via Avenue R, Avenue N, Avenue L, and Highway 62. The route then loops through the residential portion of White City via Avenue H, Division Road, Avenue G, Atlantic Avenue, and Antelope Road before returning to Highway 62 for the return trip to Medford. During the AM and PM peak periods, as well as on two midday trips, the northbound trip turns right onto Delta Waters Road and performs a loop through residential areas in northeast Medford via Hawaiian Avenue, Cedar Links Drive, and Springbrook Avenue before returning to its regular route on Delta Waters Road. Key destinations served include Safeway, Wal-Mart, the Social Security Administration office, Cascade Shopping Center, and the SORCC.

On weekdays, Route 60 runs from 5:00 AM to 9:18 PM on 30-minute headways. On Saturdays, Route 60 runs from 7:30 AM to 6:48

PM on 60-minute headways. Scheduled travel times are 36 minutes from Front Street Station to SORCC (whether or not the northeast Medford loop is operated) and 42 minutes back to Front Street Station, with a 12-minute layover at Front Street Station.

ROUTE 61 – ROGUE COMMUNITY COLLEGE (RCC) TABLE ROCK

Route 61 connects Medford to White City via the RCC Table Rock campus and White City's industrial area. Starting at Front Street Station, Route 61 travels to White City via Biddle Road, Morrow Road, Poplar Drive, Bullock Road, Terminal Spur Road, Terminal Loop Road, Biddle Road, Table Rock Road, and Antelope Road. At the north end of the route, Route 61 loops around the Cascade Shopping Center via Highway 62, Leigh Way, and Agate Road back to Antelope Road. On the return, Route 62 follows the same route as far as Poplar Drive, and then returns to Front Street Station via McAndrews Road, Royal Avenue, Stevens Street, and Biddle Road. Key destinations served include Medford Center, the Department of Motor Vehicles, Medford Rehabilitation and Healthcare Center, Poplar Square, Rogue Valley International–Medford Airport, ODOT, RCC Table Rock Campus, and Cascade Shopping Center.

On weekdays, Route 61 runs from 6:00 AM to 9:19 PM on 60-minute headways. On Saturdays, Route 61 runs from 7:00 AM to 7:19 PM on 60-minute headways. Approximate travel times are 40 minutes ride from Front Street Station to Cascade Shopping Center and 39 minutes back to Front Street Station,

with an 11-minute layover at Front Street Station.

FARE STRUCTURE

Table 17 shows fixed-route fares for the RVTB system. Fares include the option for one free transfer valid for 90 minutes after being issued. In addition to single-trip cash fares and paper passes, RVTB has introduced a TouchPass smart card that can store (1) a pass or (2) cash value for individual trips, as well as automatically track transfers.

Table 17: RVTB Fixed-Route Fares

Type of Fare	One-Way	Day Pass	20-Ride Pass	Monthly Pass ¹
Full Fare	\$2.00	\$6.00	\$32.00	\$56.00
Reduced Fare ¹	\$1.00	\$6.00	\$16.00	\$28.00

1. Passengers that may qualify for reduced fare include those over 62 years old, between 10 and 17 years old, on Medicare, or with a disability.

Special fare products are available for purchase. Non-profit organizations can purchase a Helping Hands Pass (six rides) for \$6.00. Children ages 10-18 can purchase a Summer Youth Pass (June through August) for \$44.00.

RVTB provides reduced fare bus pass programs for employers and schools through the Universal Bus pass program and the Fare Share program. The U-Pass costs employers \$3.85 per person per month and the employee receives a free monthly bus pass. The Fare Share program costs employers \$0.45 per person per month and the employee pays \$10 for a monthly bus pass (students pay \$5).

4.4 CAPITAL INVENTORY

RVTD provided inventory data about their facilities, fleets, and bus stops. The following sections summarize the bus fleet, van fleet, and bus stop amenities.

FACILITIES

RVTD owns several properties to conduct their services. These properties include administrative facilities, maintenance and fueling facilities, and customer service centers.

RVTD HEADQUARTERS - 3200 CRATER LAKE AVENUE, MEDFORD

The primary headquarters for RVTD is a 4.28-acre lot with light industrial zoning in northeast Medford. The headquarters houses the maintenance facility, administrative office, warehouse, transportation office, CNG and diesel fueling station, and a bus wash. RVTD recently purchased 1.34 acres of adjoining land to the south of the current headquarters for future expansion. The property has been improved with state, federal, American Recovery and Reinvestment Act, ConnectOregon, and local funds.

FRONT STREET TRANSFER STATION - 200 SOUTH FRONT STREET, MEDFORD

Front Street Transfer Station is located in downtown Medford and serves as the main transfer hub for RVTD's fixed-route bus services. The 1.21-acre parcel lies between 8th Street and 10th Street. The parcel section between 8th Street and 9th Street is within the Medford Historical District and zoned commercial. The transfer station in this portion houses breakroom facilities for bus drivers and the customer service dispatcher office. The Greyhound station is located between 9th

Street and 10th Street on the property. Medford Urban Renewal Agency constructed a building in 2008 for relocation of the Greyhound station to allow for the Lithia Commons project. Greyhound is entering into a five-year lease at the end of which RVTD will take full ownership and occupy the building. The Front Street Transfer Station property has been improved with state, federal and local funds. The property was selected with consideration for future passenger rail access on the adjacent rail line.

TRANSLINK BUILDING - 239 E. BARNETT ROAD, MEDFORD

The Translink Building is the call center and headquarters for the paratransit and Valley Lift service. The 1.0-acre parcel is zoned commercial. The Translink Building also serves as the primary location for Translink and Valley Lift clients to coordinate with RVTD, houses the paratransit operators' administration office, and houses the Valley Lift Fleet. The property was purchased in 2014 with a federal Veterans Transportation Community Livability Initiative (VTCLI) grant to build capacity for a One Call-One Click Center.

TALENT DEPOT - 100 E. MAIN STREET, TALENT

A cooperative grant was received through the Federal Transit Administration to assist in remodeling the Talent Depot. The agreement was to allow RVTD to house a fare sales and passenger waiting area within the building to assist with a transit route that would use this location as a transfer center. RVTD has not utilized the Talent Depot for this purpose but may in the future.

FLEET

The RVTB vehicle fleet includes 31 fixed-route buses (24 active, 6 spares, and 1 new vehicle that may replace and/or add to the fleet) and 30 Valley Lift vans (23 active, 5 spares, and 2 new vehicles that may replace and/or add to the fleet). The vehicle make and model, size, fuel type, and model year are listed in Table 18 and Table 19.

The average vehicle ages of the bus and van fleets are 4.6 years and 9.7 years, respectively. Several Valley Lift vans may be retired due to new fleet vehicles.

BUS STOPS AND AMENITIES

Amenities at RVTB bus stops include signs, shelters, trash cans, and bike racks. An inventory of amenities by route is shown in Table 20. Note that most stops have not been surveyed since 2007 and amenities may have changed since that time.

As shown, the majority of bus stops include signage. About 25% of bus stops are not wheelchair accessible due to a lack of sidewalks and/or curb cuts to access the stop. Only 16% of bus stops are sheltered. Although only 13% of bus stops have bike racks, all RVTB buses have bike racks for riders to use, which can carry up to three bikes

Table 18: RVTB 2018 Fixed-Route Bus Fleet

Make	Size	Fuel Type	Year	Number of Vehicles
Gillig Low-Floor	35-foot	Diesel	2004	8
New Flyer	30 Passenger	CNG ¹	2004	7
New Flyer	30 Passenger	CNG ¹	2006	2
New Flyer	30 Passenger	CNG ¹	2009	3
New Flyer	30 Passenger	CNG ¹	2010	3
Gillig Low-Floor	35-foot	Diesel	2015	2
Gillig Low-Floor	35-foot	CNG ¹	2015	3
Gillig Low-Floor	35-foot	CNG ¹	2018	3

1. Compressed Natural Gas

Table 19: RVTD 2018 Valley Lift Van Fleet

Make	Size	Fuel Type	Year	Number of Vehicles
Ford	13 Passenger	Gasoline	2006	1
Ford	6 Passenger	Gasoline	2009	3
Ford	13 Passenger	Gasoline	2011	1
Ford	8 Passenger	Gasoline	2012	1
Ford	6 Passenger	Gasoline	2013	15
Ford	14 Passenger	Gasoline	2016	3
Ford	6 Passenger	Gasoline Hybrid	2017	6

Table 20: RVTD 2018 Transit Stop Amenities

Route	Signage	Shelter	Bike Rack	Wheelchair Accessible	Total Bus Stops
2-West Medford	31	4	3	30	32
10-Ashland	83	28	14	77	108
24-RRMC	25	5	4	25	25
25-South Medford	5	2	2	5	25
30-Jacksonville	36	5	4	45	49
40-Central Point	48	8	3	51	53
60-Whit City	59	14	20	65	79
61-RCC Table Rock*	19	5	4	26	61
Total	306	71	54	324	432
Percent of Bus Stops	71%	16%	13%	75%	100%

*Route 61 was modified in FY 2016-2017. Installation of amenities may still be underway.

Note: Route 21 went into service in April 2018 and is not represented in the data above.



5.1 TRANSIT NEEDS

5.0 NEEDS ASSESSMENT



5.1 TRANSIT NEEDS

A transit needs assessment was conducted by identifying needs from three key sources:

1. Application of performance measures
2. Community transit vision
3. Stakeholder input

PERFORMANCE MEASURES

As described in Technical Memorandum #7: Transit Supportive Areas, portions of the study area that have characteristics that can support fixed-route transit service were identified by looking at land use and densities, demographics, and growth projections.

Not every location identified as transit-supportive may be a good candidate for fixed-route service for a number of reasons, including:

- **Cost** - Pockets of higher density located well away from other higher-density areas, where the cost of extending service would not be sufficiently offset by the area's ridership potential
- **Poor infrastructure** - Neighborhoods with poor pedestrian infrastructure that make it difficult for potential riders to access stops
- **Difficult access** - Difficult transit vehicle access, due to poor street connectivity, steep grades, narrow streets, etc.

LAND USE AND DENSITY

At a relatively large (e.g., neighborhood) scale, evaluating the number of households and jobs per acre gave an indication of the areas capable of supporting at least hourly weekday fixed-route service. The locations of

various types of higher-density development and essential destinations provided a finer-grained indication of an area's ridership potential.

Tools and data sources for this analysis are documented in Technical Memorandum #4: Population and Demographic Trends and Forecast and included ODOT's PlaceTypes tool, destination locations provided by Jackson County and Rogue Valley Council of Governments, and the JEMnR model.

DEMOGRAPHICS

An area's demographic characteristics, such as concentrations of older adults or zero-car households, can indicate a greater need for the area's residents to rely on transit service for their mobility needs. Technical Memorandum #4: Population and Demographic Trends and Forecast presented a wide range of demographic information for the study area.

Tools and data sources for this analysis are documented in Technical Memorandum #4: Population and Demographic Trends and Forecast and included data from the United States Census Bureau.

GROWTH PROJECTIONS

As the region grows, areas that are not currently transit-supportive may become transit-supportive, while areas currently served may be able to support increased service levels. The locations of planned major developments, as well as the area's zoning and comprehensive plan designations, indicate where growth may occur in the future.

Tools and data sources for this analysis are documented in Technical Memorandum #4: Population and Demographic Trends and Forecast and included data from the State of Oregon's Department of Administrative Services, Office of Economic Analysis and the Oregon Employment Department Workforce and Economic Research Division.

Figure 20 shows the Transportation Analysis Zones (TAZs) from the regional travel demand model that are forecasted to have transit-supportive household or employee densities by 2042, along with a ¼-mile walk buffer from existing bus stops. Comparing Figure 20 to Figure 12, it can be seen that new transit-supportive areas will develop in and around Eagle Point; on the east, southwest, and north sides of Medford; on the north side of Central Point; in Jacksonville; in Phoenix east of I-5; and in several locations in Ashland, including the Croman Mill Site.

Based on the demographic, land use, density, and growth projection information, the following describes the existing and future transit supportive areas (TSAs) by city or urban area. Additional information is provided in Technical Memorandum #7: Transit Supportive Areas.

Medford

- Existing unserved TSAs located throughout Medford
 - In north Medford, existing unserved TSAs are focused west of the airport, along I-5, and east of Springbrook Road
 - In south Medford, existing unserved TSAs are primarily located adjacent to Garfield Street and between McAndrews Road and Siskiyou Boulevard

- In east Medford, existing unserved TSAs are located just east of existing service along Routes 24 and 60.
- The largest unserved future TSAs are in east (residential growth) and north Medford (employment growth)

Ashland

- East and northwest portions of city are existing unserved TSAs (such as E. Main and Mountain Avenue)
- Future TSAs are expansions of already existing TSAs with (including Normal Avenue and Croman Mill)

Central Point

- Southwest portion of city as well as along Front Street are existing unserved TSAs
- Future TSAs in northwest and northeast corners of the city

Jacksonville

- Northeast corner of city is an existing unserved TSA, but streets not designed for larger buses and no straight street connections
- New unserved TSA located on east side and south side of city in 2042
- Older adult/disabled population concentrations on northeast side of city

Phoenix

- Southwest corner of city is an existing unserved TSA, but poor street connectivity makes providing service difficult
- Mobile home parks are generally long and narrow with only one entrance; many front busy streets (pedestrian access issues)
- New unserved TSAs in 2042 on both sides of I-5
- High concentrations of older adults, youth, low-income, and disabled persons

[illegible]

Talent

- Mobile home parks (TSAs) on east side of Oregon 99 not well-served and not easily accessed
- Neighborhoods on west side of city are also unserved TSAs, but have poor street connectivity
- No change in TSAs in 2042
- High concentrations of older adults, youth, low-income, and disabled persons

White City

- Existing unserved TSAs are mostly within a 5-minute walk of service, all are within a 10-minute walk.
- The one new future unserved TSA is adjacent to existing service at SORCC.
- Highest concentrations of older adults, youth, low-income, and disabled persons in the region

Eagle Point

- Much of the northern portion of the city is currently an unserved TSA
- Even more of the city will be an unserved TSA by 2042
- Northern portion of the city has high concentrations of older adults, youth, low-income, and disabled persons

System-wide enhancements are those that can be implemented throughout the RVTD service area. The system-wide enhancements identified include:

- Expand Saturday service hours
- Add Sunday service
- Provide connections to existing and proposed pedestrian and bicycle systems
- Provide late evening service
- Provide early morning service
- Increased weekday frequency
- Provide express bus service
- Work with cities on funding of service improvements in their area
- Enhance bus stops to provide covered seating, lighting, schedule information and enhance ADA access.
- Explore the ability to tax an overlay district or TOD for transit operating funds

The jurisdiction-based and route-based enhancements are illustrated in Figure 21. These enhancements were considered in the development of service enhancements.

COMMUNITY TRANSIT VISION

Based on the interviews, meetings, and outreach conducted throughout the plan development, many potential and desired service enhancements were identified that RVTD could implement through this plan. In addition to the activities completed through this plan development, many of the plans created by RVTD-served jurisdictions include suggested transit enhancements.

These enhancements fall into three categories: system-wide, jurisdiction-based, or route-based.

STAKEHOLDER INPUT

Based on the stakeholder interviews described in the stakeholder involvement section, a list of desired jurisdiction-based and corridor-based service enhancements were determined and documented in Technical Memorandum #8: Community Transit Vision.

DESIGN CHARRETTES

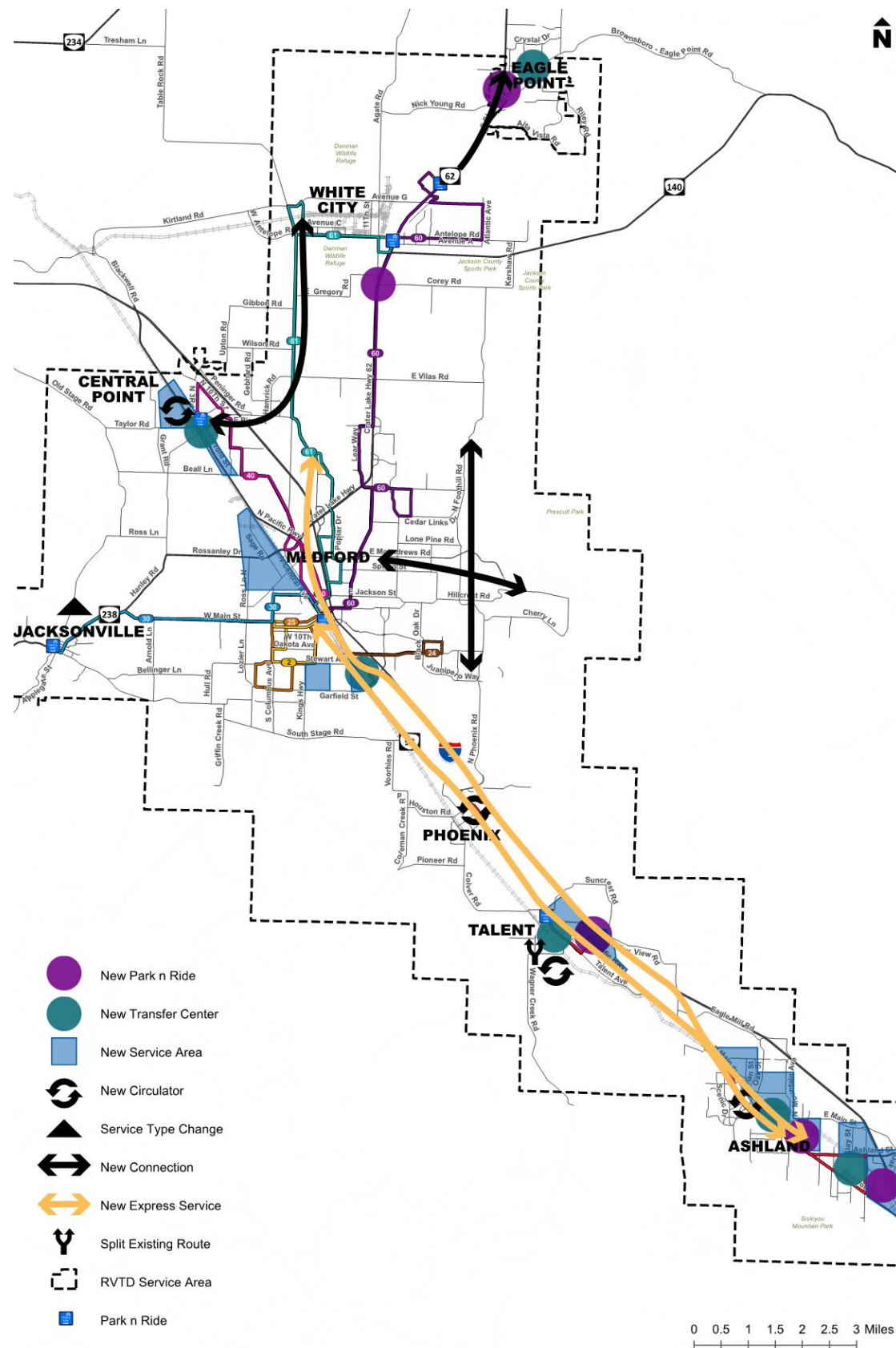
In addition to the stakeholder interviews, a set of design charrettes were conducted in October 2018. A joint TAC and CAC design charrette was held on October 24th and a second design charrette with the RVTB board members and RVTB staff was held on October 25th. Each charrette included three working groups that completed a cost-constrained and a 2040 vision budgeting activity. Participants could increase frequency on existing routes, add service hours to existing routes, and/or provide new service using a set budget. Maps were used to illustrate added and new service. A summary of the design charrettes can be found in Technical Memorandum #8: Community Transit Vision. Common themes across all of the transit scenarios developed in the charrettes identified the following shared priorities:

- Providing service to east Medford
- Increasing frequency on Route 10 to 15-minute headways
- New routes including service to Eagle Point and express service to Ashland
- Added service to Central Point via a circulator or extension of Route 40

"All things being equal, it is always better to have a high level of service on a relatively small number of routes than to expand the number of routes and have a low level of service on them. The attractiveness of the system is based on the frequency of buses and the hours that the buses run and to the degree that those things can be enhanced, it is always much better to do that than to go with a new route because lousy service on a bunch of routes generally doesn't create a strong publicly supported system."

**--- Board Member Tom Fink
February 28, 2018 Board Meeting**

Figure 21: Community Vision – Desired Service Enhancements





- 6.1 POTENTIAL IMPROVEMENTS TO ADDRESS NEEDS
- 6.2 ALTERNATIVES TO ADDRESS BIG-PICTURE NEEDS AND QUESTIONS
- 6.3 EVALUATION OF POTENTIAL IMPROVEMENTS
- 6.4 REFINEMENT OF IMPROVMENTS AND RE-EVALUATION

6.0 ALTERNATIVE DEVELOPMENT & EVALUATION



6.1 POTENTIAL IMPROVEMENTS TO ADDRESS NEEDS

The project team developed several illustrative transit “scenarios” in order to understand how ridership, transit availability, and other factors might change based on system-wide changes. These scenarios helped the project team to understand how different service enhancements interact. The enhancements in each scenario were developed based on suggestions from the Community Transit Vision and the design charrettes conducted with the TAC, CAC, RVT Board and RVT staff. The project team initially analyzed the four scenarios for 2017 and forecast 2027 conditions. The following summarizes each scenario.

SCENARIO 0: BASELINE

Scenario 0 was the current RVTD transit system. It consists of nine fixed route bus lines, including the 2 West Medford, 10 Ashland, 21 Poplar Square, 24 RVMC, 25 South Medford, 30 Jacksonville, 40 Central Point, 60 White City, 61 RCC – Table Rock. This scenario used current system service hours and bus line frequencies.

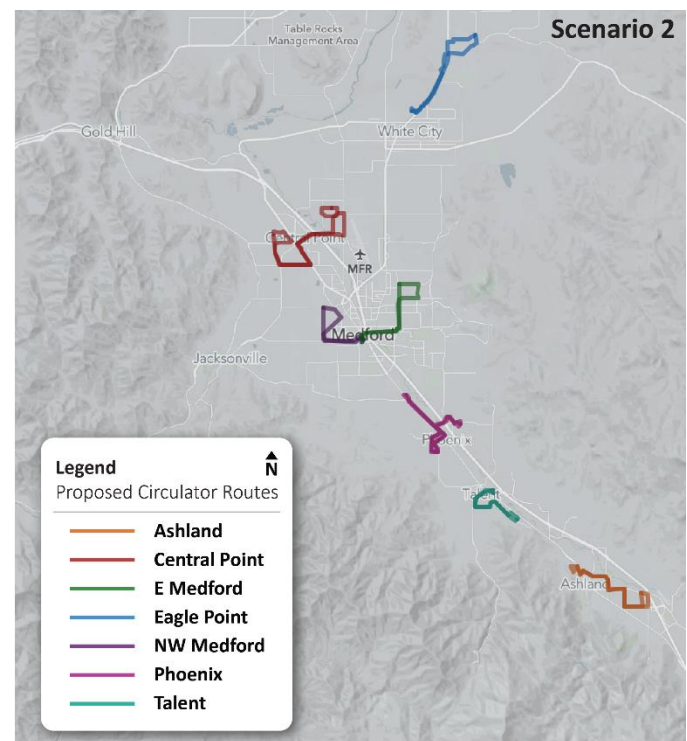
SCENARIO 1: BASELINE WITH MORE FREQUENT SERVICE

Scenario 1 was similar to the current baseline RVTD transit system represented in Scenario 0 but operates with 15-minute frequencies instead of the existing 30-minute frequencies (20-minute existing frequency on Route 10). Scenario 1 used current system service hours and the same bus routes as Scenario 0, testing the impacts of increased frequency on ridership and costs.

SCENARIO 2: CIRCULATOR ROUTES

Scenario 2, shown in Figure 22, added seven new circulator routes to the current RVTD system to test ridership levels and the effects of providing improved connections to places and services. The seven fixed route bus lines include the Ashland Circulator, Central Point Circulator, East Medford Circulator, Eagle Point Circulator, NW Medford Circulator, Phoenix Circulator, and Talent Circulator. This scenario used 30-minute bus frequencies for the Circulators and assumed existing frequencies on all existing routes. Service was assumed to be provided between 6:00 a.m. to 9:00 p.m. Monday through Saturday, depending on route.

Figure 22: Scenario 2 – Circulator Routes



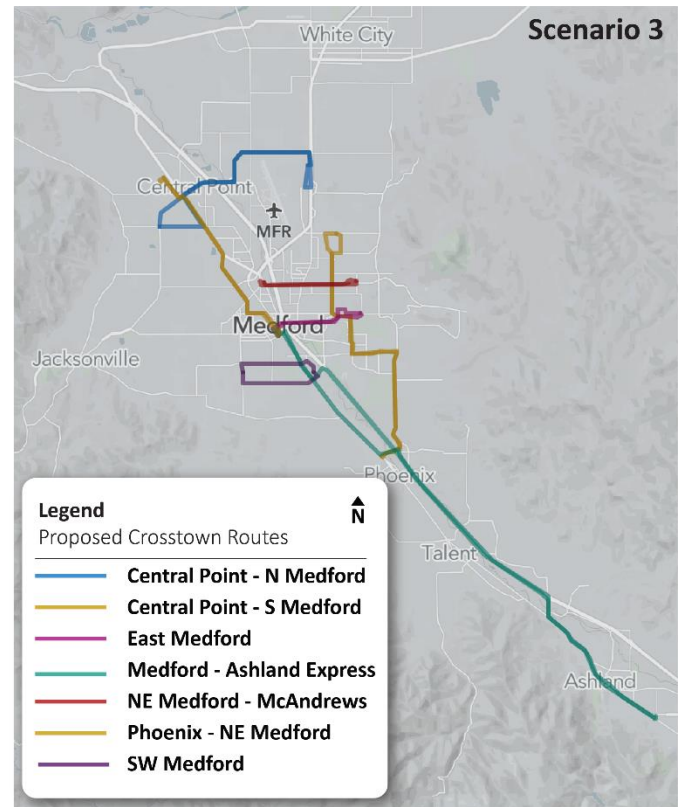
SCENARIO 3: CROSSTOWN ROUTES

As shown in Figure 23, Scenario 3 added seven new crosstown routes to the current RVTB system to test ridership levels and the effects of providing service where service currently does not exist. The seven fixed route bus lines include the Central Point-North Medford Crosstown, Central Point-South Medford Crosstown, East Medford Crosstown, Medford-Ashland Express, NE Medford-McAndrews Crosstown, Phoenix-NE Medford Crosstown, and SW Medford Crosstown. This scenario used 30-minute bus frequencies, providing service from 6:00 a.m. to 7:00 p.m. Monday through Friday, depending on route.

SCENARIO 4: INCREASE FREQUENCY OF CROSSTOWN ROUTES

Scenario 4 utilized the crosstown routes and system service hours in Scenario 3 but increased bus route frequencies from 30-minutes to 15-minutes. Doubling the service frequency tested the impacts on ridership and costs.

Figure 23: Scenario 3 – Crosstown Route



6.2 REFINEMENT OF IMPROVEMENTS

As outlined in Technical Memorandum #9: Service Enhancement Analysis, a second set of analysis was completed to represent proposed near-term, mid-term, and long-term enhancements after feedback was collected from stakeholders, the public, and RVTB staff. The additional modeling prepared output for two new scenarios, representing the near-term

2027 preferred system (Scenario 4) and long-term 2042 preferred system (Scenario 5). The service enhancements that were modeled include modifications of nine existing routes and the addition of 18 routes in the long-term preferred system. Further description of the preferred system scenario routes is provided in Section 8.

6.3 SCENARIO AND PROJECT EVALUATION

EVALUATION METHODOLOGY

The team used several tools, including Remix, the Rogue Valley Metropolitan Planning Organization (RVMPO) regional model JEMnR,

and TBEST, to comprehensively evaluate service enhancement options and provide details about the benefits and drawbacks of each. For more information about the analysis

tools used, see Technical Memorandum #6: Modeling and Analysis Tools Summary.

MODELING TOOLS AT-A-GLANCE

The **Remix** model is a high-level web-based tool for planning transit networks. Remix automates the process of route and schedule testing, allowing users to understand the social and economic impacts of route and schedule changes.

The **JEMnR (Joint Estimation Model written in R)** model is a travel demand model maintained by ODOT and the Rogue Valley MPO. Most effective at a regional scale, JEMnR estimates multimodal travel demand, based on future land use, population, and transportation system assumptions.

The **TBEST (Transit Boardings Estimation and Simulation Tool)** is a small-scale model for analyzing transit system changes. RVTD has adapted and calibrated this powerful tool to understand transit ridership generated by service changes, as well as the potential socioeconomic effects of those changes.

EVALUATION RESULTS

Table 21 provides evaluation results to easily understand and compare results among the different scenarios. When comparing the scenario results below for Scenarios 1 through

4, the most productive scenario in terms of additional rides per additional dollar spent is Scenario 2 – Circulator Routes. The other three scenarios have similar ridership output. The ridership projections (Total Daily Boardings) are consistent with ridership changes RVTD has experienced in the past with service cuts or additions. Service cuts see nearly the same ratio of ridership decreases almost immediately while increases in ridership based on service additions can take up to 3 years to see the full results.

In terms of providing coverage and providing transit service to a higher percentage of the population and essential destinations, the addition of circulator routes (Scenario 2) also performs best. However, when considering the percentage of regional employment with transit service, the addition of crosstown routes (Scenarios 3 and 4) performs best. A combination of these productivity and coverage model scenarios is recommended to provide benefits to a mix of the evaluation criteria. Scenarios 5 and 6 in the table show the evaluation criteria results for the short-term and long-term preferred system scenarios, which combine elements of both productivity and coverage models.

As part of the scenario evaluation, the individual projects that make up each scenario were evaluated in Technical Memorandum #9: Service Enhancement Analysis. See Technical Memorandum #9: Service Enhancement Analysis for the initial project-level evaluation results and Section 8 for information regarding the planned near-term, mid-term, and long-term projects.

Table 21: Scenario Evaluation and Comparison

Criteria	Modeling Tool	Baseline		Scenario 1: Baseline with More Frequent Service ⁸	
		2017	2027	2017	2027
Total Daily Boardings	JEMnR	5,400	5,700	9,800	10,500
Transit Mode Share ¹	JEMnR	0.5%	0.5%	0.8%	0.7%
Population within ¼ Mile of 30-minute Transit Service ²	Remix and JEMnR	63,900	68,300	63,900	68,300
Population within ¼ Mile of Transit Service ²	Remix and JEMnR	70,700	75,700	70,700	75,700
Revenue Miles of Service per Capita per Year	Remix	6	6	12	11
Number of Regional Essential Destinations within ¼ Mile of Transit Service ³	ArcMap	98	98	98	98
Percentage of Regionwide Current and Future Mixed-use/Multi-family Zoned Land within ¼ Mile of Transit Service ⁴	ArcMap	68%	68%	68%	68%
Regional Employment within ¼ Mile of Transit Service ⁵	JEMnR	42,600	49,300	42,600	49,300
Estimated Reduction in Regional GHG Emissions (MTCO ₂ e) ⁶	JEMnR	N/A	N/A	800	950
Total Estimated Capital Costs over Existing ⁷	Remix	-	N/A	\$7,228,000	\$7,228,000
Additional Annual Service Hours	TBEST	-	2,600	74,400	74,800

1. RVMPO (JEMnR) regional model transit trips as a share of all person-trips.
2. Population estimates from Remix with growth rates from RVMPO (JEMnR) for future year forecasts.
3. Regional essential destinations are defined as churches, city halls, community centers, courthouses, grocery stores, libraries, medical facilities, parks, police stations, and educational institutions.
4. Zoning data as of 2017. For future years, used existing land use. Measure calculates the total percentage of multi-family within ¼ mile of all service in the alternative as compared to regionwide total multi-family.
5. Employment data from RVMPO (JEMnR) regional model; model data is based on Oregon Employment Department ES-202 data and MPO forecasts for future years.
6. GHG emissions based on changes in vehicle miles travelled from RVMPO (JEMnR) regional model along with average fuel efficiency rate from EPA (<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>).
7. Capital costs based on number of buses needed to operate service under each scenario, including spares, as well as stop infrastructure.
8. Scenario was modeled with service at 15-minute frequency.

Table 21: Scenario Evaluation and Comparison – Continued

Criteria	Modeling Tool	Scenario 2: Circulator Routes	Scenario 3: Crosstown Routes	Scenario 4: Increase Frequency of Crosstown Routes ⁸	Scenario 5: Short-term Preferred System	Scenario 6: Long-term Preferred System
		2027	2027	2027	2027	2042
Total Daily Boardings	JEMnR	9,500	10,500	18,600	12,200	27,500
Transit Mode Share ¹	JEMnR	0.7%	0.8%	1.2%	0.9%	1.50%
Population within ¼ Mile of 30-minute Transit Service ²	Remix and JEMnR	94,500	86,700	86,700	83,000	115,800
Population within ¼ Mile of Transit Service ²	Remix and JEMnR	100,800	91,100	91,100	99,600	115,800
Revenue Miles of Service per Capita per Year	Remix	8	8	14	8	22
Number of Regional Essential Destinations within ¼ Mile of Transit Service ³	ArcMap	127	112	112	124	129
Percentage of Regionwide Current and Future Mixed-use/Multi-family Zoned Land within ¼ Mile of Transit Service ⁴	ArcMap	84%	74%	74%	81%	86%
Regional Employment within ¼ Mile of Transit Service ⁵	JEMnR	54,900	57,300	57,300	58,400	70,200
Estimated Reduction in Regional GHG Emissions (MTCO ₂ e) ⁶	JEMnR	700	400	2,300	1,200	4,150
Total Estimated Capital Costs over Existing ⁷	Remix	\$8,976,200	\$8,354,200	\$22,895,300	\$10,410,000	\$39,043,100
Additional Annual Service Hours	TBEST	39,700	55,300	153,300	32,600	214,200

1. RVMPO (JEMnR) regional model transit trips as a share of all person-trips.
2. Population estimates from Remix with growth rates from RVMPO (JEMnR) for future year forecasts.
3. Regional essential destinations are defined as churches, city halls, community centers, courthouses, grocery stores, libraries, medical facilities, parks, police stations, and educational institutions.
4. Zoning data as of 2017. For future years, used existing land use. Measure calculates the total percentage of multi-family within ¼ mile of all service in the alternative as compared to regionwide total multi-family.
5. Employment data from RVMPO (JEMnR) regional model; model data is based on Oregon Employment Department ES-202 data and MPO forecasts for future years.
6. GHG emissions based on changes in vehicle miles travelled from RVMPO (JEMnR) regional model along with average fuel efficiency rate from EPA (<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>).
7. Capital costs based on number of buses needed to operate service under each scenario, including spares, as well as stop infrastructure.
8. Scenario was modeled with service at 15-minute frequency.

ADDITIONAL SYSTEM ENHANCEMENTS

During the evaluation process, the project team analyzed six additional system-level enhancements for the current RVTB transit network using TBEST. Table 22 shows how ridership and other evaluation criteria are affected when frequency and hours are adjusted under the existing RVTB transit network.

INCREASE RVTB ROUTES TO 15-MINUTE OR 20-MINUTE FREQUENCY:

Current RVTB routes were increased from 30 to 20-minute frequency to test the impact to ridership and costs. Route 10 was assumed to increase from 20 to 10-minute frequencies. 20-minute frequencies for all routes could be a near-term enhancement, while increasing network frequencies to 15-minutes could be a long-term enhancement.

INCREASE WEEKDAY SERVICE BY 2 AND 4

ADDITIONAL HOURS:

Assumes RVTB routes have increased service windows, with most routes running from 5 a.m. to 11 p.m.

INCREASE SATURDAY SERVICE TO WEEKDAY SERVICE HOURS:

Saturday service on all current RVTB routes is increased to weekday service hours, maintaining the same frequencies.

ADD SUNDAY SERVICE:

Sunday service is provided on the nine existing RVTB routes, and set to existing Saturday service, from 7 a.m. to 6 p.m.

Table 22: System-level Project Evaluation

Criteria	2027 Baseline	15-Minute Frequency	20-Minute Frequency	2 Additional Weekday Hours	4 Additional Weekday Hours	Increase Saturday Service to Weekday Hours	Add Sunday Service
Projected Daily Ridership	4,700	8,700	9,000	5,046	5,392	5,200	5,500
Number of Additional Buses	--	13 Required	13 Required	0	0	0	0
Cost of Additional Buses	--	\$7,228,000	\$7,228,000	0	0	0	0
Additional Annual O&M Cost	\$129,400	\$3,722,300	\$3,330,700	\$974,200	\$1,606,900	\$593,500	\$1,194,300
Additional Annual Service Hours	2,600	74,500	66,600	13,000	21,400	7,900	14,700



- 7.1 FUNDING SCENARIOS
- 7.2 COST ESTIMATES
- 7.3 NEW FUNDING SOURCES
- 7.4 FUNDING STRATEGY

7.0 FINANCIAL ASSESSMENT



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

The following section provides an overview of the existing and potential future funding sources for implementation of the Plan. Potential future funding scenarios are outlined to help RVT plan for best- and worst-case scenarios.

RVT's fiscal year 2019-2020 revenue budget for operations is \$14.3 million including approximately \$3 million of new annual revenues from the state's new transportation

funding package. As discussed below, the projected funding scenarios show RVT with the ability to increase their annual operating budget to approximately \$30 million with existing revenue sources (assuming continued average annual growth and inflation). Slower growth and reduction in revenue sources are also considered in the following funding scenarios along with potential additional funding sources.

7.1 EXISTING FUNDING SOURCES

The following funding sources are currently part of RVT's operating budget. Table 23 summarizes the projected growth in the operating budget for the 20-year planning horizon.

PERMANENT LEVY

RVT has a permanent levy for a property tax within the district boundary at 17.72 cents per \$1,000 of assessed property value. Its historical annual growth rate is 4.25 percent, which has been applied in the funding projections.

SPECIAL LEVY

In addition to the historic permanent levy that provides funding to RVT, voters passed a five-year tax levy in 2016 that increased taxes within the district by 13 cents per \$1,000 of assessed property value. This was the first public funding increase that RVT received in three decades. Its average and projected growth rate is 4.25 percent. This rate was applied for funding scenarios where it was assumed that the special levy would continue to be passed in future years.

STATEWIDE TRANSPORTATION IMPROVEMENT FUND (STIF)

Section 122 of Keep Oregon Moving (Oregon House Bill 2017) established a new dedicated source of funding for expanding public transportation service through a new 0.1 percent employee payroll tax in Oregon. Goals of HB 2017 include expanding access to jobs, improving mobility, relieving congestion, and reducing greenhouse gas emissions, while providing a special focus on low-income populations. STIF funds may be used for public transportation purposes that support the operations, planning, and administration of public transportation programs and may also be used as the local match for state and federal funds which also provide Public Transportation Service.

The Oregon Department of Revenue began collecting this tax July 1, 2018 to then provide to transit agencies in late 2019. This new funding source is called the Statewide Transportation Improvement Fund (STIF). RVT is the Qualified Entity of the funds allocated to Jackson County. RVT will receive two separate funds through STIF, funds to be used

in the district and funds to be used out of district in other parts of Jackson County.

The first year of funding is occurring within RVTD's 2019-2020 fiscal year. Approximate funding numbers for the first years were provided by ODOT. For funding projections, a growth rate of 4.75 percent was used for future years.

OTHER TAXES

Other taxes primarily include the Mass Transit Tax. The portion of funds from this tax going to RVTD for operations has decreased over fifty percent over the past several years; however, 1% annual growth moving forward is assumed for planning purposes.

5307 OPERATING GRANT – THE URBANIZED AREA FORMULA FUNDING PROGRAM

The 5307 Operating Grant provides federal funding through the Federal Transit Administration to urbanized areas for transit capital and operating assistance. A range of annual growth rates were used for funding projections, starting at 3.00 percent through fiscal year 2023-2024 and increasing to 4.30 percent starting for fiscal year 2026-2027 as this funding is anticipated to increase as ridership increases.

The MPO population is anticipated to increase to approximately 193,000 by 2027. When the population within the RVTD service boundary exceeds 200,000, the federal formula for this grant will change as RVTD will be considered a provider for a "medium sized urban area." RVTD will continue to monitor the population

within the service boundary as population increases and/or if the service boundary is changed to include additional areas or jurisdictions of Jackson County.

SURFACE TRANSPORTATION BLOCK GRANT (STBG)

The Surface Transportation Block Grant (STBG) program provides flexible federal funding to best address State and local transportation needs, including Federal-aid highways, bridge and tunnel projects on public roads, pedestrian and bicycle infrastructure, and transit capital projects. A static annual value of \$700,000 was considered for funding projections.

CHARGES FOR SERVICES-FARES

A portion of fares collected becomes revenue for the operating budget. An annual growth rate of 5.00 percent was used for projections.

INVESTMENT INCOME

RVTD receives investment income from the Local Government Investment Pool (LGIP) on some of their long-term savings. For funding projections, a growth rate of 3.00 percent was used for future years.

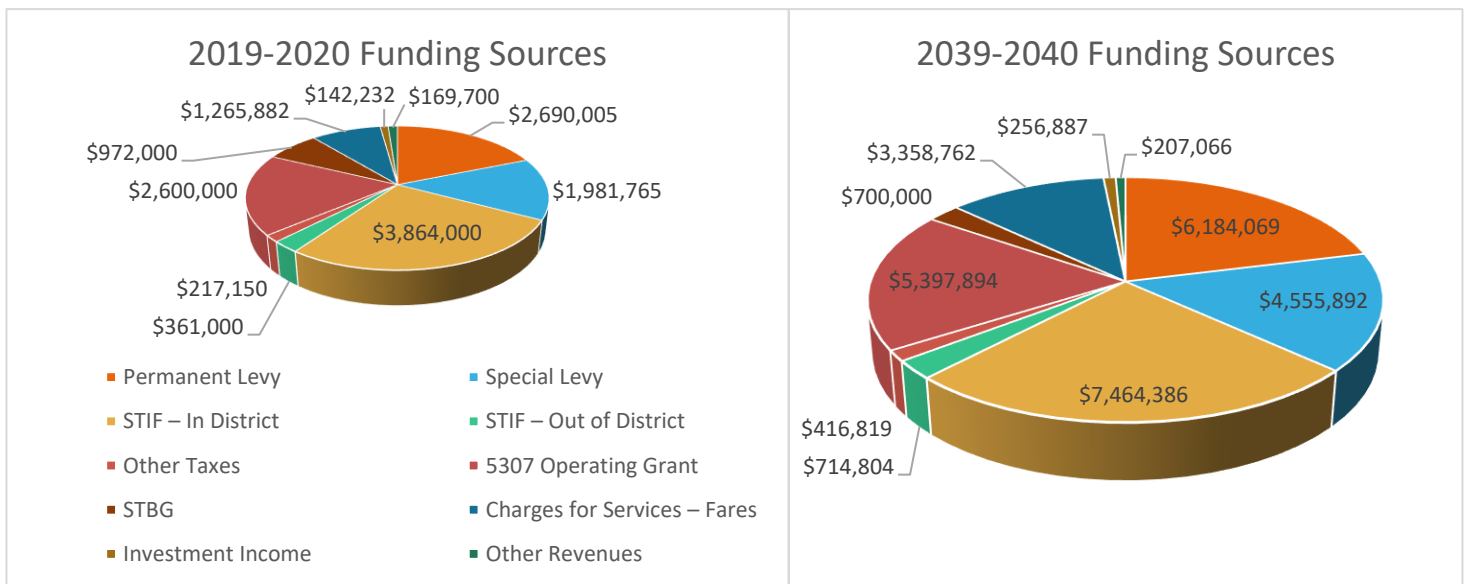
OTHER REVENUES

RVTD receives funding from several other sources such as advertising, sales of natural gas, parking fees, bike locker rentals, ATM fees, insurance rebates, natural gas tax rebates, and rent from Greyhound. For funding projections, a growth rate of 1.00 percent was used for future years.

Table 23: Projected Revenues - Existing Funding Sources

Existing Funding Source	Fiscal Year			
	2019-2020	2026-2027	2036-2037	2039-2040
Permanent Levy	\$2,690,005	\$3,599,859	\$5,458,159	\$6,184,069
Special Levy	\$1,981,765	\$2,652,068	\$4,021,103	\$4,555,892
STIF – In District	\$3,864,000	\$4,083,318	\$6,494,369	\$7,464,386
STIF – Out of District	\$361,000	\$391,026	\$621,913	\$714,804
Other Taxes	\$217,150	\$242,638	\$367,891	\$416,819
5307 Operating Grant	\$2,600,000	\$3,142,212	\$4,764,268	\$5,397,894
STBG	\$972,000	\$700,000	\$700,000	\$700,000
Charges for Services – Fares	\$1,265,882	\$1,781,223	\$2,901,425	\$3,358,762
Investment Income	\$142,232	\$174,927	\$235,088	\$256,887
Other Revenues	\$169,700	\$181,941	\$200,976	\$207,066
Total Operating Revenue	\$14,263,734	\$16,949,214	\$25,765,192	\$29,256,579

As shown in Table 23 and assuming existing funding sources remain active, the projected annual operating revenue for fiscal year 2039-2040 is projected to be approximately \$29 million. This corresponds to an approximate straight-line annual revenue growth rate of 5 percent. As shown in Figure 24, the approximate portion of funding from each source is projected to remain relatively consistent.

Figure 24: Projected Funding Revenues by Type – Existing Funding Sources

7.2 NEW FUNDING SOURCES

Two potential new funding sources that RVTD could pursue if additional funding is desired are discussed below. *Table 24* summarizes the projected growth for these potential funding sources for the 20-year planning horizon.

EMPLOYER PAYROLL TAX

RVTD could establish an employer-borne payroll tax through an Oregon Revised Statutes legislative change equal to one tenth of one percent. Although RVTD would like to explore the options made available with this funding source, it is unlikely to be implemented for the next five years or more. An annual growth rate of 4.75 percent was assumed for future years. A tax of that amount would be equivalent to the employee-borne tax funding the STIF.

rates for properties located in designated areas in the immediate vicinity of transit or enhanced transit. The current property tax within the district boundary of 17.72 cents per \$1,000 of assessed property value would be the base tax rate and areas with higher property taxes would also have higher levels of transit service. An annual growth rate of 3.00 percent was assumed for future years.

Although RVTD would like to explore the options made available with this funding source, it is unlikely to be implemented for the next ten years or more. Differential property taxing would require a re-districting or establishing RVTD as a mass transit district, with Eagle Point and adding new taxing areas in the high-capacity transit corridors.

AREA SPECIFIC TAX

An area specific tax (differential property taxing) would allow increased property tax

Table 24: Potential Future Funding Sources Projected Revenues

Potential Future Funding Source	Fiscal Year			
	2019-2020	2026-2027	2036-2037	2039-2040
Employer Payroll Tax	-	\$4,474,345	\$7,116,282	\$8,179,190
Area Specific Tax	-	\$2,706,915	\$3,637,868	\$3,975,197

7.3 FUTURE FUNDING SCENARIOS

Several future funding scenarios are presented in *Table 25*. Each scenario uses the existing funding source projections as a base, then removes certain funding sources, changes the funding source projections to represent better or worse economic climates, and/or adds new funding sources to estimate projected funding. The scenarios include the following:

- Existing funding sources without STBG
- Existing funding sources without the special levy
- Existing funding sources without both STBG and the special levy
- Existing funding sources with STIF funding remaining stagnant
- Existing funding sources with STIF funding decreasing for five years
- Existing funding sources with an additional payroll tax and excluding the special levy
- Existing funding sources with an additional area specific tax and excluding the special levy

Table 25: Potential Future Funding Scenarios

Funding Scenario	Projected Fiscal Year Funding			
	2019-2020	2026-2027	2036-2037	2039-2040
Existing Revenue Sources	\$14,263,734	\$16,949,212	\$25,765,192	\$29,256,579
Without STBG	\$13,291,734	\$16,249,212	\$25,065,192	\$28,556,579
Without Special Levy	\$12,281,969	\$14,297,144	\$21,744,089	\$24,700,687
Without Both STBG and Levy	\$11,309,969	\$13,597,144	\$21,044,089	\$24,000,687
STIF Funding – Stagnant	\$14,263,734	\$16,746,336	\$22,920,377	\$25,348,857
Payroll Tax (Without Special Levy)	-	\$18,771,489	\$28,860,371	\$32,879,877
Area Specific Tax (Assumed No Special Levy)	-	\$17,004,059	\$25,381,957	\$28,675,884

7.4 FUNDING STRATEGY

RVTD's existing funding sources (including the upcoming STIF funding) provides a solid base for continuing to provide the existing transit services in the region and to enhance those services into the future. With that in mind, it is also important to set the agency up for financial success if existing funding sources are reduced.

As with all funding forecasts, estimates can change quickly given the uncertainty of federal and state funding levels, and RVTD should continue to continually monitor the funding environment and update the future revenue forecast regularly. RVTD may seek to renew the special levy in the near-term and supplement or replace it in the future with a more stable funding source such as a payroll tax or enhanced transit area property tax.

In addition, RVTD has received comments from both the transit-riding and non-transit-riding public about fares. The riding public would like to see fare decreased, with the non-riding public would like to see the fare increased. RVTD will continue monitoring fare and plans to complete a fare elasticity study within the next 10 years. Possible outcomes from this study are increasing the base fare for some or all rides, decreasing fares for older adults, and/or decreasing fares for Veterans.



- 8.1 PREFERRED TRANSIT SYSTEM
- 8.2 PREFERRED SYSTEM PERFORMANCE EVALUATION
- 8.3 PREFERRED SERVICE ENHANCEMENT PROJECTS
- 8.4 HIGH PRIORITIES
- 8.5 CAPITAL PLAN
- 8.6 DEPARTMENTAL PLANS
- 8.7 TRANSPORTATION OPTIONS PLAN
- 8.8 TMP UPDATE SCHEDULE

8.0 TRANSIT MASTER PLAN



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

8.1 PREFERRED TRANSIT SYSTEM

This section identifies the recommended service projects for the RVTD 2040 Transit Master Plan, based on the evaluation results from Technical Memorandum #9: Service Enhancement Analysis, public feedback, and project team recommendations. The table of preferred projects is organized by timeframe for implementation (short-term, mid-term, and long-term), and other important considerations are noted.

PROJECT PHASING

The following figures and tables describe the identified service enhancement projects for the next 25 years. Service enhancements are summarized by general timeframe; however, priorities and development patterns can shift over time and phasing issues with schedules and fleet may result in some short-term projects occurring before others are completed.

The short-term 2027 preferred system is shown in Figure 25. All existing routes are in gray, while the routes identified to be established in the next 10 years are in blue. The mid-term preferred system is shown in Figure 26. Routes identified for years 10 to 20 are in yellow. The long-term preferred system is shown in Figure 27. Routes identified for long-term implementation are in red. New routes proposed for future growth areas should only be implemented after sufficient growth occurs to support service.

All routes identified in the long-term preferred system are categorized as high capacity transit

2027 (SHORT-TERM) 0 TO 10 YEARS



HEADWAYS

REDUCES HEADWAYS TO 20-MINUTES ON 4 ROUTES



NEW ROUTES

ADDS 9 NEW ROUTES



SERVICE HOURS

ADDS 38,000 SERVICE HOURS (TOTAL OF 117,000 HOURS)

2037 (MID-TERM) 10 YEARS TO 20 YEARS



HEADWAYS

REDUCES WEEKDAY HEADWAYS TO 15-20 MINUTES



SATURDAYS

ADDS SATURDAY HOURS AND REDUCES SATURDAY HEADWAYS



SUNDAYS

ADDS SUNDAY SERVICE



NEW ROUTES

ADDS 5 NEW ROUTES



SERVICE HOURS

ADDS ADDITIONAL 146,000 SERVICE HOURS (TOTAL OF 263,000 HOURS)

2042 (LONG-TERM) 20 TO 25 YEARS



HEADWAYS

10-MINUTE FREQUENCY ON HCT ROUTES



NEW ROUTES

- ADDS 3 NEW HCT ROUTES
- UPGRADES ROUTE 10 TO HCT



SERVICE HOURS

ADDS ADDITIONAL 56,000 SERVICE HOURS (TOTAL OF 319,000 HOURS)

(HCT) and include upgrades of existing and future routes and some new route alignments.

Figure 25: Short-term Preferred System - 2027

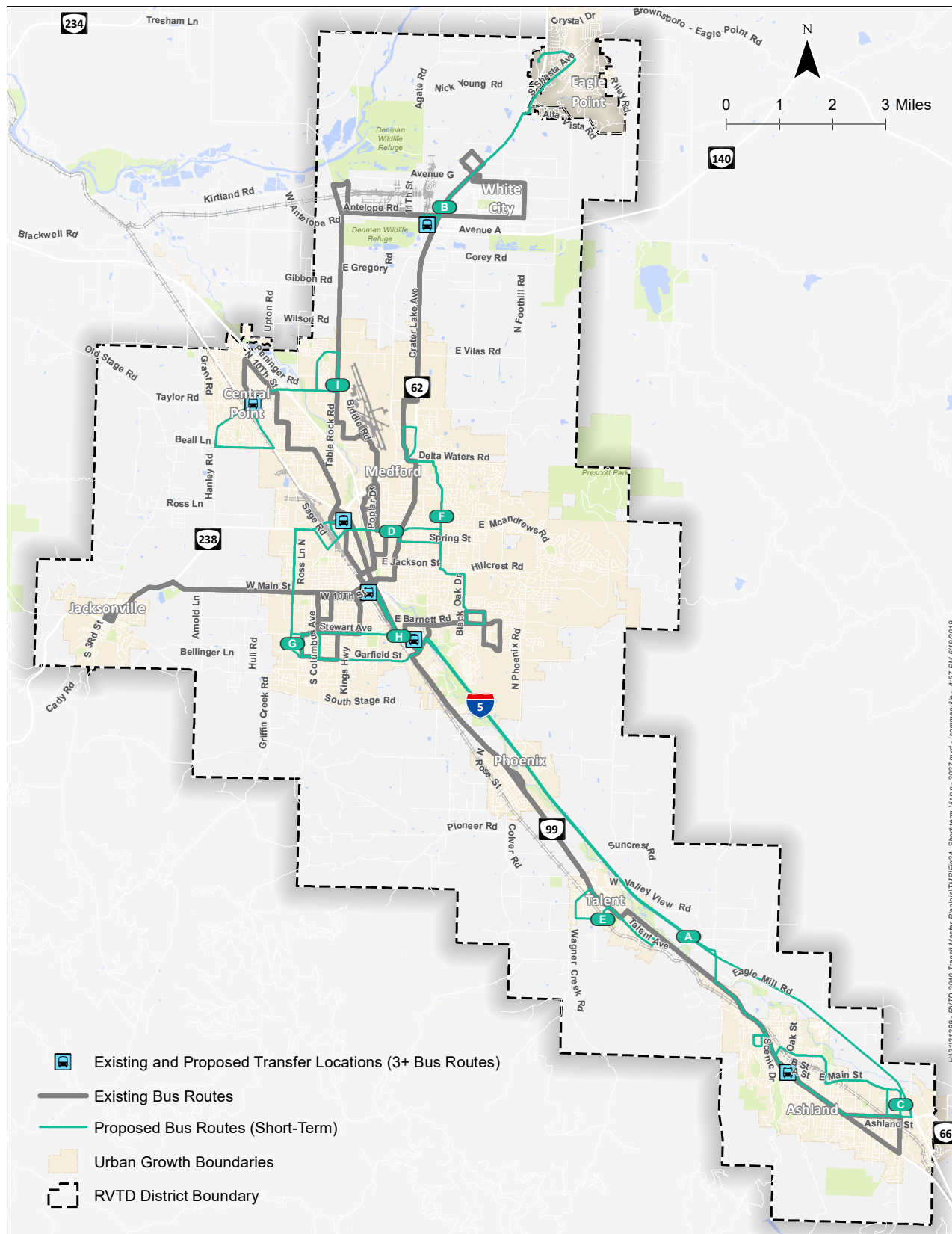


Figure 26: Mid-term Preferred System - 2037

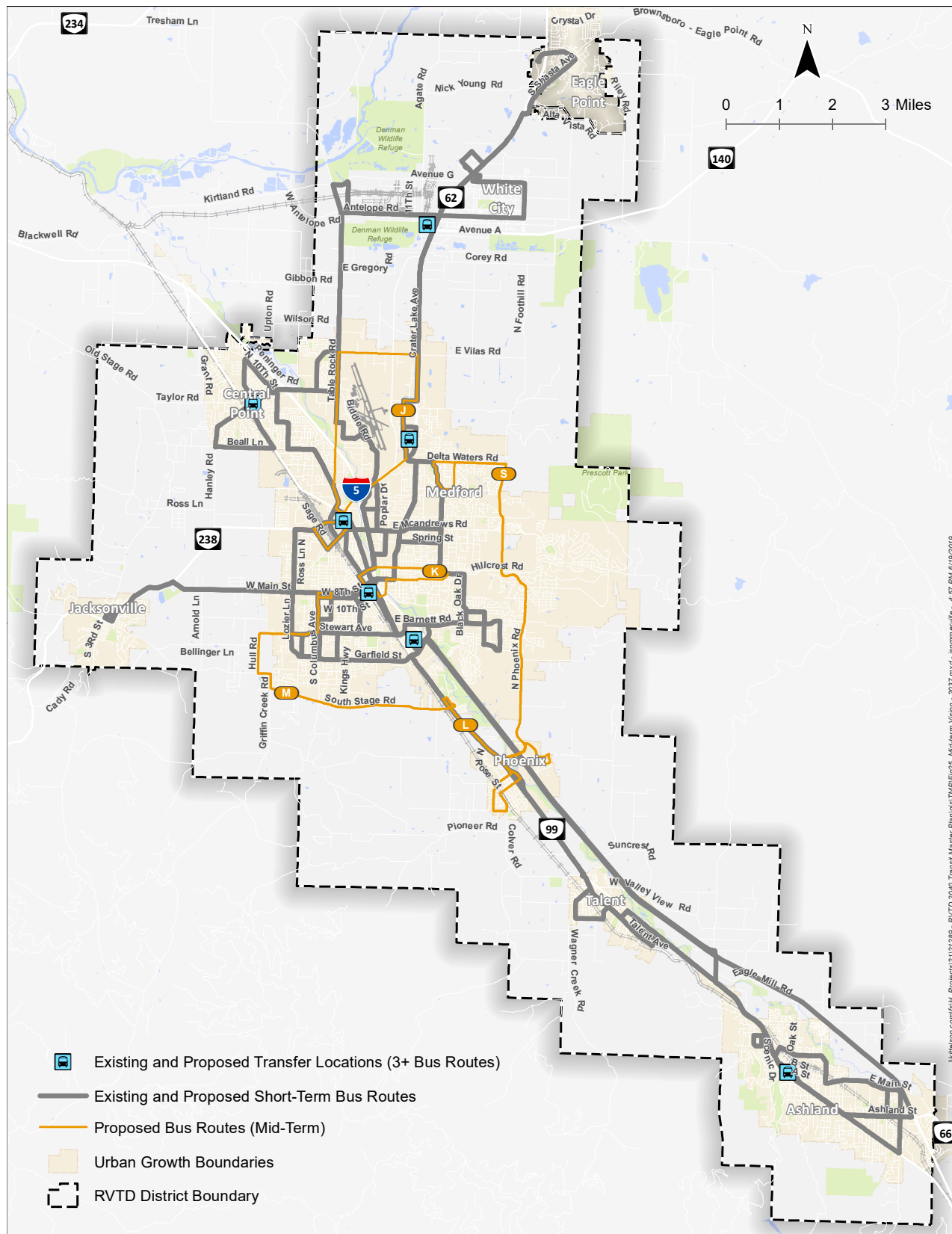
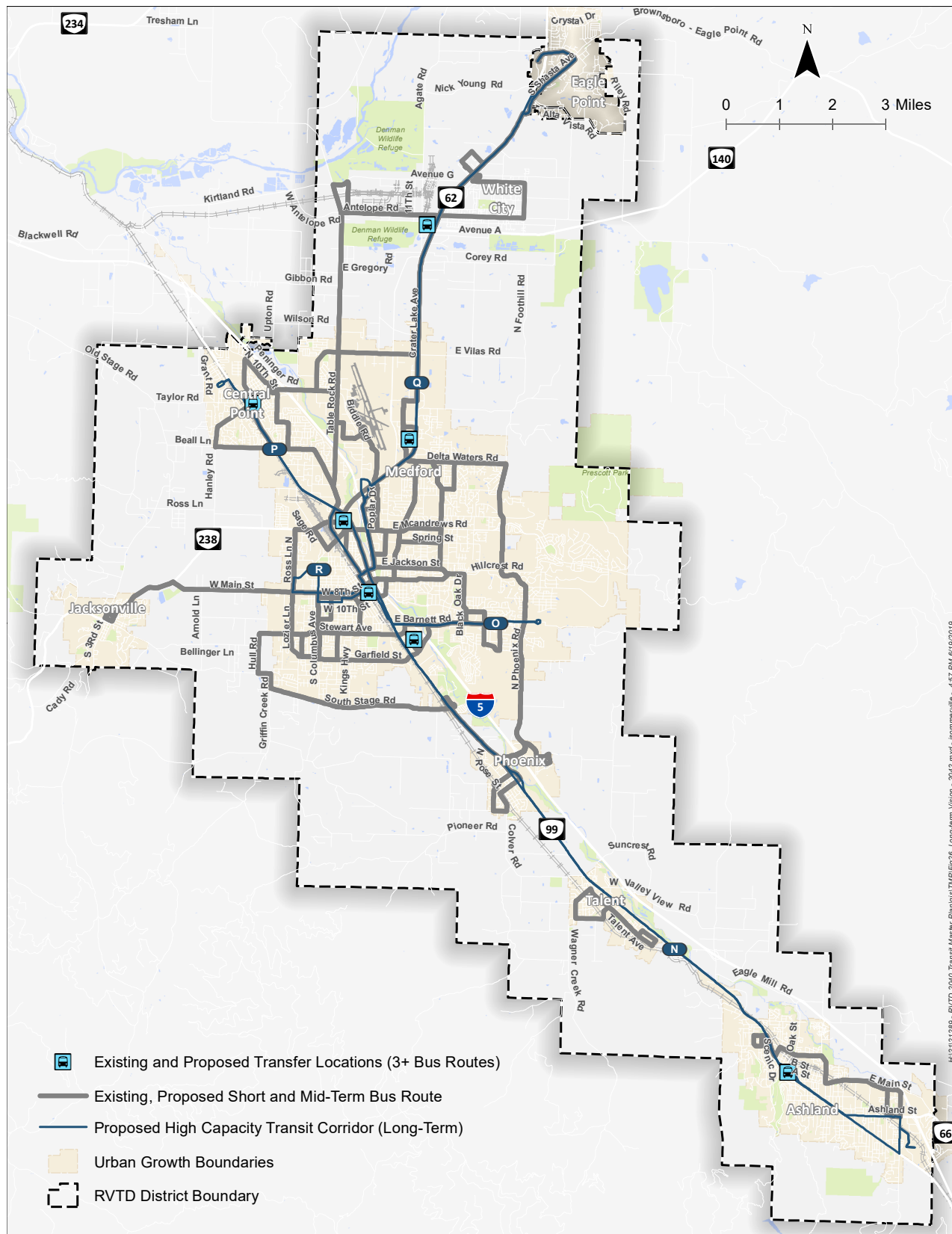


Figure 27: Long-term Preferred System - 2042



8.2 PREFERRED SYSTEM PERFORMANCE EVALUATION

The following provides benchmark data for performance measures that were used to evaluate alternatives and to ensure that the preferred system is helping RVTD accomplish its' vision and goals. Tables 26, 27, and 28 document performance measures related to the system productivity, accessibility to people, jobs, and important destinations, and accessibility to populations with high concentrations of transit dependent (Title VI⁴ populations). The tables show the performance measures for the current transit service (based on existing and projected future population) and for the preferred systems. The measures related to service planning address Goal I: Community, Goal III: Economy, and Goal IV: Environment.

The transit mode share was further explored by corridor as the impacts within transit corridors are anticipated to be significantly higher than

for the MPO area as a whole. Due to the capabilities of the JEMnR model used for this exercise, the "mode share" calculations did not take non-motorized trips into account. Therefore, the "transit mode share" documented in Table 26 is the modeled transit trips divided by the total number of transit trips plus automotive trips.

The transit mode share is shown for five segments that have existing and continued future transit service, as a comparison to the overall system transit mode share. Several segments on Highway 99 are modeled to have transit mode shares more than 10 times larger than the system transit mode share. Transit mode share would be further increased if paid parking was implemented within the high-capacity transit corridors. Opportunities to encourage use of transit are further explored in the departmental plans.

⁴ Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d-1) states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In combination with subsequent federal

nondiscrimination statutes, agencies receiving federal financial aid are prohibited from discriminating based on race, color, national origin, age, economic status, disability, or sex (gender).

Table 26: Productivity Performance Measures

Criteria	Current System		Preferred System		
	2018	2042	2027 (Short-term projects)	2037 (Mid-term projects)	2042 (Long-term projects)
Ridership for System ¹	1,240,876 ⁴	1,519,603	1,922,567	4,586,512	6,268,443
MPO Population ¹	175,493	230,429	192,865	216,511	230,429
Rides per Capita ¹	7.1	6.6	10.0	21.2	27.2
Transit Mode Share ²	0.5%	-	0.9%	-	1.5%
Segment Transit Mode Share: Hwy 99 north of Rose St ²	13.4%	-	14.6%	-	22.2%
Segment Transit Mode Share: Hwy 99 south of Hartley Rd ²	16.8%	-	20.6%	-	29.6%
Segment Transit Mode Share: Hwy 99 north of Jackson Rd ²	5.0%	-	7.3%	-	12.8%
Segment Transit Mode Share: Crater Lake Hwy north of Agate Rd ²	0.5%	-	0.8%	-	2.2%
Segment Transit Mode Share: E Barnett Rd west of Black Oak Dr ²	0.6%	-	1.5%	-	2.9%
Revenue Miles of Service per Capita per Year ³	6	6	8	16	22

1. Data from TBEST⁵
2. Data from JEMnR. No model output available for the 2037 mid-term preferred system.
3. Data from Remix
4. Reported ridership data for 2018

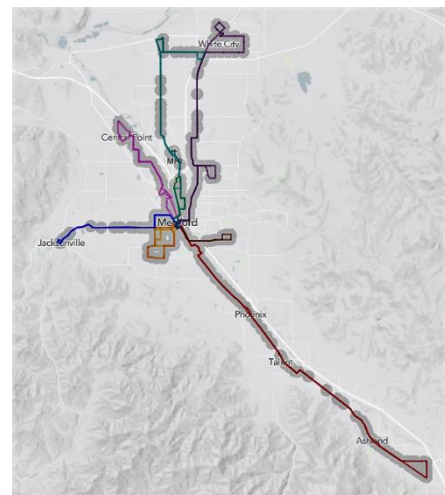
⁵ TBEST (Transit Boardings Estimation and Simulation Tool) is a model for analyzing transit system changes. RVTB has adapted and calibrated this powerful tool, originally developed by the Florida DOT, for use in the Rogue Valley. The tool is used to understand transit ridership generated by service changes, as well as the potential socioeconomic effects of those changes (e.g., changes in the number of low-income riders that use the system).

Table 27: Accessibility Performance Measures

Criteria	Current System			Preferred System		
	2018	2027	2042	2027 (Short-term projects)	2037 (Mid-term projects)	2042 (Long-term projects)
Total MPO Population ¹	175,493	192,865	230,429	192,865	216,511	230,429
Total Population within ¼ Mile of Transit Service ¹	84,078	89,936	101,154	120,238	139,025	143,809
Percentage of Population within ¼ Mile of Transit Service ¹	48%	47%	43%	62%	64%	62%
Population within ¼ Mile of 30-minute or Better Service ¹	78,593	83,796	93,649	89,384	134,191	143,809
Population within ¼ Mile of 20-minute or Better Service ¹	23,304	24,854	25,372	68,216	117,795	130,971
Total MPO Employment ¹	78,203	91,647	127,811	91,648	113,134	127,810
Total Employment within ¼ Mile of Transit Service ¹	60,408	70,226	95,621	78,457	98,479	103,001
Percentage of Regional Employment within ¼ Mile of Transit Service ¹	77%	77%	75%	86%	87%	81%
Percentage of Transit Supportive Areas within ¼ Mile of Transit Service (Lower Density) ²	46%	-	40%	43%	45%	47%
Percentage of Transit Supportive Areas within ¼ Mile of Transit Service (Higher Density) ²	66%	-	62%	64%	67%	67%
Percentage Multi-family/mobile home parks within ¼ mile of transit ²	71% (211 out of 296)			72% (214 out of 296)	72% (214 out of 296)	73% (216 out of 296)
Number of Regional Essential Destinations within ¼ Mile of Transit Service ²	57% (216 out of 382)			62% (236 out of 382)	66% (254 out of 382)	68% (261 out of 382)

1. Data from TBEST
2. Data calculated using ArcMap

As shown in Table 28, the preferred near-term, mid-term, and long-term systems are forecast to serve large portions of Title VI populations within the MPO. With the exception of the population with disabilities, over half the Title VI populations are served within ¼-mile of the preferred systems.



¼-mile transit area for existing

Table 28: Title VI Performance Measures

Criteria	Current System		2027 Preferred System (Short-term projects)		2037 Preferred System (Mid-term projects)		2042 Preferred System (Long-term projects)	
	Within ¼-Mile	Within MPO	Within ¼-Mile	Within MPO	Within ¼-Mile	Within MPO	Within ¼-Mile	Within MPO
Minority Population ¹	9,231 (58%)	15,915	11,479 (66%)	17,414	13,859 (71%)	19,423	14,346 (70%)	20,544
Low Income (Poverty 100%) ¹	17,975 (55%)	32,641	24,728 (69%)	35,591	28,428 (72%)	39,503	29,470 (71%)	41,772
Population 65 Years Old or Older ¹	13,723 (40%)	34,607	21,943 (57%)	38,188	25,929 (60%)	43,527	25,190 (54%)	46,733
Population 17 Years Old and Under ¹	18,919 (50%)	38,105	26,109 (63%)	41,571	30,029 (65%)	46,526	31,687 (64%)	49,434
Limited English Proficiency (LEP) Population ¹	3,667 (57%)	6,440	4,844 (69%)	7,015	5,661 (73%)	7,777	5,928 (72%)	8,219
No Access to Vehicles ¹	7,567 (60%) ³	12,599 ³	4,276 (75%)	5,712	4,881 (76%)	6,432	5,065 (74%)	6,851
Poverty 200% ²	36,207 (51%)	70,827	37,559 (53%)	70,821	37,222 (53%)	70,822	38,731 (53%)	72,410
Population with Disabilities ²	12,588 (43%)	29,114	13,371 (46%)	29,111	13,385 (46%)	29,112	13,899 (47%)	29,836

1. Data from TBEST

2. Data from Remix

3. Data from Remix for the current system instead of TBEST which was used for the preferred systems

PERFORMANCE MONITORING

RVTD will continuously monitor progress towards their goals, especially through measures related to Goal II: Coordination and Goal V: Service Quality. The performance measures calculations and development will occur during quarter three of each RVTD operation year (January through March) to allow the agency to monitor performance annually for each calendar year.

The most important aspect of a successful monitoring plan is to maintain accurate and continuous data. Coordination with the RVCOG will be necessary to collect data in addition to what is collected on-board or through the RVTD system.

8.3 PREFERRED SERVICE ENHANCEMENT PROJECTS

Table 29 summarizes all preferred service enhancement projects, categorized by timeframe for implementation. Each service enhancement is either a new route or a modification to a route, such as increased frequency or service hours. A detailed description of each service enhancement project is provided later in this section. The descriptions include a route map, evaluation results, service details, and additional items to consider. For Table 26 and the service enhancement project descriptions, the projects are not listed in priority order but by consecutive route number. The high priority projects are further detailed below the project descriptions.

Table 29: Short-term, Mid-term, and Long-term Preferred Service Enhancement Projects

Route ID	Route	Project Description	Capital Cost	Total Annual O&M Cost ¹	Additional Annual O&M Cost ¹	Additional Annual Service Hours ²	Number of Additional Buses (Total) ³	Potential Local Partners
Short-term (2027)								
2	2 - West Medford	Adjust route alignment and increase frequency	-	\$160,200	\$(81,500)	(1,358)	0 of (1)	Medford
24	24 - RRMCC	Adjust route alignment, increase frequency, and hours	-	\$355,400	\$115,400	1,923	0 of (2)	Medford
25	25 - South Medford	Adjust route alignment and increase service hours	\$5,200	\$280,000	\$40,000	667	0 of (2)	Medford
30	30 - Jacksonville	Adjust route alignment	-	\$143,600	\$(44,300)	(737)	0 of (1)	Medford, Jacksonville
40	40 - Central Point	Adjust route alignment and increase frequency	-	\$483,300	\$0	0	0 of (3)	Medford, Central Point
60	60 - White City	Adjust route alignment and increase frequency	\$645,900	\$880,700	\$114,800	1,913	1 of (5)	Medford, White City, ODOT
A	1X - Ashland Express	New route	\$2,164,000	\$173,000	\$173,000	2,884	3 of (3)	Medford, Ashland, ODOT
B	3 - Eagle Point	New route	\$725,100	\$184,100	\$184,100	3,069	1 of (1)	Eagle Point, White City
C	5 - Ashland Circulator	New route	\$1,372,200	\$252,200	\$252,200	4,204	2 of (2)	Ashland
D	6 - Medford Crosstown	New route	\$692,000	\$206,600	\$206,600	3,443	1 of (1)	Medford

Route ID	Route	Project Description	Capital Cost	Total Annual O&M Cost ¹	Additional Annual O&M Cost ¹	Additional Annual Service Hours ²	Number of Additional Buses (Total) ³	Potential Local Partners
E	7 - Talent Circulator	New route	\$686,500	\$227,200	\$227,200	3,786	1 of (1)	Talent
F	26 - East Medford	New route	\$1,381,500	\$340,000	\$340,000	5,666	2 of (2)	Medford
G	27 – Northwest Medford	New route	\$710,900	\$233,800	\$233,800	3,896	1 of (1)	Medford
H	29 - Southwest Medford	New route	\$690,700	\$126,300	\$126,300	2,105	1 of (1)	Medford
I	41 - Central Point Circulator	New route	\$708,000	\$215,200	\$215,200	3,586	1 of (1)	Central Point
-	Rogue Valley Connector	Expand shared-ride service	-	Average cost per hour is \$45	Varies	Varies	-	Shady Cove, Eagle Point
Mid-term (2037)								
2	2 - West Medford	Increase route frequency and hours	\$660,00	\$243,500	\$83,300	1,388	1 of (2)	Medford
10	10 - Ashland	Increase route frequency and hours	\$1,320,000	\$2,687,200	\$1,127,800	18,796	2 of (8)	Medford, Phoenix, Talent, Ashland, ODOT
21	21 - Poplar Square	Increase route frequency and hours	\$660,00	\$525,300	\$418,200	6,970	1 of (2)	Medford
24	24 - RRMCC	Increase route hours	-	\$491,700	\$136,300	2,272	0 of (2)	Medford
25	25 - South Medford	Increase route alignment, frequency, and hours	-	\$671,600	\$391,600	6,527	1 of (2)	Medford
30	30 - Jacksonville	Increase route frequency and hours	-	\$345,100	\$201,500	3,357	0 of (1)	Medford, Jacksonville
40	40 - Central Point	Increase route frequency and hours	\$660,000	\$913,100	\$429,800	7,164	1 of (4)	Medford, Central Point
60	60 - White City	Increase route frequency and hours	\$660,00	\$1,719,500	\$838,800	13,981	1 of (6)	Medford, White City, ODOT
61	61 - RCC Table Rock	Adjust route alignment, increase frequency and hours	\$1,324,400	\$898,400	\$494,700	8,246	2 of (4)	Medford, White City, RCC, Medford International Airport
B	3 - Eagle Point	Increase route frequency and hours	\$660,00	\$484,600	\$300,500	5,008	1 of (2)	Eagle Point, White City

Route ID	Route	Project Description	Capital Cost	Total Annual O&M Cost ¹	Additional Annual O&M Cost ¹	Additional Annual Service Hours ²	Number of Additional Buses (Total) ³	Potential Local Partners
C	5 - Ashland Circulator	Increase route frequency and hours	-	\$551,400	\$299,200	4,986	0 of (2)	Ashland
D	6 - Medford Crosstown	Increase route frequency and hours	\$660,00	\$454,400	\$247,800	4,131	1 of (2)	Medford
E	7 - Talent Circulator	Increase route hours	-	\$296,100	\$68,900	1,149	0 of (1)	Talent
F	26 - East Medford	Increase route frequency and hours	\$1,320,000	\$927,200	\$587,200	9,788	2 of (4)	Medford
G	27 - Northwest Medford	Increase route frequency and hours	\$660,00	\$532,600	\$298,800	4,981	1 of (2)	Medford
H	29 - Southwest Medford	Increase route hours	-	\$160,100	\$33,800	564	0 of (1)	Medford
I	41 - Central Point Circulator	Increase route frequency and hours	\$660,00	\$468,300	\$253,100	4,219	1 of (2)	Central Point
J	8 - Beltway	New route	\$1,382,900	\$484,700	\$484,700	5,385	2 of (2)	Medford, Central Point, Medford International Airport
K	28 - E Jackson	New route	\$684,000	\$381,200	\$381,200	4,235	1 of (1)	Medford
L	9 - Phoenix Circulator	New route	\$1,391,500	\$656,500	\$656,500	7,294	2 of (2)	Phoenix, ODOT
M	23 - South Stage	New route	\$2,065,300	\$769,600	\$769,600	8,551	3 of (3)	Medford
S	31 - Foothill Road	New route	\$3,398,400	\$1,358,600	\$1,358,600	15,095	5 of (5)	Medford, Phoenix
Long-term (2042)								
10	10 - Ashland	Remove route (Replaced with 10X - HCT)	-	-	\$(2,687,200)	(44,786)	-8	Medford, Phoenix, Talent, Ashland, ODOT
A	1X - Ashland Express	Remove route	-	-	\$(266,200)	(4,437)	-3	Medford, Ashland, ODOT
N	10X - HCT Ashland	New route	\$9,428,900	\$4,870,300	\$4,870,300	45,095	10 of (10)	Medford, Phoenix, Talent, Ashland, ODOT
O	24X - HCT Barnett	New route	\$2,684,300	\$1,099,500	\$1,099,500	10,181	3 of (3)	Medford

Route ID	Route	Project Description	Capital Cost	Total Annual O&M Cost ¹	Additional Annual O&M Cost ¹	Additional Annual Service Hours ²	Number of Additional Buses (Total) ³	Potential Local Partners
P	40X - HCT Central Point	New route	\$3,366,200	\$1,283,100	\$1,283,100	11,881	3 of (3)	Medford, Central Point
Q	3X - HCT Eagle Point	New route	\$8,075,800	\$3,838,300	\$3,838,300	35,540	8 of (8)	Medford, White City, Eagle Point, ODOT
R	30X - HCT W Main	New route	\$1,344,500	\$619,100	\$619,100	5,732	2 of (2)	Medford

1. Annual O&M costs include dead head hours
2. Additional service hours do not include dead head hours
3. Number of buses from Remix

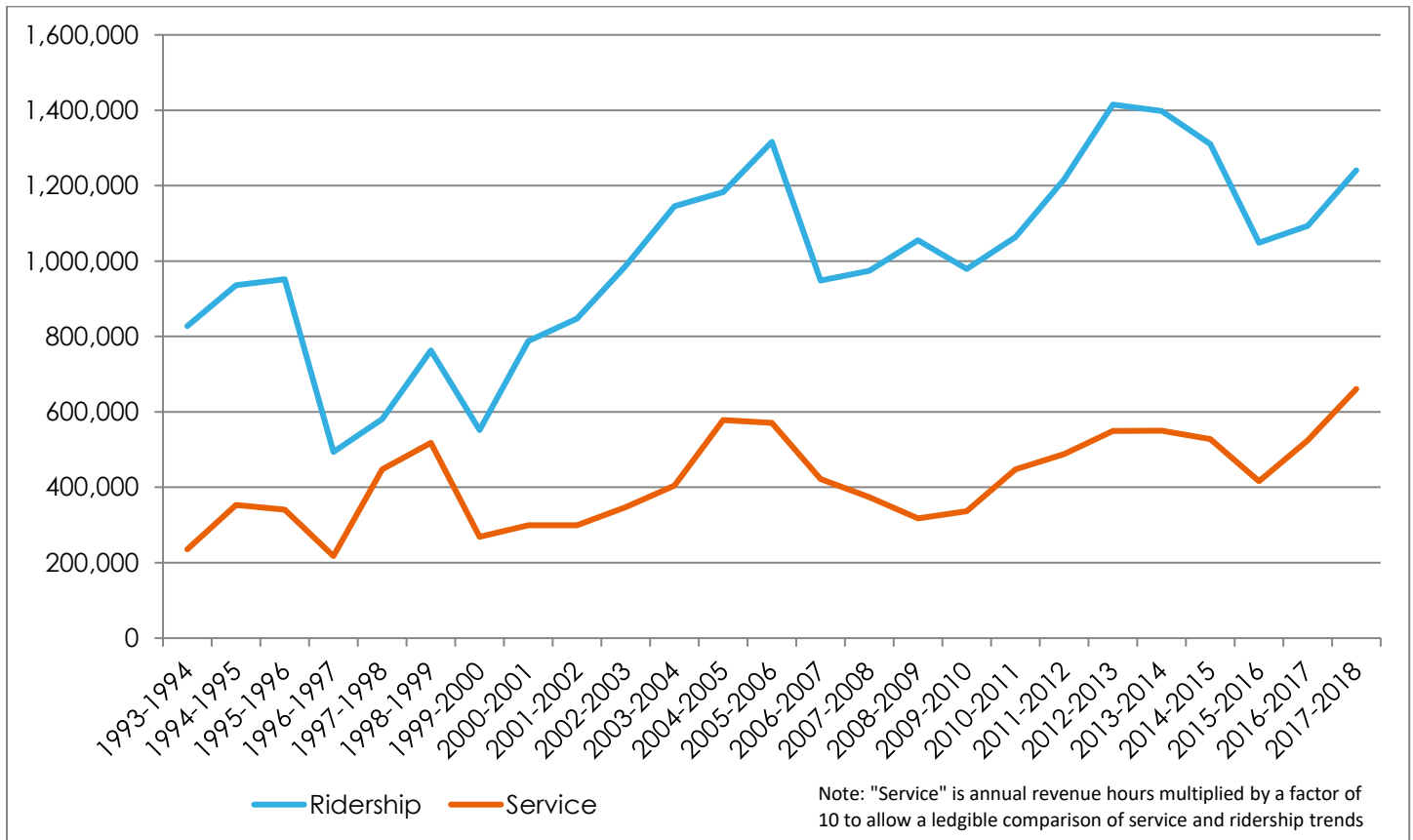
Table 30 summarizes service, costs, buses needed, and ridership for the current system and the 2027, 2037, and 2042 preferred systems. As shown in Table 30, the total annual service hours and the forecast ridership follow similar trends. The service hours are increased by approximately 50 percent in the 2027 preferred system and the ridership is also projected to have a 50 percent increase. By the 2042 preferred system, the service hours will have more than quadrupled from the current system, with service forecast to be approximately five times greater than the 2018 recorded ridership. These trends are representative of what RVTB has experienced in the past 20 years. As shown in Figure 28, service cuts are followed by an almost immediate decrease of ridership of the same ratio. For service additions, a ridership increase of the same ratio can take up to three years to fully form.

Table 30: Summary of Current and Preferred Systems

Project Type	Current System	2027 Preferred System	2037 Preferred System	2042 Preferred System
Additional Annual Service Hours	-	38,000	146,000	56,000
Total Annual Service Hours	79,000	117,000	263,000	319,000
Additional Annual O&M Cost	-	\$2,256,000	\$9,955,000	\$8,530,000
Total Annual O&M Cost	\$4,076,000	\$6,332,000	\$16,287,000	\$24,817,000
Additional Capital Cost	-	\$9,782,000	\$18,167,000	\$24,900,000
Additional Standard Buses Needed	-	14	27	0
Additional HCT Buses Needed	-	0	0	37
Ridership for System	1,240,876 ¹	1,922,567	4,586,512	6,268,443

1. Reported ridership data for 2018

Figure 28: 20 Year Comparison of RVTD Service and Ridership



COST ESTIMATES

The following describes how the costs were estimated for each of the service enhancement projects.

OPERATIONS AND MAINTENANCE COSTS

Unit costs for added service hours were estimated by dividing RVTD's current operating costs by their current number of service hours. RVTD's current costs per service hour are approximately \$50/hour of pure operating costs and \$90/hour when fully loaded with maintenance and administration costs. For service added within the current service hours and days, RVTD is able to add additional service hours with minimal additional maintenance, planning, or other supporting

staff. Therefore, these types of enhancements in the short-term are assumed to cost approximately \$50 per service hour.

As enhancements begin to spread outside the existing service span (e.g. more evening or Saturday hours or Sunday service), additional maintenance staff will be needed to operate the system. Service enhancements that expand the service hours or days are assumed to cost approximately \$75 per service hour.

The full cost to add service hours that require new maintenance, planning, and supporting staff is \$90 per service hour in current dollars. By 2040, that equates to \$134/hour assuming 2% compounded annual increase in costs and \$197/hour assuming 4% compounded annual

increase in costs. Based on a 2040 revenue estimate of \$29 million, RVTD may be able to afford approximately 160,000 annual service hours (RVTD provides approximately 80,000 annual service hours currently) assuming they are also purchasing approximately one bus per year without grants. The costs in the project sheets are in 2019 dollars.

IMPORTANT TO NOTE:

The cost estimates provided in this plan use high-level service hour model output as the basis for the estimation. These cost estimates should be refined as the route schedules, recovery times, deadhead hours, and other operating costs become more accurately understood and defined for each particular route.

CAPITAL COST

Capital costs are the costs that are required to serve a transit route (buses, bus stops, shelters,

signs, etc). The following describes the capital cost assumptions for the service enhancement projects included in the plan.

- Standard 40' bus - \$550,000
- A bus spare ratio of 20% to allow for maintenance (e.g., if a service enhancement requires 1 additional bus, a cost of 1.2 buses is assumed to account for needed spares).
- Bus stop flag markers for new routes - \$500
- Bus shelters for new routes – \$10,000

State and federal grants have historically been used to purchase buses with a local match from RVTD's annual budget of 10-20% of the cost of the vehicle. The need for buses to support service expansions may exceed the amount of grants available for bus purchases statewide due to the statewide increases in vehicle needs as a result of STIF. In the event this is the funding scenario for bus purchases, RVTD may need to budget for the full cost of bus purchases in some years.

[illegible]

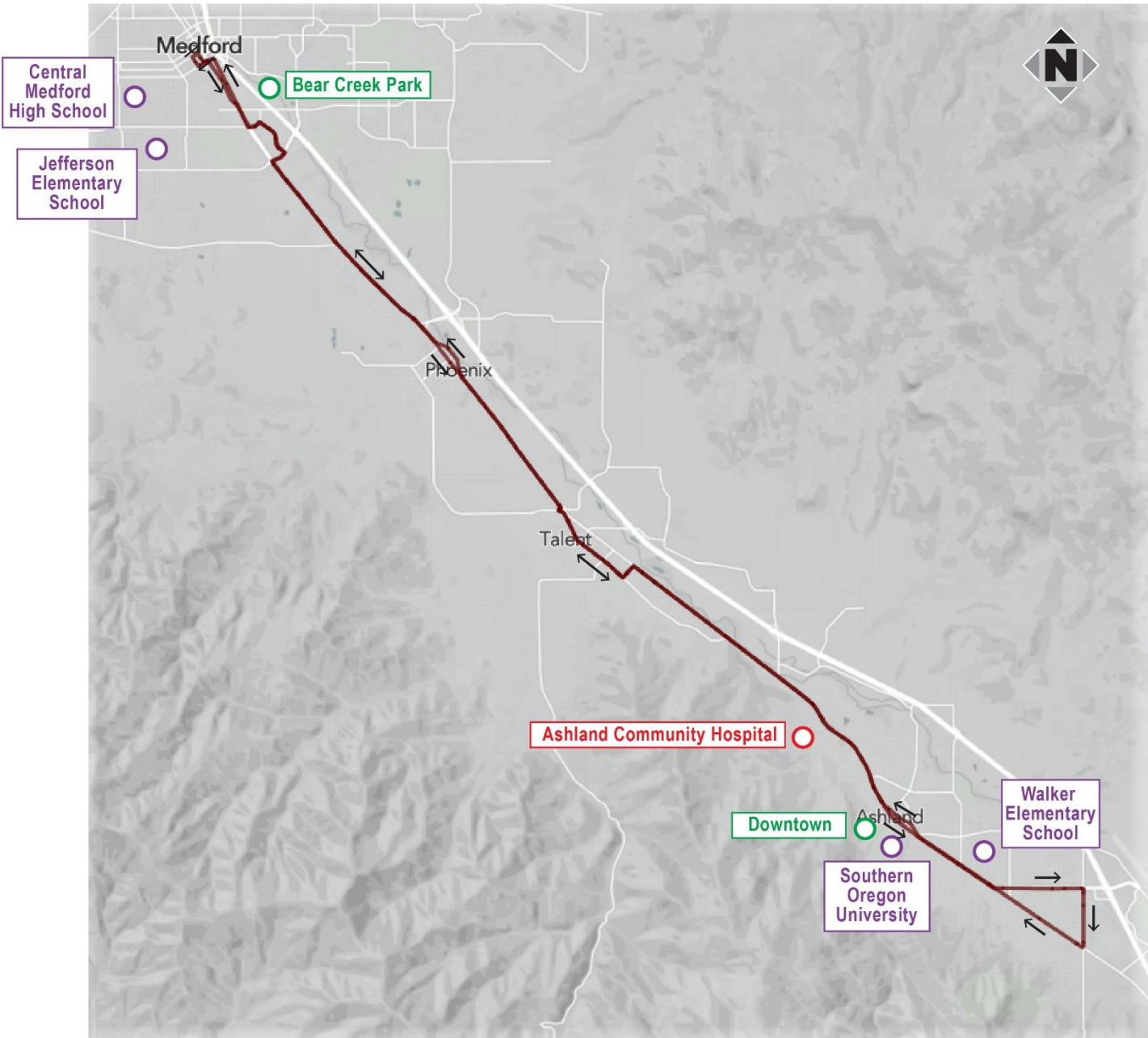
Opportunities: The route provides access to Washington Elementary School, Central Medford High School, and the Medford Library. The route connects to the rest of the existing transit service via Front Street Station.

Land Use Considerations: None noted. Route is currently in operation.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	262 ⁴	205	483	571
Population ¹	10,598	10,089	10,803	11,182
Employment ¹	6,248	5,349	5,594	5,721
Minority Population ¹	14.2%	13.5%	13.5%	13.4%
Low Income (Poverty 100%) ¹	15.3%	16.4%	16.3%	16.3%
Access to One Vehicle or Less ¹	37.8%	51.0%	51.5%	51.7%
No Access to Vehicles ²	12.7%	13.0%		
Poverty 200% ²	60.4%	61.3%		
Population with Disabilities ²	17.3%	17.0%		
Number of Essential Destinations ³	13	13		
Service Details				
Distance Roundtrip ²	5.9 miles	4.0 miles		
Trip Time Roundtrip ²	20 minutes	14 minutes		
Frequency ²	M-F: 30 minutes Sat: 60 minutes	M-F: 20 minutes Sat: 40 minutes	M-F: 15 minutes Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 14 hours Sat: 11 hours		M-F: 16 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	4,028 hours	2,670 hours	4,058 hours	4,204 hours
Number of Vehicles Required ²	1	1	2	2
Additional Capital Cost ¹	-	-	\$660,000	-
Total Annual O&M Cost ¹	\$241,700	\$160,200	\$243,500	\$252,200

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap
4. Current system ridership reflects ridership data collected by RVTB from October 2017 to January 2018
5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 10 – ASHLAND



Project Description and Location: Route 10 – Ashland is currently in operation. Under the current system, it is a 31.6-mile bus route that connects Medford to Ashland. The route has stops that are spaced approximately ¼ mile apart, has an approximate runtime of 106 minutes, and operates at 20- to 30-minute frequencies Monday through Friday and 30-minute frequencies on Saturday.

Opportunities: The route provides access to a range of essential destinations, such as Ashland Community Hospital and Southern Oregon University, while providing connectivity to the rest of the existing transit system.

Constraints: None noted. Route is currently in operation.

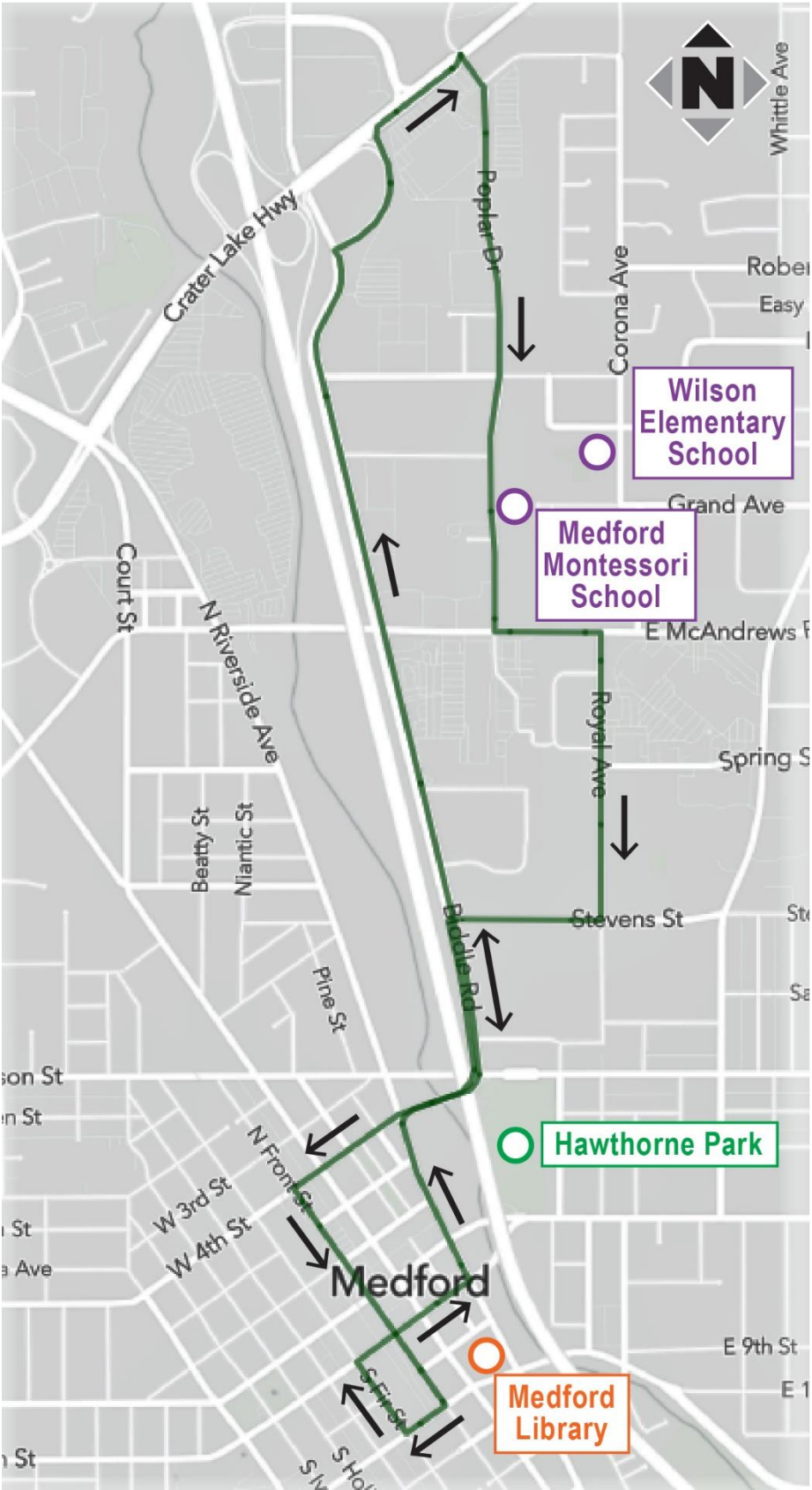
Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service. In the long-term 2042 preferred system, the route is removed from the system due to a high capacity transit route being added between Medford and Ashland.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				Route removed in long-term preferred system
Projected Daily Ridership ¹	1,756 ⁴	2,417	4,471	
Population ¹	23,304	22,730	24,422	
Employment ¹	20,497	23,494	27,893	
Minority Population ¹	10.3%	10.3%	10.1%	
Low Income (Poverty 100%) ¹	12.7%	12.5%	12.3%	
Access to One Vehicle or Less ¹	41.3%	48.0%	48.2%	
No Access to Vehicles ²	9.2%			
Poverty 200% ²	49.7%			
Population with Disabilities ²	17.3%			
Number of Essential Destinations ³	40			
Service Details				
Distance Roundtrip ²	31.6 miles			
Trip Time Roundtrip ²	106 minutes			
Frequency ²	M-F: 20-30 minutes Sat: 30 minutes		M-F: 15 minutes Sat: 20 minutes Sun: 30 minutes	
Service Span ²	M-F: 15 hours Sat: 11 hours		M-F: 18 hours Sat: 15 hours Sun: 11 hours	
Annual Hours ¹	23,440 hours	25,990 hours	44,786 hours	
Number of Vehicles Required ²	6	6	8	
Additional Capital Cost ¹	-	-	\$1,320,000	
Total Annual O&M Cost ¹	\$1,406,400	\$1,559,400	\$2,687,200	

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap
- 4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
- 5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 21 – POPLAR SQUARE



Project Description and Location:

Route 21 – Poplar Square is currently in operation. Under the current system, it is a 5.3-mile bus route that connects north Medford to Front Street Station. The route has stops that are spaced approximately ¼ mile apart, has an approximate runtime of 21 minutes, and operates at 60-minute frequencies Monday through Friday.

Opportunities: The route provides access to Wilson Elementary School, Medford Montessori School, and the Medford Library. The route connects to the rest of the existing transit service via Front Street Station.

Constraints: None noted. Route is currently in operation.

Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Saturday and Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	N/A ⁴	120	790	886
Population ¹	5,648	6,064	6,561	6,834
Employment ¹	13,493	14,116	14,894	15,335
Minority Population ¹	10.9%	10.9%	10.9%	10.8%
Low Income (Poverty 100%) ¹	13.3%	13.4%	13.4%	13.4%
Access to One Vehicle or Less ¹	40.6%	59.1%	59.4%	59.5%
No Access to Vehicles ²	19.0%			
Poverty 200% ²	59.3%			
Population with Disabilities ²	18.9%			
Number of Essential Destinations ³	18			
Service Details				
Distance Roundtrip ²	5.3 miles			
Trip Time Roundtrip ²	21 minutes			
Frequency ²	M-F: 60 minutes		M-F: 15 minutes Sat: 30 minutes Sun: 30 minutes	
Service Span ²	M-F: 13 hours		M-F: 15.5 hours Sat: 13.5 hours Sun: 11 hours	
Annual Hours ¹	1,785 hours	1,785 hours	8,755 hours	8,603 hours
Number of Vehicles Required ²	1	1	2	2
Additional Capital Cost ¹	-	-	\$660,000	-
Total Annual O&M Cost ¹	\$107,100	\$107,100	\$525,300	\$516,200

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap
- 4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
- 5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 24 – RVMC



Project Description and Location: Route 24 – RVMC is currently in operation. Under the current system, it is a 5.9-mile bus route that connects southeast Medford to Front Street Station. The route has stops that are spaced approximately ¼ mile apart, has an approximate runtime of 20 minutes, and operates at 30-minute frequencies Monday through Friday and 60-minute frequencies on Saturday.

Opportunities: The route provides access to Asante Rogue Regional Medical Center and Orchard Hill Elementary School. The route connects to the rest of the existing transit service via Front Street Station.

Constraints: None noted. Route is currently in operation.

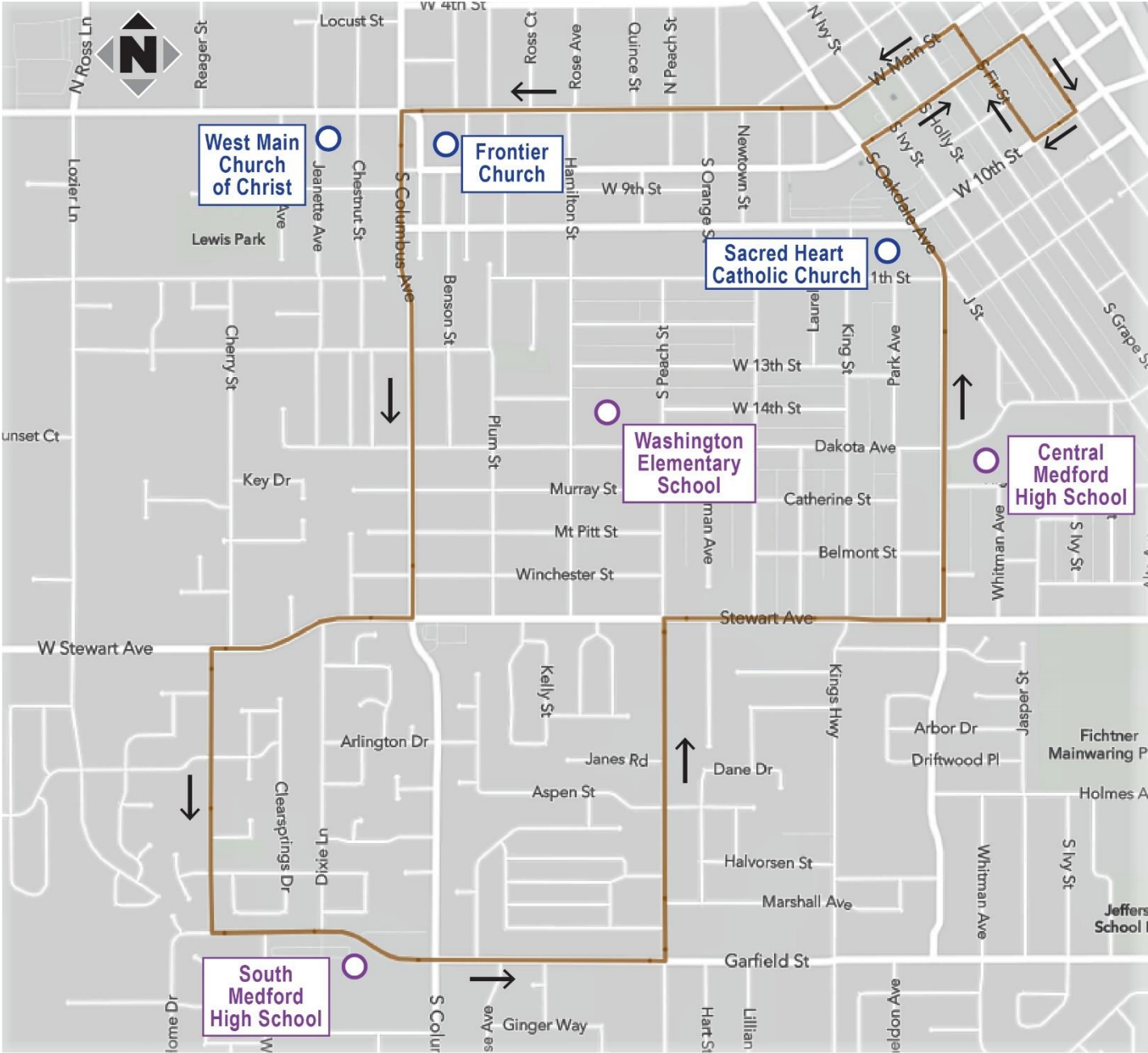
Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the short-term 2027 preferred system, the route is updated, and the route frequency is increased. In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	288 ⁴	334	448	484
Population ¹	4,107	5,934	6,505	6,815
Employment ¹	11,987	8,129	9,551	10,468
Minority Population ¹	8.1%	8.0%	8.1%	8.1%
Low Income (Poverty 100%) ¹	7.1%	7.5%	7.5%	7.5%
Access to One Vehicle or Less ¹	34.8%	50.6%	50.9%	51.0%
No Access to Vehicles ²	12.7%	9.5%		
Poverty 200% ²	60.4%	38.6%		
Population with Disabilities ²	17.3%	19.4%		
Number of Essential Destinations ³	8	8		
Service Details				
Distance Roundtrip ²	5.9 miles	5.8 miles		
Trip Time Roundtrip ²	20 minutes	27 minutes		
Frequency ²	M-F: 30 minutes Sat: 60 minutes	M-F: 20 minutes Sat: 20 minutes	M-F: 20 minutes Sat: 20 minutes Sun: 40 minutes	
Service Span ²	M-F: 14 hours Sat: 10 hours	M-F: 14 hours Sat: 13 hours	M-F: 18 hours Sat: 14 hours Sun: 10.5 hours	
Annual Hours ¹	4,000 hours	5,923 hours	8,195 hours	8,535 hours
Number of Vehicles Required ²	2	2	2	2
Additional Capital Cost ¹	-	-	-	-
Total Annual O&M Cost ¹	\$240,000	\$355,400	\$491,700	\$512,100

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap
4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 25 – SOUTH MEDFORD



Project Description and Location: Route 25 – South Medford is currently in operation. Under the current system, it is a 5.4-mile bus route that connects south Medford to Front Street Station. The route has stops that are spaced approximately ¼ mile apart, has an approximate runtime of 23 minutes, and operates at 30-minute frequencies Monday through Friday and 60-minute frequencies on Saturday.

Opportunities: The route provides access to a multitude of schools and religious gathering spaces in southwest Medford. The route connects the rest of the existing transit service via Front Street Station.

Constraints: None noted. Route is currently in operation.

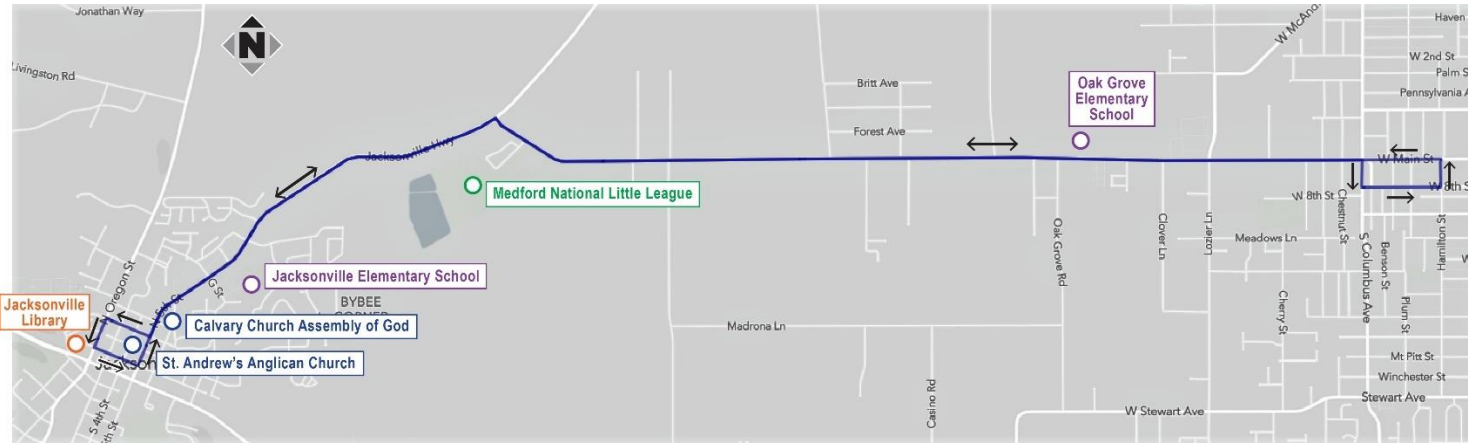
Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	82 ⁴	125	354	405
Population ¹	12,657	12,143	13,178	13,734
Employment ¹	5,395	6,579	7,185	7,527
Minority Population ¹	13.9%	13.0%	13.1%	13.0%
Low Income (Poverty 100%) ¹	14.9%	12.0%	11.9%	11.8%
Access to One Vehicle or Less ¹	37.5%	47.7%	47.9%	48.0%
No Access to Vehicles ²	11.8%			
Poverty 200% ²	59.1%			
Population with Disabilities ²	16.9%			
Number of Essential Destinations ³	16			
Service Details				
Distance Roundtrip ²	5.4 miles			
Trip Time Roundtrip ²	23 minutes			
Frequency ²	M-F: 30 minutes Sat: 60 minutes		M-F: 15 minutes Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 14 hours Sat: 10 hours		M-F: 17 hours Sat: 14 hours Sun: 10 hours	
Annual Hours ¹	4,000 hours	4,667 hours	11,194 hours	11,494 hours
Number of Vehicles Required ²	2	2	2	2
Additional Capital Cost ¹	-	\$5,200	-	-
Total Annual O&M Cost ¹	\$240,000	\$280,000	\$671,600	\$689,600

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap
- 4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
- 5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 30 – JACKSONVILLE



Project Description and Location: Route 30 – Jacksonville is currently in operation. Under the current system, it is a 12.4-mile bus route that connects west Medford to Jacksonville. The route has stops that are spaced approximately ¼ mile apart, has an approximate runtime of 33 minutes, and operates at 60-minute frequencies Monday through Saturday.

Opportunities: The route provides access to Jacksonville Elementary School, Oak Grove Elementary School, and the Jacksonville Library.

Constraints: None noted. Route is currently in operation.

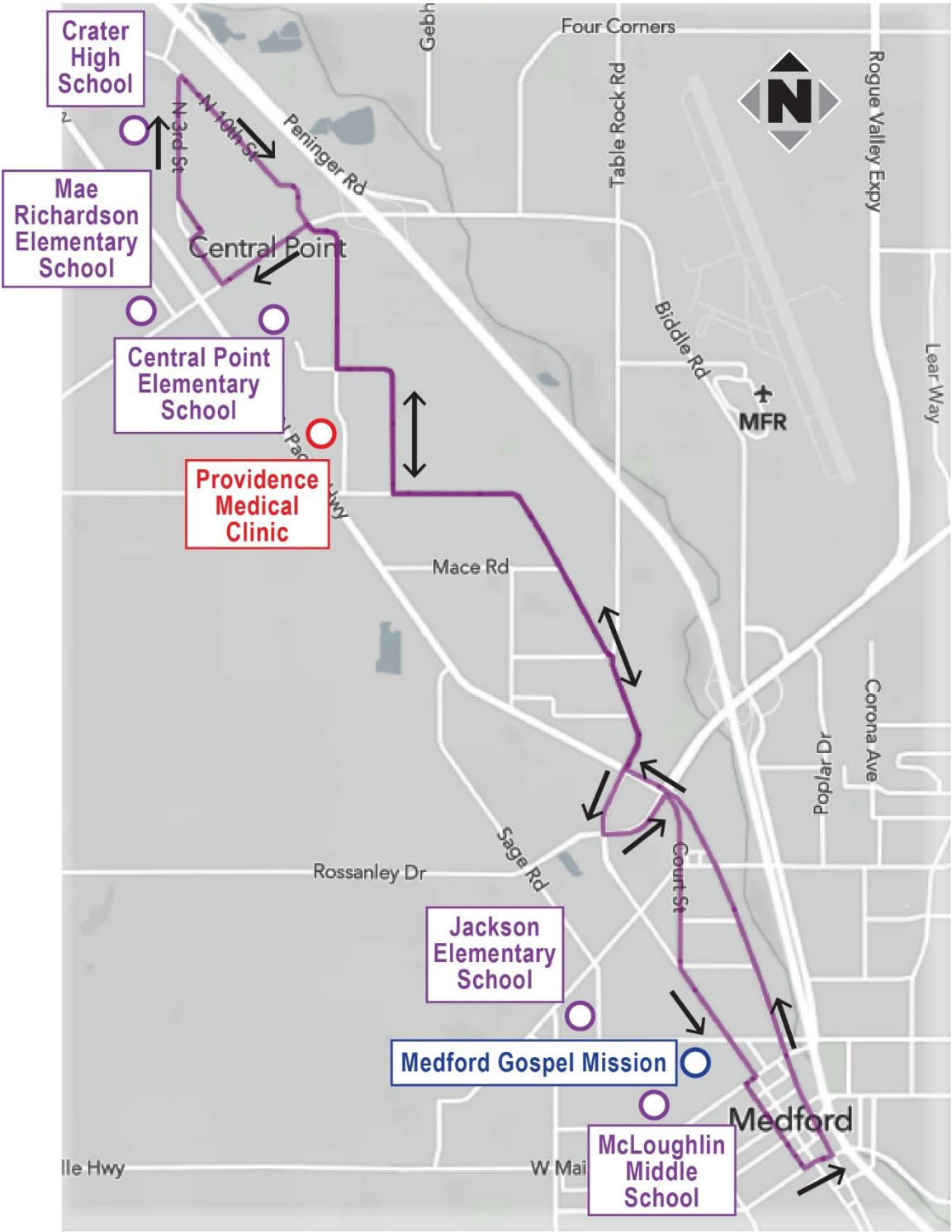
Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the short-term 2027 preferred system, the route is shortened. In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	90 ⁴	63	181	204
Population ¹	8,704	6,330	6,917	7,236
Employment ¹	7,917	2,437	3,007	3,349
Minority Population ¹	10.7%	14.0%	14.0%	14.0%
Low Income (Poverty 100%) ¹	11.6%	10.6%	10.4%	10.2%
Access to One Vehicle or Less ¹	38.1%	46.0%	45.7%	45.6%
No Access to Vehicles ²	15.7%	12.6%		
Poverty 200% ²	64.1%	59.0%		
Population with Disabilities ²	20.4%	20.8%		
Number of Essential Destinations ³	10	10		
Service Details				
Distance Roundtrip ²	12.4 miles	9.4 miles		
Trip Time Roundtrip ²	33 minutes	25 minutes		
Frequency ²	M-F: 60 minutes Sat: 60 minutes		M-F: 15 minutes Sat: 60 minutes Sun: 60 minutes	
Service Span ²	M-F: 16 hours Sat: 10 hours		M-F: 15.5 hours Sat: 13 hours Sun: 11 hours	
Annual Hours ¹	3,131 hours	2,394 hours	5,751 hours	5,484 hours
Number of Vehicles Required ¹	1	1	1	1
Additional Capital Cost ¹	-	-	-	-
Total Annual O&M Cost ¹	\$187,900	\$143,600	\$345,100	\$329,000

1.
- Data from TBEST
2.
- Data from Remix
3.
- Data calculated using ArcMap
4.
- Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
5.
- Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 40 – CENTRAL POINT



Project Description and Location: Route 40 – Central Point is currently in operation. Under the current system, it is a 12.9-mile bus route that connects Central Point to Front Street Station. The route has stops that are spaced approximately 0.2-mile apart, has an approximate runtime of 49 minutes, and operates at 30-minute frequencies Monday through Friday and 60-minute frequencies on Saturday.

Opportunities: The route provides access to Central Point Elementary School, Central High School, and Providence Medical Clinic. The route connects to the rest of the existing transit service via Front Street Station.

Constraints: None noted. Route is currently in operation.

Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the short-term 2027 preferred system, the route is shortened, and the route frequency is increased from 7:00 a.m. to 6:00 p.m. In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	495 ⁴	554	1,060	1,182
Population ¹	15,723	14,843	15,606	16,024
Employment ¹	11,263	11,240	12,664	13,579
Minority Population ¹	9.7%	9.8%	9.9%	9.8%
Low Income (Poverty 100%) ¹	11.2%	10.8%	11.0%	11.0%
Access to One Vehicle or Less ¹	37.6%	50.6%	51.2%	51.5%
No Access to Vehicles ²	12.8%		12.8%	
Poverty 200% ²	52.9%		52.9%	
Population with Disabilities ²	20.3%		20.3%	
Number of Essential Destinations ³	22		22	
Service Details				
Distance Roundtrip ²	12.9 miles		12.6 miles	
Trip Time Roundtrip ²	49 minutes		47 minutes	
Frequency ²	M-F: 30 minutes Sat: 60 minutes	M-F: 20-30 minutes Sat: 60 minutes	M-F: 20-40 minutes Sat: 40 minutes Sun: 40 minutes	
Service Span ²	M-F: 14 hours Sat: 11 hours		M-F: 18.5 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	8,055 hours	8,055 hours	15,219 hours	14,647 hours
Number of Vehicles Required ¹	3	3	4	4
Additional Capital Cost ¹	-	-	\$660,000	-
Total Annual O&M Cost ¹	\$483,300	\$483,300	\$913,100	\$878,800

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap
4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

The map displays the proposed rail route in the Rogue Valley area. The route is highlighted in purple and starts in Medford, heading north through Four Corners and ending in White City. Key locations and features include:

- Medford:** The southern terminus of the route, marked with a purple circle.
- Four Corners:** A major intersection point along the route.
- Rogue Valley International Airport (MFR):** Located near Four Corners, marked with an orange circle.
- White City:** The northern terminus of the route, marked with a red circle.
- White City Rehabilitation Center:** A specific location within White City, marked with a red circle.
- Bear Creek Park:** Located near Medford, marked with a green circle.

Arrows indicate the direction of travel along the route, showing a northward flow from Medford to White City.

Modifications: In the short-term 2027 preferred system, the route is shortened, and the route frequency is increased. In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	746 ⁴	1,233	2,230	2,669
Population ¹	21,556	17,578	19,191	20,065
Employment ¹	17,624	18,211	22,884	26,205
Minority Population ¹	12.0%	12.8%	12.9%	12.8%
Low Income (Poverty 100%) ¹	12.9%	14.3%	14.2%	12.5%
Access to One Vehicle or Less ¹	32.9%	44.7%	44.5%	44.4%
No Access to Vehicles ²	12.3%	13.9%		
Poverty 200% ²	50.4%	54.2%		
Population with Disabilities ²	17.4%	17.8%		
Number of Essential Destinations ³	23	23		
Service Details				
Distance Roundtrip ²	24.6 miles	22.9 miles		
Trip Time Roundtrip ²	81 minutes	73 minutes		
Frequency ²	M-F: 30 minutes Sat: 60 minutes	M-F: 20-30 minutes Sat: 40 minutes	M-F: 15-30 minutes Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 15 hours Sat: 10 hours		M-F: 18.5 hours Sat: 15 hours Sun: 10 hours	
Annual Hours ¹	12,765 hours	14,678 hours	28,659 hours	23,582 hours
Number of Vehicles Required ¹	4	5	6	6
Additional Capital Cost ¹	-	\$645,900	\$660,000	-
Total Annual O&M Cost ¹	\$765,900	\$880,700	\$1,719,500	\$1,414,900

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap
4. Current system ridership reflects ridership data collected by RVTB from October 2017 to January 2018
5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

ROUTE 61 – RCC - TABLE ROCK



Project Description and Location: Route 61 – RCC - Table Rock is currently in operation. Under the current system, it is a 23.7-mile bus route that connects Rogue Community College – Table Rock to Front Street Station. The route has stops that are spaced approximately 0.4-mile apart, has an approximate runtime of 80 minutes, and operates at 60-minute frequencies Monday through Saturday.

Opportunities: The route provides access to Rogue Community College – Table Rock. The route connects the rest of the existing transit service via Front Street Station.

Constraints: None noted. Route is currently in operation.

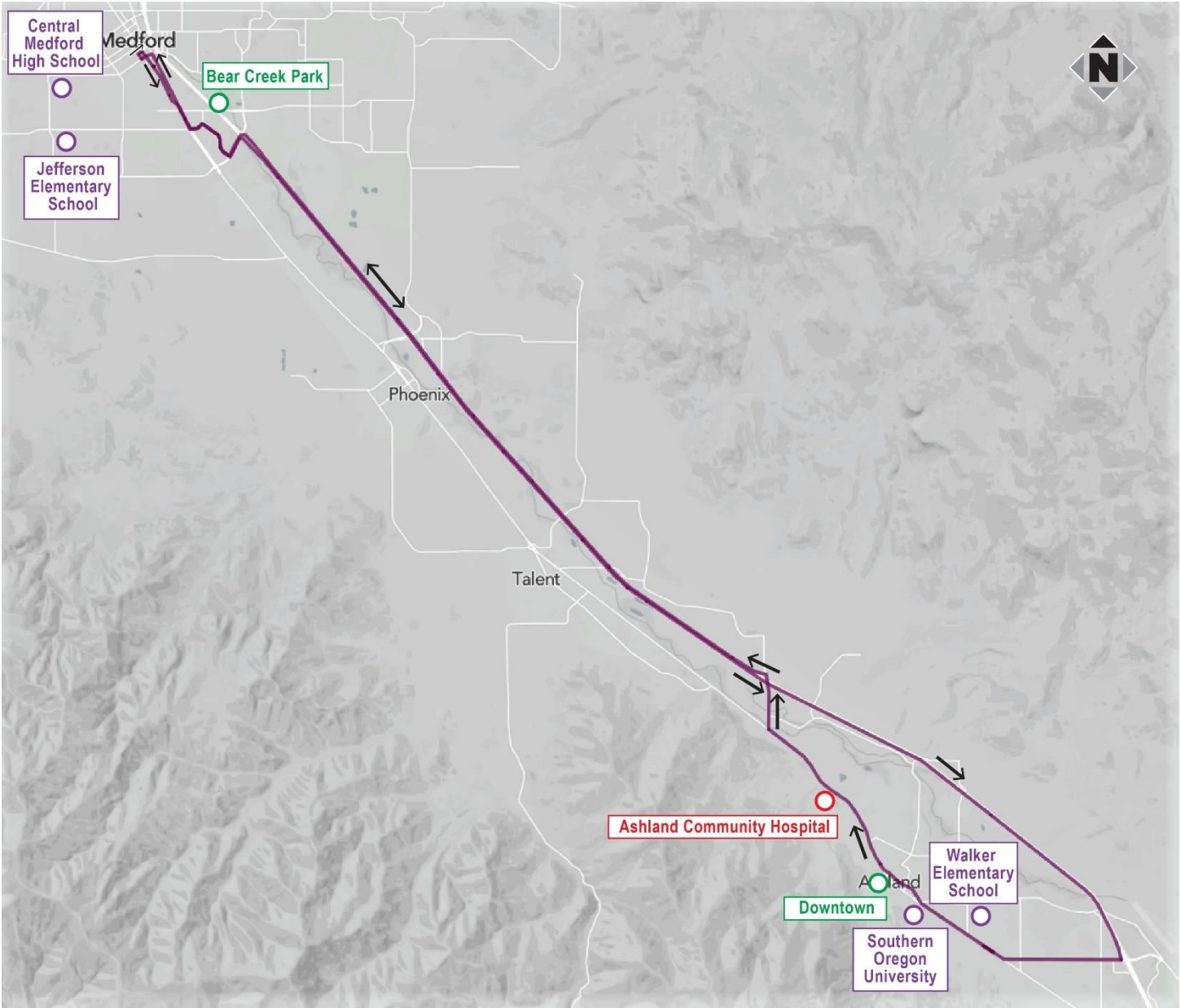
Land Use Considerations: None noted. Route is currently in operation.

Modifications: In the mid-term 2037 preferred system, the route is modified, and the route frequency and hours are increased, including adding Sunday service.

Criteria	Current	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile				
Projected Daily Ridership ¹	155 ⁴	160	480	544
Population ¹	8,636	7,743	8,619	9,102
Employment ¹	20,702	19,748	22,612	24,425
Minority Population ¹	10.3%	10.3%	10.2%	10.1%
Low Income (Poverty 100%) ¹	4.3%	11.4%	11.3%	11.1%
Access to One Vehicle or Less ¹	38.8%	54.3%	54.1%	53.9%
No Access to Vehicles ²	16.6%		16.4%	
Poverty 200% ²	57.2%		56.8%	
Population with Disabilities ²	19.1%		19.1%	
Number of Essential Destinations ³	19		19	
Service Details				
Distance Roundtrip ²	23.7 miles		24.4 miles	
Trip Time Roundtrip ²	80 minutes		82 minutes	
Frequency ²	M-F: 60 minutes Sat: 60 minutes		M-F: 30 minutes Sat: 60 minutes Sun: 60 minutes	
Service Span ²	M-F: 14 hours Sat: 11 hours		M-F: 16 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	6,728 hours	6,728 hours	14,974 hours	14,727 hours
Number of Vehicles Required ¹	2	2	4	4
Additional Capital Cost ¹	-	-	\$1,324,400	-
Total Annual O&M Cost ¹	\$403,700	\$403,700	\$898,400	\$883,600

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap
4. Current system ridership reflects ridership data collected by RVTD from October 2017 to January 2018
5. Data from Remix for the current system instead of TBEST which was used for the preferred systems

A. ASHLAND EXPRESS (ROUTE 1X)



Project Description and Location: The Ashland Express is identified as part of the short-term 2027 preferred system. It is a 31-mile bus route that provides service from Medford to Ashland. The route has only a few stops in Ashland and Medford, an approximate runtime of 75 minutes, and would operate at 60-minute frequencies Monday through Friday, from 6:00 a.m. to 6:00 p.m.

Opportunities: The Ashland Express utilizes I-5 to provide express service between Medford and Ashland. Because the express route links into downtown Medford, it has potential to connect with almost every current and proposed RVTB bus route. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Constraints: The route provides express service using I-5 but could be impacted if construction or road closures were to occur along the route. RVTB previously conducted preliminary testing of a similar express route and found that ridership would likely be highest in off-peak hours; the service may not be utilized by commuters unless it was very time-competitive with driving.

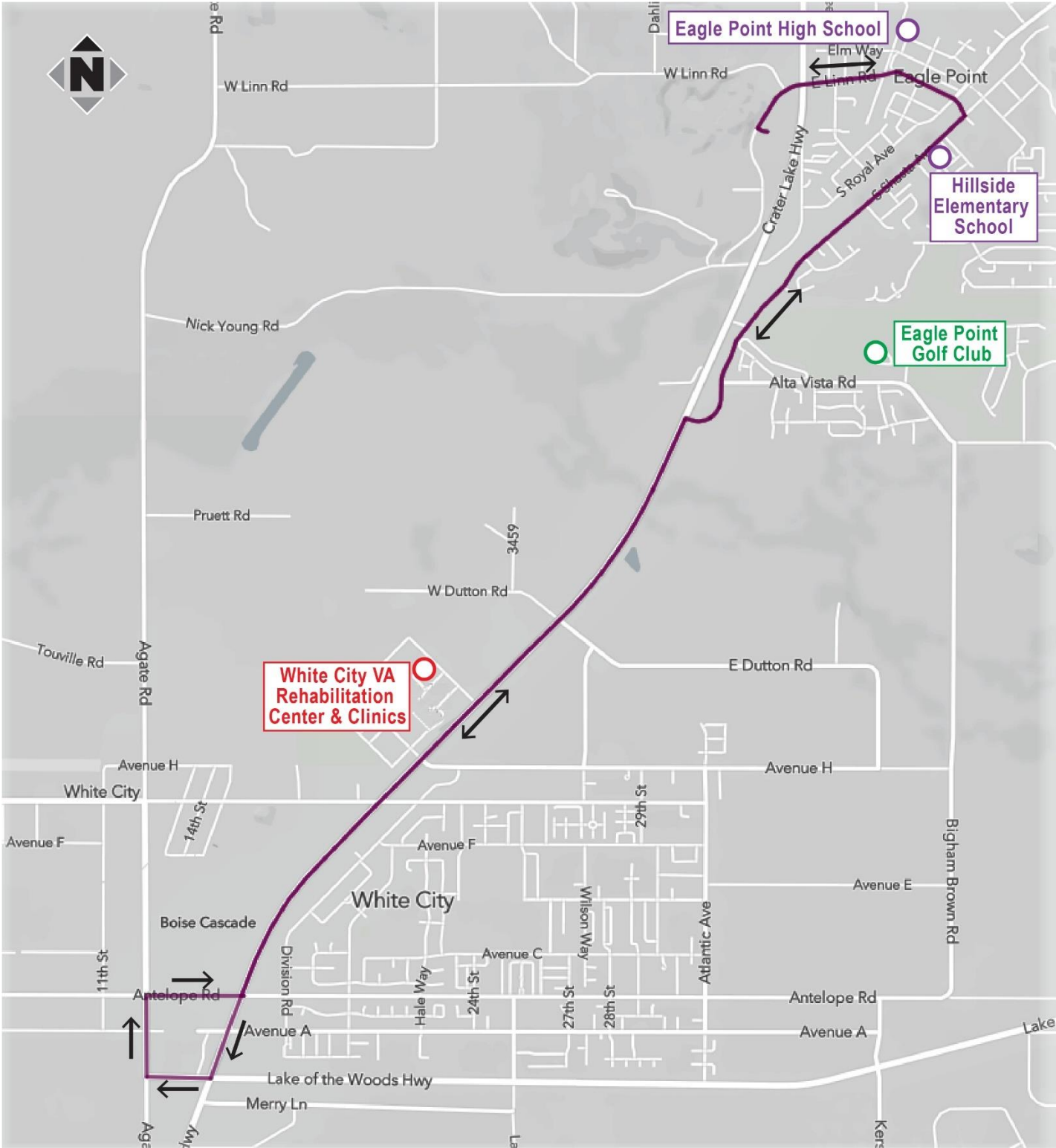
Land Use Considerations: Land use along the route is primarily residential, with a mix of single family and multi-family residential, as well as rural uses, such as farms and orchards.

Modifications: In the mid-term 2037 preferred system, the route stops, frequency, and hours are modified to reflect further express route characteristics. The number of stops is decreased, frequency is increased, and the route only operates during select morning and afternoon hours. In the long-term 2042 preferred system, the route is removed from the system due to a high capacity transit route being added between Medford and Ashland.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			Route removed in long-term preferred system
Projected Daily Ridership ¹	49	118	
Population ¹	3,156	3,400	
Employment ¹	8,127	9,378	
Minority Population ¹	7.0%	7.1%	
Low Income (Poverty 100%) ¹	3.4%	3.3%	
Access to One Vehicle or Less ¹	56.8%	56.7%	
No Access to Vehicles ²	13.7%	12.3%	
Poverty 200% ²	46.0%	48.7%	
Population with Disabilities ²	15.7%	15.9%	
Number of Essential Destinations ³	25		
Service Details			
Distance Roundtrip ²	30.7 miles		
Trip Time Roundtrip ²	75 minutes		
Frequency ²	60 minutes		
Service Span ²	M-F: 12 hours		
Annual Hours ¹	2,884 hours	4,437 hours	
Number of Vehicles Required ¹	3	3	
Additional Capital Cost ¹	\$2,164,000	-	
Total Annual O&M Cost ¹	\$173,000	\$266,200	

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

B. EAGLE POINT (ROUTE 3)



Project Description and Location: The Eagle Point route is identified as part of the near-term 2027 preferred system. It is a 10.9-mile bus route that connects Eagle Point to White City to the south. The route has stops that are spaced approximately ½ mile apart, has an approximate runtime of 44 minutes, and would initially operate at 60-minute frequencies Monday through Saturday.

Opportunities: The route provides access to Eagle Point Elementary School, Eagle Point Middle School, and Eagle Point High School. The route connects the Eagle Point community to the VA Rehabilitation Center and Clinics in White City. The route connects to existing Route 60.

Constraints: Oregon Highway 62 is the only viable connection between White City and Eagle Point, posing potential challenges to service operations during congestion, roadwork, or other obstacles.

Land Use Considerations: Land uses along the route are rural in nature. Agricultural and industrial are the primary uses between White City and Eagle Point. Within White City and Eagle Point, land uses consist of residential and some commercial.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	55	151	208
Population ¹	4,145	4,893	5,340
Employment ¹	2,714	3,313	3,681
Minority Population ¹	10.3%	10.0%	9.5%
Low Income (Poverty 100%) ¹	3.9%	3.5%	3.3%
Access to One Vehicle or Less ¹	30.4%	30.4%	30.5%
No Access to Vehicles ²	0.8%		
Poverty 200% ²	57.4%		
Population with Disabilities ²	25.4%		
Number of Essential Destinations ³	10		
Service Details			
Distance Roundtrip ²	10.9 miles		
Trip Time Roundtrip ²	44 minutes		
Frequency ²	60 minutes	M-Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 13.5 hours Sat: 10 hours	M-F: 16.5 hours Sat: 14 hours Sun: 10 hours	
Annual Hours ¹	3,069 hours	8,077 hours	8,077 hours
Number of Vehicles Required ¹	1	2	2
Additional Capital Cost ¹	\$725,100	\$660,000	-
Total Annual O&M Cost ¹	\$184,100	\$484,600	\$484,600

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

C. ASHLAND CIRCULATOR (ROUTE 5)



Project Description and Location: The Ashland Circulator is identified as part of the near-term 2027 preferred system. It is an 8.7-mile bus route that runs north of Siskiyou Boulevard, spanning the majority of the City of Ashland. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 35 minutes, and would initially operate at 20- to 40-minute frequencies Monday through Saturday.

Opportunities: The Ashland Circulator provides key connections to Ashland's most essential destinations. The route provides improved access to Southern Oregon University, Ashland Middle School and High School, several parks, the YMCA, and the Ashland Community Hospital. The Circulator connects with RVTD's Route 10, which provides service between the cities of Ashland and Medford.

Constraints: None at the planning level.

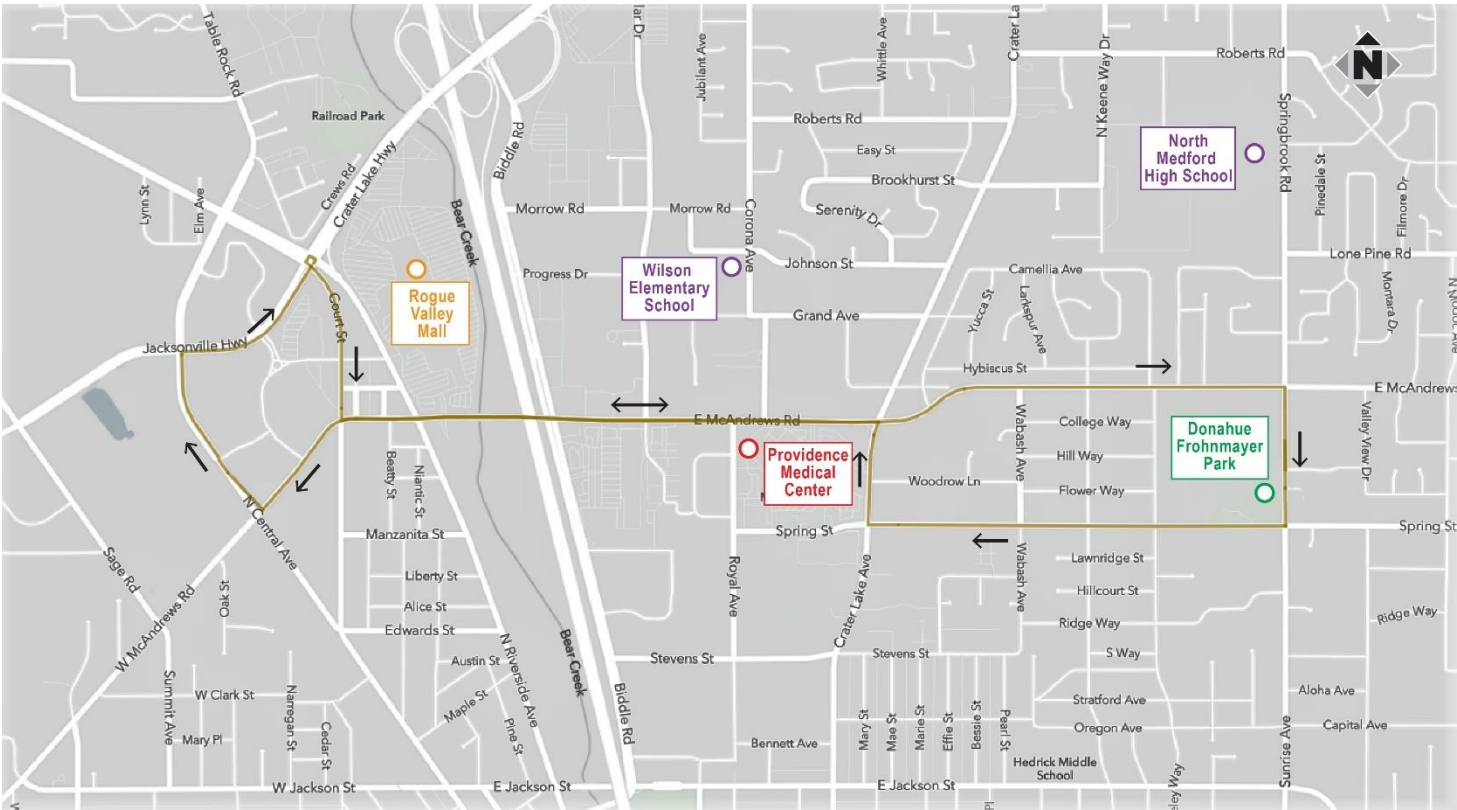
Land Use Considerations: The surrounding land uses along the Ashland Circulator route include a variety of multi-family, single-family, and suburban residential housing. Commercial uses (retail, restaurants, cafes, bars), green space, and offices make up the surrounding land uses.

Modifications: In the mid-term 2037 preferred system, the route hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	297	693	625
Population ¹	7,923	8,568	8,939
Employment ¹	4,241	4,675	4,918
Minority Population ¹	10.7%	10.6%	10.4%
Low Income (Poverty 100%) ¹	6.6%	6.1%	6.1%
Access to One Vehicle or Less ¹	52.4%	52.3%	52.2%
No Access to Vehicles ²	8.8%		
Poverty 200% ²	39.9%		
Population with Disabilities ²	13.5%		
Number of Essential Destinations ³	8		
Service Details			
Distance Roundtrip ²	8.7 miles		
Trip Time Roundtrip ²	35 minutes		
Frequency ²	M-F: 20 minutes Sat: 40 minutes	M-Sat: 20 minutes Sun: 40 minutes	
Service Span ²	M-F: 15 hours Sat: 12 hours	M-F: 16 hours Sat: 16 hours Sun: 12 hours	
Annual Hours ¹	4,204 hours	9,190 hours	9,486 hours
Number of Vehicles Required ¹	2	2	2
Additional Capital Cost ¹	\$1,372,200	-	-
Total Annual O&M Cost ¹	\$252,200	\$551,400	\$569,200

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

D. MEDFORD CROSTOWN (ROUTE 6)



Project Description and Location: The Medford Crosstown route is identified as part of the near-term 2027 preferred system. It is a 5.3-mile bus route that provides service along McAndrews to currently underserved areas in NE Medford. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 21 minutes, and would initially operate at 30-minute frequencies Monday through Saturday.

Opportunities: The route provides service to northern and eastern Medford. A high number of people without vehicles live near the route, and a new transit route would provide access and transportation connections otherwise not easily available. RVTD routes 21, 40, 60, 61, and the near-term East Medford route intersect with the Medford Crosstown route.

Constraints: The route utilizes McAndrews Road and accessing it in spots may be challenging due to few through streets.

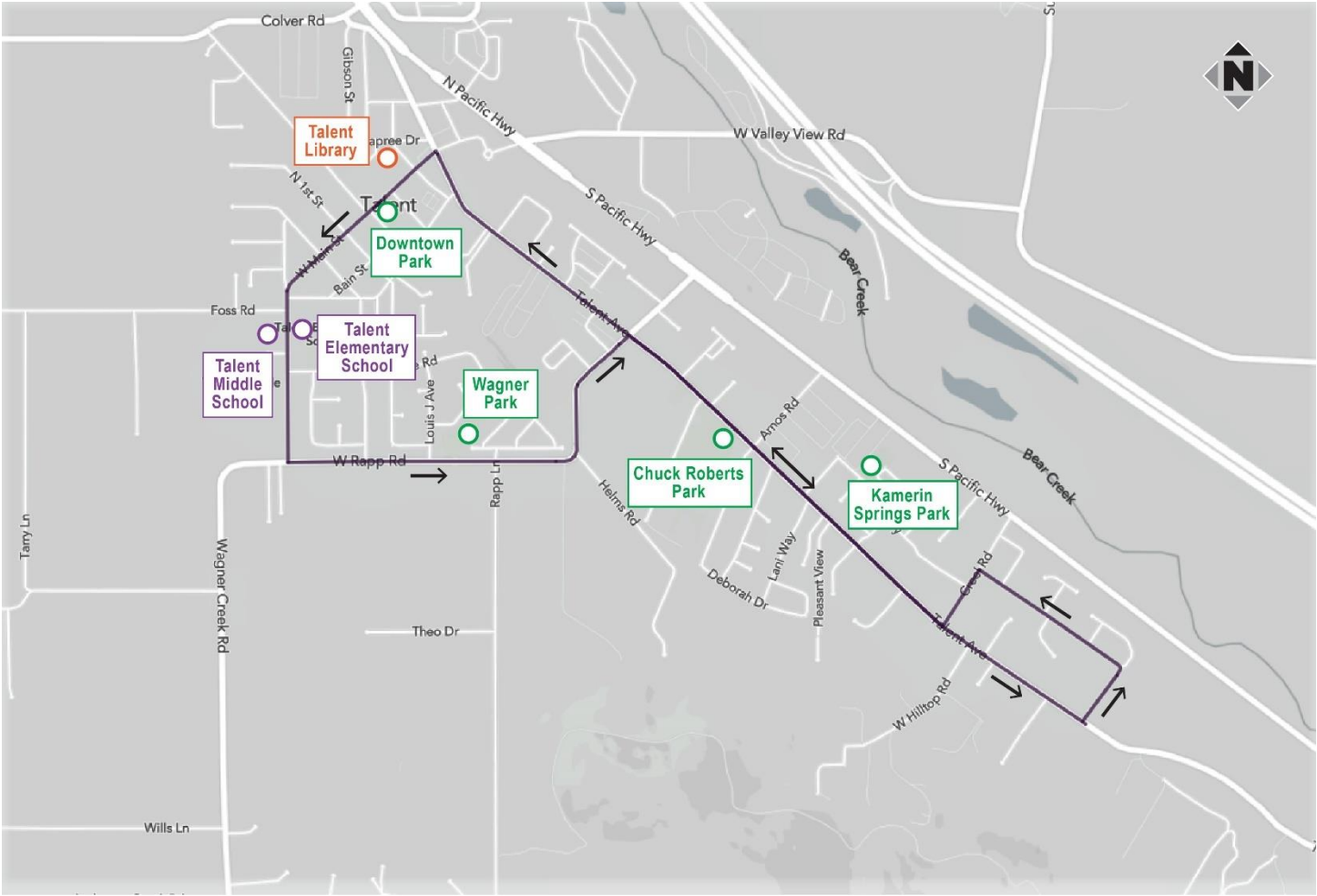
Land Use Considerations: Land uses along the route are primarily residential, with a mix of single family residential, multi-family residential, parks, and commercial uses on the western end of the route, near downtown Medford.

Modifications: Requires rest of fixed route system to be on 15-minute headways to support efficient transfers with routes 21, 60, 61, and near-term East Medford route.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	287	674	680
Population ¹	6,372	6,868	7,138
Employment ¹	6,372	8,740	9,379
Minority Population ¹	8.1%	8.1%	8.1%
Low Income (Poverty 100%) ¹	13.8%	13.6%	13.6%
Access to One Vehicle or Less ¹	62.9%	62.8%	62.8%
No Access to Vehicles ²	16.9%		
Poverty 200% ²	58.1%		
Population with Disabilities ²	18.0%		
Number of Essential Destinations ³	5		
Service Details			
Distance Roundtrip ²	5.3 miles		
Trip Time Roundtrip ²	21 minutes		
Frequency ²	30 minutes	M-Sat: 15 minutes Sun: 30 minutes	
Service Span ²	M-F: 14 hours Sat: 11 hours	M-F: 16 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	3,443 hours	7,574 hours	8,361 hours
Number of Vehicles Required ¹	1	2	2
Additional Capital Cost ¹	\$692,000	\$660,000	
Total Annual O&M Cost ¹	\$206,600	\$454,400	\$501,700

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

E. TALENT CIRCULATOR (ROUTE 7)



Project Description and Location: The Talent Circulator route is identified as part of the near-term 2027 preferred system. It is a 4.4-mile bus route that provides service throughout the City of Talent. The route has stops that are spaced 0.15-mile apart, has an approximate runtime of 18 minutes, and would initially operate at 20-minute frequencies Monday through Saturday.

Opportunities: The Talent Circulator has the potential to serve underserved populations with 30-minute service during morning and evening peak hours. Existing Route 10 connects with the Talent Circulator, allowing for transit access north to Medford or south to Ashland.

Constraints: The street network in Talent is not a consistent grid pattern, making transportation connections limited in certain areas.

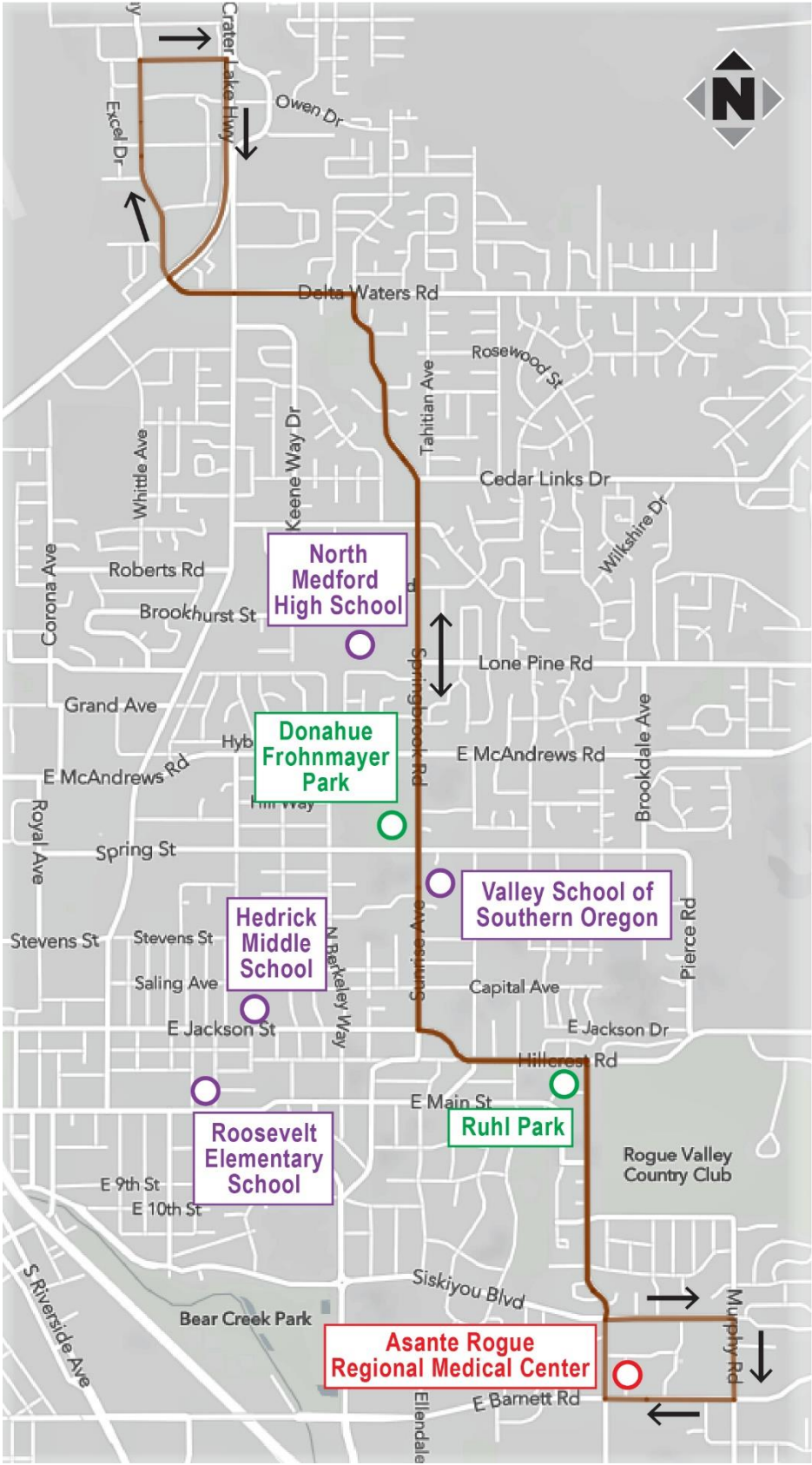
Land Use Considerations: Land uses along the Talent Circulator include commercial, light industrial, parks, residential high density, residential low density, and residential manufactured home uses.

Modifications: In the mid-term 2037 preferred system, the route hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	173	206	212
Population ¹	5,674	6,504	6,961
Employment ¹	972	1,048	1,095
Minority Population ¹	6.6%	6.5%	6.5%
Low Income (Poverty 100%) ¹	13.3%	13.2%	13.2%
Access to One Vehicle or Less ¹	43.0%	43.0%	43.0%
No Access to Vehicles ²	3.3%		
Poverty 200% ²	55.1%		
Population with Disabilities ²	17.4%		
Number of Essential Destinations ³	8		
Service Details			
Distance Roundtrip ²	4.4 miles		
Trip Time Roundtrip ²	18 minutes		
Frequency ²	20 minutes		
Service Span ²	M-F: 14 hours Sat: 11 hours	M-F: 16 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	3,786 hours	4,935 hours	4,901 hours
Number of Vehicles Required ¹	1	1	1
Additional Capital Cost ¹	\$686,500	-	-
Total Annual O&M Cost ¹	\$227,200	\$296,100	\$294,100

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

F. EAST MEDFORD (ROUTE 26)



Project Description and

Location: The East Medford route is identified as part of the near-term 2027 preferred system. It is a 10.3-mile bus route that runs along the eastern side of Medford. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 47 minutes, and would initially operate at 30-minute frequencies Monday through Saturday.

Opportunities: The East Medford route provides access to essential destinations, such as North Medford High School, Roosevelt Elementary School, Hedrick Middle School, and community parks. The East Medford route connects with existing Routes 24 and 60 and the near-term Medford Crosstown route, which provide service to a variety of regional destinations.

Constraints: Just outside of Medford's core, the grid pattern street network transforms into larger blocks with fewer through streets. The I-5 viaduct bisects Medford, but the street network follows under the viaduct, allowing for transportation connectivity.

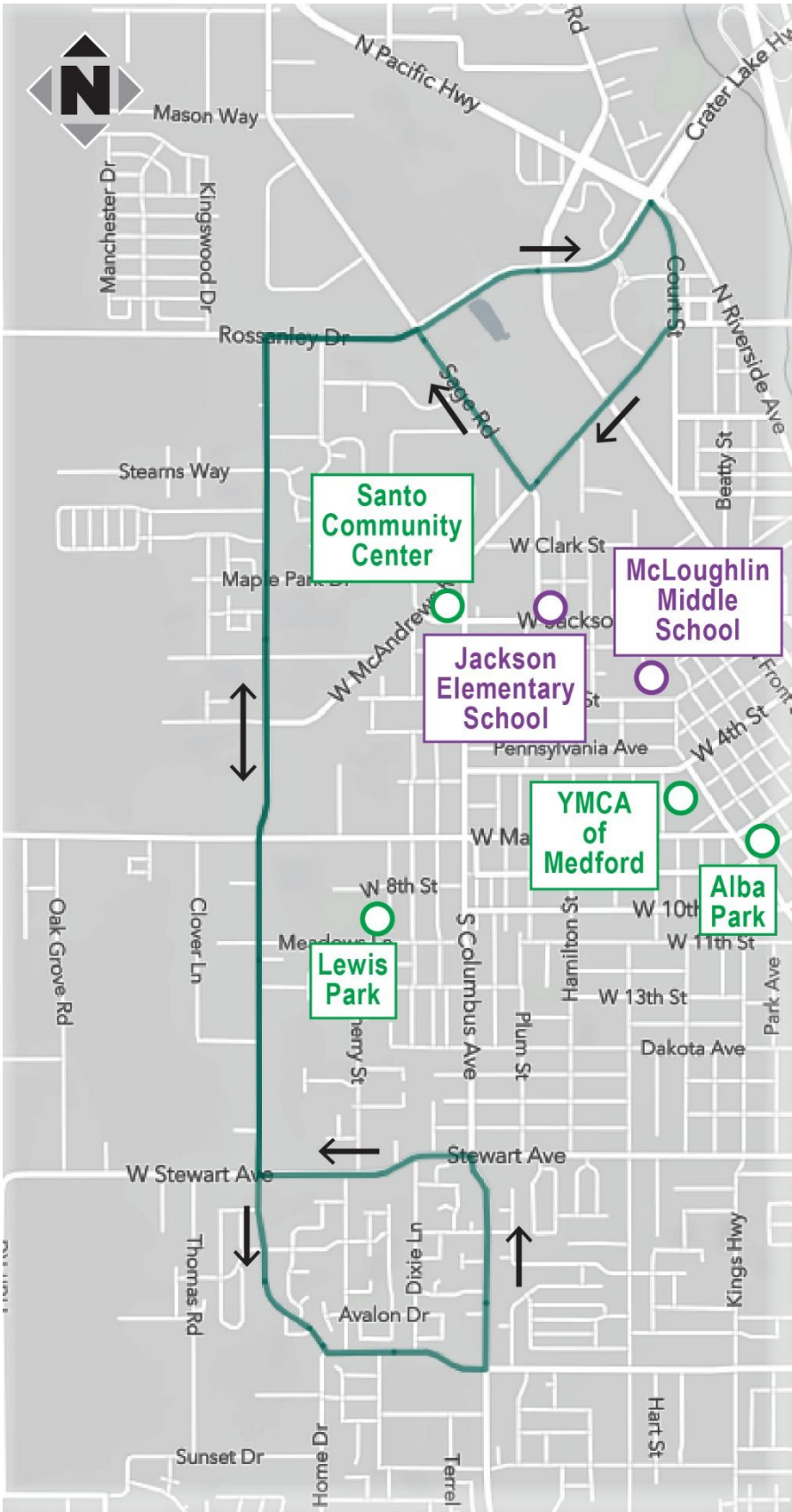
Land Use Considerations: Land uses along the East Medford route are single and multi-family residential, as well as commercial.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	207	596	593
Population ¹	8,405	9,120	9,704
Employment ¹	9,576	12,225	12,826
Minority Population ¹	7.2%	7.2%	7.5%
Low Income (Poverty 100%) ¹	3.1%	3.1%	3.0%
Access to One Vehicle or Less ¹	36.7%	36.8%	36.7%
No Access to Vehicles ²	9.7%		
Poverty 200% ²	30.3%		
Population with Disabilities ²	16.0%		
Number of Essential Destinations ³	6		
Service Details			
Distance Roundtrip ²	10.3 miles		
Trip Time Roundtrip ²	47 minutes		
Frequency ²	30 minutes	M-F: 15 minutes Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 14 hours Sat: 13 hours	M-F: 17 hours Sat: 14 hours Sun: 13 hours	
Annual Hours ¹	5,666 hours	15,454 hours	16,166 hours
Number of Vehicles Required ¹	2	4	4
Additional Capital Cost ¹	\$1,381,500	\$1,320,000	-
Total Annual O&M Cost ¹	\$340,000	\$927,200	\$970,000

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

G. NORTHWEST MEDFORD (ROUTE 27)



Project Description and Location: The Northwest Medford route is identified as part of the near-term 2027 preferred system. It is an 8.5-mile bus route that the western side of Medford. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 34 minutes, and would initially operate at 40-minute frequencies Monday through Saturday.

Opportunities: The Northwest Medford route provides a critical connection between the City’s western and northwestern neighborhoods. The route has potential to connect many low income, minority, car-free populations to the rest of the fixed route system. Existing routes 2, 25, 30, 40, and the near-term Medford Crosstown and Southwest Medford routes become viable transit lines that were previously difficult to connect to.

Constraints: The street network on the northwest side of Medford is slightly disconnected with larger blocks and dead ends.

Land Use Considerations: Land uses along the Northwest Medford route are diverse. Heavy and community commercial uses, heavy and general industrial uses, and single and multi-family residential uses.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	203	597	569
Population ¹	7,015	7,739	8,138
Employment ¹	4,839	6,128	6,962
Minority Population ¹	13.2%	13.3%	13.2%
Low Income (Poverty 100%) ¹	4.8%	4.7%	4.7%
Access to One Vehicle or Less ¹	42.8%	42.7%	42.6%
No Access to Vehicles ²		9.9%	
Poverty 200% ²		55.3%	
Population with Disabilities ²		17.5%	
Number of Essential Destinations ³		3	
Service Details			
Distance Roundtrip ²	8.5 miles		
Trip Time Roundtrip ²	34 minutes		
Frequency ²	40 minutes	M-F: 20 minutes Sat: 30 minutes Sun: 40 minutes	
Service Span ²	M-F: 14.5 hours Sat: 11 hours	M-F: 18 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	3,896 hours	8,877 hours	9,385 hours
Number of Vehicles Required ¹	1	2	2
Additional Capital Cost ¹	\$710,900	\$660,000	-
Total Annual O&M Cost ¹	\$233,800	\$532,600	\$563,100

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

H. SOUTHWEST MEDFORD (ROUTE 29)



Project Description and Location: The Southwest Medford route is identified as part of the near-term 2027 preferred system. It is a 5.1-mile bus route that provides service throughout southwest Medford. The route has stops that are spaced ½ mile apart, has an approximate runtime of 21 minutes, and would initially operate at 30-minute frequencies Monday through Saturday.

Opportunities: The Southwest Medford route has an opportunity to serve large minority and low-income populations. Two schools are near the route, giving more access to schools without using a personal vehicle. Existing Routes 2, 10, and 25 intersect with the Southwest Medford route allowing for greater transit mobility in southern and western Medford.

Constraints: Little to no physical constraints exist along the route.

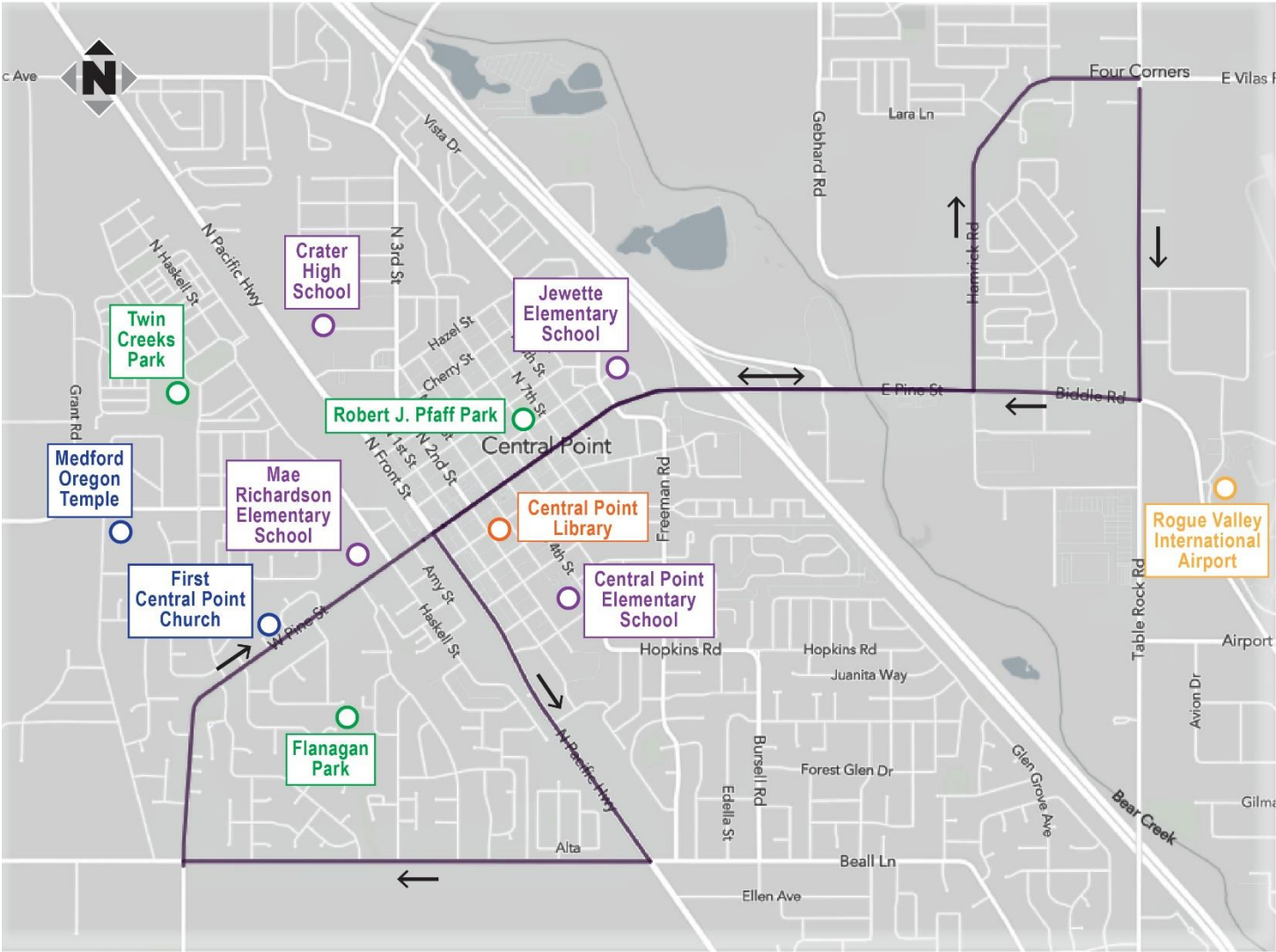
Land Use Considerations: Land uses along the route are mostly residential with parks and schools.

Modifications: In the mid-term 2037 preferred system, the route hours are increased, including adding Sunday service. The mid-term preferred system includes modifications to existing Routes 2 and 25. If operated at 15-minute headways, the route could operate in a bi-directional loop.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	120	156	132
Population ¹	5,692	6,220	6,496
Employment ¹	3,624	4,750	5,493
Minority Population ¹	38.3%	11.7%	11.7%
Low Income (Poverty 100%) ¹	7.2%	7.1%	7.1%
Access to One Vehicle or Less ¹	37.0%	36.9%	36.9%
No Access to Vehicles ²	7.7%		
Poverty 200% ²	53.3%		
Population with Disabilities ²	18.7%		
Number of Essential Destinations ³	7		
Service Details			
Distance Roundtrip ²	5.1 miles		
Trip Time Roundtrip ²	21 minutes		
Frequency ²	30 minutes	M-Sat: 30 minutes Sun: 60 minutes	
Service Span ²	M-F: 13 hours Sat: 11 hours	M-F: 16 hours Sat: 13 hours Sun: 11 hours	
Annual Hours ¹	2,105 hours	2,669 hours	2,480 hours
Number of Vehicles Required ¹	1	1	1
Additional Capital Cost ¹	\$690,700	-	-
Total Annual O&M Cost ¹	\$126,300	\$160,100	\$148,800

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

I. CENTRAL POINT CIRCULATOR (ROUTE 41)



Project Description and Location: The Central Point Circulator is identified as part of the near-term 2027 preferred system. It is an 8.0-mile bus route that provides widespread coverage across Central Point. The route has stops that are spaced ½ mile apart, has an approximate runtime of 32 minutes, and would initially operate at 40-minute frequencies Monday through Saturday.

Opportunities: The Central Point Circulator provides access to essential destinations, including a multitude of schools and parks, Central Point Library, and the Medford Oregon Temple. The route connects with existing Routes 40 and 61, with service to Medford and northeast Central Point.

Constraints: Just outside of Central Point's core, the street network quickly changes from a grid pattern to a more suburban development pattern of short dead-end streets. I-5 bisects Central Point, creating connectivity challenges. E Pine Street is the primary road that crosses over I-5, connecting the east and west sides of Central Point together.

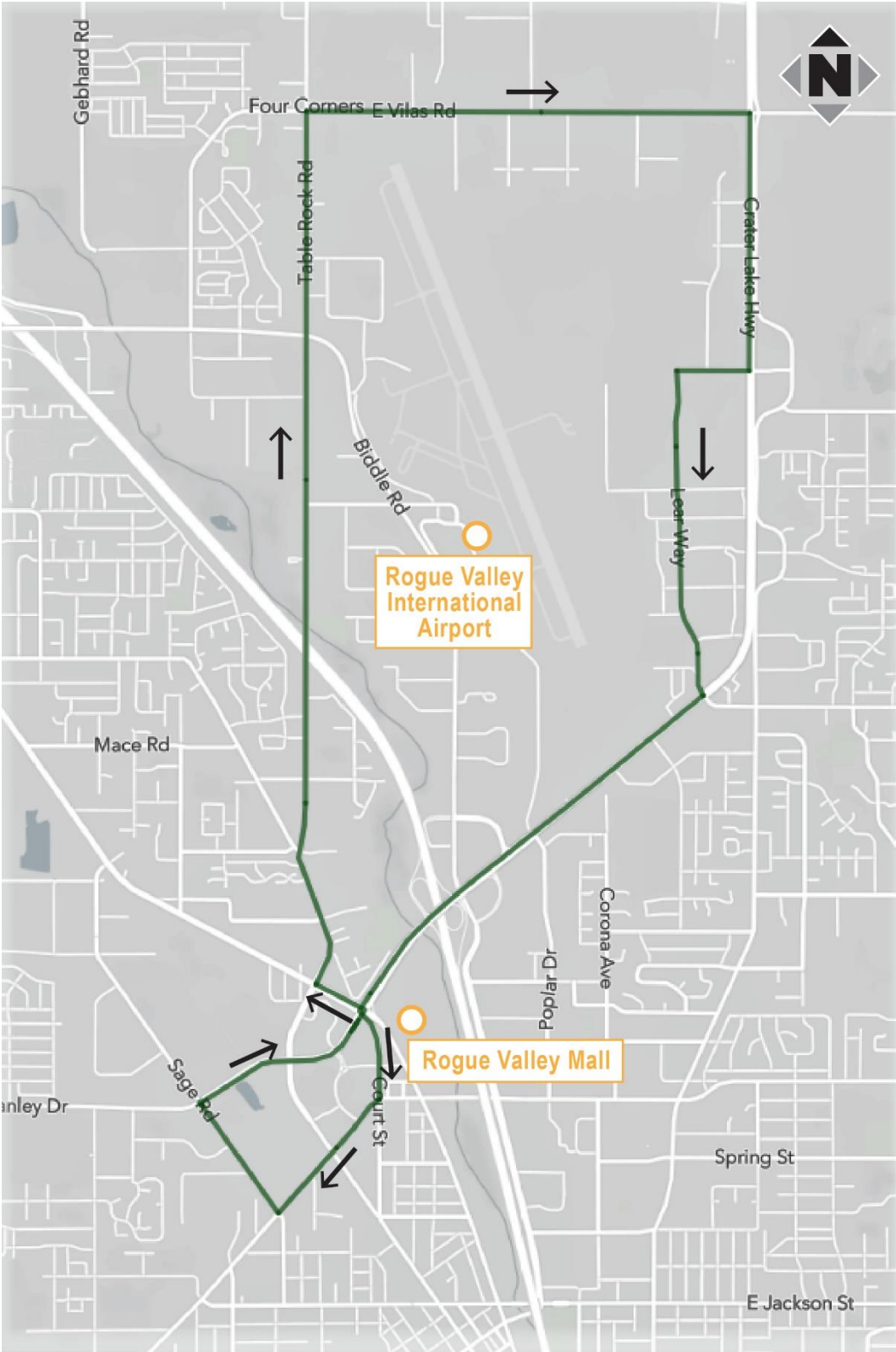
Land Use Considerations: Land uses along the Central Point Circulator are primarily residential, with a mix of single family, multi-family, and higher density mixed use residential/commercial space. The route cuts through the core of Central Point which consists of a tight grid street network with a variety of commercial, retail, restaurants, and newly improved sidewalks and intersections.

Modifications: In the mid-term 2037 preferred system, the route frequency and hours are increased, including adding Sunday service.

Criteria	Short-term	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile			
Projected Daily Ridership ¹	102	280	260
Population ¹	8,042	8,946	9,466
Employment ¹	3,427	3,942	4,278
Minority Population ¹	9.4%	9.2%	9.2%
Low Income (Poverty 100%) ¹	5.0%	4.8%	4.7%
Access to One Vehicle or Less ¹	31.5%	31.3%	31.2%
No Access to Vehicles ²	6.3%	6.3%	6.0%
Poverty 200% ²	49.1%	49.1%	47.7%
Population with Disabilities ²	18.5%	18.5%	17.9%
Number of Essential Destinations ³	10		
Service Details			
Distance Roundtrip ²	8.0 miles		
Trip Time Roundtrip ²	32 minutes		
Frequency ²	40 minutes	M-F: 20 minutes Sat: 40 minutes Sun: 60 minutes	
Service Span ²	M-F: 14 hours Sat: 11 hours	M-F: 16 hours Sat: 14 hours Sun: 11 hours	
Annual Hours ¹	3,586 hours	7,805 hours	7,805 hours
Number of Vehicles Required ¹	1	2	2
Additional Capital Cost ¹	\$708,000	\$660,000	
Total Annual O&M Cost ¹	\$215,200	\$468,300	\$468,300

1. Data from TBEST
2. Data from Remix
3. Data calculated using ArcMap

J. BELTWAY (ROUTE 8)



Project Description and Location: The Beltway route is identified as part of the mid-term 2037 preferred system. It is a 10.5-mile bus route that connects central and northern Medford, looping around the Rogue Valley International-Medford Airport. The route has stops that are spaced ½ mile apart, has an approximate runtime of 42 minutes, and would operate at 30-minute frequencies Monday through Friday.

Opportunities: The Beltway route connects existing Routes 21, 40, 60, and 61 and near-term Central Point Circulator, Northwest Medford, Medford Crosstown, and East Medford routes, which provide service to Medford and the rest of the fixed route system.

Constraints: I-5 bisects the route's service area, creating connectivity challenges.

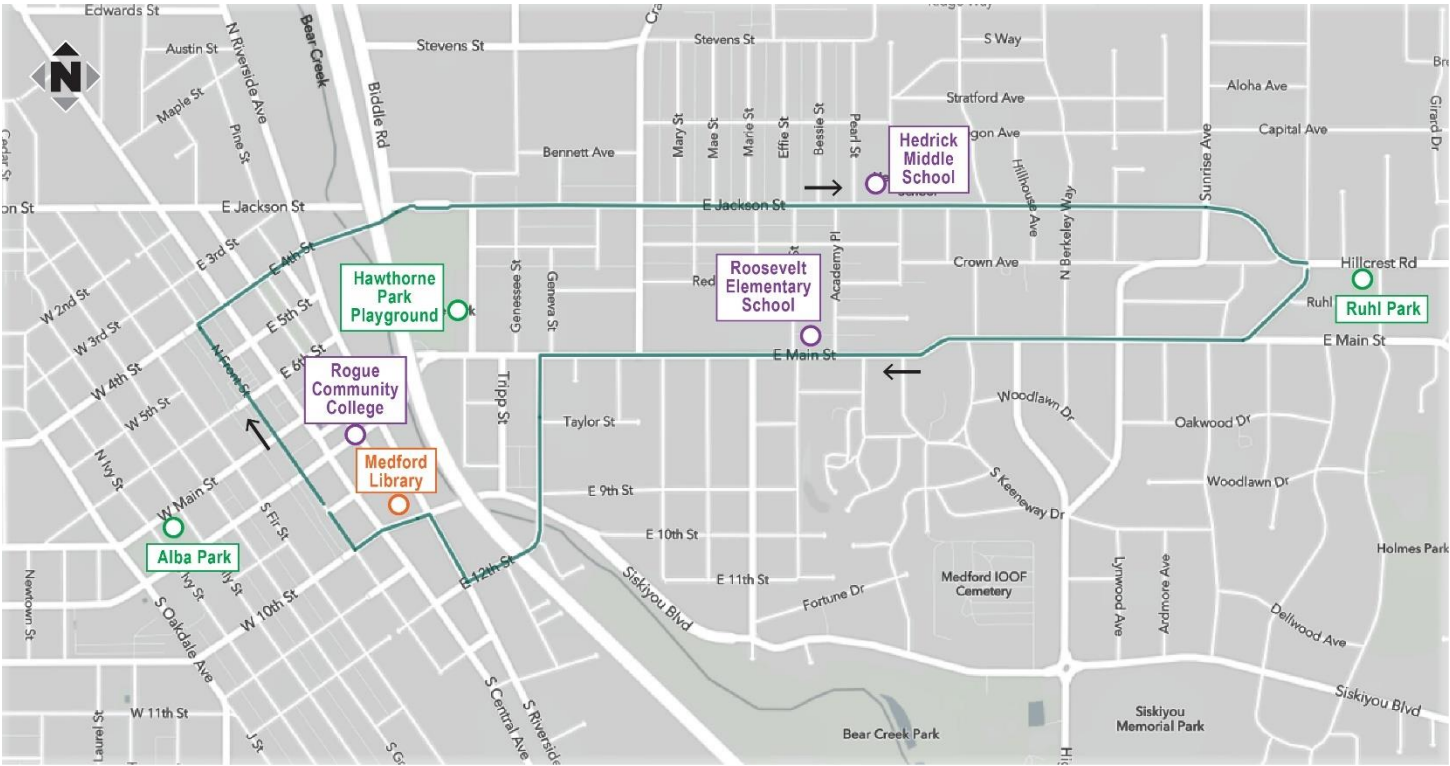
Land Use Considerations: Land uses along the Beltway route are primarily residential, with a mix of single family, multi-family, and higher density mixed use residential/commercial space.

Modifications: None currently planned.

Criteria	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile		
Projected Daily Ridership ¹	394	357
Population ¹	7,348	7,735
Employment ¹	21,357	25,919
Minority Population ¹	13.0%	12.9%
Low Income (Poverty 100%) ¹	10.7%	10.6%
Access to One Vehicle or Less ¹	47.5%	47.3%
No Access to Vehicles ²	11.0%	
Poverty 200% ²	54.2%	
Population with Disabilities ²	19.6%	
Number of Essential Destinations ³	5	
Service Details		
Distance Roundtrip ²	10.5 miles	
Trip Time Roundtrip ²	42 minutes	
Frequency ²	30 minutes	
Service Span ²	M-F: 14 hours	
Annual Hours ¹	5,385 hours	5,164 hours
Number of Vehicles Required ¹	2	2
Additional Capital Cost ¹	\$1,382,900	-
Total Annual O&M Cost ¹	\$484,700	\$464,800

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

K. E JACKSON (ROUTE 28)



Project Description and Location: The E Jackson route is identified as part of the mid-term 2037 preferred system. It is a 4.0-mile bus route that provides service from downtown Medford to east Medford. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 16 minutes, and would operate at 20 or 40-minute frequencies every day of the week.

Opportunities: The E Jackson route provides much needed transit access to the far eastside of Medford. Existing routes 2, 10, 21, 25, 40, 60, 61, and the near-term East Medford and Ashland Express routes all intersect with the proposed E Jackson route.

Constraints: Few constraints are apparent on this route.

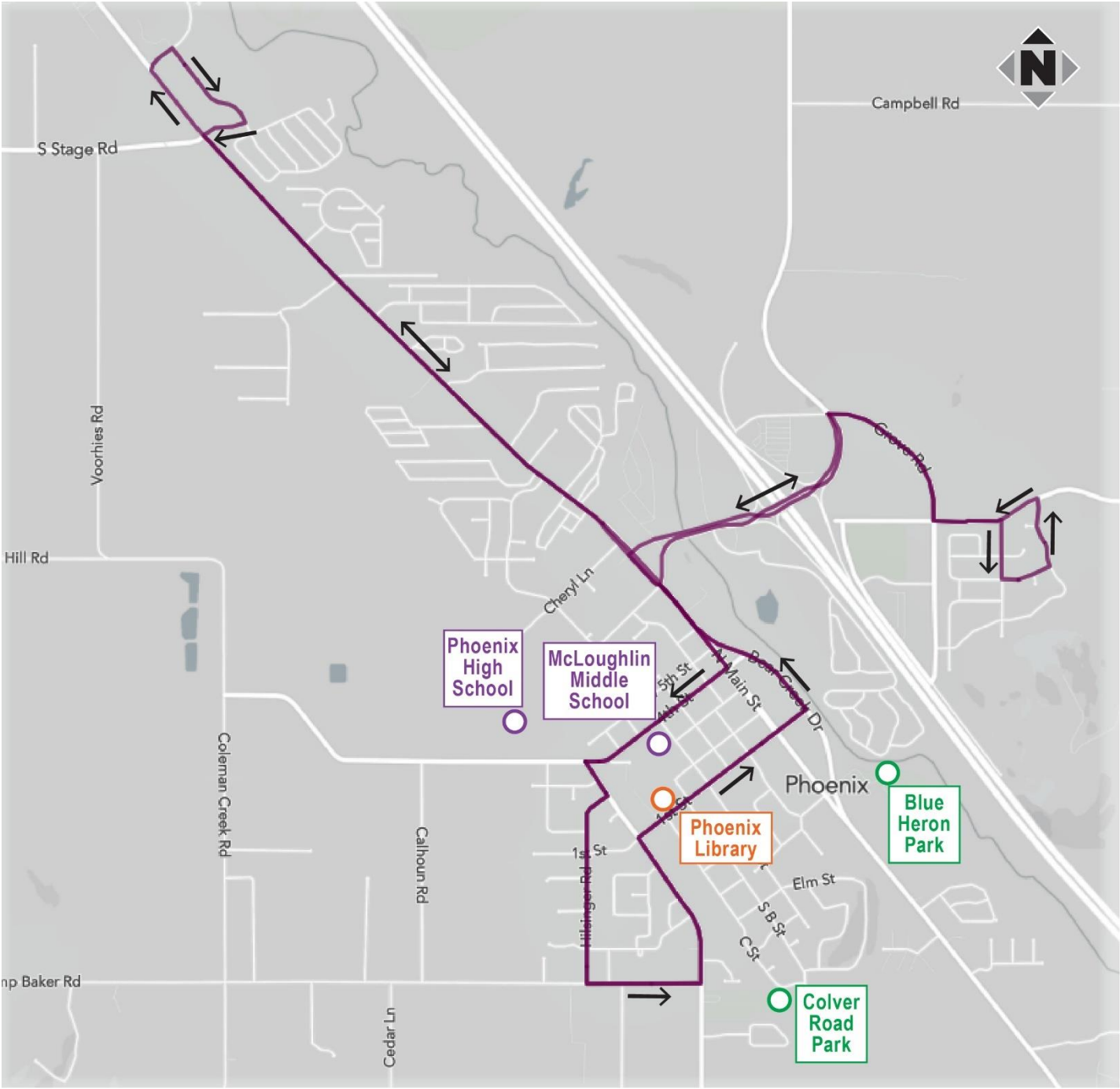
Land Use Considerations: Land uses along the route are primarily residential as it runs east. Land uses vary in downtown Medford with commercial, retail, and mixed-use development.

Modifications: None currently planned.

Criteria	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile		
Projected Daily Ridership ¹	103	392
Population ¹	6,220	6,819
Employment ¹	8,400	8,557
Minority Population ¹	8.5%	8.4%
Low Income (Poverty 100%) ¹	11.1%	9.8%
Access to One Vehicle or Less ¹	55.9%	56.1%
No Access to Vehicles ²	14.0%	
Poverty 200% ²	48.6%	
Population with Disabilities ²	17.4%	
Number of Essential Destinations ³	12	
Service Details		
Distance Roundtrip ²	4.0 miles	
Trip Time Roundtrip ²	16 minutes	
Frequency ²	M-Sat: 20 minutes Sun: 40 minutes	
Service Span ²	M-F: 16 hours Sat: 13 hours Sun: 11 hours	
Annual Hours ¹	4,235 hours	4,235 hours
Number of Vehicles Required ¹	1	1
Additional Capital Cost ¹	\$684,000	-
Total Annual O&M Cost ¹	\$381,200	\$381,200

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

L. PHOENIX CIRCULATOR (ROUTE 9)



Project Description and Location: The Phoenix Circulator is identified as part of the mid-term 2037 preferred system. It is a 11.9-mile bus route that provides service throughout the City of Phoenix. The route has stops that are spaced ½ mile apart, has an approximate runtime of 48 minutes, and would operate at 30- or 60-minute frequencies every day of the week.

Opportunities: The Phoenix Circulator has the potential to provide service to underserved populations during morning and evening peak hours. Existing Route 10 and near-term Ashland Express route connect with the Phoenix Circulator, allowing for transit service north to Medford or south to Ashland.

Constraints: I-5 divides Phoenix into an east and west side, posing a connectivity challenge for both transportation and community access.

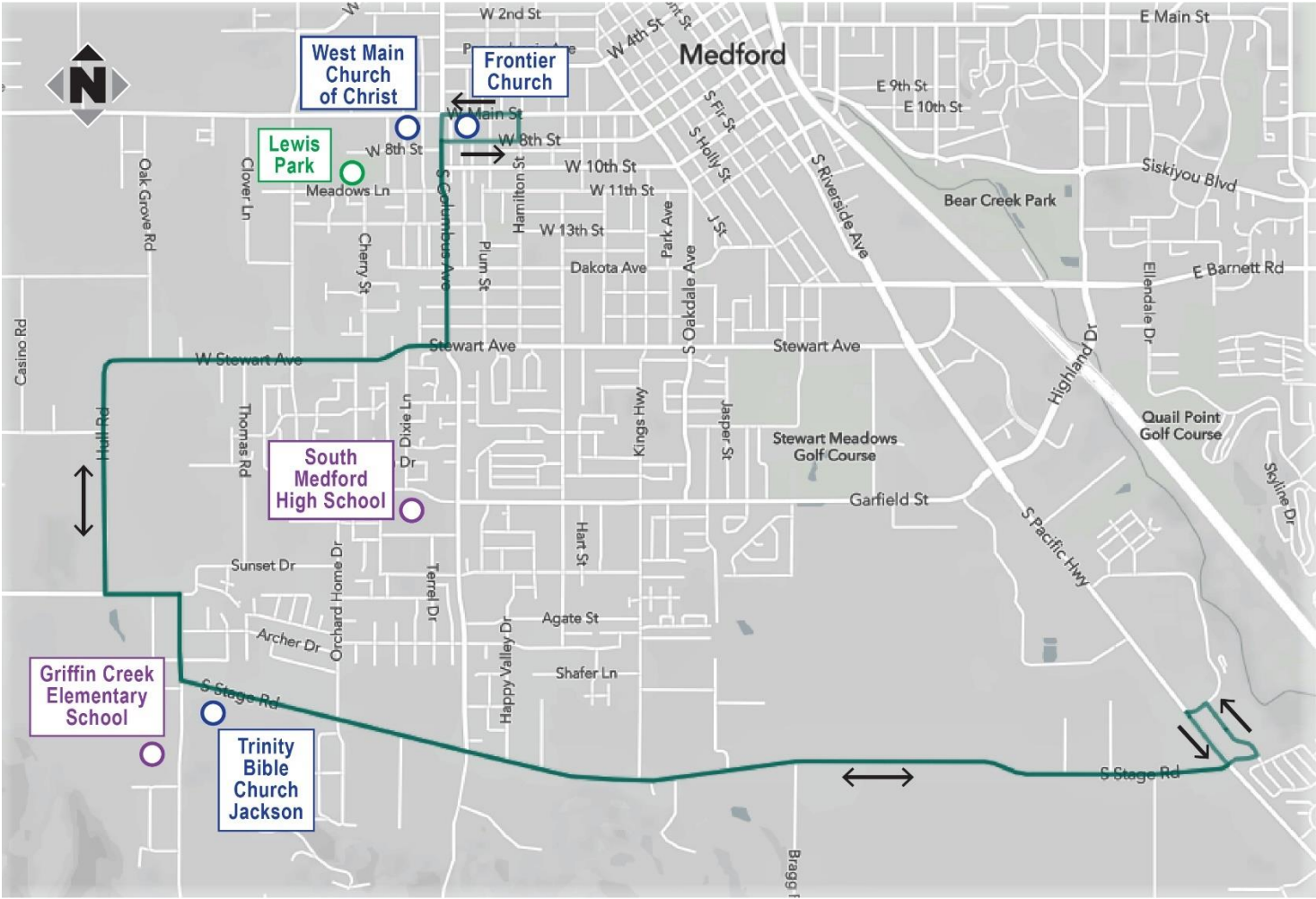
Land Use Considerations: Land uses along the Phoenix Circulator consist of light industrial, low density residential, and commercial highway uses.

Modifications: In the long-term 2042 preferred system, the Phoenix Circulator will connect to the Ashland high-capacity transit route.

Criteria	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile		
Projected Daily Ridership ¹	818	846
Population ¹	7,890	8,353
Employment ¹	3,657	4,108
Minority Population ¹	11.4%	11.1%
Low Income (Poverty 100%) ¹	9.9%	9.4%
Access to One Vehicle or Less ¹	39.4%	39.1%
No Access to Vehicles ²	3.8%	
Poverty 200% ²	55.0%	
Population with Disabilities ²	24.0%	
Number of Essential Destinations ³	8	
Service Details		
Distance Roundtrip ²	11.9 miles	
Trip Time Roundtrip ²	48 minutes	
Frequency ²	M-F: 30 minutes Sat-Sun: 60 minutes	
Service Span ²	M-F: 16 hours Sat: 13 hours Sun: 10 hours	
Annual Hours ¹	7,294 hours	7,294 hours
Number of Vehicles Required ¹	2	2
Additional Capital Cost ¹	\$1,391,500	-
Total Annual O&M Cost ¹	\$656,500	\$656,500

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

M. SOUTH STAGE (ROUTE 23)



Project Description and Location: The South Stage route is identified as part of the mid-term 2037 preferred system. It is a 14.2-mile bus route that provides service throughout southwest Medford. The route has stops that are spaced ½ mile apart, has an approximate runtime of 57 minutes, and would operate at 30 or 60-minute frequencies every day of the week.

Opportunities: The South Stage route has an opportunity to serve large minority and low-income populations. Two schools are near the route, giving more access to schools without using a personal vehicle. Existing Routes 2, 10, 25, and 30 and near-term Northwest Medford and Southwest Medford routes intersect with the South Stage route allowing for greater transit mobility in southern and western Medford.

Constraints: South of downtown Medford, the street network changes from a grid pattern to a more suburban development pattern of short dead-end streets.

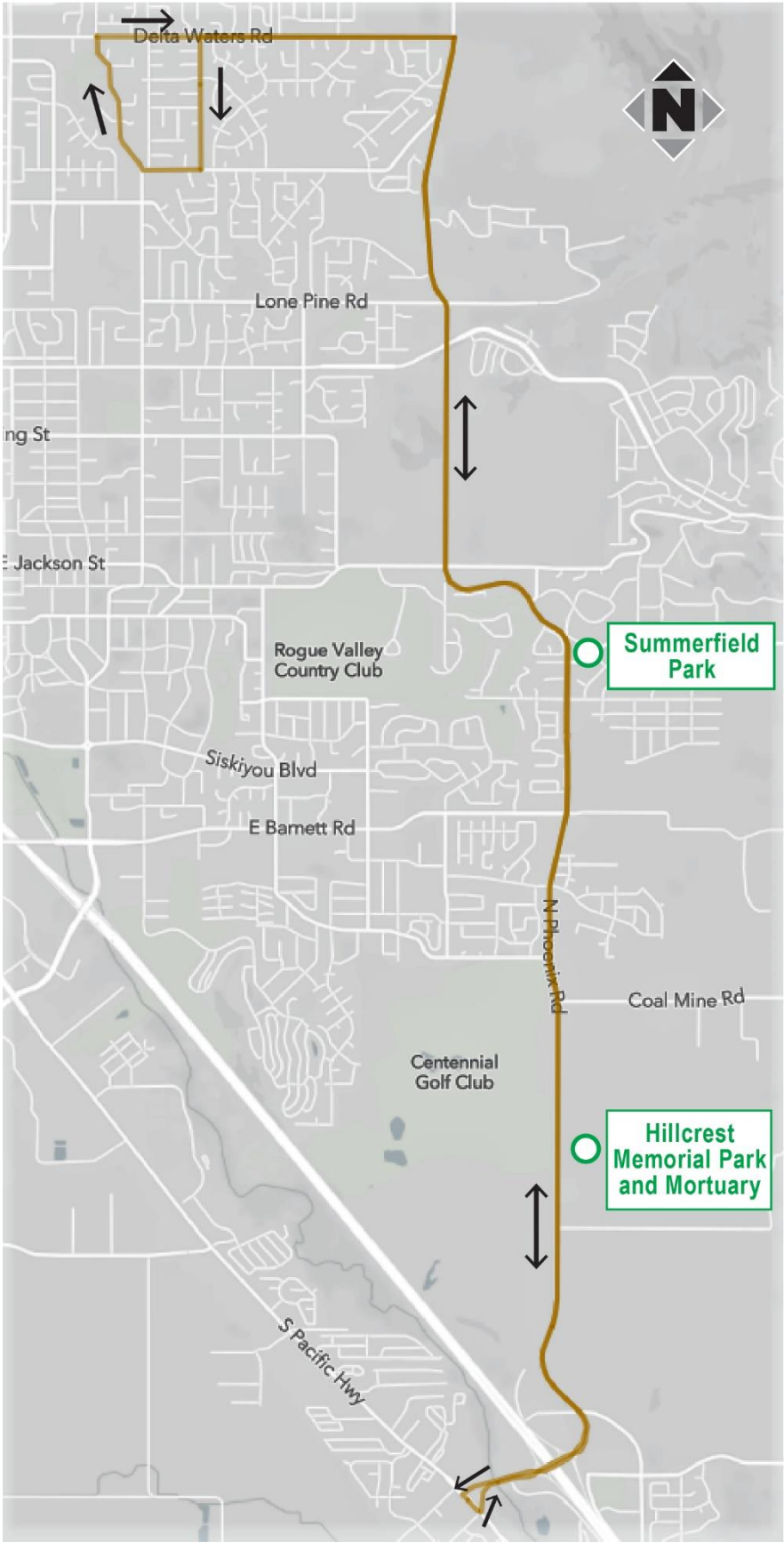
Land Use Considerations: Land uses along the route are mostly residential with parks and schools.

Modifications: None currently planned.

Criteria	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile		
Projected Daily Ridership ¹	301	301
Population ¹	9,284	9,630
Employment ¹	1,442	1,623
Minority Population ¹	13.3%	13.3%
Low Income (Poverty 100%) ¹	12.6%	12.5%
Access to One Vehicle or Less ¹	43.7%	43.6%
No Access to Vehicles ²	11.8%	
Poverty 200% ²	61.7%	
Population with Disabilities ²	18.0%	
Number of Essential Destinations ³	4	
Service Details		
Distance Roundtrip ²	14.2 miles	
Trip Time Roundtrip ²	57 minutes	
Frequency ²	M-F: 30 minutes Sat-Sun: 60 minutes	
Service Span ²	M-F: 15.5 hours Sat: 13 hours Sun: 11 hours	
Annual Hours ¹	8,551 hours	8,551 hours
Number of Vehicles Required ¹	3	3
Additional Capital Cost ¹	\$2,065,300	-
Total Annual O&M Cost ¹	\$769,600	\$769,600

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

S. FOOTHILL ROAD (ROUTE 31)



Project Description and Location:

The Foothill Road route is identified as part of the mid-term 2037 preferred system. It is a 16.4-mile bus route that connects east Medford to Phoenix. The route has stops that are spaced approximately 1/3 mile apart, has an approximate runtime of 66 minutes, and would operate at 15- to 30-minute frequencies every day of the week.

Opportunities: The Foothill Road route has an opportunity to serve large elderly populations and populations with disabilities in eastern Medford, as well as the transit-oriented development in southeast Medford and employment in northeast Phoenix. The near-term East Medford and mid-term Phoenix Circulator routes intersect with the Foothill Road route, allowing for greater transit mobility in eastern Medford and to/from Phoenix.

Constraints: The surrounding development has a more suburban pattern of short dead-end streets .

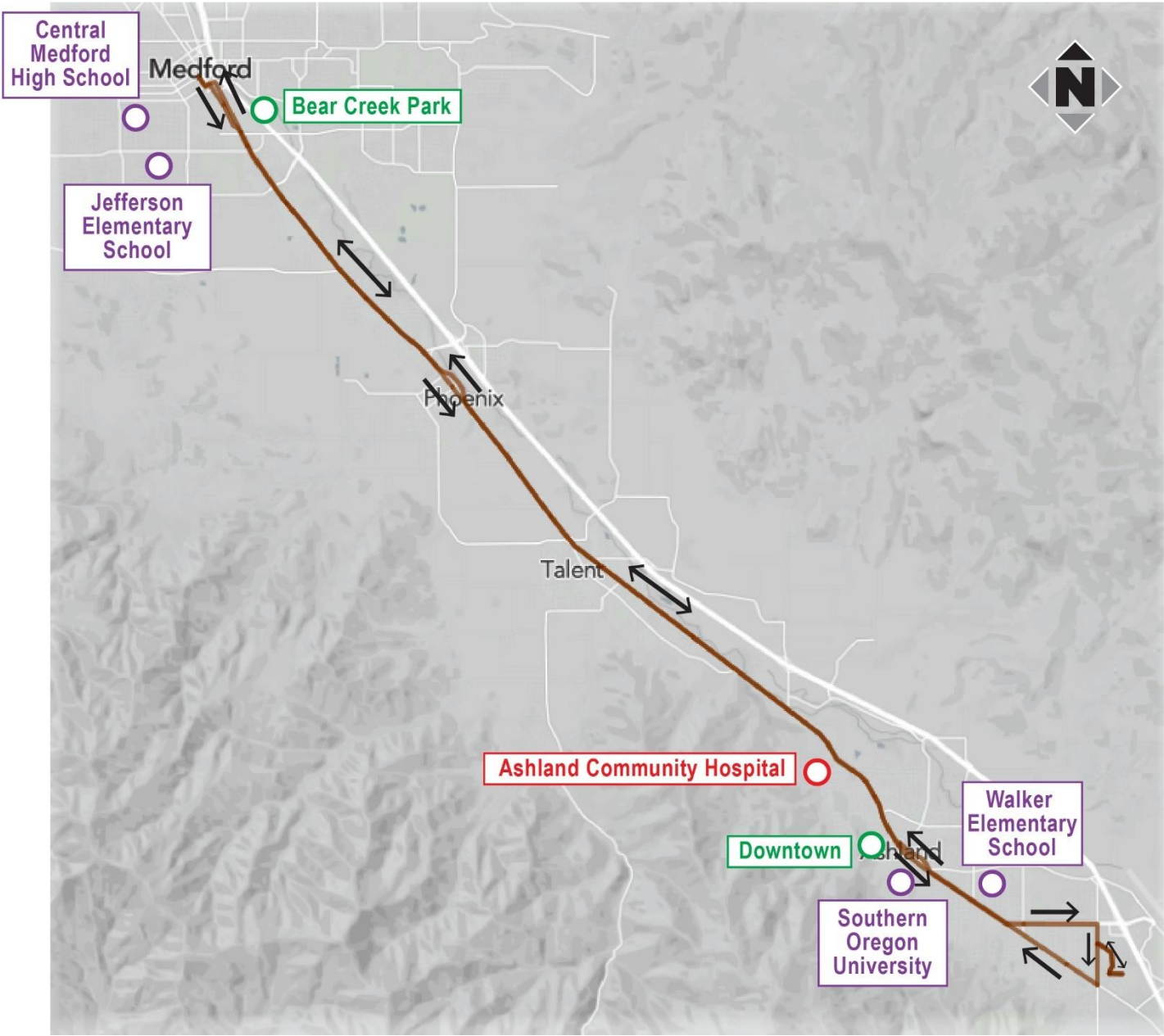
Land Use Considerations: Land uses along the Foothill Road route consist of residential and some commercial.

Modifications: None currently planned.

Criteria	Mid-term	Long-term
Ridership/Demographics Within ¼ Mile		
Projected Daily Ridership	N/A ¹	
Population ²	2,478	
Employment ²	605	
Minority Population ²	19.6%	
Low Income (Poverty 100%) ²	9.5%	
Access to One Vehicle or Less ²	N/A	
No Access to Vehicles ²	6.0%	
Poverty 200% ²	28.1%	
Population with Disabilities ²	15.3%	
Number of Essential Destinations ³	4	
Service Details		
Distance Roundtrip ²	16.4 miles	
Trip Time Roundtrip ²	66 minutes	
Frequency ²	M-F: 15-30 minutes Sat-Sun: 30 minutes	
Service Span ²	M-F: 13 hours Sat-Sun: 11 hours	
Annual Hours ¹	15,095 hours	15,095 hours
Number of Vehicles Required ¹	5	5
Additional Capital Cost ¹	\$3,398,400	-
Total Annual O&M Cost ¹	\$1,358,600	\$1,358,600

- 1. This route was added to the preferred systems after modeling efforts were completed to forecast ridership
- 2. Data from Remix
- 3. Data calculated using ArcMap

N. HCT ASHLAND (ROUTE 10X)



Project Description and Location: The HCT Ashland route is identified as part of the long-term 2042 preferred system. It is a 31.5-mile bus route that provides service from Medford to Ashland. The route has stops that are spaced ¼ mile apart, an approximate runtime of 126 minutes, and would operate at 10-minute frequencies every day of the week.

Opportunities: Because the express route links into downtown Medford, it has potential to connect with almost every current and proposed RVTD bus route. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Constraints: Significant capital and infrastructure improvements will be needed to facilitate 10-minute high-capacity transit on along OR 99.

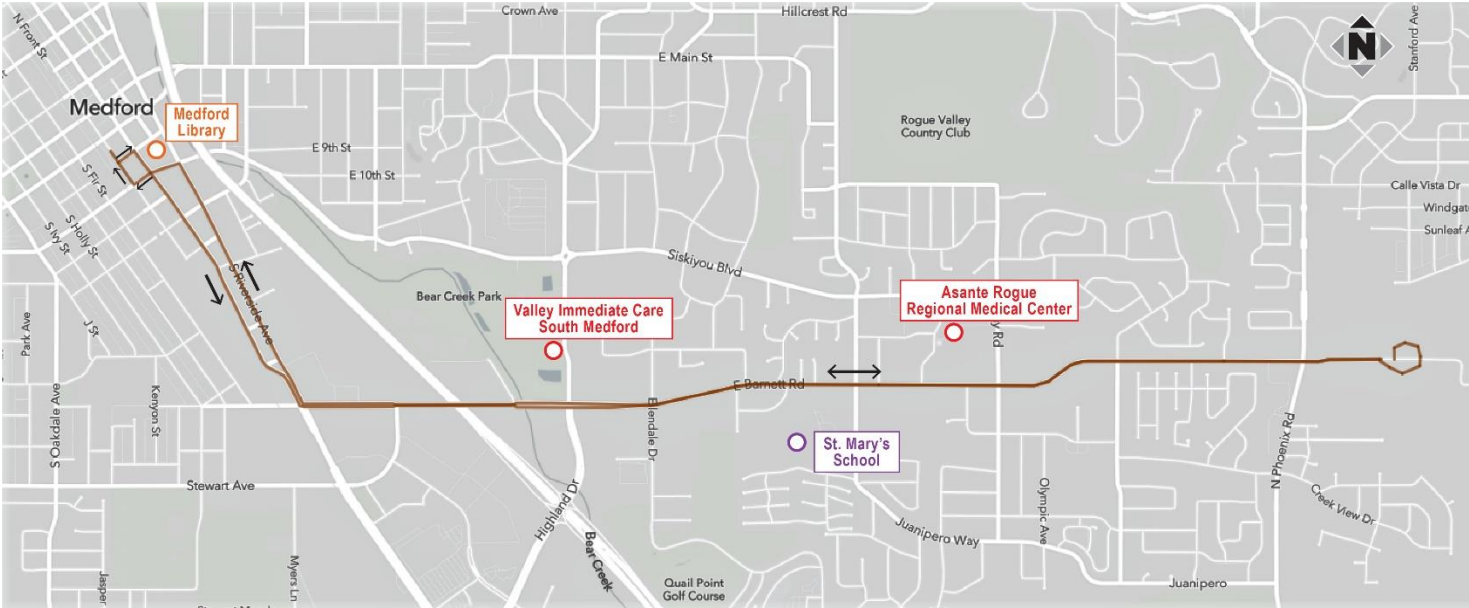
Land Use Considerations: Land use along the route are primarily residential, with a mix of single family residential, multi-family residential, as well as rural uses, such as farms and orchards.

Modifications: The HCT Ashland route will replace existing Route 10 and the Ashland Express route.

Criteria	Long-term
Ridership/Demographics Within ¼ Mile	
Projected Daily Ridership ¹	2,655
Population ¹	22,422
Employment ¹	27,589
Minority Population ¹	10.0%
Low Income (Poverty 100%) ¹	12.0%
Access to One Vehicle or Less ¹	48.3%
No Access to Vehicles ²	9.0%
Poverty 200% ²	49.6%
Population with Disabilities ²	17.1%
Number of Essential Destinations ³	38
Service Details	
Distance Roundtrip ²	31.5 miles
Trip Time Roundtrip ²	126 minutes
Frequency ²	10 minutes
Service Span ²	M-F: 13 hours Sat-Sun: 11 hours
Annual Hours ¹	45,095 hours
Number of Vehicles Required ¹	10
Additional Capital Cost ¹	\$9,428,900
Total Annual O&M Cost ¹	\$4,870,300

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

O. HCT BARNETT (ROUTE 24X)



Project Description and Location: The HCT Barnett route is identified as part of the long-term 2042 preferred system. It is a 7.4-mile bus route that provides service from downtown Medford to east Medford. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 30 minutes, and would operate at 10-minute frequencies every day of the week.

Opportunities: The HCT Barnett route provides much needed transit access to the far eastside of Medford. In addition to connecting to all routes that access the downtown Front Street Station, the HCT Barnett route intersects with existing Route 24 and near-term East Medford route. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Constraints: Few constraints are apparent on this route.

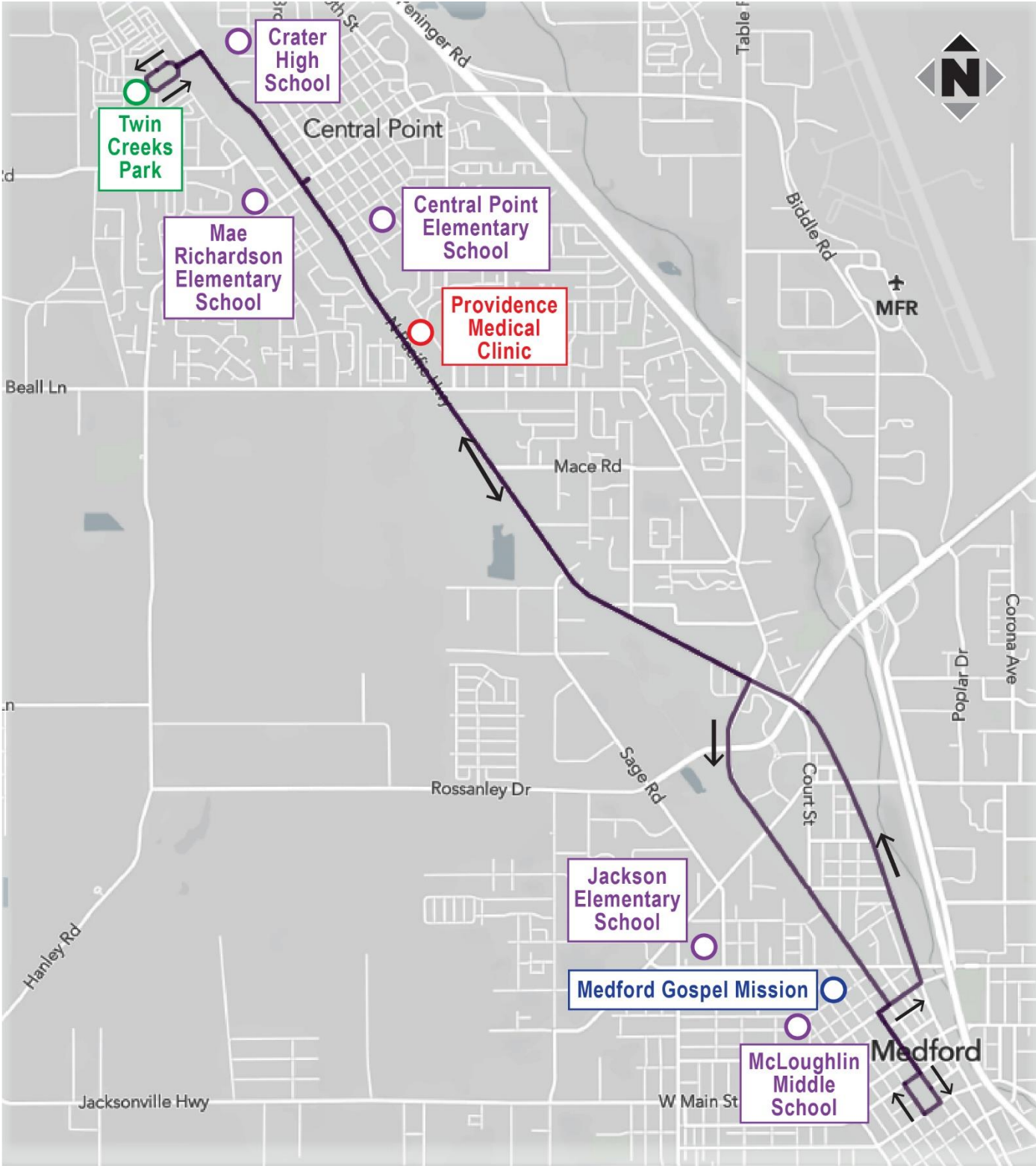
Land Use Considerations: Land uses along the route are primarily residential as it runs east. Land uses vary in downtown Medford with commercial, retail, and mixed-use development.

Modifications: None currently planned.

Criteria	Long-term
Ridership/Demographics Within ¼ Mile	
Projected Daily Ridership ¹	775
Population ¹	5,055
Employment ¹	14,811
Minority Population ¹	8.2%
Low Income (Poverty 100%) ¹	7.8%
Access to One Vehicle or Less ¹	49.6%
No Access to Vehicles ²	15.4%
Poverty 200% ²	42.7%
Population with Disabilities ²	19.5%
Number of Essential Destinations ³	12
Service Details	
Distance Roundtrip ²	7.4 miles
Trip Time Roundtrip ²	30 minutes
Frequency ²	10 minutes
Service Span ²	M-F: 13 hours Sat-Sun: 11 hours
Annual Hours ¹	10,181 hours
Number of Vehicles Required ¹	3
Additional Capital Cost ¹	\$2,684,300
Total Annual O&M Cost ¹	\$1,099,500

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

P. HCT CENTRAL POINT (ROUTE 40X)



Project Description and Location: The HCT Central Point route is identified as part of the long-term 2042 preferred system. It is a 11.1-mile bus route that provides service from Central Point to just south of downtown Medford. The route has stops that are spaced ½ mile apart, has an approximate runtime of 44 minutes, and would operate at 10-minute frequencies every day of the week.

Opportunities: The HCT Central Point route provides critical transit connections from Central Point to Medford. Because the express route links into downtown Medford, it has potential to connect with almost every current and proposed RVTD bus route. The route has potential to improve access for areas of low income and minority populations, as well as people without access to vehicles. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Constraints: Few streets offer the north-south connectivity that N Pacific Highway does, but in certain locations accessing the route can be challenging due to disconnected local street.

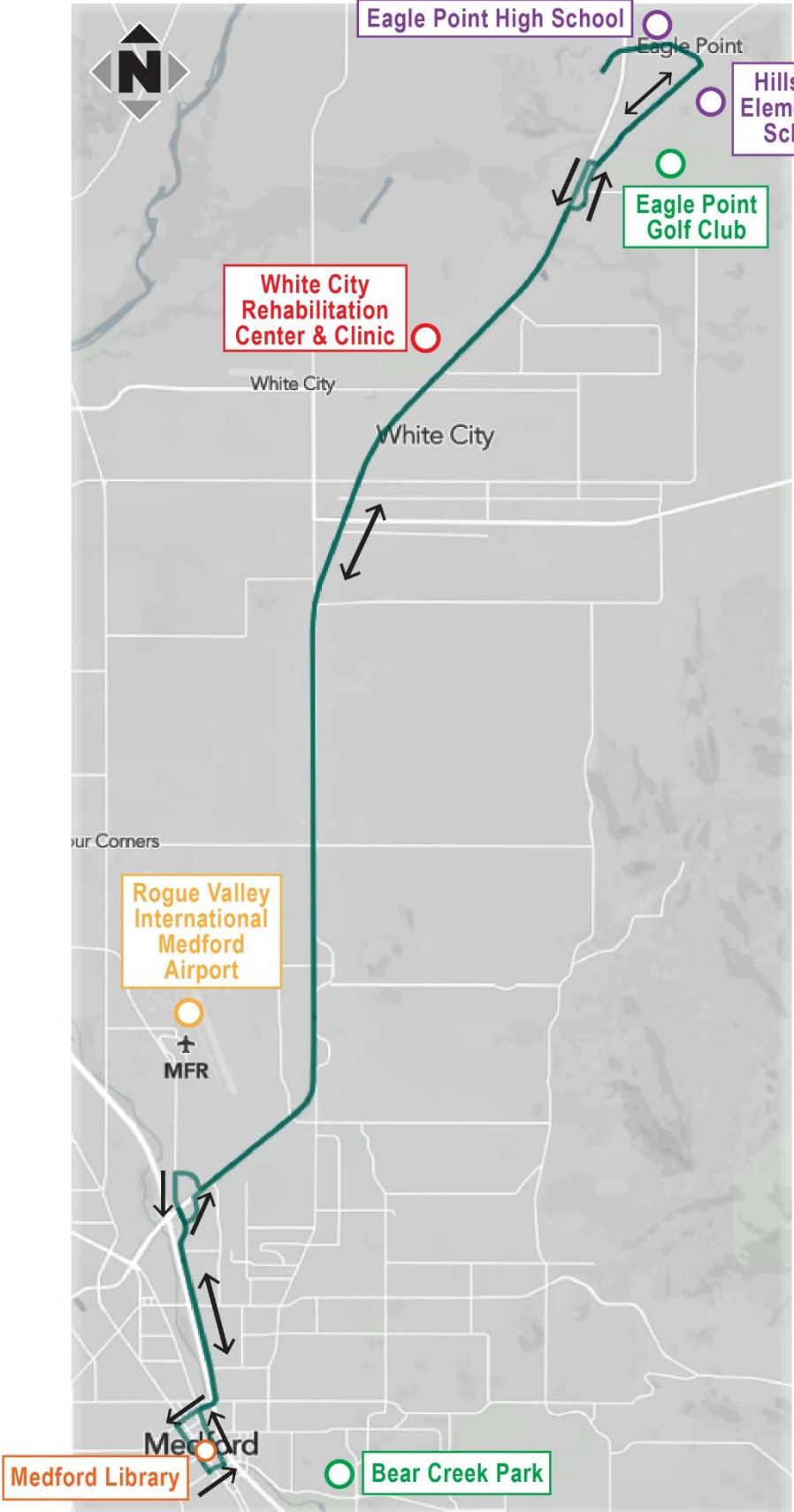
Land Use Considerations: Land uses along the route are primarily residential, with a mix of single family residential, multi-family residential, and high mixed use residential/commercial.

Modifications: None currently planned.

Criteria	Long-term
Ridership/Demographics Within ¼ Mile	
Projected Daily Ridership ¹	910
Population ¹	7,568
Employment ¹	13,226
Minority Population ¹	11.2%
Low Income (Poverty 100%) ¹	12.4%
Access to One Vehicle or Less ¹	60.9%
No Access to Vehicles ²	25.5%
Poverty 200% ²	67.5%
Population with Disabilities ²	22.0%
Number of Essential Destinations ³	23
Service Details	
Distance Roundtrip ²	11.1 miles
Trip Time Roundtrip ²	44 minutes
Frequency ²	10 minutes
Service Span ²	M-Sat: 13 hours Sun: 11 hours
Annual Hours ¹	11,881 hours
Number of Vehicles Required ¹	3
Additional Capital Cost ¹	\$3,366,200
Total Annual O&M Cost ¹	\$1,283,100

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

Q. HCT EAGLE POINT (ROUTE 3X)



Project Description and Location: The HCT Eagle Point route is identified as part of the long-term 2042 preferred system. It is a 26.0-mile bus route that connects Eagle Point to downtown Medford. The route has stops that are spaced ½ mile apart, has an approximate runtime of 104 minutes, and would operate at 10-minute frequencies every day of the week.

Opportunities: The HCT Eagle Point route connects the Eagle Point community to the VA Rehabilitation Center and Clinics in White City and ultimately to downtown Medford. Because the express route links into downtown Medford, it has potential to connect with almost every current and proposed RVTB bus route.

Constraints: Oregon Highway 62 is the only viable connection between White City, Eagle Point, and Medford, posing potential challenges to service operations during congestion, roadwork, or other obstacles. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Land Use Considerations: Land uses along the HCT Eagle Point route are rural in nature. Agricultural and industrial are the primary uses between White City and Eagle Point. Within White City and Eagle Point, land uses consist of residential and some commercial.

Modifications: None currently planned.

Criteria	Long-term
Ridership/Demographics Within ¼ Mile	
Projected Daily Ridership ¹	2,262
Population ¹	10,028
Employment ¹	23,191
Minority Population ¹	11.2%
Low Income (Poverty 100%) ¹	7.0%
Access to One Vehicle or Less ¹	45.05
No Access to Vehicles ²	17.6%
Poverty 200% ²	57.0%
Population with Disabilities ²	19.9%
Number of Essential Destinations ³	21
Service Details	
Distance Roundtrip ²	26.0 miles
Trip Time Roundtrip ²	104 minutes
Frequency ²	10 minutes
Service Span ²	M-F: 13 hours Sat-Sun: 11 hours
Annual Hours ¹	35,540 hours
Number of Vehicles Required ¹	8
Additional Capital Cost ¹	\$8,075,800
Total Annual O&M Cost ¹	\$3,838,300

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

R. HCT W MAIN (ROUTE 30X)



Project Description and Location: The HCT W Main route is identified as part of the long-term 2042 preferred system. It is a 4.1-mile bus route that connects downtown Medford to the west and northwest side of the City. The route has stops that are spaced ¼ mile apart, has an approximate runtime of 16 minutes, and would operate at 10-minute frequencies every day of the week.

Opportunities: The HCT W Main route provides is part of the envisioned fixed route system that will provide the critical connection between the City's western and northwestern neighborhoods, along with near-term Northwest Medford, near-term Southwest Medford, mid-term South Stage routes. The route has potential to connect many low income, minority, car free populations into downtown Medford. In addition, park and ride lots (shared, leased, or owned) will be considered for the major stop locations.

Constraints: The street network on the northwest side of Medford is slightly disconnected with larger blocks and dead ends.

Land Use Considerations: Land uses along the HCT W Main route are diverse. Heavy and community commercial uses, heavy and general industrial uses, and single and multi-family residential uses. In downtown Medford, commercial uses are varied with shops and restaurants.

Modifications: None currently planned.

Criteria	Long-term
Ridership/Demographics Within ¼ Mile	
Projected Daily Ridership ¹	667
Population ¹	8,255
Employment ¹	7,509
Minority Population ¹	14.5%
Low Income (Poverty 100%) ¹	13.8%
Access to One Vehicle or Less ¹	55.3%
No Access to Vehicles ²	16.1%
Poverty 200% ²	69.1%
Population with Disabilities ²	19.3%
Number of Essential Destinations ³	12
Service Details	
Distance Roundtrip ²	4.1 miles
Trip Time Roundtrip ²	16 minutes
Frequency ²	10 minutes
Service Span ²	M-F: 13 hours Sat-Sun: 11 hours
Annual Hours ¹	5,732 hours
Number of Vehicles Required ¹	2
Additional Capital Cost ¹	\$1,344,500
Total Annual O&M Cost ¹	\$619,100

- 1. Data from TBEST
- 2. Data from Remix
- 3. Data calculated using ArcMap

SYSTEM-WIDE ENHANCEMENT – EXTENDED WEEKDAY SERVICE

Description: The preferred system projects primarily identified in the mid-term, increase the existing service span for weekdays. For the majority of routes, this includes an extension later for weekday evening service. There are also several routes where the extended service span includes earlier weekday service. The preferred system weekday service span is planned to extend from approximately 15 hours (6 a.m. to 9 p.m.) to 18 hours (4 a.m. to 10 p.m.). The table below summarizes the approximate number of additional annual weekday service hours that would be provided if weekday service is extended. This does not take into account the preferred system increased frequencies.

Route ID	Route	Current Weekday Service Span	Additional Weekday Service Span Hours	Buses Needed for Current Weekday Frequency	Additional Annual Weekday Service Hours ¹
2	2 - West Medford	14 hours	2.0	1	510.0
10	10 - Ashland	15 hours	3.0	6	4,590.0
21	21 - Poplar Square	13 hours	2.5	1	637.5
24	24 - RPMC	14 hours	4.0	2	2,040.0
25	25 - South Medford	14 hours	3.0	2	1,530.0
30	30 - Jacksonville	16 hours	0.0	1	0.0
40	40 - Central Point	14 hours	4.5	3	3,442.5
60	60 - White City	15 hours	3.5	4	3,570.0
61	61 - RCC Table Rock	14 hours	2.0	2	1,020.0
Total			24.5	22	17,340.0

1. This is an approximation of the additional annual service hours based on the number of buses needed to run to provide the identified frequency for the route. It does not take into account the scheduling of recovery time, dead head hours, or number of bus runs per day.

SYSTEM-WIDE ENHANCEMENT – EXTENDED SATURDAY SERVICE

Description: The preferred system projects primarily identified in the mid-term, increase the existing service span for Saturdays. Both additional morning and evening hours are considered. The preferred system Saturday service span is extended from approximately 11 hours (7 a.m. to 6 p.m.) to 15 hours (5 a.m. to 8 p.m.). The table below summarizes the approximate number of additional annual Saturday service hours that would be provided if Saturday service is extended. This does not take into account the preferred system increased frequencies.

Route ID	Route	Current Saturday Service Span	Additional Saturday Service Span Hours	Buses Needed for Current Saturday Frequency	Additional Annual Saturday Service Hours ¹
2	2 - West Medford	11 hours	3.0	1	156.0
10	10 - Ashland	11 hours	4.0	4	832.0
21	21 - Poplar Square	0 hours	13.5	1	702.0
24	24 - RPMC	10 hours	4.0	1	208.0
25	25 - South Medford	10 hours	4.0	1	208.0
30	30 - Jacksonville	10 hours	3.0	1	156.0
40	40 - Central Point	11 hours	3.0	1	156.0
60	60 - White City	10 hours	5.0	2	520.0
61	61 - RCC Table Rock	11 hours	3.0	2	312.0
Total			42.5	14	3,250.0

1. This is an approximation of the additional annual service hours based on the number of buses needed to run to provide the identified frequency for the route. It does not take into account the scheduling of recovery time, dead head hours, or number of bus runs per day.

SYSTEM-WIDE ENHANCEMENT – INCREASED FREQUENCY (WEEKDAY)

Description: The preferred system projects, primarily identified in the mid-term, increase the weekday frequency for the existing routes. For the majority of routes, this includes an increase to 15- or 20-minute headways on weekdays. The table below summarizes the approximate number of additional annual weekday service hours that would be provided if weekday frequencies were increased. This does not take into account the preferred system extended service spans.

Route ID	Route	Current Weekday Service Span	Current Weekday Frequency	Buses Needed for Current Weekday Frequency	Preferred 2037 Weekday Frequency ¹	Additional Buses Needed to Operate Preferred Frequency	Additional Annual Weekday Service Hours ²
2	2 - West Medford	14 hours	30 minutes	1	15 minutes	1	3,570
10	10 - Ashland	15 hours	20-30 minutes	6	15 minutes	2	7,650
21	21 - Poplar Square	13 hours	60 minutes	1	15 minutes	1	3,315
24	24 - RPMC	14 hours	30 minutes	2	20 minutes	0	0
25	25 - South Medford	14 hours	30 minutes	2	15 minutes	0	0
30	30 - Jacksonville	16 hours	60 minutes	1	15 minutes	0	0
40	40 - Central Point	14 hours	30 minutes	3	20-40 minutes	1	3,570
60	60 - White City	15 hours	30 minutes	4	15-30 minutes	2	7,650
61	61 - RCC Table Rock	14 hours	60 minutes	2	30 minutes	2	7,140
Total						9	32,895

1. Mid-term frequency was used because one route is removed in the long-term preferred system. The mid-term preferred system also covers the additional buses needed as future frequency enhancements are added.
2. This is an approximation of the additional annual service hours based on the number of buses needed to run to provide the identified frequency for the route. It does not take into account the scheduling of recovery time, dead head hours, or number of bus runs per day.

SYSTEM-WIDE ENHANCEMENT – INCREASED FREQUENCY (SATURDAY)

Description: The preferred system projects, primarily identified in the mid-term, increase the Saturday frequency for the existing routes. Two routes are identified to maintain the current system frequency for the preferred 2037 and 2042 systems. The table below summarizes the approximate number of additional annual Saturday service hours that would be provided if Saturday frequencies were increased. This does not take into account the preferred system extended service spans.

Route ID	Route	Current Saturday Service Span	Current Saturday Frequency	Buses Needed for Current Saturday Frequency	Preferred 2037 Saturday Frequency ¹	Additional Buses Needed to Operate Preferred Frequency	Additional Annual Saturday Service Hours ²
2	2 - West Medford	11 hours	60 minutes	1	30 minutes	0	0
10	10 - Ashland	11 hours	30 minutes	4	20 minutes	2	1,144
21	21 - Poplar Square	0 hours	-	1	-	-	-
24	24 - RPMC	10 hours	60 minutes	1	20 minutes	1	520
25	25 - South Medford	10 hours	60 minutes	1	30 minutes	1	520
30	30 - Jacksonville	10 hours	60 minutes	1	60 minutes	0	0
40	40 - Central Point	11 hours	60 minutes	1	40 minutes	1	572
60	60 - White City	10 hours	60 minutes	2	30 minutes	2	1,040
61	61 - RCC Table Rock	11 hours	60 minutes	2	60 minutes	0	0
Total						7	3,796

1. Mid-term frequency was used because one route is removed in the long-term preferred system. The mid-term preferred system also covers the additional buses needed as future frequency enhancements are added.
2. This is an approximation of the additional annual service hours based on the number of buses needed to run to provide the identified frequency for the route. It does not take into account the scheduling of recovery time, dead head hours, or number of bus runs per day.

SYSTEM-WIDE ENHANCEMENT – NEW SUNDAY SERVICE

Description: The existing system does not include Sunday service. The preferred system projects, primarily identified in the mid-term, include Sunday service. The system Sunday service span will be approximately 11 hours (7 a.m. to 6 p.m.).

Route ID	Route	Current Sunday Service Span	Additional Sunday Service Span Hours	Buses Needed for Sunday Frequency	Additional Annual Sunday Service Hours ¹
2	2 - West Medford	No existing Sunday service	11.0	1	572.0
10	10 - Ashland		11.0	4	2,288.0
21	21 - Poplar Square		11.0	2	1,144.0
24	24 - RPMC		10.5	1	5,46.0
25	25 - South Medford		10.0	1	520.0
30	30 - Jacksonville		11.0	1	572.0
40	40 - Central Point		11.0	2	1,144.0
60	60 - White City		10.0	2	1,040.0
61	61 - RCC Table Rock		11.0	2	1,144.0
Total			96.5	16	8,970.0

1. This is an approximation of the additional annual service hours based on the number of buses needed to run to provide the identified frequency for the route. It does not take into account the scheduling of recovery time, dead head hours, or number of bus runs per day.

VALLEY FEEDER

Description: The Valley Feeder is a possible alternative form of transit service that RVTD will be exploring in the future. It is a demand-responsive service, which may also be referred to as micro-transit, general public dial-a-ride, and/or a first mile-last mile solution. A system would be created for general public riders to request service from one point to another, rather than the standard fixed route service model where the stops are prescribed.

Opportunities: This service model is a potential alternative in areas where densities are not highly transit supportive or in areas where a fixed route has demonstrated low ridership. Based on current cost estimate information and assuming 14-hour service spans Monday through Saturday, the cost of providing this type of service would be very similar to the cost of running a low-frequency fixed transit route.

Constraints: Demand-responsive service requires additional support through a request service and potentially matching rides to optimize operations.

ROGUE VALLEY CONNECTOR

Description: RVTD currently provides the demand-responsive Rogue Valley Connector (RV Connector) service to the communities of Trail, Shady Cove, Eagle Point, and White City, connecting to the fixed route bus system in Medford. The primary purpose of this service is to provide transportation options for older adults and people with disabilities. If space is available, the general public may reserve seats on a first come, first served basis.

Opportunities: The RV Connector can use out-of-district funding as it provides service outside RVTD's service boundary.

Constraints: Demand-responsive service requires additional support through a request service and potentially matching rides to optimize operations.

HIGH CAPACITY TRANSIT

Description: High capacity transit (HCT) is fixed route transit service that transports higher volumes of passengers through enhancements to the transit vehicles, infrastructure, and/or the frequency of service. Productivity and high quality of service are two main goals of HCT.

Opportunities: HCT can be provided in different forms including but not limited to passenger rail, larger vehicles, and exclusive transit right-of-way. As RVTD works toward the 2042 preferred system, the service options can be further explored to understand what option is most feasible and appropriate for the five identified long-term HCT corridors.

Constraints: To provide true HCT service in the RVTD service area, there would likely need to be infrastructure investment for exclusive transit right-of-way or enhanced transit corridors with transit signal priority or other investments.

HIGH PRIORITIES

Although service enhancements are summarized by general timeframe (short-term, mid-term, and long-term), priorities can shift over time and phasing issues with schedules and fleet may result in mid-term projects occurring before the short-term projects are completed. Table 31 provides an overview of the highest priority projects for the next several years grouped by whether they are funded or unfunded based on the December 2018 ODOT STIF projections. In addition to the operation projects shown in the table, a portion of the STIF funds through 2020-2021 are planned to be used for out of district contingency funds and to purchase four buses.

Table 31: Service Enhancement Priorities

Route ID	Route	Project Description
Funded		
24	24 - RPMC	Adjust route alignment, increase frequency, and hours
A	1X - Ashland Express	New route
B	3 - Eagle Point	New route (out of district funds)
F	26 - East Medford	New route
G	27 - Northwest Medford	New route
40	40 - Central Point	Adjust route alignment and increase frequency
60	60 - White City	Adjust route alignment and increase frequency
C	5 - Ashland Circulator	New route
D	6 - Medford Crosstown	New route
H	29 - Southwest Medford	New route
I	41 - Central Point Circulator	New route
Unfunded		
E	7 - Talent Circulator	New route
J	8 - Beltway	New route
All		Increase Saturday Frequencies
All		Extend Saturday Evening Service (8pm)
All		Extend Weekday Evening Service (10pm)
All		Implement Sunday Service
Rogue Valley Connector		Expand shared-ride service

8.4 CAPITAL PLAN

CAPITAL PROJECTS

Table 32 includes additional transit supportive (non-vehicle) capital improvements identified in Technical Memorandum #8: Community Transit Vision (from prior plans, stakeholder input, and public engagement). The preferred system maps identify potential locations of transfer locations based on locations anticipated to be served by three or more transit routes. Locations served by two buses may warrant some amenities of a transfer station, such as pullouts for two buses if it's a location that with timed transfers or dwelling of both buses.

Table 32: Capital Transit Supportive Improvements and Strategies

Jurisdiction(s)	Location	Enhancement
Route 10		
Ashland	Railroad District	Provide a transit transfer center in the Railroad District
	Railroad District adjacent to Hersey Street	Establish a park-and-ride location or potential central hub
	Plaza	Provide more space for BRT or bus transfers
	The Croman Mill Site	Establish a park-and-ride location or potential central hub
Talent	Talent Depot	Create a transit hub in Talent
	Bramo building area (former Walmart site)	Create a park-and-ride
Route 40		
Central Point	TBD	Create a transfer center
	TBD	Provide Central Point downtown reverse service (currently only the north side of Pine Street receives service)
Route 60		
Central Point	Agate Road near OR 62	Create a park-and-ride
New Routes		
Eagle Point	TBD	Provide park-and-ride facilities
	Town Center	Establish the Town Center as a transit center
Medford	Delta Waters/OR62	Create a transfer center
	South Gateway Walmart	Create a transfer center
Districtwide		
Medford	Front Street Station	Increase capacity by using two sides of the facility
Enhance bus stops to provide covered seating, lighting, schedule information and enhance ADA access.		
Provide connections to existing and proposed pedestrian and bicycle systems		

Table 33: RVTD Capital Investments – Bus Fleet

Bus Type	Short-term 2027 Preferred System	Mid-term 2037 Preferred System	Long-term 2042 Preferred System	Total
Additional Standard Buses Needed	14	27	0 ¹	41
Additional HCT Buses Needed	0	0	37	37

1. 11 buses will become available for use when Routes 1X and 10 are replaced by Routes 10X.



- 9.1 DEPARTMENTAL PLANS
- 9.2 LOCAL COORDINATION AND IMPLEMENTATION
- 9.3 TMP UPDATE SCHEDULE

9.0 IMPLEMENTATION



ROGUE VALLEY TRANSPORTATION DISTRICT 2040 TRANSIT MASTER PLAN

9.1 DEPARTMENTAL PLANS

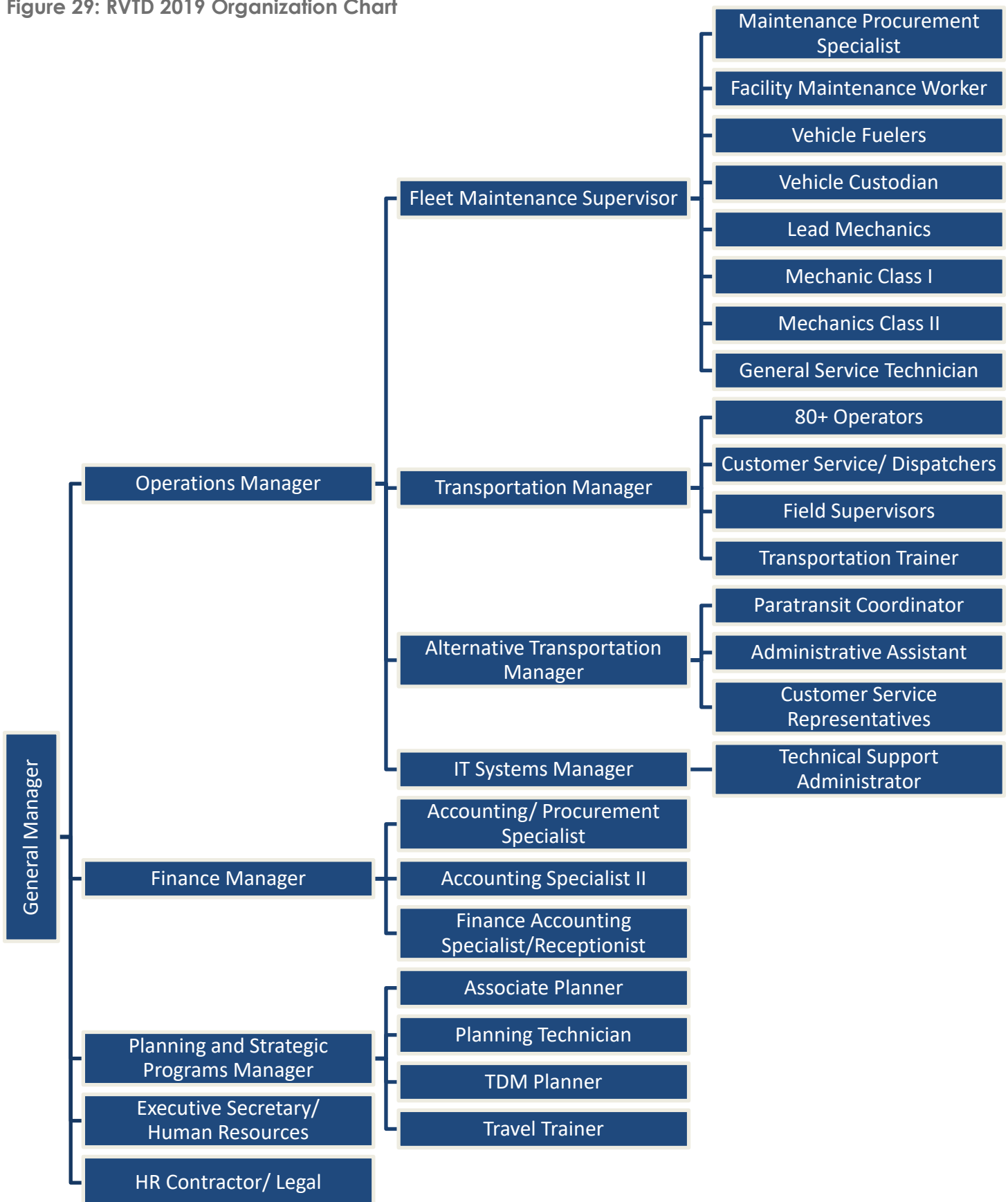
This section outlines the roles and responsibilities of each Rogue Valley Transportation District (RVT) department to implement the 2040 Transit Master Plan (TMP). RVT staff provided input on their respective departments through (1) a survey on the status of, and remaining need for, actions identified in the prior TMP; and (2) a meeting with all department heads about the survey and the 2040 TMP's implementation needs. Based on this input, the department-level plans for implementing the TMP presented below were developed.

The department-level plans identify objectives, action items, and milestones with high-level timelines for completion. Each department should create annual work plans to identify the interim actions and on-going activities necessary each year. These department plans should be revised as needed as RVT evolves.

Figure 29 provides RVT's 2019 organization chart. The departmental plans are organized by the departments shown in this chart.



Figure 29: RVTD 2019 Organization Chart



ADMINISTRATION

RVTD's Administration team handles the district's internal tasks and operations that support all staff in their duties. Tasks include employee tracking, benefits management, and preparing for staff and Board meetings. The Administration team includes staff not shown under other departments in Figure 29, such as the "Executive Secretary/Human Resources" and "HR Contractor/Legal" positions.

The following objectives establish the focus areas of the Administration team with regard to implementing the TMP:

- Provide resources and support to all RVTD staff.

- Support hiring and new staff onboarding activities as RVTD grows.
- Bolster policies to improve consistencies between multiple departments, such as the Planning and Strategic Programs Department and Transportation Department, for better outcomes and expectations.

ADMINISTRATION DEPARTMENT PLAN

The following action items have been identified for the Administration team to support the objectives shown above, identify the department's responsibilities for implementing the TMP, and identify coordination and support needs from other RVTD departments.

Table 34: Administration Department Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Purchase personnel management and tracking software.	Action	No	Within 2 years	—
2	Improve File Management (storage, e-file, etc).	Action	No	Within 2 years	H/R, Finance
3	Expand office to accommodate HR and Reception.	Action	No	Within 2 years	H/R, Finance
4	Improve entry and security at front reception.	Action	No	Within 2 years	H/R, Finance
5	Improve meeting/ space management and calendar.	Action	No	Within 2 years	—
6	Training on website postings and adding online materials for the public.	Action	No	Within 2 years	—
7	Hire an HR professional to assist with employee tracking, discipline, and benefit functions.	Action	No	Within 5 years	—
8	Support each department to create an annual work plan to address the necessary actions for the year and on-going activities.	On-going	Yes	On-going	All
9	Arrange monthly staff meetings and Board study sessions.	On-going	Yes	On-going	—

FINANCE DEPARTMENT

The Finance Department manages all tasks related to money. Its responsibilities include producing an annual budget, performing accounting functions, and supporting procurement processes. As shown in Figure 29, the Finance Department includes all positions supporting the Finance Manager.

The following objectives establish the focus areas of the Finance Department with regard to implementing the TMP:

- Create a budget that allows RVTD to provide convenient and reliable service.

- Understand, evaluate, and leverage existing and future funding opportunities.

FINANCE DEPARTMENT PLAN

The following action items have been identified for the Finance Department. The action items support the objectives shown above, identify the department's responsibilities for implementing the TMP, and identify coordination and support needs from other RVTD departments.

Table 35: Finance Department Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Hire a receptionist and separate receptionist/Touch Pass duties from finance duties.	Action	No	Within 2 years	Administration
2	Support levy renewal or replacement funding alternative.	On-going	NA	Within 2 years	Administration and Planning
3	Adopt a procurement software.	Action	No	Within 2 years	IT Systems
4	Streamline annual PO process for ongoing services.	Action	No	Within 2 years	-
5	Prepare CAFR and make it publicly available.	Action	No	Within 2 years	Marketing
6	Visit the financial reports to the Board.	Action	No	Within 2 years	Administration
7	Conduct a fare analysis to understand impacts of options including increasing fare, decreasing fare, providing fare on a sliding scale, instituting a low-income bus pass program, using a differential tax along transit corridors, and/or providing free fare for specific populations of riders.	Action	No	Within 2 years	Finance, Operations, Transportation
8	Monitor and project existing funding sources.	On-going	No	On-going	Administration and Planning

OPERATIONS DEPARTMENT

The Operations Department handles tasks and staff related to the management and operation of the vehicle fleet and district facilities. As shown in Figure 29, the Operations Department includes all positions supporting the Operations Manager, including mechanics, maintenance staff, and technicians. Because of the diversity of the work completed through this department, three development plans have been developed and are presented below: facility planning, transfer stations/major bus stops, and fleet planning. The following objectives

establish the focus areas of the Operations Department:

- Provide more training district-wide.
- Improve internal and external customer satisfaction with facilities and vehicles.
- Reduce vehicle down-time.
- Increase usable footprint at main campus.
- Improve customer and employee experience at Front Street Station.
- Continue maintenance of fleet and facilities.

FACILITY PLANNING

The following action items have been identified for the Operations Department related to facility planning in implementing the TMP.

Table 36: Operations Department - Facility Planning Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Complete the Front Street Station Master Plan to understand its capacity and the needed additional facilities to support staffing, bus storage, waiting areas, ticket sales, and other RVTB activities. Potentially impacted facilities include the proposed Medford Intermodal Transfer Center (MITCh), the Operations and Drivers Lounge building, and Bus Barn.	Action	No	Within 2 years	Transportation, Planning
2	Complete a RVTB Main Facility Master Plan to determine development of the new property and further development of the existing campus, including amenities and needs for drivers, supervisors, and training space.	Action	No	Within 2 years	Transportation, Planning
3	Expand security camera coverage at Front Street Station.	Action	No	Within 2 years	IT Systems
4	Monitor the Greyhound lease that expires in 2024 and next steps for that property.	Action	No	Within 5 years	Finance
5	Evaluate the amount of electricity the district uses and explore possible implementation of solar or wind energy to power some systems.	Action	No	Within 5 years	IT Systems
6	Maintain the Talent Park and Ride as an asset.	On-going	No	On-going	Finance
7	Continue to plan and develop Front Street Station to accommodate anticipated growth.	On-going	No	On-going	Transportation, Planning

TRANSFER STATION/MAJOR BUS STOP PLANNING

The following action items have been identified for the Operations Department in terms of transfer station/major bus stop planning and development in implementing the TMP.

Table 37: Operations Department – Transfer Station/Major Bus Stop Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Identify location for a transfer station or major bus stop in Central Point along Hwy 99.	Action	Yes	Within 5 years	Transportation, Planning
2	Identify location for a transfer station or major bus stop in Central Point west of Hwy 99 in Twin Creeks TOD.	Action	Yes	Within 5 years	Transportation, Planning
3	Identify location for a transfer station or major bus stop in Ashland within the new Railroad District.	Action	Yes	Within 5 years	Transportation, Planning
4	Identify location for a transfer station or major bus stop in West Medford within the West Main TOD.	Action	Yes	Within 5 years	Transportation, Planning
5	Identify location for a transfer station or major bus stop in Southeast Medford within the SE TOD.	Action	Yes	Within 5 years	Transportation, Planning
6	Identify location for a transfer station or major bus stop in Phoenix on the west side of Hwy 99.	Action	Yes	Within 5 years	Transportation, Planning
7	Identify location for a transfer station or major bus stop in Phoenix on the east side of I-5.	Action	Yes	Within 5 years	Transportation, Planning
8	Identify location for a transfer station or major bus stop in White City near Antelope & Hwy 62.	Action	Yes	Within 5 years	Transportation, Planning
9	Identify location for a transfer station or major bus stop in Northwest Medford near Hwy 99 & Hwy 62.	Action	No	Within 5 years	Transportation, Planning
10	Identify location for a transfer station or major bus stop in Northeast Medford east of the airport.	Action	No	Within 10 years	Transportation, Planning

FLEET PLANNING

The following action items have been identified for the Operations Department in terms of fleet planning in implementing the TMP.

Table 38: Operations Department - Fleet Planning Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Complete an alternative fuels/battery electric bus study.	Action	No	Within 2 years	Finance, Planning
2	Create a capital replacement schedule working with the finance department, including a bus purchasing plan to prepare for fleet expansion.	Action	Yes	Within 2 years	Finance, Planning

TRANSPORTATION DEPARTMENT

The Transportation Department supports the in-field operations of the transit system. Vehicle operators, customer service staff, dispatchers, field supervisors, and trainers make up this department. As shown in Figure 29, the Transportation Department includes all positions supporting the Transportation Manager.

The following objectives establish the focus areas of the Transportation Department with regard to implementing the TMP:

- Provide an environment to support staff growth and development.
- Increase employee and customer safety.
- Provide excellent customer service.

FIXED-ROUTE TRANSPORTATION/BUS OPERATIONS DEPARTMENT PLAN

The following action items have been identified for the Transportation Department. The action items support the objectives shown above and identify the department's responsibilities for implementing the TMP.

Table 39: Transportation Department Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Purchase laptops for Field Supervisors with internet connection for use in field.	Action	Yes	Within 2 years	Finance, IT Systems
2	Purchase and install lockers to accommodate new employees.	Action	No	Within 2 years	Finance, Operations
3	Secure a vendor with all on-board system capabilities in one app, including General Transit Feed Specification (GTFS) and real-time rider information.	Action	No	Within 2 years	Operations, Planning, IT Systems
4	Establish a minimum relief time based on the route length (i.e., ensure 8-hour runs have a minimum of 30 minutes break time, 10-hour runs have a minimum of 45 minutes break time, etc.)	Action	No	Within 2 years	Planning
5	Purchase an advanced customer service program.	Action	No	Within 2 years	Finance, IT Systems
6	Purchase permanent radio for the Field Supervisors' vehicles.	Action	No	Within 2 years	Finance, IT Systems
7	Create secured records storage.	Action	Yes	Within 2 years	Administration, IT Systems
8	Establish a union contract that allows for flexibility of future service models.	Action	No	Within 2 years	Administration, Transportation
9	Hire an Operations Administrative Assistant.	Action	Yes	Within 5 years	—
10	Create a large outside training area for Obstacle Avoidance and Fire Extinguisher training.	Action	Yes	Within 10 years	Operations
11	Purchase Driving Simulator training module for any and all types of weather, road, and driving	Action	Yes	Within 20 years	Operations, IT Systems

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
	conditions, preparing employees for all types of situations in a safe, controlled environment.				
12	Monitor Driver, Coach Operator, Customer Service Dispatch (CSD) Agent, and Field Supervisor needs as service hours or miles are extended.	On-going	Yes	On-going	Operations, Planning
13	Purchase computers, phones, one printer, and other basic office equipment for new staff.	On-going	Yes	On-going	Administration, Finance, IT Systems
14	Provide Accident Investigation Training, Drug & Alcohol Awareness Training, and Harassment Training for Field Supervisors and Transportation Manager.	On-going	Yes	On-going	HR
15	Monitor and revise as needed the control system for signal priority.	On-going	Yes	On-going	Operations, Planning, IT Systems
16	Monitor full-time security guard needs for Front Street Station and any other transfer stations that are established.	On-going	Yes	On-going	Operations
17	Purchase and install security cameras at Front Street Station and any other transfer stations that are established.	On-going	Yes	On-going	Operations, IT Systems
18	Establish and maintain a Secret Rider program to assist in Customer Service evaluations of all employees.	On-going	No	On-going	—
19	Monitor and purchase as needed additional staff vehicles to allow for uninterrupted shift changes.	On-going	No	On-going	Finance, Operations
20	Review transfer times for the system and modify as needed (i.e., provide longer transfer times, modify route timing, etc.).	On-going	No	On-going	Planning, Operations

PLANNING AND STRATEGIC PROGRAMS DEPARTMENT

The Planning and Strategic Programs Department develops and implements goals, plans, and programs to further the reach of the district's transit service. Tasks include evaluating current service, recommending service enhancements, and marketing the programs provided by the district. As shown in Figure 29, the Planning and Strategic Programs Department includes all positions supporting the Planning and Strategic Programs Manager. Because of the diversity of the work completed through this department, three separate development plans have been developed and are presented below.

The following objectives establish the focus areas of the Planning Department with regard to implementing the TMP:

- Maintain good relationships with city staff and community organization staff.
- Maintain passenger surveys and public input.
- Encourage higher-density land uses to be built near transit.
- Increase the integrity of GTFS, real-time arrivals, and electronic information to improve passenger information.
- Stay informed about new technology and service models.
- Streamline ridership information to an easier management system.
- Transition bus stop inventory to a streamlined system.
- Maintain and improve marketing, travel training, and public outreach.
- Provide additional Transportation Options programs and activities.

PLANNING ACTION PLAN

The following action items have been identified for the Planning and Strategic Programs Department related to planning actions to support implementation of the TMP.

Table 40: Planning and Strategic Programs Department - Planning Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Monitor the microtransit service model and adopt service standards. Consider staffing responsibility for ongoing oversight of operations.	Action	No	Within 2 years	Operations, Transportation
2	Transition the Run Board responsibility to Planning.	Action	No	Within 2 years	Operations, Transportation
3	Organize bus stop easements, locations, rights for current and future route planning.	Action	No	Within 2 years	-
4	Update the bus stop amenities data.	Action	No	Within 2 years	-
5	Update and monitor Safety and Security plan.	Action	No	Within 2 years	Operations, Transportation
6	Update United We Ride Plan for 2022 adoption.	Action	No	Within 2 years	Alternative Transportation

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
7	Model heavy rail, Hwy 99 BRT, and I-5 express to understand options.	Action	No	Within 2 years	Operations, Transportation
8	Work with Medford school district to further their safe routes to school program and identify gaps in pedestrian connections to bus routes.	Action	No	Within 2 years	—
9	Study the potential impacts if the region becomes a transportation management area (TMA), including impacts to funding and service.	Action	No	Within 2 years	All
10	Provide a GIS web app resource for inventory of existing stops and routes, deficient stops, wanted stops on existing routes, and future routes. Include tax lots so that local jurisdictions and developers can zoom in during development reviews.	Action	No	Within 2 years	Operations, IT Systems
11	Work with local jurisdictions on transit route/bus stop guidance or guidelines, with potential to bring in ODOT for review. Identify the development review process and how transit is accounted for within that process.	Action	No	Within 5 years	Operations, Transportation, IT Systems
12	Work with jurisdictions to provide a General Land Use Plan (GLUP) zoning designation for areas being brought into UGB.	On-going	No	On-going	—
13	Organize performance monitoring of service and make report public.	On-going	Yes	On-going	Operations, Transportation
14	Provide GIS training to Planning staff for preparing service maps and to evaluate service areas.	On-going	Yes	On-going	—
15	Establish service standards for existing and new service and make more public.	On-going	Yes	On-going	Operations, Transportation
16	Monitor staff needs for procurement, admin, and finance tasks for the Planning Department.	On-going	No	On-going	Administration, Finance
17	Provide cross training between the Planning Department and Transportation Department, including designating roles for tasks.	On-going	No	On-going	Transportation
18	Continue the triennial passenger surveys on new services. Find ways to get non-riders to provide feedback on how they could become riders.	On-going	No	On-going	—
19	Create a citizen's advisory committee.	On-going	No	On-going	—
20	Create and maintain a bus stop inventory, including ADA-compliant or deficient stops. Provide in a GIS format for easy distribution to local jurisdictions.	On-going	No	On-going	Operations, Transportation, IT Systems
21	Monitor passenger boarding data near limited time parking and paid parking areas.	On-going	No	On-going	—
22	Look at opportunities to pursue heavy passenger rail.	On-going	No	On-going	—

TRANSPORTATION DEMAND MANAGEMENT (TDM) ACTION PLAN

Through its Planning and Strategic Programs Department, RVTB provides the region's Transportation Options (TO) program, known as the Way To Go Program. Technical Memorandum #13: Transportation Options outlines the programs and events RVTB currently provides to the community. The section below highlights recommendations for updates and additions to the program.

Potential New Programs and Services

The following are potential programs and services that could be created to add to the robust set of offerings RVTB provides through the Way To Go Program.

- Create a RVTB-provided vanpool system including areas outside RVTB's service area, such as Grants Pass and Tolo.
- Establish a Safe Routes to School program that can house all youth education programs and work with pedestrian and bicycle advocacy groups to expand the number of events, classes, and activities.
- Add another tool to the Employer Commute Solutions that would further enhance employer knowledge of traditional employer-based transportation demand management (TDM) techniques such as telecommuting, staggered work hours, and compressed work weeks through expanded education material. Additional support could be explored for helping employers develop their own TDM plans.

- Create a commute cost calculator to compare annual cost of the available mode options and further promote transportation options other than the single-occupancy vehicle.
- Create an individualized marketing program that provides personalized information about transportation options to individual residents. An example is the Portland Bureau of Transportation's (PBOT's) SmartTrips Program⁶, which allows community members to provide basic information about their essential destinations and receive hand-delivered packets and personalized emails describing their transportation options. These types of programs can also go door-to-door in neighborhoods with multiple transportation options available to discuss an individual's options. This approach considers that it is not "one size fits all" when it comes to transportation options. Different community and neighborhood characteristics, such as land use and geography, can greatly impact what modes are available in different portions of the Rogue Valley.
- Provide a transportation combination plan where a single monthly or annual pass grants the user access to a transit pass, bikeshare pass, carshare (up to a defined dollar amount), and/or taxi service (up to a defined dollar amount) at a discounted rate. PBOT provides an example program called the Transportation Wallet⁷, where residents who live in specified areas of the city

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<https://www.portlandoregon.gov/transportation/article/625239>

7

<https://www.portlandoregon.gov/transportation/78470>

can pay a single price for access to transit, streetcar, bikeshare, and carshare or trade in a parking pass to receive the benefits are free.

- Provide free fare for senior citizens, veterans, and other users of the system.

Action Items

The following action items are recommended for the TDM Planner/Marketing Coordinator to focus on to continue to improve the Way To Go Program.

Table 41: Action Items for the Transportation Options Program

#	Description	Timeline	Support
1	Update the Way To Go Program branding to be separate but complementary to RVTD's transit services. All components of the TO program are housed under the Way To Go Program and will use the same branding. Create an official logo and use this logo on all marketing and outreach to provide consistent branding, including the RVTD website.	Within 2 years	NA
2	Update the "Your Options" section of all materials and the website to include educational information about for-hire transportation services and apps, such as ride-hailing or carshare companies.	Within 2 years	For-hire transportation companies operating in the Rogue Valley
3	Explore opportunities to partner with for-hire transportation companies for first mile/last mile connections.	Within 2 years	For-hire transportation companies operating in the Rogue Valley
4	Create a communications plan, with identified audiences/dates/individualized marketing.	Within 2 years	NA
5	Update all materials and the website to provide information about mobility options to points outside the Rogue Valley and where and how RVTD connects to them. Link the regional public transit services page and the Way To Go page on the district's website.	Within 2 years	Regional and external transportation services partners
6	Restructure the Way To Go program webpages of the RVTD website to make the information more manageable and easy to navigate. Remove duplicate pages or information.	Within 2 years	NA
7	Review and update all materials and the website to use the same terminology and make the target audience clear for each service. For example, always refer to the employer-based services as "Employer Commute Solutions" and not "Employer Commute Services" or "Commute Trip Reduction Services" or to provide more clarity that these are services for employers and not directly for commuters call them "Employer Solutions".	Within 2 years	NA
8	Work with ODOT to create a full Transportation Options Strategic Plan.	Within 5 years	ODOT, regional, and local jurisdictions
9	Work with local jurisdictions to increase their capacity to provide TDM programming and support, either independent or in coordination with RVTD.	Within 5 years	Local jurisdictions
10	Create an annual Transportation Partnership Inventory. Catalog TO partnerships across the Rogue Valley and determine level of partnership.	On-going	Partners

#	Description	Timeline	Support
11	Continue outreach to existing partners, including employers. Administer working sessions with partners and stakeholders.	On-going	Partners
12	Continue to explore new partners, such as bicycle and pedestrian advocacy groups and major employers.	On-going	Potential partners
13	Outreach to new target audiences (such as minority populations, youth, and others), not just the commuting public.	On-going	NA
14	Review and gather local TDM ordinances in Southern Oregon to identify potential opportunities to collaborate on shared transportation option goals. Identify barriers or gaps in Transportation Options Policies.	On-going	Local and regional jurisdictions
15	Sit on local transportation committees to provide transportation options guidance and perspective.	On-going	City of Medford Bicycle Pedestrian Advisory Committee, Ashland Transportation Commission, Jackson County Bicycle Committee, Grants Pass Walkways and Bikeways Committee, AARP Livability Group
16	Get There administration and training to learn the new rideshare and trip-logging platform, acquire donations for year-round use, and administer Get There and related campaigns.	On-going	ODOT
17	Get There promotion and outreach to educate existing and new partners, employers, and network about the tool functionality. This includes major promotional efforts to encourage registrations.	On-going	ODOT
18	Administer Annual Participant Survey and increase participation each year.	On-going	ODOT
19	Monitor need for additional staff.	On-going	NA
20	Explore new technology such as apps, social media, and other tools to support the TO program. When new tools are added to RVTD's services, update all materials and the website to reference the current services available and create a marketing or campaign strategy to share with the traveling public.	On-going	NA
21	Participate in Medford's Safe Routes to School Task Force.	On-going	Local jurisdictions
22	Continue to increase the network of Employee Transportation Coordinators (ETCs).	On-going	Partners
23	Work with local governments to combat congestion problems, such as the continued effort with the City of Medford and local employers on the 2018 Exit 27 Congestion Mitigation Program.	On-going	Local and regional jurisdictions
24	Enlist at least one new employers into the bus pass program each year.	On-going	Local employers
25	Market park-and-ride facilities and monitor the ability to add more throughout RVTD's service area.	On-going	Local jurisdictions

#	Description	Timeline	Support
26	Monitor usage of existing programs and periodically evaluate need for changes. Underutilized and duplicative programs could be targets for improvement to make them more useful to the target audience, to focus on awareness and marketing, and/or to eliminate and use resources elsewhere.	On-going	NA
27	Consider new programs and services to add to the Way To Go Program, such as RVTB-provided vanpool system, a Safe Routes to School program, an employer TDM support program, or others listed above.	On-going	NA
28	Provide long-term/secure bicycle parking at park-and-ride facilities and transit stations.	On-going	Local jurisdictions
29	Work with local agencies to improve bike access to transit stations and stops.	On-going	Local jurisdictions
30	Explore partnering with for-hire transportation services and apps, such as Lyft or Uber.	On-going	Potential partners
31	Consider other promotions similar to the Rogue Transit Trails Passport completed in 2016.	On-going	Local businesses
32	Conduct annual ETC surveys to understand what barriers ETCs are facing to encourage coworkers to use different modes, gain ideas about new services or enhancements, and better support the ETC role.	On-going	Partners
33	Work with other City governments to create Open Streets events throughout the Rogue Valley with support from RVTB.	On-going	Local Jurisdictions
34	Update the commute solutions toolkit as programs and services change.	On-going	NA
35	Seek partnerships with employers who rely on transit for workforce to provide monetary support for the service.	On-going	Large employer partners
36	Work with United Way's transportation committee to further the program and help promote what is available.	On-going	United Way
37	Promote ability to provide travel training and other programs in Spanish.	On-going	NA

MARKETING ACTION PLAN

The following action items have been identified for the Planning and Strategic Programs Department in terms of marketing consistent with the TMP.

Table 42: Planning and Strategic Programs Department - Marketing Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Provide customer service training and improve communication tools for bus stops complaints, service complaints and tracking requests for service, etc.	Action	No	Within 2 years	Administration, Transportation
2	Install and maintain schedules in each bus shelter.	On-going	Yes	On-going	Operations
3	Continue conventional marketing emphasizing TV, radio, and newspaper.	On-going	Yes	On-going	—
4	Continue unconventional marketing: booths, events, and liaison activities.	On-going	Yes	On-going	—
5	Continue schedule distribution and streamline process.	On-going	Yes	On-going	—
6	Interactive Bus Program: bring one new theme each 5 years.	On-going	Yes	On-going	—
7	Maintain brand and motto use in all publications.	On-going	Yes	On-going	—
8	Create separate branding for TO programs that make users aware that there are different programs all under the RVTB umbrella.	On-going	Yes	On-going	—
9	Conduct specialized outreach for new routes and services, such as flyers and postcards.	On-going	No	On-going	—
10	Improve the riders app.	On-going	No	On-going	—
11	Work with local jurisdictions to market RVTB services and programs through utility bills or when other announcements are sent out to citizens. Potential opportunities include water bills, announcements through the office of the city manager, and the Parks and Recreation pamphlets that many jurisdictions send out each season.	On-going	No	On-going	—

ALTERNATIVE TRANSPORTATION DEPARTMENT

The Alternative Transportation Department handles all tasks related to the district's paratransit services. As shown in Figure 29, the Alternative Transportation Department includes all positions supporting the Alternative Transportation Manager.

The following objectives establish the focus areas of the Alternative Transportation Department with regard to the TMP:

- Improve online scheduling access.
- Improve scheduling software configuration to more efficiently schedule rides.
- Improve phone system operability and features allowing automation and opportunities to gather satisfaction information.
- Create one seamless scheduling system that allows all trips to be coordinated more efficiently, including non-emergency medical transportation (NEMT) and American with Disabilities Act (ADA) trips.
- Increase training for staff on working with vulnerable populations (individuals

with disabilities, low income, seniors, etc.).

- Identify better opportunities to shift able-bodied riders from the higher-cost ADA trips to fixed route (software driven).
- Create online fillable applications that streamline the application process for Valley Lift and Rogue Valley Connector.
- Improve coordination between accessible transportation and fixed route planning to ensure timely dissemination of information, such as final decisions on route changes and changes in route schedules.
- Improve ADA fleet to allow increased transport opportunities (increased trips per hour), providing more room for grouping/sharing.

ALTERNATIVE TRANSPORTATION/VALLEY LIFT DEPARTMENT PLAN

The following action items have been identified for the Alternative Transportation Department to implement the TMP.

Table 43: Alternative Transportation Department Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Re-evaluate and update eligibility screening process.	Action	Yes	Within 2 years	—
2	Evaluate and update fare instrument to decrease overhead and provide more convenience for passengers. Evaluate potential to procure TouchPass on rubber bracelets for non-ambulatory passengers.	Action	Yes	Within 2 years	Operations, Transportation, IT Systems
3	Transfer all client files to a digital format.	Action	Yes	Within 2 years	IT Systems
4	Purchase and implement new ID card system.	Action	Yes	Within 2 years	IT Systems

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
5	Create portal software for Medicaid department with a focus on opportunities to coordinate NEMT trips with ADA.	Action	No	Within 2 years	IT Systems
6	Evaluate and update scheduling software.	Action	No	Within 2 years	Planning, IT Systems
7	Evaluate and update MDT/AVL hardware/software.	Action	No	Within 2 years	Planning, IT Systems
8	Work with IT to plan for potential issues during a disaster or massive equipment failure.	Action	No	Within 2 years	IT Systems
9	Provide negotiation and customer service training to all CSR's.	On-going	Yes	On-going	Transportation
10	Address and strive to meet and maintain regional transportation goals as set forth by the Coordinated Human Services Committee for the region.	On-going	Yes	On-going	—
11	Assess bus stop amenities for passengers when requiring them to use the bus over Valley Lift.	On-going	No	On-going	Planning, IT Systems

IT SYSTEMS DEPARTMENT

The IT Systems Department supports all district staff with IT-related tasks. As shown in Figure 29, the IT Systems Department includes all positions supporting the IT Systems Manager.

The following objectives establish the focus areas of the IT Systems Department related to implementing the TMP:

- To provide a reliable, flexible, and secure infrastructure which can facilitate the district's current and future technology requirements.

- To provide prompt and knowledgeable support for all IT/ITS-related issues and systems.
- To provide assistance and support for other departments when evaluating technology solutions.

IT SYSTEMS DEPARTMENT PLAN

The following action items have been identified for the IT Systems Department to support implementation of the TMP.

Table 44: IT Systems Department Action Items

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
1	Gsuite migration to Office365 for email, calendar, and collaboration.	Action	No	Within 2 years	Administration
2	New phone system programming and roll-out.	Action	No	Within 2 years	—
3	Replace modems on fixed-route vehicles with Cradlepoint hardware.	Action	No	Within 2 years	Operations
4	Phase out the Meraki network devices and implement a more robust solution.	Action	No	Within 2 years	—
5	Implement VPN solution for remote access to fixed-route vehicle systems.	Action	No	Within 2 years	—
6	Implement a Transit Signal Priority system for fixed-route vehicles. Evaluation occurring currently.	Action	No	Within 2 years	Operations, Transportation, Planning
7	Evaluate and implement passenger WiFi for fixed-route vehicles.	Action	No	Within 2 years	Operations
8	Implement modern security requirements for all systems.	Action	No	Within 2 years	—
9	Provide a disaster recovery solution for network, internet, and critical systems.	Action	No	Within 2 years	—
10	Evaluate and implement a new CAD/AVL system for fixed-route vehicles.	Action	No	Within 2 years	Operations, Planning
11	Evaluate and implement Oregon Brokerage Software (OBSS) replacement software for TransLink.	Action	No	Within 5 years	Alternative Transportation
12	Rebuild server environment and network infrastructure.	Action	No	Within 5 years	—

#	Description	Action or On-going Activity?	In Previous Plan?	Timeline	Supporting Departments
13	Evaluate and implement updated digital signage for passenger announcements and schedule notification at transfer stations and major bus stops. For some locations, explore options to purchase and install Reader Boards that give estimated arrival times of buses with messages and voice recordings.	On-going	Yes	On-going	Operations
14	Reduce the amount of electricity the district uses on computer equipment by investing in energy-efficient monitors, computers, and other technology equipment. Possible implementation of solar or wind energy to power some systems.	On-going	Yes	On-going	Finance, Operations
15	Monitor IT staff needs as RVTD expands.	On-going	Yes	On-going	—
16	Manage RideTeam software development to fulfill OBSS Grant.	On-going	No	On-going	—
17	Assist other departments with adjusting their business processes to use the technology solutions provided more effectively.	On-going	No	On-going	—
18	Evaluate and update security and disaster response features and processes to remain current with technology advances.	On-going	No	On-going	—

FUTURE CONSIDERATIONS

Due to the variability that is part of a 20-year planning horizon, it is recommended that RVTB revisit the above department plans and action items annually. As technology, funding, and RVTB services change, each department's needs will also change. The following questions are recommended for monitoring and consideration on a yearly basis:

- Does RVTB have new staffing needs?
- Has technology evolved to a point where an action may be shifted or require different equipment or support?
- Have departmental responsibilities shifted or changed?
- What changes have occurred at different levels of government, and how do they change or influence RVTB operations?

9.2 LOCAL COORDINATION AND IMPLEMENTATION

In order to implement the identified enhancements, coordination with all local and regional partners will be important. Local partners and stakeholders not only need to express support for service enhancements listed in Table 32 but also contribute or lead the efforts identified in the capital plan below. The near-term, mid-term, and long-term preferred systems were developed in collaboration with local jurisdictions and stakeholders through small group discussions and committee meetings described in Section 2.

As discussed in the departmental plans, RVTB will work with local jurisdictions to establish transit route/bus stop guidance within the next

five years. RVTB and local jurisdictions will determine code modification recommendations, including defining terms such as "major bus stops" and providing better coordination for land use development. It is recommended that RVTB work with jurisdictions to set a process for regulating which development applications are reviewed by RVTB, taking into account both existing and future transit routes and bus stops.

RVTB will further explore options for sharing existing and future transit routes and bus stop information to jurisdictions, such as an online GIS tool.

9.3 TMP UPDATE SCHEDULE

The TMP should be updated every five to ten years to allow RVTB to prioritize the future, monitor progress in implementing identified projects, update the future financial outlook and planning, and to verify and update the population, land use, and growth trends used to determine and prioritize service enhancements. It is important to check progress since the last TMP and to realign

goals, priorities, and projects based on the new "existing" and "future" systems.