Council Business Meeting

March 5, 2019

Agenda Item	Acceptance of the Transit Expansion Study as a Planning and Prioritization Document	
From	Scott Fleury PE	Deputy Public Works Director
Contact	scott.fleury@ashland.or.us	541-552-2412

SUMMARY

Before the Council is a request to accept the Transit Expansion Study developed by Nelson Nygaard as a planning and prioritization document. The study details a list of flexible strategies to enhance transit within the City of Ashland along with infrastructure improvements to support accessibility to existing/proposed transit services.

POLICIES, PLANS & GOALS SUPPORTED

City Council:

4. Evaluate real property and facility assets to strategically support city mission and goals.
21. Be proactive in using best practices in infrastructure management and modernization

Department Goals:

- Maintain existing infrastructure to meet regulatory requirements and minimize life-cycle costs.
- Maintain and improve infrastructure that enhances the economic vitality of the community.
- Evaluate all city infrastructure regarding planning management and financial resources.

Climate Action Energy Plan: Strategy ULT-1. Support Better Public Transit and Ridesharing

- ULT-1-1. Coordinate with neighboring local governments to promote use of transit, carpooling, and car-sharing.
- ULT-1-2. Work with RVTD to implement climate-friendly transit.
- ULT-1-3. Establish policies to support development near transit hubs without displacing disadvantaged populations.
- ULT-1-4. Evaluate Feasibility of expanded local transit options.

PREVIOUS COUNCIL ACTION

The Council previously awarded a Transit Expansion Study contract to Nelson\Nygaard at the February 20, 2018 Business meeting. The goal of the Transit Expansion Feasibility Study was to evaluate the mobility needs of residents, employees and visitors in the City of Ashland, and how public transportation might best meet those needs today and in the future. Outcomes of the project developed a flexible set of strategies the City may consider to enhance public transportation, including actions, partners and other resources needed to implement those strategies.

The Council also approved a grant application letter of support to Rogue Valley Transportation District (RVTD) for a demand response "micro-transit" pilot project within the City of Ashland at the January 15, 2019 Business Meeting. The demand response service was one of seven strategies developed in the Transit Expansion Study.

The Council received a presentation on the complete Transit Expansion Study completed by Nelson Nygaard at the March 4, 2019 Study Session.

BACKGROUND AND ADDITIONAL INFORMATION

The City has long shown support for public transit and RVTD. The City previously subsidized transit fares for trips originating in Ashland, and currently subsidizes transit fares for elementary through high school students and seniors (age 65 and over). Voters within the City voted for RVTDs operation levy on the 2017 ballot that increased service hours and headways on certain routes.

The City adopted the Climate Energy Action Plan (CEAP) that details goals and strategies to reduce the localized carbon impact on the environment. The Plan identified a goal of working with RVTD to implement expanded local transit options, and to incorporate climate friendly transit options. In order to support the plan, a focus point for Ashland's citizens, the Transportation Commission (TC) and Public Works recommended the Transit Expansion Study to lay the groundwork for future transit enhancements. The TC heard from numerous residents regarding the importance of improved transit and the need for low- or no-emissions propulsion technologies as part of the assessment.

Since award of contract for the Transit Expansion Study in February 2018 to Nelson\ Nygaard, the project team has worked to develop two technical memorandums and an executive summary with respect to potential transit enhancements within and to the city.

All documents were reviewed by an internal technical advisory group that consisted of Paige West, RVTD Planning and Strategic Program Manager; Bruce Borgerson, Transportation Commission; Michael Dawkins, Planning Commission; Maria Harris, Planning Manager; David Lohman, City Attorney; Fred Creek, Southern Oregon University Director of Campus Safety; and Scott Fleury, Deputy Public Works Director. In addition, information and documents were presented before the Transportation Commission three (3) times during study development. The Transportation Commission took public input during each presentation and Nelson\Nygaard took this information into account along with all other public outreach information in the development of the final study.

The study has developed a list of flexible strategies for improving transit that include fixed route services (intra-city and inter-city), demand response services within the City, propulsion technologies, infrastructure capital improvements, and transportation programs to support accessibility to transit, and help to reduce greenhouse gas emissions and vehicle miles traveled (VMT). Strategies for transit expansion are detailed with implementation details and action plans that align with near term and long-term requirements for successfully implementing the strategy. The study also provides metrics that can be used to measure the success of the strategies that are formally implemented. Coordination between the City and RVTD to formally develop the metrics is important to determine if future funding by RVTD or subsidies from the City are cost effective.

Strategies formally developed include:

- Local Fixed Circulator Route
    - A local route with 60-minute headways that provide access to transit on Ashland Street, Clay Street, East Main Street, Hersey Street and Maple Street (hospital)
    - This route also provide paratransit coverage to Mountain Meadows
- Central Corridor Shuttle
    - Primary corridor transit improvements with 30-minute headways on Main Street and Ashland Street
    - Route provides capacity and frequency to several key destinations
- Medford-Ashland Express
    - Additional route from Medford to Ashland on the I5
    - Reduces travel time from Medford to Ashland by approximately 20 minutes
    - Would operate during route 10 peak congestions times (approximately 10 AM to 4 PM)

- General Public Demand Response
    - Flexible program using Ford Hybrid ADA accessible passenger vans
    - Provides curb to curb and regional connections
- Bicycle/Pedestrian Investments and Bus Stop Infrastructure
    - Improve first mile pedestrian connections
    - Improve transit stops (seating and lighting)
    - Rogue Bike Share support
    - Additional bicycle parking/storage
- Electrification of fleet
    - Support future electrification of RVTD fleet
    - Develop charging infrastructure for potential future fleet changes
- Marketing and Transportation Demand Management
    - Develop and market information to the public regarding transit and transportation options

At the December 2018 TC meeting Nelson\Nygaard presented the final technical memorandum documents for the Transit Expansion Study (excluding the executive summary). The Commission discussed the documents and potential grant funding opportunities through RVTD to support enhanced transit within the city. The TC then structured two recommendations, one that recommended Council support of an RVTD grant application, and one that recommended Council acceptance of the Transit Expansion Study as a planning and prioritization document.

Transportation Commission Motion #1:

> Graf moved for the Transportation Commission to recommend the City Council provide a letter of support for the RVTD Demand Response Micro-Transit Demonstration Project. Borgerson seconded. All ayes. Motion passed.

Transportation Commission Motion #2:

> Graf moved TC recommend City Council accept the Transit Expansion Study report for planning and prioritizing future transit projects. Borgerson seconded. All ayes. Motion passed.

If the demand response micro-transit pilot project grant is successful, then RVTD could possibly begin implementation of the program in fall of 2019. The 18 months of data collected from the program (origin/destination of rides) can be analyzed to determine if a fixed "local circulator" route would be warranted and the actual route circulation, if different from the route defined in the expansion study. The City could also support electrification of a RVTD vehicle for this circulator through infrastructure development that would provide RVTD the ability to re-charge within the City. In addition, local circulation will require the development of bus stop infrastructure and pedestrian connections to support the route.

In an ongoing effort to support transit improvements locally staff recommends, in alignment with the study, continued support and coordination with RVTD to look at alternate propulsion technologies (electrification), improvement to pedestrian and bicycle facilities (in conjunction with current capital projects), and development of Ashland specific marketing information.

By having the strategies in an accepted plan grant funding opportunities for the City and RVTD as a transit provider become available for capital equipment and infrastructure improvements through a variety of sources.

FISCAL IMPACTS

The primary fiscal impact of the Transit Study will be staff time associated with coordinating with RVTD to support transit improvements within Ashland and the region. This includes assisting RVTD with marketing

and outreach of the demand response micro-transit pilot, if a successful grant is realized. Staff will also need to work with RVTD to formally develop the service plan of the pilot project.

Additional fiscal impacts would depend on actions taken related to recommendations in the report. An example would be the addition of infrastructure to accommodate first/last mile accessibility to current and future proposed transit stops through construction of sidewalk connections.

STAFF RECOMMENDATION

Staff recommends Council accept the Transit Expansion Study as a planning and prioritization document as recommended by the Transportation Commission.

ACTIONS, OPTIONS & POTENTIAL MOTIONS

I move to approve the acceptance of the Transit Expansion Study as a planning and prioritization document.

If not accepted the City will request RVTD remove the previously submitted grant application for the micro-transit demand response pilot program from consideration for funding and work to resolve issues developed by Council with respect to the final study.

REFERENCES & ATTACHMENTS

Attachment 1: Final Transit Expansion Study

TRANSIT EXPANSION STUDY

ACKNOWLEDGMENTS

CITY COUNCIL

Mayor John Stromberg

Councilor Michael Morris

Councilor Rich Rosenthal

Councilor Stefani Seffinger

Councilor Dennis Slattery

Councilor Jackie Bachman

Councilor Stephen Jensen

TRANSPORTATION COMMISSION

Sue Newberry, Commissioner (Chair)

Bruce Borgerson, Commissioner

Derrick Claypool-Barnes, Commissioner

Joe Graf, Commissioner

Michael Morris, Council Liaison

Kat Smith, Commissioner

Corinne Vieville, Commissioner

David Young, Commissioner

ADVISORY COMMITTEE

David Lohman, City of Ashland Attorney

Maria Harris, City of Ashland Planning Manager

Bruce Borgerson, City of Ashland Transportation Commission

Michael Dawkins, City of Ashland Planning Commission

Paige West, Rogue Valley Transportation District

Fred Creek, Southern Oregon University

COMMUNITY STAKEHOLDERS

Thank you to the many residents and leaders who shared their time and expertise.

PROJECT TEAM

Paula Brown, Public Works Director, City of Ashland

Scott Fleury, Deputy Public Works Director, City of Ashland

Taina Glick, Public Works Administrative Assistant

Jamey Dempster, Stephanie Wright, Oren Eshel, Paul Leitman, Corinna Kimball-Brown, Nelson\Nygaard Consulting Associates with DKS Associates

INTRODUCTION

The City of Ashland strives to enhance mobility for people living, working, and visiting the city.

At the same time, preserving the environment and quality of life are top priorities. The Transit Expansion Study sets forth a series of strategies to make transit more attractive and accessible for a variety of users. The plan furthers city goals and builds upon programs and policies from the Ashland Climate Action Plan, Downtown Parking Plan, and Transportation System Plan.

This project occurs at an exciting time for transit in Oregon, with new funding available through the Statewide Transportation Improvement Fund (STIF), starting in 2019. Extensive stakeholder outreach and evaluation of existing service led to transit strategies that are implementable, will increase Ashland's transit use, and can build a sustainable mobility resource.

The Rogue Valley Transportation District, who operates today's Route 10 transit service in Ashland, is undertaking a Transit Master Plan and identifying opportunities to enhance service across the region. The strategies in the Transit Expansion Study are coordinated with the Transit Master Plan to ensure a cohesive approach to regional and local transit services.

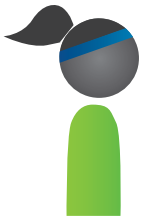
Why Transit?

Transit is one way for Ashland to further its goals for sustainability, environment, and equity. The value of public transportation includes:

- Efficiency. Public transportation moves people in a space-efficient way. Technology innovations help seamlessly connect people to services for efficient personal mobility.
- Sustainability. Transit reduces personal vehicle trips, improves air quality and reduces traffic congestion. Transit powered with electricity does even more to help the environment.
- Affordability. Older adults, low-income households, and people without cars are growing population segments in Ashland who rely on public transit service.
- Equity and Economy. Many commuters to and from Ashland earn less than $40,000 per year. Transit provides a cost-effective travel option and reduces the amount people need to spend on transportation compared to car ownership.

Transit Markets

Transit serves many types of trip and many types of user. Each user category has different transportation needs in terms of time of day, frequency of service, and destinations, but high-quality transit meets the needs of multiple types of riders.



Residents of Ashland, especially those with low incomes and limited access to automobiles, use transit for work, shopping, or personal trips. They prioritize flexibility, safety, and comfort. Residents are more likely to be interested in expanded service hours, regional express routes, and flexible local service.

Students have low incomes and limited access to automobiles, and may need transportation in the evenings and on weekends, want flexible mobility options, and need affordable express transit routes.

Employees who work in Ashland need access to areas like the central business district, the University of Southern Oregon, and along East Hersey Street. Their schedules are typically not flexible, and reliability is a critical issue.

Recreational visitors generally travel in the main commercial corridors. Visitors have some flexibility in timing, may travel later in the evenings, and want easy-to-access information.

What We Learned

The combined information from past plans, public engagement activities, and data analysis identified and confirmed local and regional transportation needs. The public shared valuable insights about opportunities to enhance public transportation and make it a relevant, sustainable travel option. Transportation themes include:

- Reduce single-occupancy vehicle trips, greenhouse gas emissions from driving, and parking congestion, especially in downtown
- Expand transit coverage to parts of Ashland that are not served by Route 10 today
- Enhance multimodal transportation options to help people get around the city easily and safely
- Provide frequent, reliable, and affordable transportation services
- Expand hours for existing service in the evening until 12 am and add service on Sunday
- People need shorter travel times to Medford by bus, and are interested in reaching the Medford International Airport
- Provide safe and comfortable transit access (sidewalks)
- Share clear, complete, and easy-to-find information about transportation services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MARIN

STRATEGIES

The following seven strategies will help Ashland achieve its transit goals. Each strategy includes a description, implementation needs, and a list of action plan steps. All of the strategies are interrelated, and some strategies include key supportive actions for others. This is indicated in the action plan with the icons shown below.

Local Route: Add new transit service to provide coverage in more areas of the city, and provide an affordable transportation option for disadvantaged populations.

Central Corridor Shuttle: Enhance transit service on the Route 10 corridor (Main-Siskyou-Ashland), where demand is highest and destinations are concentrated.

Express Route: Serve intercity travel needs between Medford, Phoenix, Talent, and Ashland by using I-5 when it can provide faster, more reliable service than today's Route 10 running only on Highway 99.

General Public Demand Response: Provide flexible public transportation service to areas that cannot support fixed-route transit.

Pedestrian and bicycle connectivity improvements and enhanced bus stops: Continuously improve passenger safety, comfort, convenience and access to ensure transit service is a viable, responsive mobility option.

Electric buses: Add hybrid and fully electric vehicles to the transit fleet, helping Ashland meet its climate goals.

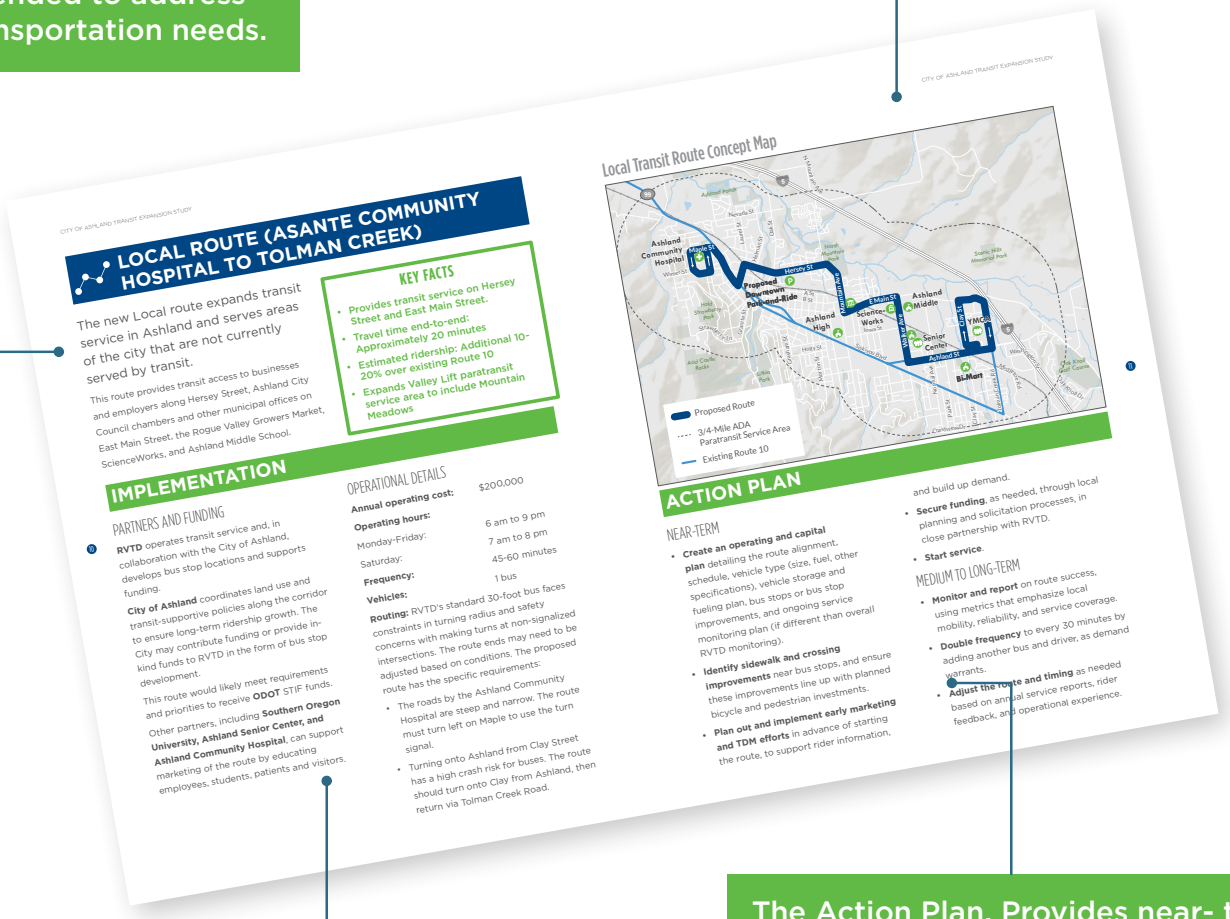
Marketing and Transportation Demand Management: Grow ridership on public transportation by creating clear and accessible marketing and information

Strategy Elements

Each strategy sheet includes the following elements:

Description. This section highlights a strategy's purpose and how it is intended to address transportation needs.

A map or photo illustrating the vision for the strategy.



Implementation. Provides information about funding sources, partners, and operational details/costs.

The Action Plan. Provides near- to long-term actions describing how to implement the project. Some strategies are closely related, indicated by the strategy icon in the Action Plan.

New Transit Services

Four strategies propose new transit services in Ashland.

- Two include local fixed routes: the Local Route, which increases service coverage, and the Central Corridor Shuttle, which increases service frequency on the Route 10 alignment along Main Street, Siskyou Boulevard, and Ashland Street.
- One strategy creates intercity express service between Medford and Ashland, reducing transit travel time by nearly 20 minutes.
- A general public demand response service provides flexible service coverage with easy-to-use ride hailing technology.

LOCAL ROUTE (ASANTE COMMUNITY HOSPITAL TO TOLMAN CREEK)

The new Local route expands transit service in Ashland and serves areas of the city that are not currently served by transit.

This route provides transit access to businesses and employers along Hersey Street, Ashland City Council chambers and other municipal offices on East Main Street, the Rogue Valley Growers Market, ScienceWorks, and Ashland Middle School.

KEY FACTS

- Provides transit service on Hersey Street and East Main Street.
- Travel time end-to-end: Approximately 20 minutes
- Estimated ridership: Additional 10-20% over existing Route 10
- Expands Valley Lift paratransit service area to include Mountain Meadows

IMPLEMENTATION

PARTNERS AND FUNDING

RVTD operates transit service and, in collaboration with the City of Ashland, develops bus stop locations and supports funding.

City of Ashland coordinates land use and transit-supportive policies along the corridor to ensure long-term ridership growth. The City may contribute funding or provide in-kind funds to RVTD in the form of bus stop development.

This route would likely meet requirements and priorities to receive **ODOT** STIF funds.

Other partners, including **Southern Oregon University, Ashland Senior Center, and Ashland Community Hospital**, can support marketing of the route by educating employees, students, patients and visitors.

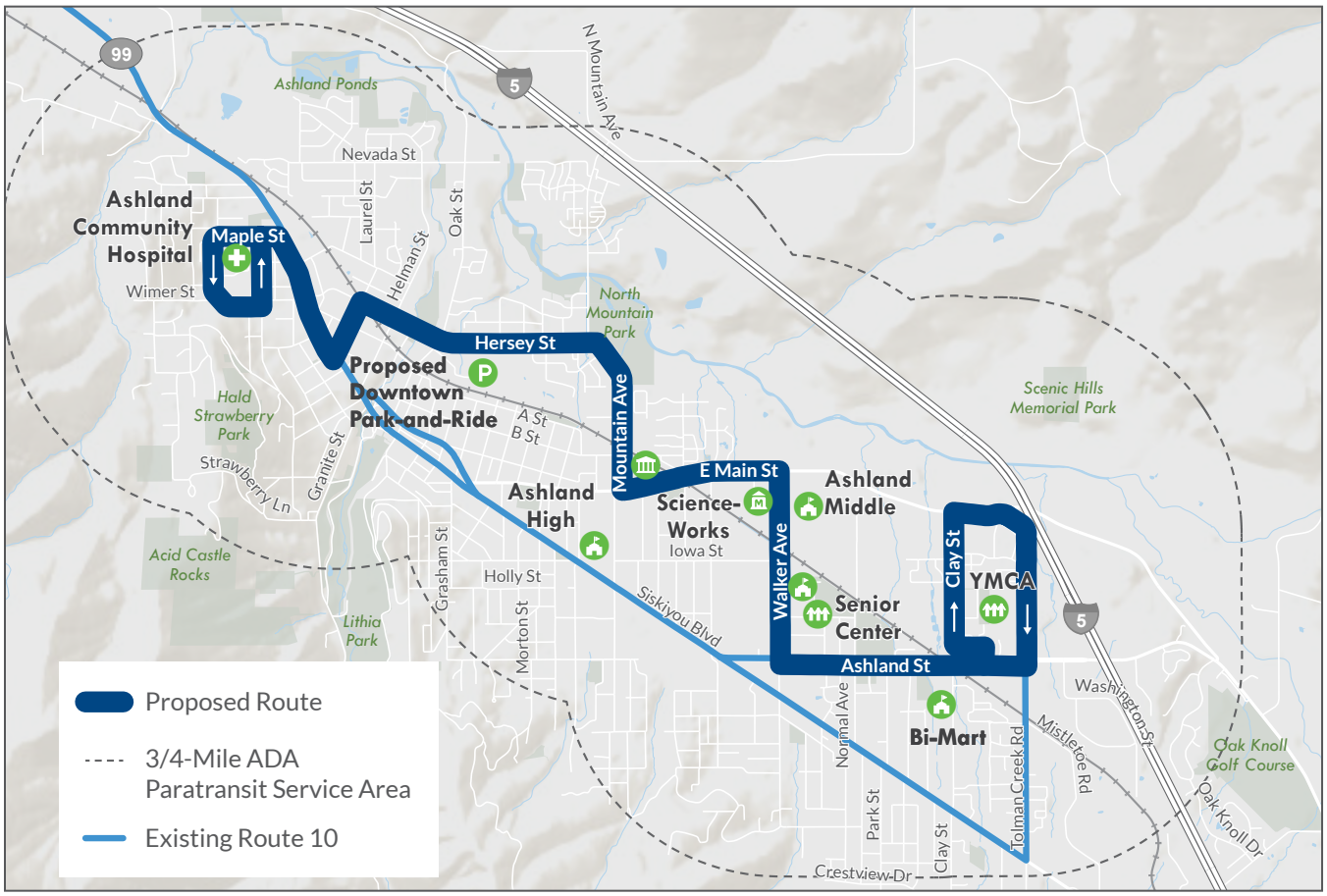
OPERATIONAL DETAILS

Annual operating cost:	$200,000
Operating hours:	
Monday-Friday:	6 am to 9 pm
Saturday:	7 am to 8 pm
Frequency:	45-60 minutes
Vehicles:	1 bus

Routing: RVTD's standard 30-foot bus faces constraints in turning radius and safety concerns with making turns at non-signalized intersections. The route ends may need to be adjusted based on conditions. The proposed route has the specific requirements:

- The roads by the Ashland Community Hospital are steep and narrow. The route must turn left on Maple to use the turn signal.
- Turning onto Ashland from Clay Street has a high crash risk for buses. The route should turn onto Clay from Ashland, then return via Tolman Creek Road.

Local Transit Route Concept Map



ACTION PLAN

NEAR-TERM

- **Create an operating and capital plan** detailing the route alignment, schedule, vehicle type (size, fuel, other specifications), vehicle storage and fueling plan, bus stops or bus stop improvements, and ongoing service monitoring plan (if different than overall RVTD monitoring).
- **Identify sidewalk and crossing improvements** near bus stops, and ensure these improvements line up with planned bicycle and pedestrian investments.
- **Plan out and implement early marketing and TDM efforts** in advance of starting the route, to support rider information, and build up demand.
- **Secure funding**, as needed, through local planning and solicitation processes, in close partnership with RVTD.
- **Start service**.

MEDIUM TO LONG-TERM

- **Monitor and report** on route success, using metrics that emphasize local mobility, reliability, and service coverage.
- **Double frequency** to every 30 minutes by adding another bus and driver, as demand warrants.
- **Adjust the route and timing** as needed based on annual service reports, rider feedback, and operational experience.

CENTRAL CORRIDOR SHUTTLE

The Central Corridor Shuttle enhances transit service along the city's primary corridors of Main Street, Siskiyou Boulevard, and Ashland Street.

Transit demand in Ashland is strongest on these corridors, and this route provides additional frequency and capacity to serve the city's key destinations. The shuttle service supports other City efforts to add alternatives to driving, reduce greenhouse gas emissions, and improve transit convenience. Park-and-ride facilities at either end of the route encourage people to park outside of downtown.

KEY FACTS

- Provides high level of service along Main Street and Ashland Street to improve local connections and alternatives to driving
- Travel time end-to-end: Approximately 25 minutes
- Estimated ridership: Additional 20-40% over Existing Route 10
- City of Ashland would likely need to cover the full cost.

Ashland may need to lead the funding and implementation of this strategy. It will be challenging to raise the route in RVTD's regional priorities, as RVTD's focus is transportation-disadvantaged communities where public transportation provides crucial mobility to work, services, and society. Route 10 frequency is not reliable during mid-day due to traffic, therefore the shuttle and Route 10 may not be fully integrated. This can make distinct branding an important project element.

IMPLEMENTATION

PARTNERS AND ROLES

RVTD is unlikely to fit this service within their regional transit network in the near- to medium-term. The **City of Ashland** can pursue the strategy by procuring a **private service vendor** to operate the service as part of a contract with the City and/or other local stakeholders.

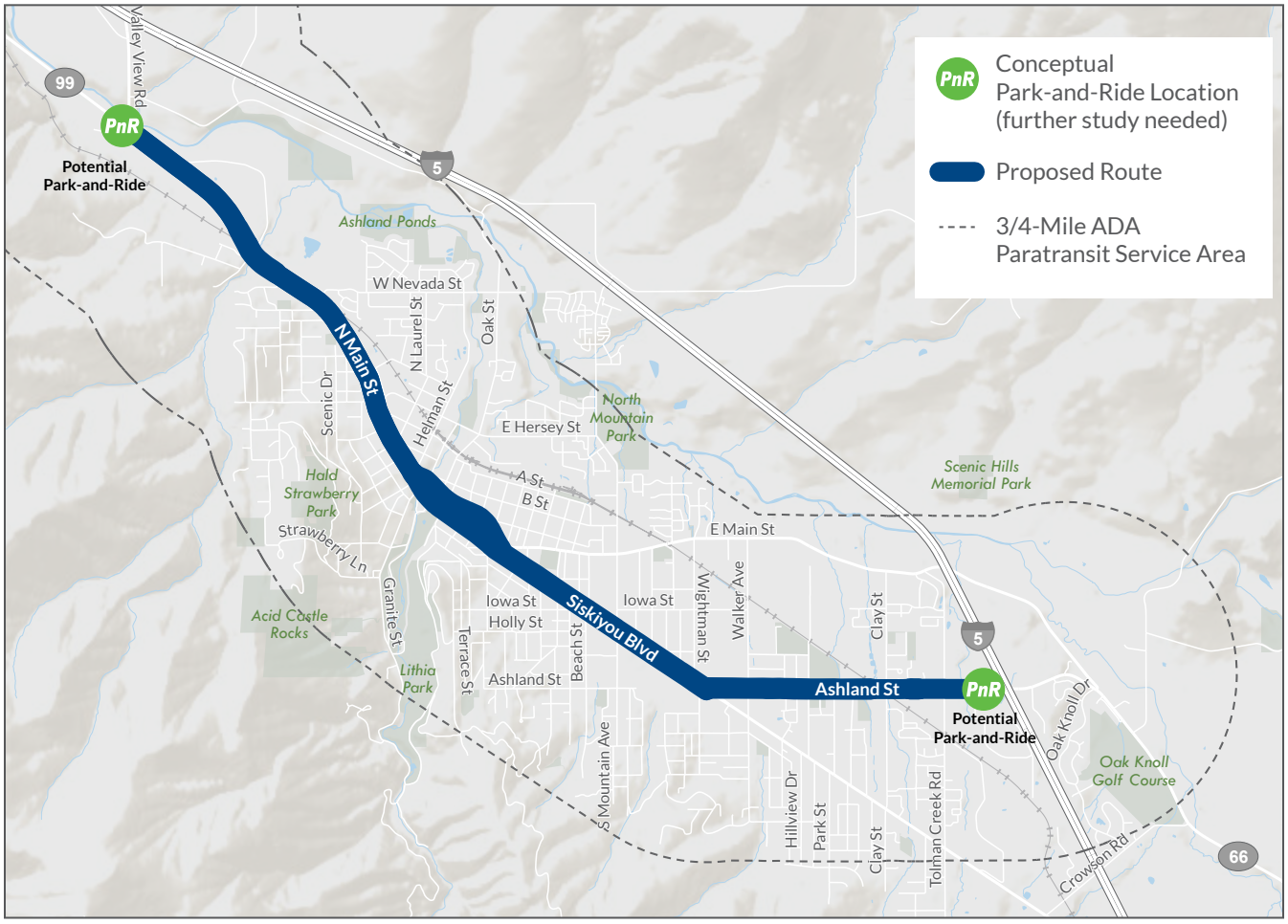
The **City of Ashland** coordinates land use and transit supportive policies along the corridor to ensure long-term ridership growth, including parking management in downtown Ashland.

Local partners like **Southern Oregon University, Chamber of Commerce, Oregon Shakespeare Festival, and hospitality businesses** can support route marketing to customers and employees.

OPERATIONAL DETAILS

Annual operating cost:	$400,000
Operating hours:	
Monday-Friday:	6 am to 9 pm
Saturday:	7 am to 8 pm
Frequency:	30 minutes
Vehicles:	2 buses

Central Corridor Shuttle Concept Map



ACTION PLAN

NEAR TERM

- **Create an operating and implementation plan**. Clearly outline the service goals, how to define success, and sustainable funding plan. The City must ensure minimum service levels to achieve key goals.
- **Manage downtown (and other) parking** to incentivize shared transportation modes. The City identified several projects, programs and policies in the Downtown Parking Plan that help create an environment where other transportation options are more attractive than driving to and parking in Downtown Ashland.
- **Park and ride** near I-5 exits 14 and 19.
- **Vehicle storage** and fueling facility.
- **Enhance bus stop amenities and make sidewalk improvements.**

MEDIUM TO LONG TERM

- **Implement the strategy and monitor progress.** Suggested metrics include ridership, reduced personal vehicle use (typically through survey), and on-time performance. Adjust service as needed to best serve the community.

MEDFORD-ASHLAND EXPRESS

The express route reduces travel times between Medford and Ashland, and ensures more reliable service.

It takes 50 minutes to travel via Route 10 between Ashland and Medford today, a distance that takes 20 to 30 minutes driving. This travel time difference discourages transit ridership. A new express route traveling from Medford to Ashland via I-5, reduces travel time by 20 minutes each way. Route 10 continues serving Phoenix and Talent, providing local connections.

KEY FACTS

- **Provide faster more reliable trips between Medford and Ashland**
- **20 minutes estimated one-way time savings compared to Route 10**

IMPLEMENTATION

PARTNERS AND ROLES

Southern Oregon University can support marketing of the route by educating employees and students about the route.

RVTD can operate the service and provide partial or full funding.

This route qualifies for **ODOT** STIF funds.

City of Ashland coordinates land use and transit supportive policies along the route to ensure long-term ridership growth. Additionally, the City may offer funding support and contribute in-kind funds to RVTD in the form of bus stop development and other efforts.

OPERATIONAL DETAILS

Annual operating cost:	$140,000
Operating hours:	
Monday-Friday:	6 am to 9 pm
Saturday:	No Service
Frequency:	90 minutes
Vehicles:	1 bus

Schedule: The express route is most effective when scheduled to complement Route 10 (on Highway 99) in ways that meet rider demand. Route 10 today experiences the greatest travel delays in the middle of the day, as traffic increases on Highway 99 after about 10 a.m.

As proposed, the Express operates on I-5 between 9 a.m. and 6 p.m., and on Highway 99 the rest of the day, providing added service capacity.

Medford-Ashland Express Route Concept Map

ACTION PLAN

NEAR-TERM

- **Support an operating and implementation plan.** RVTD indicated it will likely advance this strategy over the near and medium terms. Ashland can work closely with RVTD to ensure local stakeholders needs are considered and addressed to the extent feasible given the operating requirements.
- **Add to regional marketing and information efforts.** The City can support RVTD's marketing and traveler information programs to ensure local residents, visitors, and employees have access to the most recent information.

MEDIUM TO LONG-TERM

- **Integrate with parking management programs.** Ashland can consider financial or other incentives to encourage commuters to ride the express, if it meets their transportation needs. This would be particularly relevant as part of the Downtown Parking Plan projects, programs, and policies.
- **Support RVTD in monitoring and evaluating the route.** Ashland can add value to regional transit system development and planning by collecting and sharing local feedback about how the route serves local residents, employees, and visitors.

GENERAL PUBLIC DEMAND RESPONSE

Demand response service provides flexible public transportation for areas with more geographically dispersed transportation needs, and can provide solutions for areas with low to moderate transportation demand.

KEY FACTS

- **Flexible service model for low demand areas, serving local trips and bringing people to regional routes**
- **Potential pilot project service to explore local rider markets without committing large vehicle resources**
- **Greatest service coverage and flexibility when combined with on-demand reservation equipment and software**

Fixed routes offer greater operational productivity (riders per hour), but at higher cost. Demand response can fit Ashland's transportation needs in areas off the Route 10 corridor where population and employment density is low to moderate. Demand response service provides effective connections while identifying the most transit-productive areas. Stakeholders expressed interest in:

- Flexible curb-to-curb service in Ashland;
- Service to Route 10 bus stops for regional connections;
- On-demand scheduling similar to taxi or ride-hailing services;
- Shared rides to reduce rider cost and/or operator efficiency; and
- Day-time or late-night service, augmenting existing RVTD service hours.

IMPLEMENTATION

PARTNERS AND FUNDING

The **City of Ashland** supports RVTD in operating a local flexible service using smaller vehicles to expand service coverage. For evening or event-related flexible service, Ashland can directly procure service from third-party vendors. Ashland can also provide financial support through in-kind planning, marketing, and stakeholder outreach support. In addition, Ashland can provide in-city vehicle storage and charging equipment.

RVTD delivers local service in coordination with regional transit services, procures vehicles and charging equipment, and maintains vehicles. RVTD will continue to provide administration and management services

Local partners (institutions, businesses) will explore ways to support and augment service.

The Sacramento Regional Transit District launched an on-demand microtransit service in February of 2018. They expanded the hours and service area in April, earlier than planned, due to high ridership and demand.

OPERATIONAL DETAILS

Annual Operating Cost: (Depending on number of service hours, days per week)

Limited evening service:	$50-100,000
Full day demand response:	$350,000

Operating Hours (full day):

Monday-Friday:	6 am to 9 pm
Saturday:	7 am to 8 pm

Vehicles: 2 passenger vans or small transit buses.

A smaller vehicle, such as a 15-20 passenger van or small bus, provides sufficient capacity, allowing for higher productivity and efficiency than a taxi or ride-hail service. A smaller vehicle can also reach parts of Ashland that a 30-foot or larger bus cannot, bringing greater mobility to people needing rides. These vans are only just emerging with battery electric systems, with limited models compliant with Federal and State regulations. Hybrid-electric transit vans are widely available, which presents an earlier phase to full-electric technology.

ACTION PLAN

NEAR-TERM

- **Create a service plan.** Prioritize and describe the local demand response service, including specific service goals, intended rider market(s), service area, service hours, reservation technology and criteria (i.e., advanced reservation window), vehicle type and spare vehicle plan, providing equivalent service, service quality, eligibility criteria (as applicable), marketing, and feasible costs.
- **Issue a request for information** from private vendors [Optional]. This request for information can gauge what services are available locally from third-party transportation service vendors. The RFI can include questions about available services, management, potential delivery models, vehicles, and reservation systems.

MEDIUM TO LONG-TERM

- **Identify funding sources** and apply for pilot program grant funding (as applicable). Framing the service as a one-time pilot project can help mitigate the risks to both funders, Ashland, and project partners.
- **Implement and monitor service.** Evaluating performance consistent with the operating plan is essential to customizing service to Ashland's needs and maximizing effectiveness.

BICYCLE/PEDESTRIAN INVESTMENTS AND BUS STOP INFRASTRUCTURE

Safe pedestrian and bicycle access and bus stop amenities are key components of a viable, responsive transit system that is well-used, accessible, and convenient.

KEY FACTS

- Bus stops in need of additional amenities: 16 stops[1]
- Pedestrian commute mode share: 10%[2]
- 7 of 8 Rogue Valley Bike Share stations are in Ashland.

Access investments include an array of strategies that aim to improve comfort and convenience of walking or bicycling.

- Pedestrian investments include sidewalk infill where sidewalks are missing, widening sidewalks where they are narrow, investing in streetscape elements such as benches and street trees, and adding marked crosswalks, median refuge islands, and curb extensions at key locations.
- Bicycle investments include buffered or protected bike lanes, bicycle parking, wayfinding, increasing the number of bicycles in the Rogue Bike Share fleet, and/or adding additional bike share stations.

Bus stop improvements include ongoing bus stop maintenance; adding new benches, shelters, lighting, bike racks and/or trash cans; and adding signage, wayfinding, maps, and schedules to provide confirmation to passengers about what routes serve the stop, where the bus goes, and when it is expected to arrive. Prioritize amenities for stops with higher levels of boarding activity, or stops located close to destinations that are used by people with disabilities or older adults. New stop amenities will be particularly important where riders transfer between local and regional routes, from bikes to buses, or to and from other transportation services.

IMPLEMENTATION

PARTNERS AND FUNDING

The **City of Ashland** facilitates planning, funding, and project development of local infrastructure projects.

RVTD provides programmatic support through regional transportation options programs, and coordination with regional safe routes to school programs and funding.

Rogue Bike Share can help provide clear and convenient links between bike share and transit services.

1 Per RVTD amenity guidelines; see Technical Memorandum #2 for additional details

2 Source: US Census Bureau ACS 2013-2017 5-Year Estimates; commute mode share does not account for non-commute trips, midday trips made by employees, or tourists and visitors

Oregon DOT can coordinate on active transportation and public transportation projects and funding opportunities.

COSTS

Crosswalks, sidewalk improvement program:
$100,000 per year

Bus stop lighting:
$5,000 (standard) – $10,000 (solar)

Sidewalk infill construction:
$100,000 - $200,000 per mile (varies)

Striped bike lanes:
$30,000 – $50,000 per mile

Bicycle parking racks:
$7,000 - $10,000 each

10-stall Bike Share Station with 5 bikes:
$16,500

Property owners provide new sidewalk and bicycle infrastructure through new construction and redevelopment requirements.

ACTION PLAN

NEAR-TERM

- **Identify sidewalk gaps or substandard sidewalks.**
- Identify corridors needing **additional pedestrian crossings.**
- Review historical **pedestrian and bicycle collision data** to identify key safety hotspots.
- Conduct **Rogue Bike Share expansion study**; identify locations for new stations, number of new bicycles needed, funding and timeline.
- **Coordinate with Planning Division and Building Division** to ensure land use and building permits address access and connectivity issues for sidewalks, bike lanes and bus stop amenities.
- **Coordinate bicycle and pedestrian investments** with Safe Routes to School funding opportunities.

MEDIUM TO LONG-TERM

- **Fill sidewalk gaps, reconstruct sidewalks, and add pedestrian crossing**s as funding becomes available.
- Based on results and recommendations of bike share expansion study, and access to funds, **purchase additional bike share bicycles and add stations in key locations.**
- Develop a **coordinated, systemic process** to address bicycle and pedestrian safety issues.

ELECTRIC BUSES

Investing in electric vehicles results in cleaner air, quieter vehicles, and significant emissions reductions compared to conventional fuels.

Electric vehicles have higher up-front costs for the propulsion technology than conventional buses; as much at two times more. Operating costs are lower, however, as electricity is typically less expensive than petroleum based fuels, and experiences less dramatic price changes. Early experience also indicates there may be lower maintenance costs for electric engines. Hybrid-electric systems provide an initial investment in lower-emissions, while using tested vehicles compliant with Federal and State regulations. This is important due to Ashland's commitment to generating and purchasing clean energy.

KEY FACTS

- Advances city's climate goals, reduces local air pollutants
- Uses local clean renewable energy sources
- Can combine with either local fixed route or demand response service; hybrid-electric vehicles can provide an initial improvement with tested technology
- An electric sub-fleet is possible storing and charging vehicles in Ashland; Ashland can pursue facility and vehicle purchase independently with RVTD

IMPLEMENTATION

PARTNERS AND FUNDING

As the region's transit operator, **RVTD** procures vehicles meeting all FTA and ODOT requirements, trains drivers and other relevant staff, and operates the vehicles. RVTD leads grant funding applications, developing procurement/operating plans, and works with Ashland to locate and design local storage and charging facility.

The **City of Ashland** creates a bus maintenance, storage, and charging facility in Ashland.

Electric fleets are a priority for **ODOT** STIF funds in communities larger than 200,000 and some **FTA** grant programs.

Local funding "match" (20%) can be sourced from **RVTD,** and/or supplemented by the **City of Ashland,** as feasible.

ODOT staff can support local agencies through the procurement and funding solicitation processes, ensuring compliance and other needs are fully met.

COSTS

Small vehicles: $75,000 for hybrid-electric to $200,000 for electric

Large transit vehicles: $500,000 for hybrid-electric to $750,000 for electric

Planning and procurement: TBD, based on staff capacity

Park City, Utah, has integrated electric vehicles into their bus fleet (left). Three zero-emissions buses carry passengers on a frequent service line that serves the community's primary north-south corridor. RVTD uses small hybrid-electric vehicles (right) for its Valley Lift service..

ACTION PLAN

NEAR-TERM

- **Determine which public transportation service the vehicle will support.**
- **Issue a request for information** (RFI) from vehicle manufacturers and qualified vendors [Optional, if time permits]. Electric vehicles shorter than 30 feet are available or public transportation service, but are relatively new and the market is changing very quickly.
- **Identify a location for vehicle storage and charging facility.** This may be as simple as an uncovered parking area and charging station for smaller vehicles.
- **Develop vehicle specifications and procurement plan.** Once the vehicle is matched to an operations project, Ashland supports RVTD in developing vehicle specifications, and identifying local match funding, facilities, and agency roles and responsibilities.

MEDIUM TO LONG-TERM

- **Purchase the vehicle, test, and put into operations.** RVTD leads vehicle procurement and service operation.
- **Monitor and continually improve service delivery.** As a pilot project, Ashland and RVTD closely monitor the vehicle performance to ensure the vehicle meets operational, maintenance, and service delivery goals.

MARKETING AND TRANSPORTATION DEMAND MANAGEMENT

Marketing and transportation demand management (TDM) strategies are crucial to growing ridership on public transportation services.

Information about public transportation service is a reported barrier to accessing services in this study and other transportation plans. Information-sharing strategies are a highly flexible, scalable, and modest investment that encourage transit use. Through coordinated efforts with RVTD, the City of Ashland can supplement public transportation information sharing. Marketing and TDM programs can appeal to a general audience, or be created for targeted markets.

KEY FACTS

- There is a need for Ashland-specific transit information
- Marketing is a flexible, scalable investment that can help grow transit ridership
- RVTD's successful SOU individualized Marketing program in 2016 reduced single occupant car trips to campus.
- A local transportation demand management program can help coordinate efforts. RVTD continues to work with SOU transportation coordinators.

IMPLEMENTATION

PARTNERS AND FUNDING

RVTD currently manages the marketing and TDM programs region-wide, and is an important partner to support additional TDM efforts in Ashland.

City of Ashland provides financial support to RVTD's marketing and TDM programs, and supports how the information is tailored to Ashland's needs and marketed to Ashland residents, employees, and visitors.

Local partner organizations (such as the Southern Oregon University, Chamber of Commerce and the Oregon Shakespeare Festival) can support the city's efforts to implement the marketing and TDM program, and provide transportation service information to local businesses and employers.

ACTION PLAN

NEAR-TERM

- **Create local, Ashland-specific transit information** materials on the City website, in supplementary flyers and posters, or in the materials of organizations that have a vested interest in transportation access.
- **Create local transportation management program** to engage local stakeholders, produce local transportation information resources, plan and host promotional events and information sessions, and coordinate with RVTD, ODOT, and other transportationproviders and facility owners.

Measuring Success

Ongoing monitoring and evaluation are an important part of each strategy, allowing the City of Ashland and its partners to measure success and adapt the action plan as needed.

The table below outlines suitable metrics for each strategy.

STRATEGY	METRICS
 Local Route Central Corridor Shuttle Medford-Ashland Express	• Ridership • Ridership per revenue hour • Average cost per boarding • Average and peak vehicle loads • On-time performance • Percent of people and jobs within 1/4 mile of a bus stop • Access for specific transportation markets
 General Public Demand Response	• Ridership • Ridership per revenue hour • Average cost per boarding • Average and peak vehicle loads • On-time performance • Access for specific transportation markets
 Pedestrian/Bicycle Investments and Bus Stop Infrastructure	• Percent of stops with accessible and safe access routes • Percent of city sidewalk miles up to city code/standard • Number of fatal and severe pedestrian and bicycle collisions per year • Percent of bus stops meeting RVTD's amenity standards and guidelines • Average daily Rogue Bike Share trips • Average daily Rogue Bike Share trips per bicycle
 Electric Buses	• Time and range between charges • CO_2 and other emissions per service mile • Service miles between maintenance and repairs
 Marketing and Transportation Demand Management	• Downtown parking occupancy • Mode share for residents, visitors and employees • Survey results that track knowledge of transportation programs

ASHLAND TRANSPORTATION EXPANSION FEASIBILITY STUDY

Technical Memorandum #1
Existing Conditions and Needs Assessment

June 2018

CITY OF ASHLAND

NELSON NYGAARD

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1 EXISTING CONDITIONS AND NEEDS ASSESSMENT INTRODUCTION

The City of Ashland Public Transportation Feasibility Study will assess how public transportation can help create a transportation system to best serve residents, workers and visitors. The purpose of the Existing Conditions and Needs Assessment technical memorandum is to understand local conditions, trends, resources, and needs for people living, working or visiting in Ashland. The memorandum documents Nelson\Nygaard's findings to date on transportation services and infrastructure (Section 2), analysis of transportation markets (Section 3), information from the general public and key city partners (Section 4).

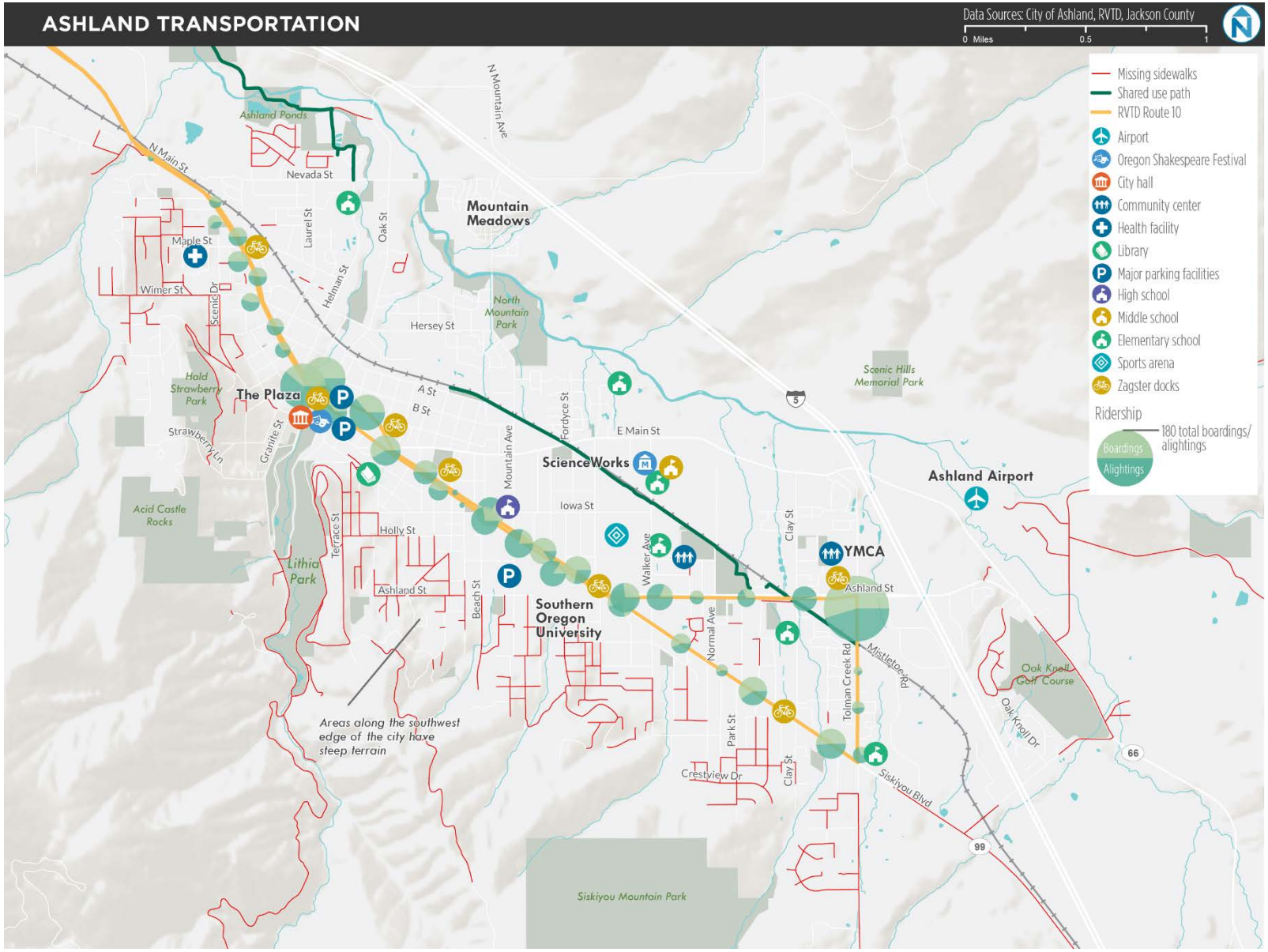
Section 5 summarizes the transportation needs and opportunities identified from the research and discussions. The information will form the base for the next study phase, to identify a flexible set of strategies with the potential to best serve Ashland. The needs and opportunities will lead to a clear service design and evaluation guidelines tailored to the community's top expectations for public transportation.

2 TRANSPORTATION SERVICES AND INFRASTRUCTURE

Residents and visitors to Ashland have many ways to get around the city and to connect with other areas of the Rogue Valley. The variety of transportation options in Ashland are identified in Figure 2-1 and on the following pages. The components of Ashland's transportation system include:

- **Transit** - RVTD provides transit service on Route 10 that connects many parts of Ashland (downtown, SOU, Ashland Street and Tolman Creek Road) and provides service to other communities in the region, including Medford, Phoenix and Talent. Route 10 is shown in Figure 2-1 as the solid yellow line.
- **Pedestrian Facilities** – Pedestrian crossings and sidewalks provide important access and connectivity for people on foot. Although Downtown, SOU and areas along Main Street and Siskiyou Boulevard have relatively good sidewalk connectivity and frequent crossings, other areas of the city lack sidewalks or safe, well-marked crossings. However, this tends to be in areas of the city that have steep terrain, lack network connectivity, are low-density, or have low-demand. Missing sidewalks are shown with a red line in Figure 2-1.
- **Bicycle Facilities** – Ashland has 30 miles of bicycle facilities, including bike lanes, shared lane markings and paths. Bike lanes are the most common facility, and 26% of the city's major roadways have them. The Bear Creek Greenway provides an off-street separated multi-use path that connects to Medford. Within Ashland, the Central Path runs parallel to the railroad between the Railroad District and Tolman Creek Road. These paths are shown with a solid green line in Figure 2-1.
- **Bike Share** – Zagster provides bike share for the Rogue Valley. Seven station are located in Ashland, all along the city's primary roadway network. One station serves SOU, three stations are in or near downtown, and the other three serve the northern and southeastern parts of the city. These stations are shown in Figure 2-1 with a gold bicycle symbol.
- **Parking** - As a major tourism destination with a popular downtown area, parking can at times be a limited resource. Studies have shown that parking in downtown Ashland exceeds 85% occupancy. All on-street spaces are free, and most have time limits. Off-street parking tends to be underutilized in relation to the on-street parking supply. Major parking facilities are shown with a blue P symbol in Figure 2-1.

Figure 2-1 Ashland Transportation Map



PUBLIC TRANSPORTATION

Rogue Valley Transportation District (RVTD) serves Ashland with Route 10. Route 10 begins at Front Street Station in Medford and travels along Pacific Highway (Highway 99) through Phoenix, Talent, and into Ashland. Within Ashland, Route 10 provides service along Main Street through downtown, along Siskiyou Boulevard through Southern Oregon University (SOU), east along Ashland Street, south along Tolman Creek Drive, and northwest along Siskiyou Boulevard and Lithia Way, through SOU and downtown and back to Medford.

Schedule

Route 10 operates Monday through Saturday. The first bus from Medford on weekdays arrives at Ashland Plaza at approximately 5:40 AM and departs Ashland a little after 6 AM. The last bus on weekdays from Medford arrives at approximately 8:40 PM and departs shortly after 9 PM. See Figure 2-2 shows the first and last trip times in downtown Ashland. See Appendix B for the full Route 10 schedule. In April 2018, RVTD increased Route 10's Saturday frequency from every hour to every 30 minutes.

Figure 2-2 First and Last Bus in Downtown Ashland

Service Day	Direction	First Bus	Last Bus	Headway
Weekdays (Monday-Friday)	From Medford / To SOU and Tolman Creek	5:39 AM	8:39 PM	20 min (30 min early morning and evening)
	From Tolman Creek and SOU / To Medford	6:12 AM	9:12 PM	
Saturdays	From Medford / To SOU and Tolman Creek	7:39 AM	6:39 PM	30 min
	From Tolman Creek and SOU / To Medford	8:12 AM	7:12 PM	

Source: Rogue Valley Transportation District

Fares

Passengers using RVTD can pay for various trip types: single ride, day pass, 20-ride pass or 1-month pass. Each pass type has a full fare and reduced fare option. The reduced fare is available to passengers between 10 and 17 years of age, 62 years of age or older, Medicare cardholders, disabled Veterans, Valley Lift clients, and people with disabilities.

Figure 2-3 RVTD Fare Structure

Pass Type	Full Fare	Reduced Fare
Single Ride	$2.00	$1.00
Day Pass	$6.00	$6.00
20-Ride Pass	$32.00	$16.00
1 Month Pass	$56.00	$28.00
Summer Youth Pass	-	$44.00

Source: Rogue Valley Transportation District

Ridership

In 2017, there were approximately 714 boardings and 790 alightings on Route 10 in Ashland each day. The top 10 busiest stops accounted for more than half of all transit activity in the city (see Figure 2-4). Four of the first five busiest stops are in downtown Ashland. The other six busiest stops in the top 10 serve a mix of retail/commercial areas, Southern Oregon University, Ashland High School, and residential areas along Siskiyou Boulevard. Figure 2-1 shows ridership, with circles sized proportionally to the total activity by stop. For a list of all stops and ridership in Ashland, please see Appendix C.

Figure 2-4 Top 10 Busiest Stops in Ashland (Average Daily Activity), 2017

Rank	Stop Code	Stop Name	Boardings	Alightings	Boardings and Alightings
1	10640	Tolman Creek Rd - South of Ashland St	136	113	248
2	10450	N Main St - South of Water St	46	73	119
3	10810	Lithia Way - North of Oak St	68	37	105
4	10800	Lithia Way - North of 2nd St	26	46	72
5	10470	E Main St - South of Gresham St	31	22	53
6	10690	Siskiyou Blvd - North of Bellview Ave	26	25	52
7	10530	Ashland St - East of Siskiyou Blvd	13	36	50
8	10770	Siskiyou Blvd - South of Morse St	37	12	49
9	10510	Siskiyou Blvd - South of University Wy	10	38	47
10	10710	Siskiyou Blvd - North of Faith Ave	28	19	46
Top 10 Total			**420**	**421**	**841**
Ashland Total			**714**	**790**	**1,504**

Source: Rogue Valley Transportation District

Note: Numbers may not sum to the total due to rounding.

Route 10 is RVTD's longest and busiest route, serving four communities. It accounts for approximately 41% of RVTD's fixed-route ridership. Between June 2017 and March 2018, Route 10 carried approximately 38,900 passengers each month (see Figure 2-5). Service during the summer (June through September 2017) averaged approximately 36,000 monthly boardings, whereas activity when SOU was in session (October 2017 through March 2018) averaged approximately 41,000 monthly boardings. Due to data limitations, it is not clear how much of this ridership occurred within Ashland.

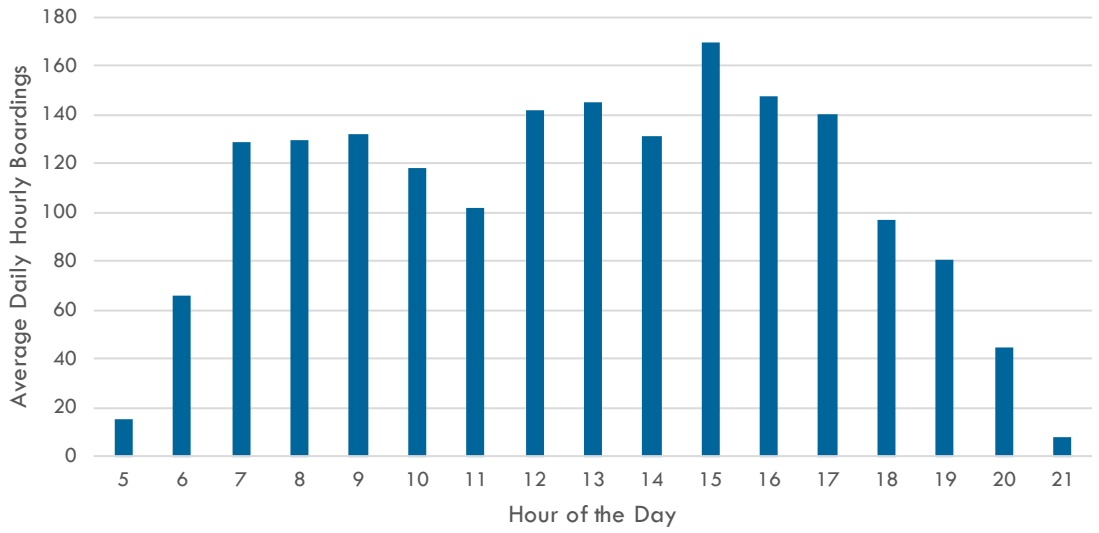
Figure 2-5 Average Monthly Fixed-Route Ridership (June 2017 through March 2018)

Route	Monthly Ridership	Percent
Route 10	38,877	41%
All other routes	56,309	59%
Total	**95,186**	**100%**

Source: Rogue Valley Transportation District

Most of Route 10's ridership occurs between 7 am and 5 pm, with a peak at 3 pm, and small dips in ridership at 10 and 11 am, and at 2 pm. Figure 2-6 shows the average hourly ridership from May 2018.

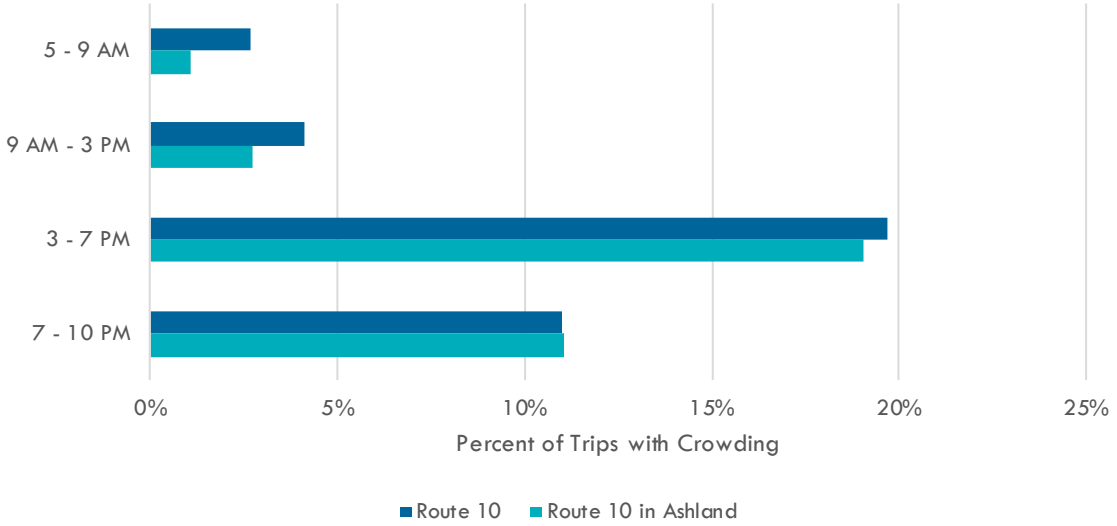
Figure 2-6 Route 10 Average Weekday Fixed-Route Boardings by Hour of the Day (May 2018)



Source: Rogue Valley Transportation District

RVTD defines crowding as when a bus has 30 or more passengers on-board at any given bus stop. In May 2018, Route 10 was considered crowded at nearly 20% of the stops between 3 and 7 pm. Crowding also occurred just over 10% of the time between 7 PM and 10 PM, and less than 5% of the daily trips before 3PM. Compared to the entire route between Ashland and Medford, Ashland had about the same level of bus crowding on a typical day, and slightly less than crowding in Medford (see Figure 2-7).

Figure 2-7 Route 10 Trips with Crowding (May 2018)



Source: Rogue Valley Transportation District

On-Time Performance

RVTD measures on-time performance by bus trip. If a bus arrives at the last stop at or before the time printed on the schedule, it is considered "on-time." For trips that end at Front Street Station, "on-time" includes early arrivals – this accounts for the need for passengers to transfer. RVTD's on-time performance target is 95% for minor routes, and 90% for major routes.

RVTD provided the project team with stop-level data collected September 2017 through April 2018 between 11 am and 6 pm. This data indicates the average departure delay by stop, and the percent of trips arriving at a stop within five minutes of the scheduled time. Route 10 departed stops an average of four minutes after the scheduled time, about the same as RVTD's system-wide average. The average departure delay for stops in Ashland was about three minutes.

On average across all its stops, 67% of Route 10 buses arrive within five minutes of the scheduled time, ranging from 25% to 97% depending on the stop. Northbound trips on Route 10 tend to have greater delay than southbound trips. However, the reverse is true at stops in Ashland – southbound trips are more delayed than northbound trips (Figure 2-8). This suggests that trips on Route 10 get progressively further behind schedule along the route, and that layover time allows the following return trip to operate closer to its scheduled time at the start of the trip.

Figure 2-8 On-Time Performance

	Southbound	Northbound	Overall
Average Departure Delay			
Route 10 (overall)	03:11	04:40	04:01
Route 10 in Ashland	03:39	02:10	02:51
Route 10 outside Ashland	02:58	05:41	04:32
Percent Departures within 5 min of scheduled time			
Route 10 (overall)	76.2%	59.9%	67.0%
Route 10 in Ashland	69.5%	87.9%	79.4%
Route 10 outside Ashland	79.3%	48.7%	61.6%

Source: Rogue Valley Transit District

Note: Data based on observations from September 2017 through April 2018, between 11 am to 6 pm

Service Data

During Fiscal Year 2016-2017, RVTD operated approximately 750,000 revenue miles and 44,550 revenue hours on fixed-route services. Route 10 accounted for approximately 40% of these miles and hours (see Figure 2-9). These service levels are comparable to the percent of RVTD's ridership that Route 10 carries, indicating service on Route 10 is proportionate to its level of demand. Overall, Route 10 operates at an average of 17 miles per hour, which is similar to the operating speed on all other routes.

During weekdays, Route 10 requires six vehicles to operate, based on its 120-minute cycle time and headway of 20 minutes. During weekends, Route 10 is served by four buses.

Figure 2-9 Annual Fixed-Route Service Data, FY 2016-2017

Route	Revenue Miles			Revenue Hours		
	Weekdays	Saturdays	Annually	Weekdays	Saturdays	Annually
Route 10	295,806	14,183	309,989	17,391	834	18,225
All other routes	411,789	28,070	439,858	24,591	1,731	26,321
Total	**707,595**	**42,253**	**749,847**	**41,981**	**2,565**	**44,546**
Percent Route 10	***42%***	***34%***	***41%***	***41%***	***33%***	***41%***

Source: Rogue Valley Transportation District

Bus Stops

There are 41 bus stops within the City of Ashland, serving both directions. These stops have a variety of amenities, including shelters, lighting, seating and landing pads, as shown in Figure 2-10. Most stops have lighting and landing pads. About two-thirds of stops do not have a shelter, and half (51%) do not have seating.

Figure 2-10 Number and Percent of Bus Stops in Ashland with Amenities

Amenity	Exists	Partial	None
Shelters	14 (34%)	-	27 (66%)
Lighting	27 (66%)	12 (29%)[A]	2 (5%)
Seating	20 (49%)	-	21 (51%)
Landing Pad	33 (80%)	5 (12%)[B]	3 (7%)

Source: Rogue Valley Transportation District

Note: [A] Partial lighting refers to stops that receive lighting from a street light or an adjacent building. [B] Partial landing pad refers to stops that have a landing pad that is smaller than the minimum ADA requirement of 5 feet by 8 feet.

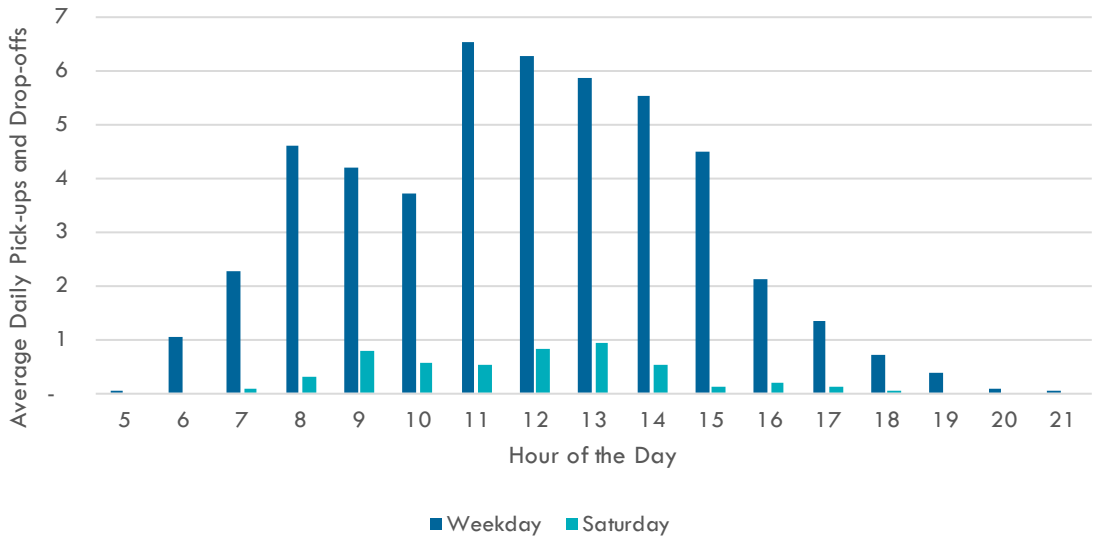
RVTD has a bus stop hierarchy, composed of four classes. Each bus stop is assigned a class based on the average daily boardings at that stop. Stops with the most activity have the highest level of amenities, and each subsequent class is assigned fewer amenities. Regardless of the number of boardings, RVTD's Bus Stop Design Guidelines (2011) indicates all stops should have adequate lighting, ADA accessibility, pedestrian safety, and a bus stop sign. However, RVTD is not able to provide amenities at many stops that warrant them because of limited sidewalk and right-of-way width, limited funding, design requirements for ADA compliance, and staff capacity.

Demand Response Transit

RVTD operates demand response service (also known as ADA paratransit or Valley Lift) in Ashland, consistent with federal requirements under the Americans with Disabilities Act (ADA) to provide service within three-quarters of a mile of the fixed-route service (i.e. Route 10). Valley Lift operates Monday through Friday from 5 am to 9:30 pm, and on Saturdays from 7 am to 7:30 pm. To reserve a trip, passengers call the Valley Lift call center by 5 pm the day before their requested trip. Rides can be scheduled up to 30 days in advance. For trips where the exact time is unknown, passengers may schedule a "will-call" trip for no additional charge, where the passenger can call when they are ready to be picked up.

Between May 2017 and April 2018 in Ashland, there were about 50 pick-ups or drop-offs per weekday, on average, and five pick-ups or drop-offs each Saturday. Tuesdays and Wednesdays were the busiest days of the week, with approximately 55 pick-ups and drop-offs per day. Unlike RVTD's fixed-route system, where ridership increases throughout the day, paratransit service in Ashland peaks at 11 am and then decreases, likely reflecting trips to access services (e.g. medical, shopping) that have daytime business hours. Paratransit service on Saturday peaks at 9 am and again at 1 pm.

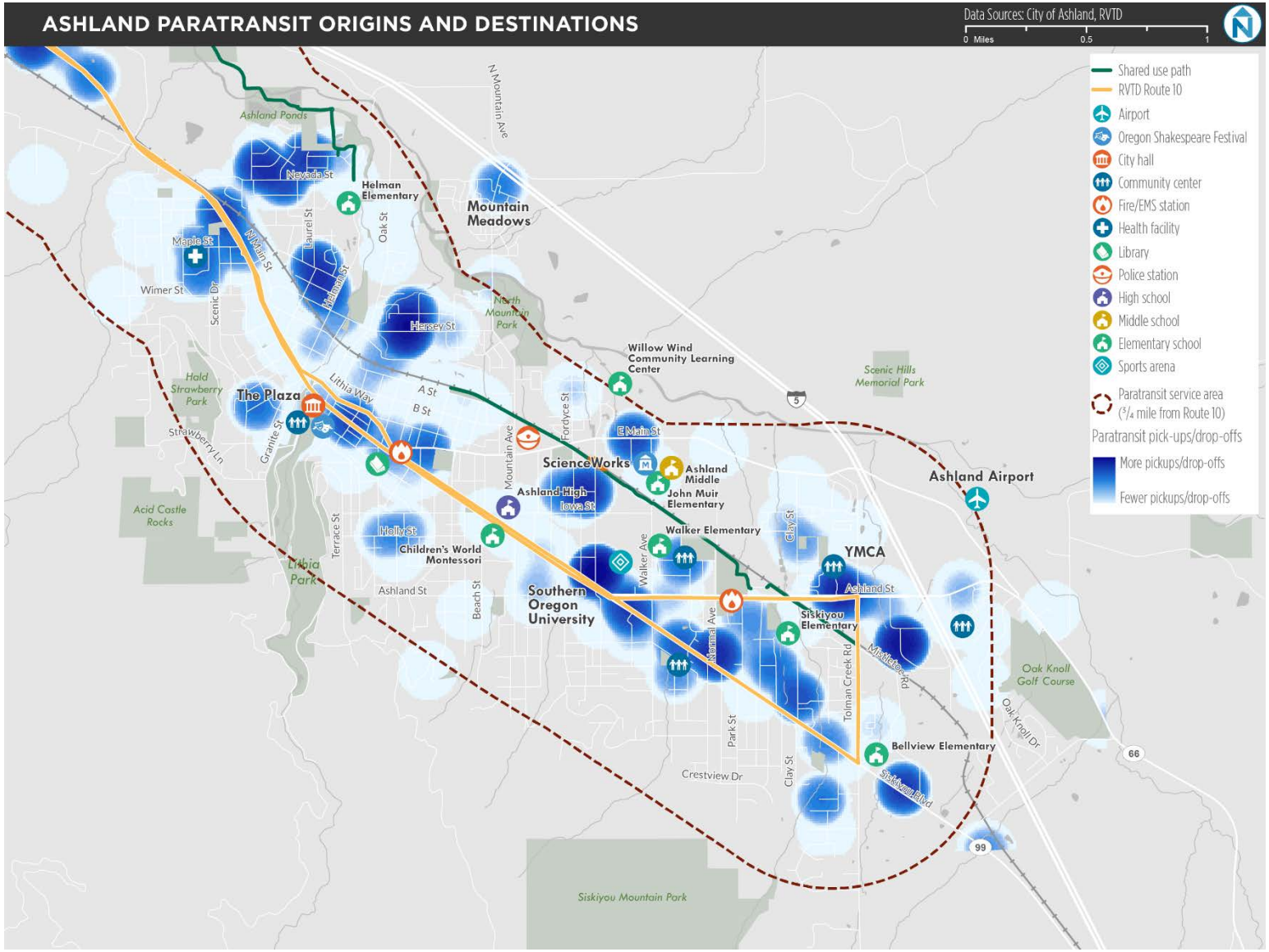
Figure 2-11 Average Daily Paratransit Pick-ups and Drop-offs in Ashland by Hour



Source: Rogue Valley Transportation District

The primary pick-up and drop-off locations in Ashland are concentrated near SOU, near Ashland Street and Tolman Creek Road, which includes the YMCA, Albertsons, Bi-Mart, Shop'n Kart, and various medical and wellness facilities. Near Hersey Street is another relatively active area. The ADA paratransit activity is summarized in a map in Figure 2-12.

Figure 2-12 Ashland ADA Paratransit Origins and Destinations



Source: Rogue Valley Transportation District

Technology and Amenities

RVTD uses OneBusAway to provide passengers with real-time information on the location of buses and the estimated time until a next bus is expected at a bus stop. The service is available on the RVTD website and via the OneBusAway mobile application.

To pay for each boarding, RVTD passengers can use a contactless card – known as TouchPass. Passengers can purchase passes online and maintain a balance, even if they lose their card. TouchPass has a mobile counterpart, known as the TouchPass Mobile App, through which passengers can purchase their fare and use as proof of fare payment upon boarding the bus.

ACTIVE TRANSPORTATION

The 2034 Ashland Transportation System Plan (TSP) was adopted in October 2012. It describes pedestrian and bike network gaps in Ashland as well as planned projects to help address those deficiencies. This section summarizes those network gaps and planned projects.

Pedestrian Facilities

Centrally located streets downtown and in surrounding residential areas are well served by pedestrian crossings and sidewalks. Figure 2-1 shows sidewalk "gaps" in red, as noted in the TSP completed in 2012. The most relevant gaps for public transportation are in residential and commercial neighborhood, such as areas south and west of Main/Siskiyou, and some blocks within the Transit Triangle area. These gaps will be important to resolve in concert with any transportation service strategies in these areas.

The density of signalized or marked crosswalks ranges from 2.5 crossings per mile along avenues (one every 0.4 miles or 4 minutes walking distance to the closest crossing) to 2.9 crossings per mile along boulevards (one every 0.35 miles or 3-4 minutes walking distance). Crossings per mile decreases further away from downtown. A study of Ashland crosswalks conducted in 2009 counted pedestrian and traffic volumes during the afternoon weekday peak (3:15 – 4:15 PM) at 31 intersections. Five signalized intersections observed the highest vehicular/pedestrian conflicts: OR 99 (NB)/Oak Street; OR 99 (SB)/Oak Street; OR 99/Wimer Street/Hersey Street; Walker Avenue/Iowa Street; and South Mountain Avenue/Iowa Street.

Figure 2-13 Marked Crosswalk on Main St in Downtown Ashland

Pedestrian crossing at Main Street and 1st Street.

Source: Nelson\Nygaard

Figure 2-14 identifies the sidewalk network coverage throughout Ashland. About one quarter (26%) of streets have sidewalks on both sides of the street. Over half (54%) of the major street network (i.e., neighborhood collectors, avenues and boulevards) do not have sidewalks. Similar to pedestrian crossings, sidewalk coverage decreases further away from downtown. Several residential developments located on the periphery of the city have constructed sidewalks on both sides of all streets. There is also about 6.8 miles of off-street multi-use path within the City.

In addition to crossings and sidewalks, terrain can also impact pedestrian facilities. The topography throughout the southwestern portions of the City can make walking more challenging, particularly for older adults or people with disabilities. Where walking is challenging, people are less likely to use public transportation.

Figure 2-14 Sidewalk Inventory

Sidewalk Presence	Neighborhood Collectors		Avenues		Boulevards		Total	
	Miles	%	Miles	%	Miles	%	Miles	%
Both Sides	0.6	13%	6.6	24%	5.1	34%	12.3	26%
One Side	1.4	30%	6.4	24%	1.5	10%	9.3	20%
No Sidewalk	2.7	57%	14.0	52%	8.6	56%	25.3	54%
Total	4.7	100%	27.0	100%	15.2	100%	46.9	100%

Source: Ashland 2034 Transportation System Plan (2012)

Planned sidewalk projects are important to consider in understanding potential transit routes and services, as that is the primary way to reach a bus stop. The fiscally constrained plan in the TSP

describes 39 pedestrian related projects over the next 25 years to improve connections throughout the city. Projects located on designated Safe Routes to School, streets with higher traffic volumes and speed, and adjacent to land use destinations are high priority. One project is to create a TravelSmart Education Program to inform and encourage walking and biking in Ashland.

Bike Facilities

Ashland has just over 30 miles of different types of bike facilities, which includes on-street facilities, such as shared roadways, shoulder bikeways, and bike lanes and off-street facilities, such as multi-use paths and greenways. Bike lanes are the most prevalent bike facility in Ashland. Figure 2-15 shows the bike facility coverage along all major roadways (i.e., neighborhood collectors, avenues, and boulevards) in Ashland.

Figure 2-15 Bike Facility Inventory

Facility Type	Miles	Percent
Bike lanes	12.70	42%
Shared roadway/signed shared roadway	8.30	28%
Multi-use path	4.06	14%
Greenway Trails	2.89	10%
Shoulder bikeway	2.10	7%
Total	**30.05**	**100%**

Source: Ashland Transportation System Plan

The City's planned bicycle facility projects included 24 projects over the next 25 years. One project will aim to encourage biking and retrofit the bike program by establishing funds and processes for installing off-street bicycle racks at existing business and establishments.

PARKING

The Ashland Downtown Parking Management & Circulation plan indicates that parking demand in downtown Ashland exceeds 85%, particularly during summer peak periods. The Plan provides 20 strategies to address the parking needs in downtown Ashland.

The on-street supply also includes motorcycle parking, parking for persons with disabilities, loading zones, and 1-hour parking in front of the library. Two commercial bus loading/unloading spaces are available along Pioneer Street between Lithia Way and Main Street as well as two commercial bus parking spaces along Lithia Way before Pioneer Street, and one commercial bus parking space along Pioneer Street between B Street and Lithia Way for after 5:30 pm.

The off-street parking supply, listed in Figure 2-16, includes five lots and one garage. There is no charge to park in any of the lots, though three of them have time limits of two or four hours. The garage on Hargadine Street costs $2 for parking between 6am and 6pm and $2 per hour between 6pm and 12am with a $10 maximum. The City also offers monthly daytime parking passes for this garage, valid Monday through Saturday from 6am to 6pm, at $30 per month.

Figure 2-16 Off-Street Parking Supply

Lot/Garage Name	Time Limit or Cost	# of Spaces
Water Street/B Street Lot	None	48
Winburn Way/ Nutley Street Lot	None	23
Second Street near Hargadine Street	2 hours, Free	24
Lithia Way/Pioneer Street	4 hours, Free	64 (2 vehicle chargers)
Lithia Way/Second Street	4 hours, Free	24
Hargadine Street Garage	▪ $2 between 6 am and 6pm ▪ $2/hour 6 pm-12 am, $10 maximum	142

Source: City of Ashland

In 2014 the City of Ashland administered three surveys to gather input from the public on parking needs and to engage residents, employees, and visitors in the development of the downtown parking management plan. Key takeaways from these surveys included:

- Peak periods will continue to present a challenge. Parking access and availability is limited during the Oregon Shakespeare Festival and peak tourist season. Several downtown business owners indicated that the lack of available parking during peak periods has negative impacts on their business.
- Focus incremental, short-term strategies that are low-cost, low-effort, and non-controversial, such as wayfinding, signage, education, and outreach strategies.
- There is interest in satellite parking areas with a bus shuttle or trolley service.
- Transportation/parking demand management strategies have potential benefits for Ashland residents.
- Multi-modal infrastructure improvements should be focused on downtown bicycle facilities, which currently seem inadequate.
- Regulatory, enforcement, and pricing strategies will be controversial and could deter people from visiting downtown.
- Many downtown employees use valuable on-street parking.

TDM SERVICES

Rideshare

People in Ashland are able to find a carpool or vanpool through Oregon's rideshare matching and trip logging service, *Drive Less. Connect.* (DLC). The Oregon Department of Transportation (ODOT) provides the statewide tool and RVTD administers the tool for the region. The Rogue Valley Transportation District is responsible for promoting and supporting carpools and vanpools in the Medford and Rogue Valley area. The DLC site allows people to set up and manage their own carpool or vanpool, or join an existing one. By logging trips made by non-drive alone modes, such as carpooling, walking, taking public transit, or biking, users can also see their savings in dollars, carbon dioxide emissions, fuel, and non-single occupancy vehicle miles. According to RVTD, there were 1,339 registered users in the carpool network in the Rogue Valley as of July 2018.

Southern Oregon University (SOU) students can access the Raider Rideshare network,[1] which is a carpooling network for SOU students. This network is also available through DLC. SOU students also have access to two ZipCars which are parked on SOU's campus.

Bike Share

Bike share complements transit, and is often seen as an extension of the transit system itself, allowing users to easily and inexpensively complete the first or last mile of their trip. The Rogue Bike Share program has eight stations, seven of which are throughout Ashland. Program partners and funders include the Rogue Valley Council of Governments, RVTD, ODOT, Southern Oregon University, and the City of Ashland.

People register with the bikeshare company Zagster, and reserve bikes on smartphones through their mobile application. The rates are pay-as-you-go, at $3.00 per hour. Riders can also purchase an annual membership for $25. Annual membership holders have up to two hours free, and then pay $3.00 for every additional hour. Students, faculty and staff of Southern Oregon University or Rogue Community College can obtain a discounted annual membership for $15. Recipients of the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Medicaid, or are enrolled in the Jobs Opportunity and Basic Skills (JOBS) program, are eligible to receive a free annual membership with extended free hours by contacting the DHS Self Sufficiency Office.

Figure 2-17 Rogue Bike Share Station at Ashland Plaza

Rogue Bike Share station, Ashland Plaza.
Source: Nelson\Nygaard

[1] See more information at https://inside.sou.edu/crc/rideshare.html, accessed April 2018.

Between March 1 and April 30, 2018, 430 trips were made on Rogue Bike Share, or approximately seven trips per day. The busiest four stations accounted for approximately 83% of the trips (see Figure 2-18).

Figure 2-18 Rogue Bike Share Usage Data (March/April 2018)

Station	Number of Trips Starts and Ends	Percent
Southern Oregon University	316	37%
Ashland Plaza	152	18%
Siskiyou Blvd & Glendale Ave	127	15%
Growler Guys (Lithia Way between 2nd and 3rd Streets)	119	14%
Safeway (Siskiyou Blvd & Sherman St)	89	10%
Ashland YMCA	40	5%
North Main & Maple St	13	2%
Front Street Station (Medford)	4	<1%
Total	**860**	**100%**

Source: Rogue Valley Council of Governments

Pass Programs

RVTD provides two types of bus pass programs to employers and schools: the U-Pass and the Fare Share.

The **U-Pass program** allows employers to purchase monthly bus passes (normally $56 per month) for employees at a discounted rate of $3.85 per month. Schools that participate can purchase monthly passes for $1.95 per month. To qualify for the program, employers and schools must have 10 employees or students at minimum participate.

The **Fare Share program** allows employers and schools to share the cost of transit access with their employees or students. For $0.45 per person per month, companies and schools can provide access to reduced monthly passes for employees at $10 per month and students at $5 per month. To qualify for the program, employers and schools must have 100 employees or students at minimum participate.

RIDE HAILING

Transportation Network Companies (TNCs) provide on-demand transportation to members of the public by connecting personal vehicle drivers with passengers via a smartphone mobile application. Within the mobile app, passengers can request a ride, pay for their trip, and rate their driver. Some companies offer “ridesplitting” to allow customers to split the cost of a shared ride. Lyft and Uber are two TNCs that dominate the market. As of April 2018, Uber can drop people off in Ashland, but pick-ups are not allowed. The City is developing an ordinance to regulate TNCs in the city.

3 TRANSPORTATION MARKETS

This section provides a better understanding of the transit ridership markets (i.e., where people are traveling to and from) in Ashland. The following analysis shows geographic distributions of population and employment as well as historic trends of transit dependent populations (i.e., older adults, low income, zero vehicle household, youth, and students). Tables and maps in this section use data from Portland State University population estimates and projections, the 2010 U.S. Census, and the 2016 American Community Survey.

POPULATION

Population growth rates and density are important indicators for developing public transportation services. Growth rates help communities identify trends in transportation demand while population density can suggest which neighborhoods or destinations are important to serve. As shown in Figure 3-1, the Ashland population increased at a slower rate than Medford, Jackson County, and the State between 2010 and 2017.

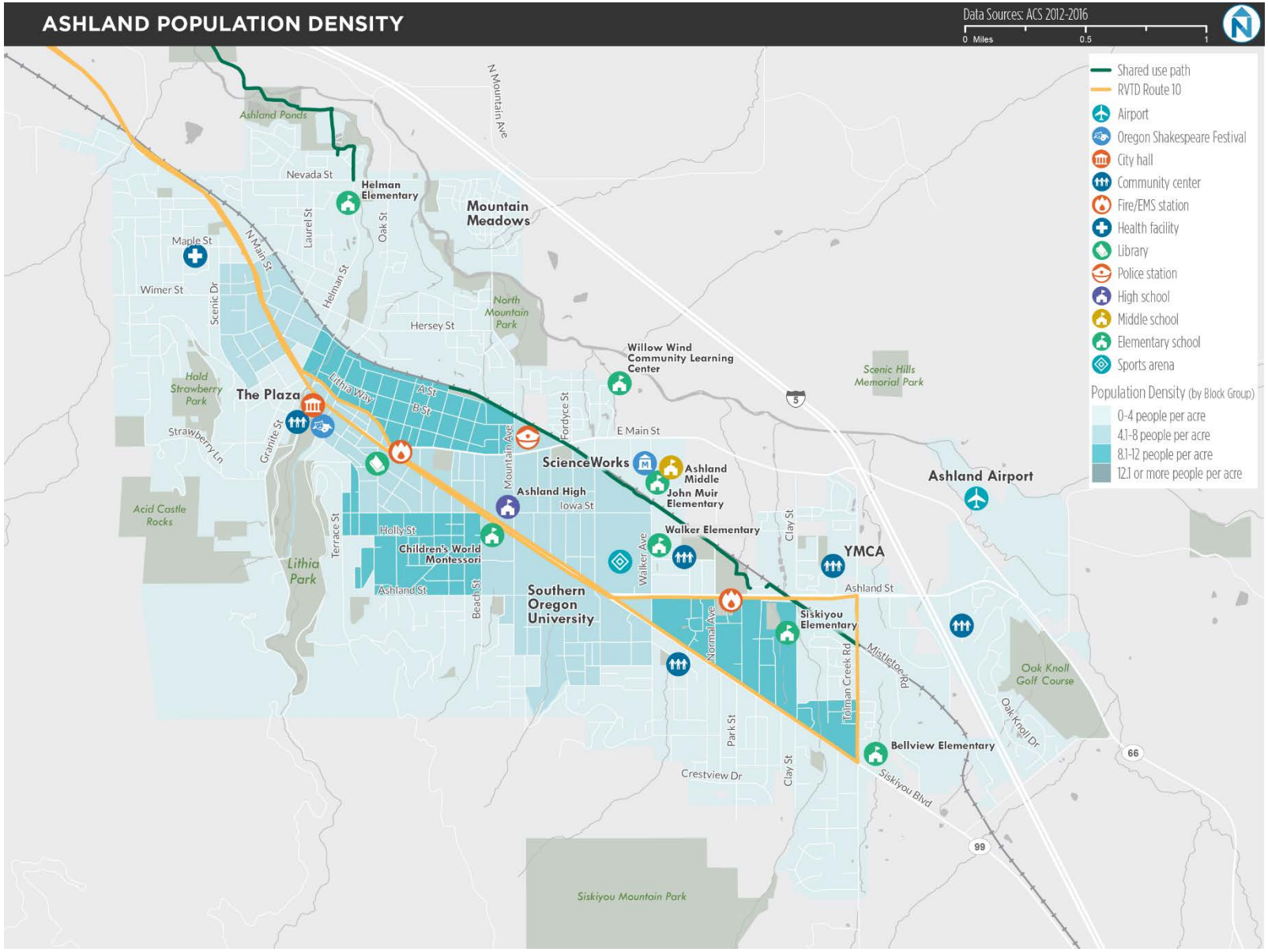
Figure 3-1 Historic Population Trends

Geography	2010	2017	Percent Change
Ashland	20,095	20,700	3%
Medford	74,980	79,590	6%
Jackson County	203,340	216,900	7%
Oregon	3,837,300	4,141,100	8%

Source: Portland State University Annual Population Estimates and Reports 2010 and 2017

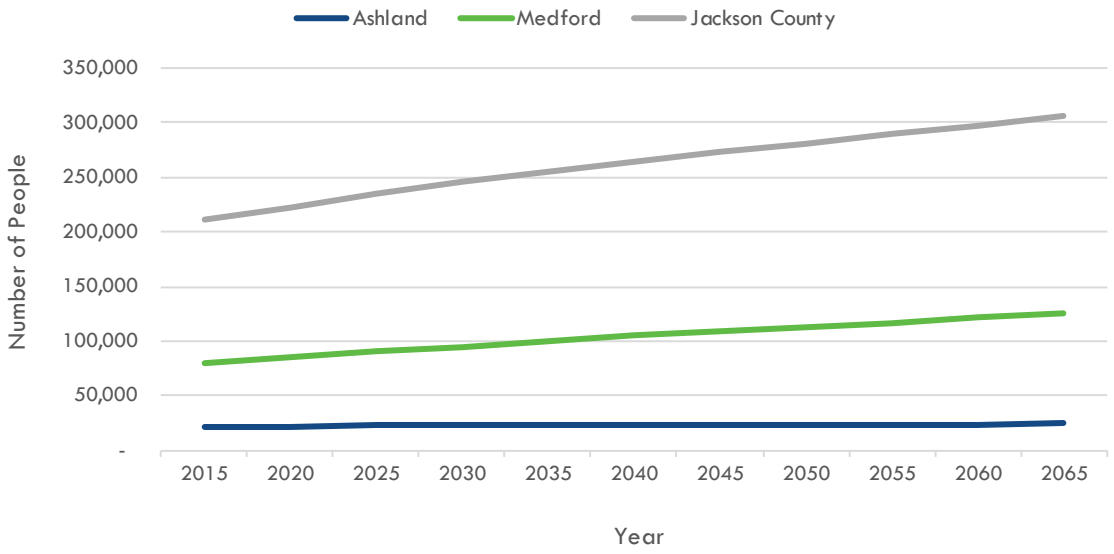
Figure 3-2 shows the population density in Ashland. The densest parts of the city are adjacent to Siskiyou Boulevard and are well served by bus transit. Much of the city, particularly on the city outskirts, has a lower density of zero to four people per acre.

Figure 3-2 Population Density



According to Portland State University's Population Forecast Program, Ashland's population is expected to increase slightly to 24,100 by 2065—a 17% increase from the 2017 population. Unlike Ashland, the populations in Jackson County and Medford are expected to increase more rapidly over the next 50 years.

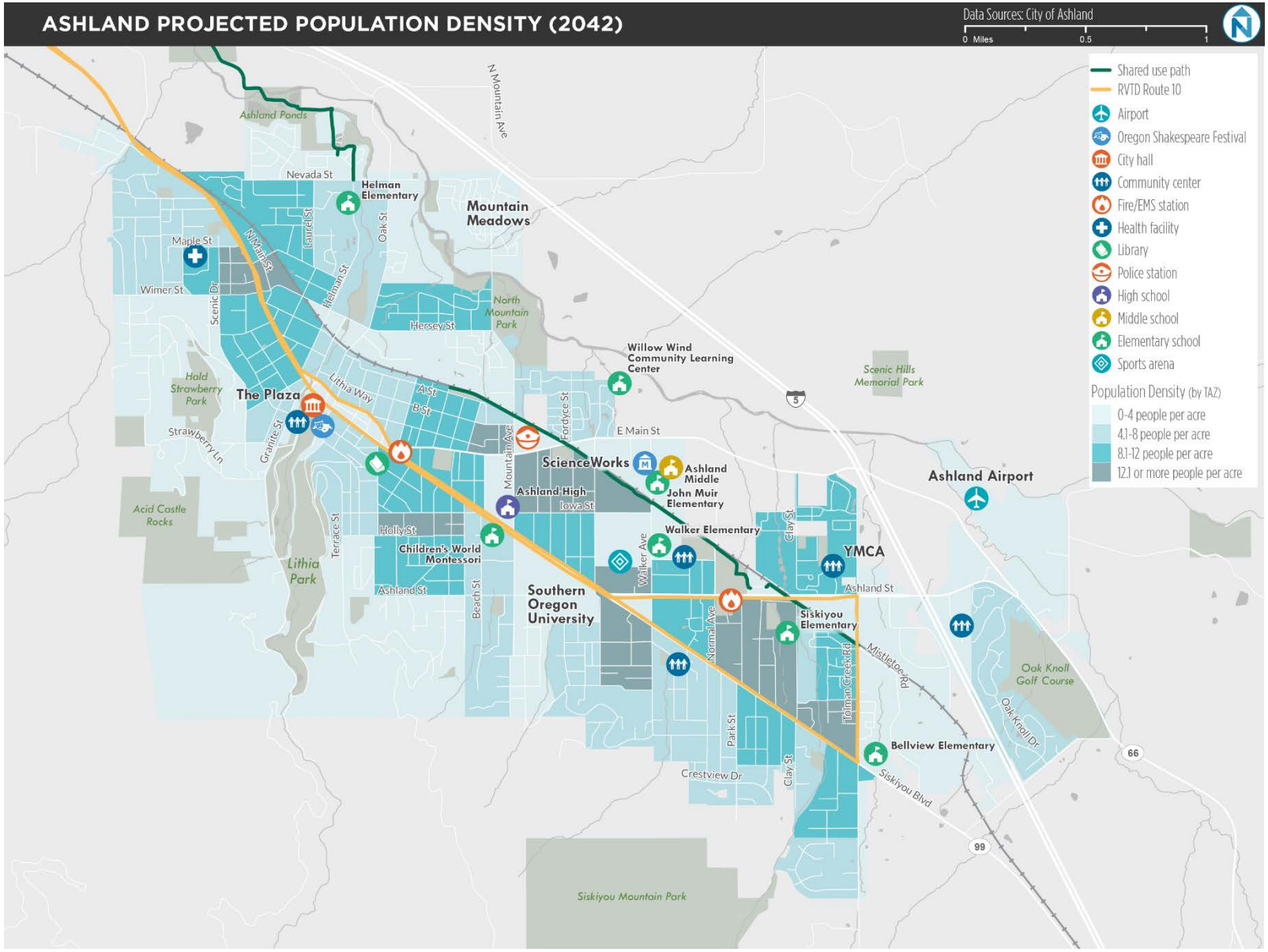
Figure 3-3 Population Projections



Source: Portland State University Population Forecast Program

Figure 3-4 shows the projected population density in Ashland by 2042. Population density in the south and north of the city is expected to increase but some parts of the city are expected to have a decline (e.g. along Lithia Way and near Southern Oregon University). Most of the denser parts of the city are adjacent to transit with the exception of the area around Oak Knoll Golf Course and north of Hersey Street. However the densities in these areas will continue to be lower than areas of the city that are currently served by transit.

Figure 3-4 Projected Population Density, 2042



EMPLOYMENT

Employment in Ashland increased at a slightly faster rate than the county. As shown in Figure 3-5, the number of employed Ashland residents increased 2% since 2010 while the number of employed residents in the county increased 1%. Some of the major employers in Ashland include Southern Oregon University, The City of Ashland,[2] Asante Ashland Community Hospital, and the Oregon Shakespeare Festival.[3]

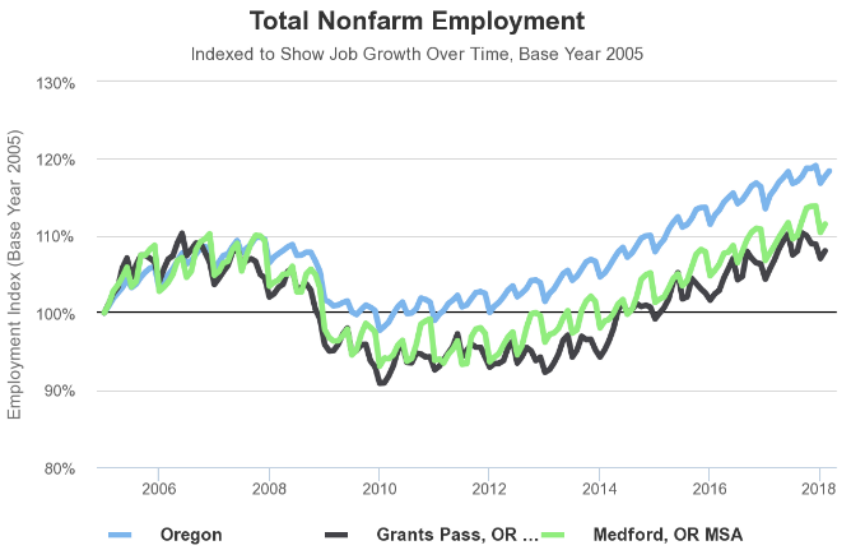
Figure 3-5 Employment Trends

Geography	2010	2016	Percent Change
Ashland	9,470	9,640	2%
Jackson County	89,410	90,180	1%

Source: American Community Survey 5- Year estimates 2010 and 2016

Historic employment trends in Oregon, Grants Pass metropolitan statistical area (MSA), and Medford MSA (which includes Ashland) show similar patterns in Figure 3-6. The fluctuations in the number of jobs indicates that there may be several non-farm related seasonal jobs throughout the state. Between 2012 and 2018, all three geographies have shown a similar upward trend.

Figure 3-6 Employment Growth in Oregon, Medford, and Grants Pass



Source Oregon Employment Department Qualityinfo.org

Figure 3-7 and Figure 3-8 show employment density in Ashland in 2016 and 2042 respectively. Between 2016 and 2042 Ashland is expected to experience an increase in employment density in areas adjacent to transit, such as southeast Ashland, near Southern Oregon University, near downtown, and at Asante Ashland Community Hospital.

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[2] Jared Hokanson, "Southern Oregon's Top Employers," Active Rain, June 2, 2010, http://www.ashlandchamber.com/Page.asp?NavID= 1234.

[3] "Ashland's Economy," Ashland Chamber of Commerce, 2018, http://activerain.com/blogsview/1675528/southern-oregon-s-top-employers.

Figure 3-7 Employment Density

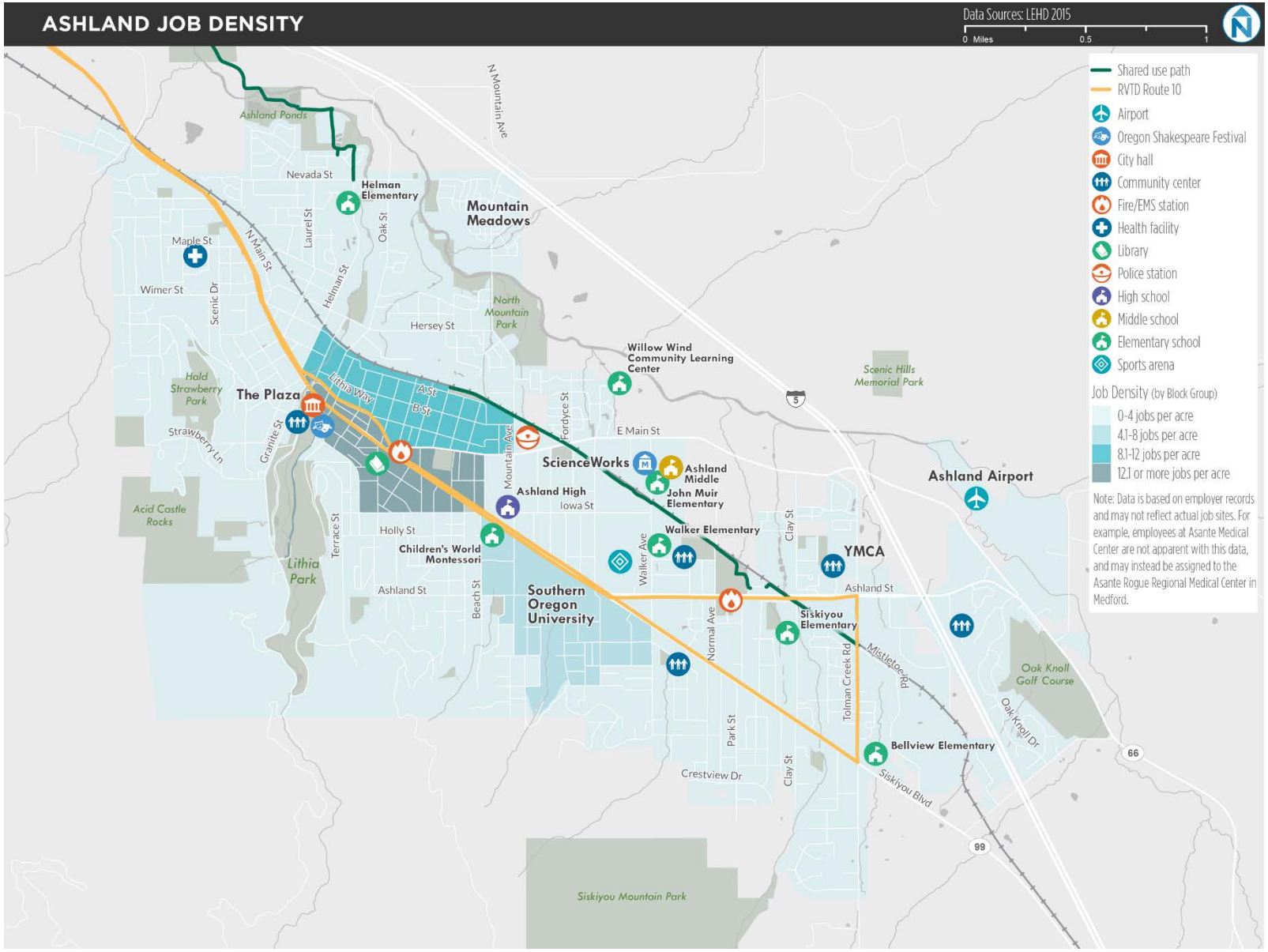
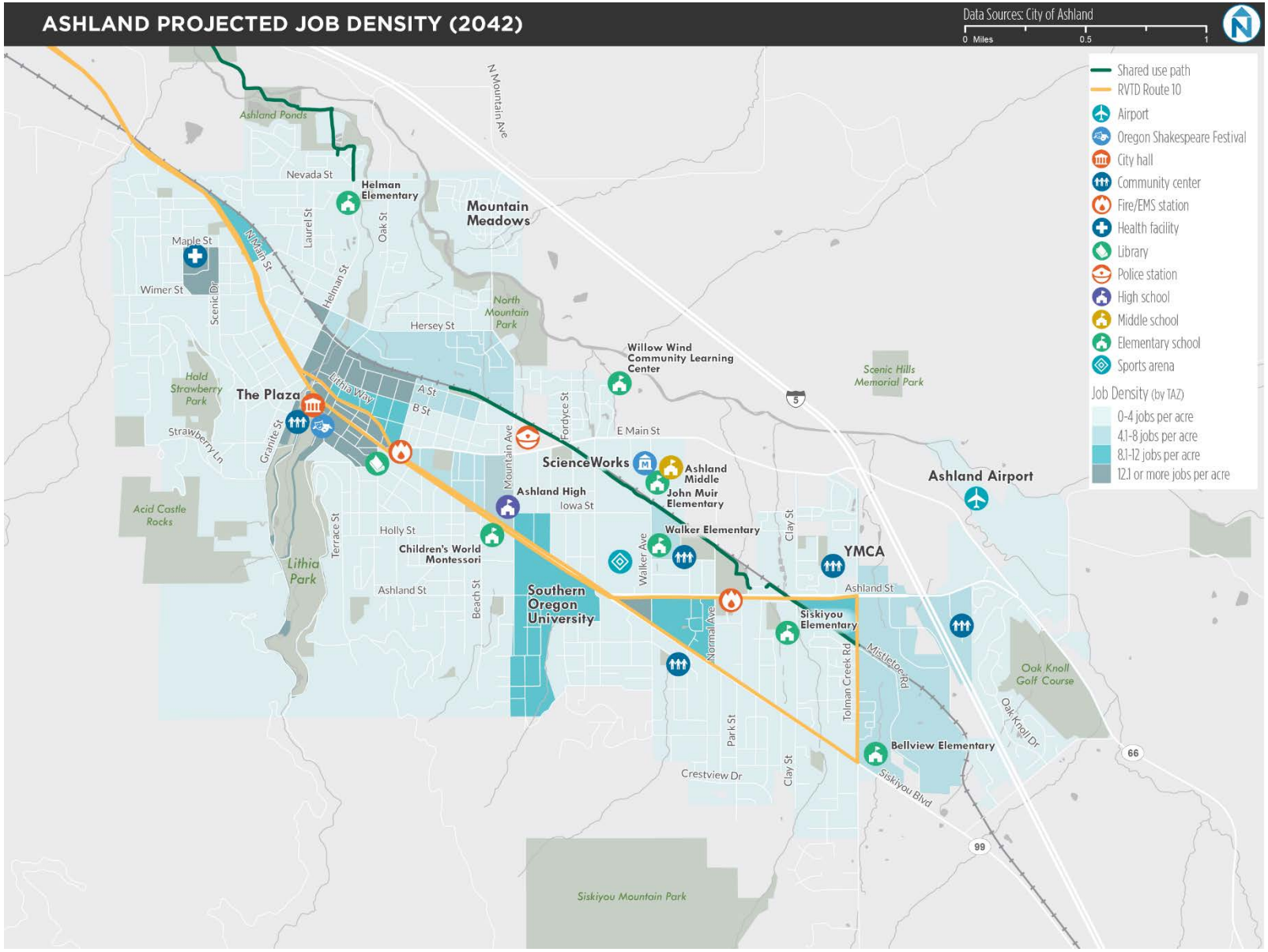


Figure 3-8 Projected Employment Density, 2042



TRANSIT DEPENDENT POPULATIONS

In addition to population and employment densities, there are demographic groups that are more likely to use public transportation due to limited mobility, financial resources for transportation, and personal preference. Understanding these demographic groups is a key part of ensuring transportation plans allocate resources equitably, and provide opportunity for vulnerable populations.

The demographic groups include older adults (65 years or older), low income households, zero vehicle households, youth (18 to 24 years old), and students. Public transportation can be a critical resource for people with limited mobility to maintain independence by getting them where they need to go affordably, efficiently, and safely.

Older Adults

For this analysis, older adults are defined as people age 65 and older. Older adults are less likely to drive because of physical restrictions, limited incomes, or other reasons. The proportion of older adults in Ashland and Jackson County was the same in 2010. Between 2010 and 2016, the older adult population in Ashland increased by 27%—nearly 1,000 people. Older adults in Jackson County also increased but at a slower rate than Ashland.

Figure 3-9 Older Adults (65 years and older)

Geography	2010		2016		Percent Change 2010-2016
	#	% of Total Pop	#	% of Total Pop	
Ashland	3,530	18%	4,490	21%	27%
Jackson County	35,830	18%	42,580	20%	19%

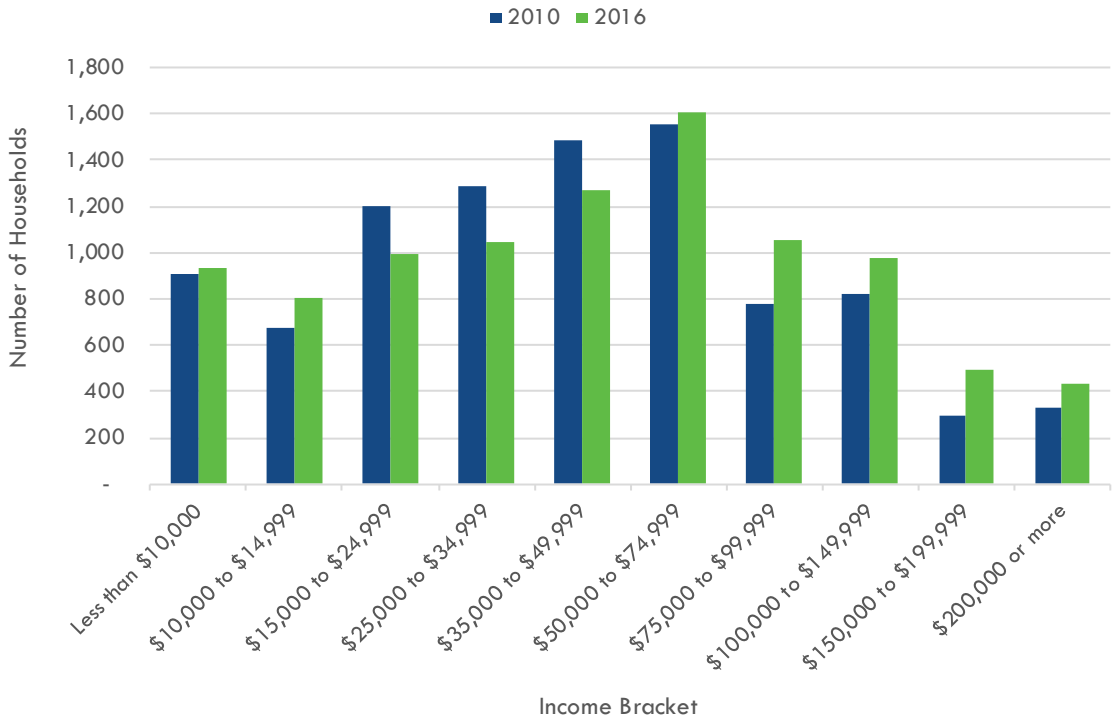
Source: U.S. Census, 2010 and American Community Survey, 2016

Low Income

People who earn a lower income may be less likely to afford their own car and more likely to use public transportation. Overall, household incomes in Ashland have been trending upward. Figure 3-10 shows household income trends for the City of Ashland between 2010 and 2016. In 2010, at least 44% of households had an income below the median income of $40,140. The median income increased to $47,314 in 2016. At least 39% of households had an income below the 2016 median. In both 2010 and 2016, most households had an income between $50,000 and $74,000.

Between 2010 and 2016, the number of households with incomes in lower income brackets ($15,000–$24,999, $25,000–$34,999, and $35,000–$49,999) decreased while the number of households with incomes in some of the higher income brackets ($75,000–$99,999, $100,000–$149,999, and $150,000–$199,999) increased. Of the 10 income brackets shown in Figure 3-10, the total number of people in the five lowest brackets has decreased by 9% and the total number of people in the five highest income brackets has increased by 21%.

Figure 3-10 Household Income Trends in Ashland

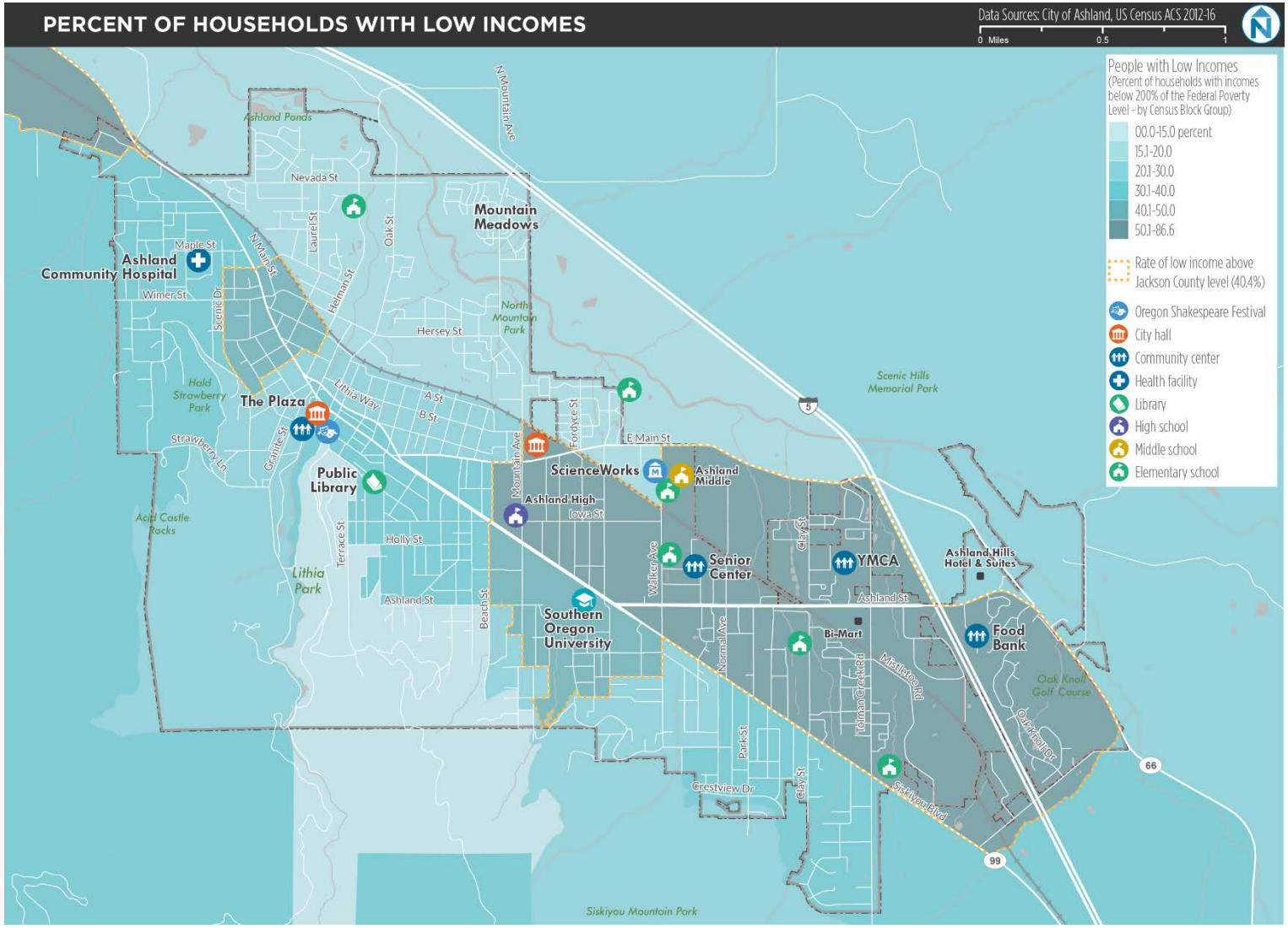


Source: American Community Survey 5- Year estimates 2010 and 2016

Recognizing the link between public transportation as a service to low-income communities, the Oregon State Legislature required that projects funded through the Statewide Transportation Improvement Fund (part of Keep Oregon Moving, House Bill 2017) should make expanded transit service to low income communities a top priority. The rules require transit plans and advisory committees define low income as households earning less than 200% of the federal poverty guideline for a given household size. The threshold above which an area is considered to have a high percentage of low income households will be determined by RVTD through bylaws developed for the program. Jackson County's share of low income households, following this definition, is about 40%.

Figure 3-11 shows the percent of households by Census block group that earn less than 200% of the federal poverty guidelines. The highest percentage areas – over 40% – are located in communities east of Mountain Avenue and north of Siskiyou Boulevard. Ashland's citywide share of low income households is about 37%.

Figure 3-11 Percent Low-Income Households by Block Group



Zero Vehicle Households

People who do not regularly have access to a vehicle at home have greater mobility restrictions than if a vehicle is always available. As shown in Figure 3-11, Ashland and Jackson County both have a small proportion of zero vehicle households but the number of households without a vehicle has been increasing since 2010. The proportion of zero vehicle households in Ashland (8%) is slightly higher than the proportion in Jackson County (7%). Between 2010 and 2016, the number of zero vehicle households in both Ashland and Jackson County has increased by one percentage point. It is unclear if the increase is due to financial circumstances, personal lifestyle choices, or other factors.

Figure 3-12 Zero Vehicle Households

Geography	2010		2016		Percent Change 2010-2016
	#	% of Total HH	#	% of Total HH	
Ashland	680	7%	790	8%	16%
Jackson County	4,930	6%	5,610	7%	14%

Source: American Community Survey 5- Year estimates 2010 and 2016

Youth

For this analysis, youth is defined as people ages 15 to 24. Youth may not have a license to drive or may not be able to afford their own car. Figure 3-12 shows historic trends of the youth population in Ashland and Jackson County. In 2010, youth made up a larger proportion of Ashland's population—almost 20%—than Jackson County. The number of youth has declined in both Ashland and Jackson County between 2010 and 2016, but Ashland had a faster rate of decline.

Figure 3-13 Youth (15 to 24 years)

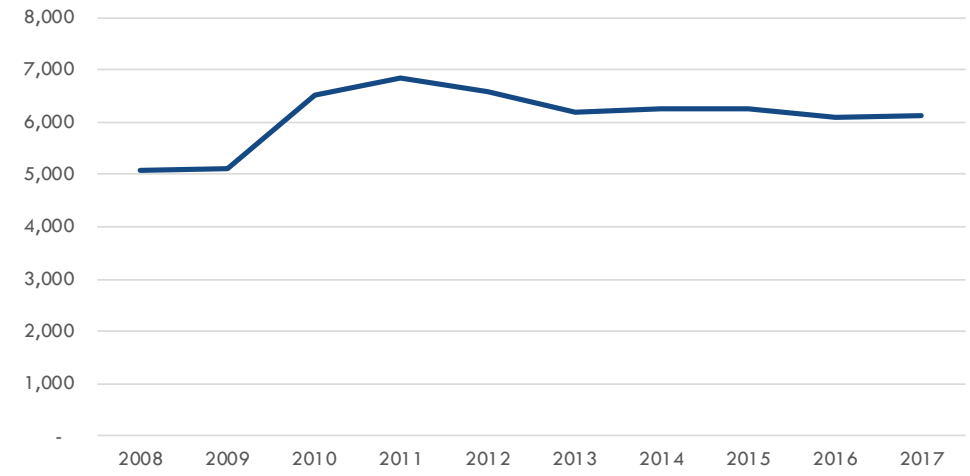
Geography	2010		2016		Percent Change 2010-2016
	#	% of Total Pop	#	% of Total Pop	
Ashland	3,800	19%	3,360	16%	-12%
Jackson County	25,430	13%	24,900	12%	-2%

Source: U.S. Census, 2010 and American Community Survey, 2016

Students

Southern Oregon University (SOU) is a public institution that specializes in liberal arts. The university primarily attracts students from Oregon, but enrollment does include students from other states as well as other counties. Figure 3-13 shows SOU enrollment trends from 2008 to 2017. Enrollment increased most between 2009 and 2010, increasing by over 1,400 students (28%). Between 2011 and 2013, enrollment decreased by 10% but has remained fairly even through 2017.

Figure 3-14 Southern Oregon University Enrollment Trends



Source: Southern Oregon University; https://inside.sou.edu/ir/enrollments.html

TRAVEL FLOWS

The U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) On the Map tool allows users to access employer and household information, such as where workers live and where workers work. This data highlights common commute patterns and can help anticipate travel needs to and from the city.

Approximately 8,900 workers were employed within Ashland in 2015, of which 5,600 (63%) of these workers travel in from surrounding cities, primarily Medford, Talent, Phoenix, and Central Point. Nearly 7,100 people living in Ashland were employed, of which 3,800 (53%) travel to surrounding cities for work, primarily Medford, Grants Pass, Central Point, Portland, and Eugene. Approximately, 3,330 people both live and work in Ashland. As shown in Figure 3-14, these commute patterns increase the Ashland population by 1,800 people each day.

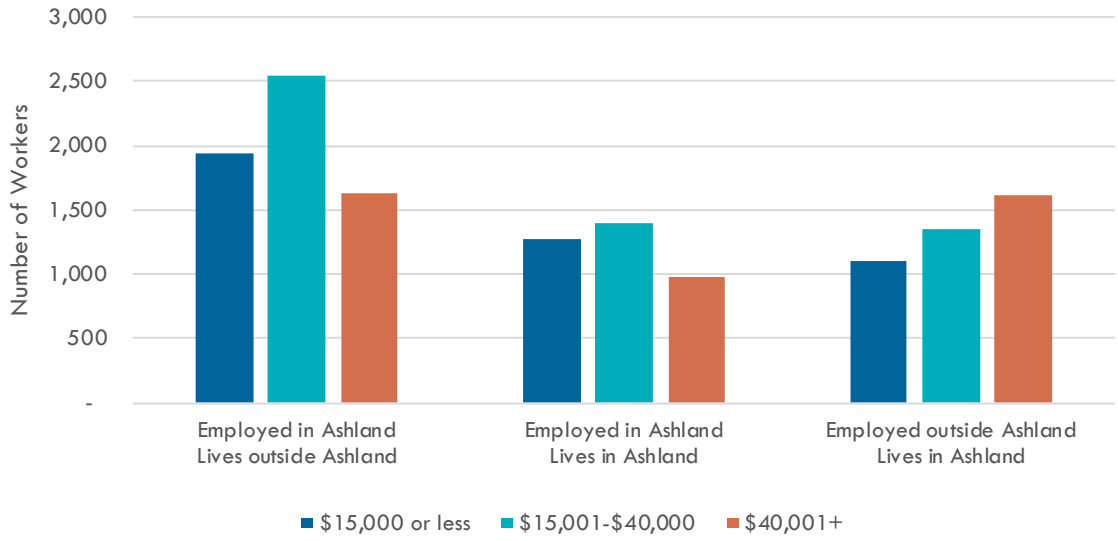
Figure 3-15 Ashland Commute Patterns, 2015

Source: Longitudinal Employer-Household Dynamics (LEHD), 2015; Portland State University Annual Population Estimates and Reports 2017

The work trip patterns also show that people working in Ashland that live elsewhere tend to have lower incomes, on average, than people that live in Ashland and work elsewhere. Figure 3-15

shows the commute types by three income categories providing a general picture of travel markets.

Figure 3-16 Income Categories by Commute Type, 2015



Source: Longitudinal Employer-Household Dynamics (LEHD), 2015

Figure 3-16 shows how these travel flow trends have changed between 2005 and 2015. Overall, more people are commuting to and from Ashland for work and fewer people are employed and living in the city. The number of workers commuting into Ashland for work increased by 25%. The number of worker living in Ashland and commuting elsewhere for work increased by 6%. Workers employed and living in Ashland has decreased by 10% between 2005 and 2015. Increases in the number of people traveling in and out of Ashland highlights the need for regional transit connections between Ashland and neighboring cities.

Figure 3-17 Ashland Commute Patterns, 2005

Category	2005		2015		% Change
	#	%	#	%	
Workers employed in Ashland	8,200	100%	8,900	100%	9%
Live outside of Ashland	4,500	55%	5,600	63%	25%
Employed and living in Ashland	3,700	45%	3,300	37%	-10%
Workers living in Ashland	7,200	100%	7,100	100%	-2%
Employed outside of Ashland	3,600	50%	3,800	54%	6%
Employed and living in Ashland	3,700	51%	3,300	46%	-10%

Source: Longitudinal Employer-Household Dynamics (LEHD), 2005 and 2015

4 COMMUNITY OUTREACH

The project team did a series of outreach in April, which included in-person outreach, stakeholder interviews, and a TAC meeting.

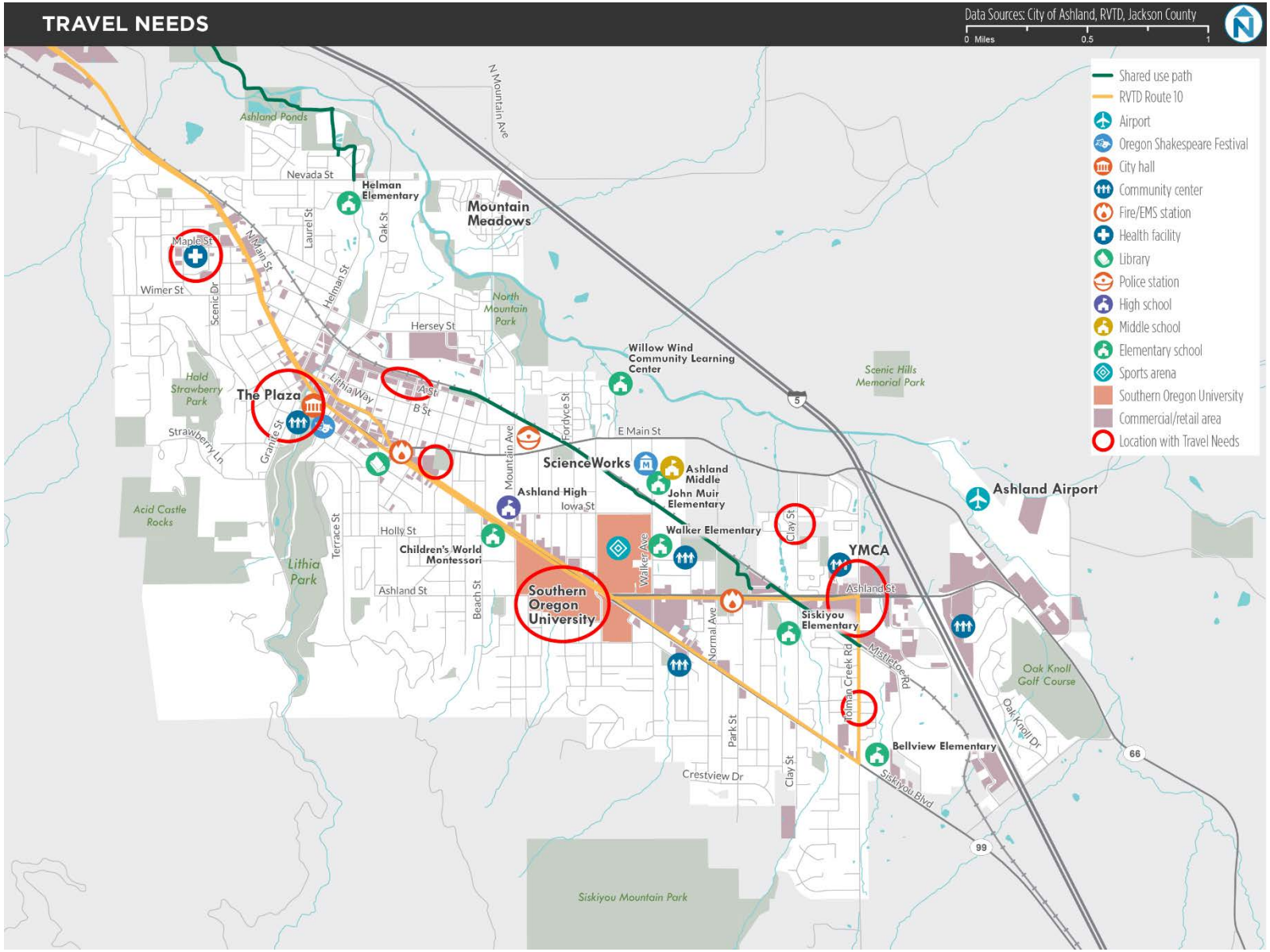
MOBILE WORKSHOPS

The project team gathered public input at SOU on April 23, 2018 and at the Ashland Growers Market on April 24, 2018. The purpose of this in-person outreach was to gather feedback about travel needs within Ashland, and to/from other communities in the region; and the most important roles of public transit.

People were asked to identify regional communities and/or specific locations in Ashland that they travel to frequently or where improved transportation would help them access. Of the people who participated in this exercise, most of them want to travel outside of Ashland to Medford Airport, Downtown Medford, and Talent; others noted needing to get to other parts of Medford, Central Point, and White City.

Select travel needs within Ashland are circled in red in Figure 4-1 and primarily include commercial areas (i.e., Railroad District, Downtown Ashland and the Plaza, at Siskiyou Boulevard and Main Street), SOU, and Asante Ashland Community Hospital. Most of these destinations within Ashland are currently served by Route 10 today.

Figure 4-1 Travel Needs Within Ashland



People were also asked to select the top three choices of what Ashland should focus on when considering its public transportation system. The top 10 responses, in order of the times it was selected, are listed below.

1. Use and promote clean energy
2. Get people to work and employment
3. Help people without cars or don't drive, such as low income communities and other vulnerable populations
4. Offer more trips on Saturday and Sunday
5. Get people to places to shop, meet, and eat
6. Provide trips at night (after 8 PM)
7. Offer more frequent service to make transit convenient and useful
8. Connect Ashland to other cities
9. Provide connections within Ashland, especially to medical services for vulnerable populations and people with limited mobility
10. Serve visitors and tourism markets for convenience and to reduce driving

Some people provided additional comments about public transit needs. Comments included:

- Low-cost, easy ways to get people to the bus and/or around town
- Small, electric cars, scooters, bikes, etc.
- More bike infrastructure and/or bike racks
- Make biking more safe (light, lanes, signs) and accessible
- Help underserved populations access green space and outdoor recreation opportunities
- Need to find ways to include low income populations
- Different, more convenient payment methods
- Education and information to change perceptions

Public outreach at the Ashland Farmers Market (left) and at Southern Oregon University (right).
Source: Nelson\Nygaard

STAKEHOLDER INTERVIEWS

In April 2018, the project team also conducted three in-person interviews with representatives from stakeholder organizations in Ashland, including Oregon Shakespeare Festival, Mountain Meadows, and the Chamber of Commerce (for a list of all stakeholder interviewees see Appendix E).

Each stakeholder provided input on transit related challenges and opportunities for improvement, which focused around the following topic areas.

Access to Public Transportation

Participants noted that barriers to riding transit include frequency, reliability, and hours of service. Stakeholder interviewees indicated that if transit service ran more often and was more reliable more people would be interesting in using it. There is also a need for transit to operate on evenings and weekends, particularly during the peak tourists season from May through October.

The hilly terrain in Ashland can also make access to transit more difficult, particular for people with limited mobility or disabilities. Any new transit services within Ashland (e.g. a local shuttle or circulator) should serve the Railroad District and Downtown equally. Some people do not feel safe walking around Ashland late at night due to a lack of street lighting and wildlife. Additional lighting could improve safety, access to transit, and walkability.

The disability community identified the need for transit service to areas of the city that are not currently served by fixed-route transit, particularly along East Main Street. Mountain Meadows was also identified as another part of Ashland that lacks transit service, and where a new fixed-route or additional paratransit service is preferred. The second key transit need was for service to operate later in the evening on both weekdays and weekends. Lastly, the disability community noted that many bus stops surfaces are gravel or dirt, or located near a ditch. They would like bus stops to be fully accessible, with concrete pads and safe access routes.

Equity in Transportation

Access to public transportation is critical to ensuring all people can use the public transportation system, and includes issues related to **walking infrastructure, price, information,** and a **relevant service design** for people's needs.

Providing equitable access is a major theme evident through this project and from past plans such as the **Climate Action Plan** and the **Transportation System Plan.**

Some stakeholders noted that there has been long-standing interest in the community for enhanced intra-city transit service. One particular route – with park-and-rides – would connect the Interstate 5 gateways (Exit 14 and Exit 19). The vision is to connect major destinations such as hotels and the downtown business district, and significantly reducing automobile use. The need for expanded, frequent and accessible transit service was identified in Ashland's 2017 Climate & Energy Action Plan, the 2016 Downtown Strategic Parking Management Plan, and the 2012 Transportation System Plan.

Pedestrian and Bike Infrastructure

Improved pedestrian and bike facilities are needed in Ashland. Stakeholders expressed a desire for improved pedestrian infrastructure downtown and bike lanes along Main Street. However, some local business owners fear that expanding pedestrian and bike infrastructure may take away parking and impact their business.

Stakeholders also noted that pedestrian infrastructure also needs to be designed in a way that is functional for people with disabilities or limited mobility, including older adults which are a notable share of tourists. This includes improved crosswalks with increased visibility and shorter crossing distances, with a priority for corridors with the highest vehicle volumes and speeds.

Parking

Parking is a very important part of the transportation issues in Ashland. People understand the need to balance walking, biking, and driving, and businesses are concerned about how that may impact customer access to their business.

Loading areas and drop-off zones are also an important consideration. The roadway around the Plaza is often congested with people trying to park, taxis dropping people off, and multiple deliveries by truck.

Stakeholder interviewees indicated there is not enough handicapped parking in the area. This is problematic for people that are not able to park farther away (e.g. on the hill south of Main Street) and walk to their destination.

Parking near the Albertsons and Bi-Mart were identified as potential park-and-ride locations that can reduce downtown parking pressure. Those are the largest parking lots in the city and the Chamber of Commerce already has an existing partnership with Albertsons to use that parking for various events, including the 4th of July, Festival of Lights and the Halloween Parade.

Airport Access

Transport to and from the airport was identified as a need, and there was recognition that visitors and local businesses would benefit from improved access to the airport in Medford. The Oregon Shakespeare Festival and Chamber of Commerce both indicated that multiple times in the past staff members would travel to the airport to pick up or drop off colleagues or visitors because of the lack of an existing connection. Stakeholders did not refer to Route 61, which serves the airport Monday through Saturday every 60 minutes, suggesting lack of awareness that the service exists, or recognizing the inconvenient transfers.

Cultural Shift

There currently is a lack of transportation options in the region. To decrease the number of cars on the road, Ashland needs to create more pedestrian and bike friendly options and encourage the use of transit. This could also help broaden the appeal of downtown for residents during off-peak tourist season.

TAC MEETING

The purpose of the Technical Advisory Committee (TAC) is to provide guidance throughout the duration of this project by bringing their perspectives to technical approach, analysis results, strategy development and evaluation, and content of deliverables. The TAC is comprised of city staff and relevant community stakeholders and will meet three times over the course of this project.

The first TAC meeting took place on April 23, 2018 in Ashland. Attendees participated in an open discussion about transportation needs and opportunities as well as a prioritization exercise. TAC members prioritized top service preferences for the City, based on their experience with existing

plans, local communities, and trends in markets and development. The top public transportation strategies services preliminarily identified by the group were:

- Direct service to Medford
- Later service in the evening
- Higher frequency service on Siskiyou Boulevard and Main Streets
- Visitor/tourist shuttles
- Door-to-door service for people with limited mobility
- Transportation marketing and information
- General circulation shuttles around Ashland, connected to park-and-rides
- Publicly owned taxis and TNCs
- Electric vehicles

Meeting notes and the results from this exercise are included in the Appendix.

5 TRANSPORTATION NEEDS AND OPPORTUNITIES

This section summarizes the transportation need and opportunities identified through the existing conditions analysis and conversations with the TAC, key city partners, and the general public through the events described in Section 4. Figure 5-1 summarizes the transportation needs most relevant to transportation market or user types including Ashland residents, employees and visitors. The needs are marked by a symbol to represent whether the need is generally a high priority issue, or a secondary one. The section following the figure describe the transportation needs in more detail.

Figure 5-1 Transportation needs and opportunities by rider type

	Market Type:	*Frequent users or needs*			*Occasional users or needs*		
		Limited Car	**Students**	**Commuters**	**Residents**	**Visitors Tourists**	**Businesses**
Transportation Needs & Priorities	High frequency service	●	●	○	○	●	○
	Reliability	●	●	●	●	●	●
	Local connections	●	●	○	●	○	○
	Transportation options	●	●	○	○	●	●
	Late night service (to 12 am)	○	●	○	○	●	○
	Sunday service	●	○	○	○	○	○
	Shorter Travel time to Medford	●	●	●	○	○	○
	Connect to Medford Airport	○	○	○	○	●	○
	Alternatives to parking downtown	○	●	●	●	●	●
	Comfortable walking environment	●	●	●	●	●	●
	Safety/perceived safety	○	●	○	●	●	●
	Information	○	○	○	○	●	○
	Low price	●	●	●	○	○	○

● = High priority; ○= Medium to low priority

High frequency service refers to how often a bus is available. Higher frequencies allow people to make trips without rigid planning. Route 10 offers service every 20 minutes – although this is the highest in the RVTD system, past plans and stakeholders note a need for more frequent service.

Reliability, like frequency, reflects users' need to know they will arrive at their service within an expected amount of time. Reliability can be affected by service interruptions (traffic, breakdowns, etc.), or operational issues with route timing. Stakeholders didn't mention specific issues with Route 10 but noted the importance to any transportation service strategy.

Local connections are key for people making local trips in Ashland. The 2012 TSP, RVTD's Long Range Plan, and conversations with local stakeholders indicated the potential to serve mobility needs with bus routes in parts of the city not served by Route 10 today. Given that most people will walk or roll one-quarter mile to a transit stop, there are not many areas in Ashland lacking service, given the relatively narrow shape of the city. Some of the most important destinations included the following, with places accessible by Route 10 noted with an "*".

- Downtown and Ashland Plaza*
- Asante Medical Center
- Railroad District
- Mountain Meadows
- Southern Oregon State University*
- Scienceworks and the Growers Market
- Tolman Creek Road and Ashland Street (Bi-Mart, Albertsons)*
- YMCA Community Center
- Residential areas including southwest of downtown, Oak Knoll Drive, and Helman neighborhood

Transportation options refers to having multiple mobility services, such that a person can choose a solution for any type of trip. Transportation options include (but are not limited to) fixed route transit, demand response transit, taxis or transportation network companies, carpooling or biking. With a growing population of people with higher-than-average incomes, and a younger generation coming to recreate and attend classes, mobility options will likely not be restricted to traditionally low-cost public transportation.

Night service refers to bus trips available after 9:20 pm, the last run on Route 10 in Ashland. Residents on a night out, visitors and students were key markets for later evening service. Some performances at the Oregon Shakespeare Festival end as late as 11:00 pm, and students may meet late or attend events in town.

Sunday service would provide service during the only day of the week when transit service is not currently provided in Ashland. Sunday service could be designed to either serve local trips within the City of Ashland only, or to expand Route 10's schedule to provide regional connections to Talent, Phoenix and Medford. Sunday service would provide options for people who do not have a car, and provide greater flexibility for people to run errands or go to the grocery store.

Travel time to Medford on Route 10 is scheduled at 50 minutes, about 30 minutes longer than a car trip, on average. Past plans and stakeholders have noted the need for faster travel times between these communities to attract and maintain rider markets. Faster travel times would be particularly of interest to work commuters, students and people making occasional trips. This could be especially true as people seek housing at more affordable prices outside Ashland.

Connecting to the Medford Airport is a regional travel need for students, tourists, visiting actors and other workers, and residents with visitors. The connection today from Route 10 to Route 61 is not timed for regular use, and the travel time to Ashland is over three times longer than driving. Other transportation services are not generally available or reliable.

Alternatives to parking downtown is a preference for many people who try to find a parking space in the compact downtown area. On-street occupancy is high in downtown Ashland (often over 80% utilized) due to low cost to parking, high demand, limited mobility options, and

propensity to drive. There is a concern by officials and business owners that employees are using parking spaces that could instead be used by customers, thereby reducing business access. Past plans recognized satellite parking may be an effective solution, in conjunction with a shuttle bus.

A comfortable walking environment is a key issue for mobility and public transit. Many neighborhoods in Ashland, including areas along Main Street and Siskiyou Boulevard have good sidewalk connectivity and relatively frequent pedestrian crossings. However, some areas have sidewalk gaps limiting access and mobility for people. These sidewalk gaps are common on the city's southwestern edge where terrain and street connectivity also present mobility challenges.

Likewise, bicycle facilities exist on many streets in Ashland, but the network is not well connected nor suitable for a range of rider abilities. Steep terrain is a deterrent for walking or rolling, and people express a reluctance to walk or bike up the hills.

Safety, or perceived safety, is a top concern for people who do not frequently use the bus today. This is a need partly unique to Ashland, where students, actors, and tourists visit from other cities, and are unfamiliar with the city. There are two key issues that appear to be driving the safety concern: one is lack of comfort walking in the city, and the other is lack of comfort with riding in the bus. People noted unlit sidewalks, unlit bus shelters, vegetation, and wildlife and top concerns in Ashland. Others noted being uncomfortable or unfamiliar with using transit. Safety will continue to be a key issue as the City's population is expected to become older over the coming decades, and tourism is expected to remain a top economic driver.

Information is a critical part of using public transportation and accessing mobility services in general. RVTD conducts robust outreach and marketing efforts for the region, and while people are generally aware that there is bus service, there appears to be low awareness of how often it comes or where it goes. People indicated a need for, and generally expect, easy-to-access information about transportation services, whether electronic or other means.

Low price transportation services for low-income community members has been a top concern in Ashland, reflected in past reduced and free-fare programs offered by the city and RVTD. Reducing bus ticket costs as much as possible is noted in several plans, and stakeholders expressed the need to increase transit access through a low fares. RVTD fares are relatively low region-wide today.

The needs and opportunities described above will form the basis for developing potential strategies and an evaluation framework in the next phase of the study. The strategies will be targeted to address these needs and opportunities, and the evaluation framework will provide a process by which to refine strategy elements in ways that best meet short- and long-term travel needs in Ashland.

ASHLAND TRANSPORTATION EXPANSION FEASIBILITY STUDY

Technical Memorandum #1

Existing Conditions and Needs Assessment

APPENDIX

MAY 2018

CITY OF ASHLAND

NELSON NYGAARD

Table of Contents

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Appendix A Relevant Past and Concurrent Plans

Figure 1 Previous Plans and Key Issues

Plans	Key issues
Transportation Systems Plan City of Ashland Adopted by City Council 2012	▪ The TSP includes public transportation strategies with estimated costs and timeframes. The TSP included a mode-specific report for public transportation that outlined tradeoffs and key issues related to defining public transit service in Ashland. ▪ There are 10 transit strategies, including a local circulator bus, an express bus to/from Medford, fare subsidies, increased service frequency, increased service span, and a central transit center (hub). ▪ Potentially underserved areas of Ashland included the Railroad, Quiet Village, University Hillside, YMCA and Mistletoe Districts. ▪ Stakeholder feedback indicated highest needs were employees working non-traditional hours, weekend and evening service, and visitor / event travel ▪ Since 2012, RVTD has increased the level of service to 20 hours daily with buses in Ashland every 20 to 30 minutes on weekdays, and every 30 minutes for 12 hours on Saturdays. SOU is participating in RVTD's employer and student bus pass program.
Climate Action Plan City of Ashland Adopted by City Council 2017	▪ Greenhouse gas (GHG) emissions from the transportation sector made up nearly one-quarter (23%) of the city's total emissions in 2015. Personal transportation (cars) makes up about 75% of the sector emissions. ▪ Public transportation vehicles accounted for 0.2% of Ashland's GHG emissions, while major contributors in the transportation sector are personal household trips. ▪ Public transportation and ridesharing is one strategy the City will pursue to reduce GHG emissions (Strategy ULT-1); actions include partnering with RVTD to improve the convenience, sustainability, and accessibility of its services. frequent and accessible service, cleaner-fueled buses, a local shuttle or trolley, supporting a regional rapid bus strategy, and developing transit hubs and park-and-ride facilities. ▪ The City needs to prepare for increased magnitude and frequency of environmental threats including decreased snowpack, extreme heat, extreme rainstorms, wildfires, and drought.
Strategic Parking Management Plan City of Ashland Adopted by City Council 2017	▪ This Plan builds from a 2013 downtown parking study, and delivers 20 strategies in three phases to guide the City through parking policy and program development, and delivering the proposed system. ▪ The Plan presents parking as one tool to improve access to Downtown, and suggests strategies to improve access using public transportation options such as a park-and-ride shuttle circulator. ▪ Guiding principles included preserving the Downtown character, safety, access for users relevant to area activity types (employees, visitors, etc.), and using alternatives to driving. ▪ Transit-related strategies included developing a local circulator or shuttle bus linking downtown to parking areas near but not in downtown, and more remote park-and-ride facilities, to downtown.

Plans	Key issues
Transit Triangle Area Study City of Ashland City Council approved ordinance revisions starting January 2018.	▪ The Transit Triangle includes property near the end of Route 10 in Ashland on Ashland Street, Tolman Creek Road and Siskiyou Boulevard. ▪ The infill strategy aims to identify the factors that limit development and create incentives for additional housing and business development adjacent to the bus route which in turn, may result in increased transit ridership. ▪ Proposed zoning changes include increased development density, 3rd / 4th story setbacks, reduced parking and landscaping requirements, and limited mixed commercial and residential use in some areas.
Transportation System Plan City of Talent Adopted by City of Talent 2015	▪ Notes RVTD analysis to split route 10 into north and south segments, with transfers in Talent (Talent Depot). ▪ Notes RVTD is evaluating a local Talent shuttle, feeder, or circulator bus to serve residential areas west of Talent Avenue, either for local trips or connecting to Route 10.
Transit Master Plan Rogue Valley Transportation District To be adopted by RVTD Board Spring 2019	▪ The Transit Master Plan (TMP) will identify strategies to guide RVTD service improvements and investments over the next 20 years. ▪ The Plan includes a robust public outreach process including communities throughout the RVTD service area; key participation points are open houses in June and September 2018. ▪ Ashland will coordinate with RVTD to share information between the Transit Expansion Feasibility Study and RVTD 2040 TMP.
Ashland Transportation Commission Public Meeting February 1, 2018	▪ Community Meeting at the Ashland Community Center with thirty-three participants to share issues and ideas about transportation. ▪ Suggested top public transportation markets included older adults, people with disabilities, visitors, employees and students; destinations included Jackson Wellsprings, Scienceworks / Growers Market, the hospital, downtown, and Mountain Meadows. ▪ Participants noted the need for more frequent service, faster travel time, later service hours, and extended service on weekends, and off-site parking locations (park-and-ride). ▪ Participants expressed interest in strategies including trolley/ shuttle, carpooling, carsharing, transportation network companies, electric mobility devices.

Appendix B RVTD Route 10 Schedule

Figure 2 Route 10 Monday-Friday Schedule

Medford → Ashland							Ashland → Medford						
Medford: Front Street Station	Phoenix	Talent	Jackson Well Springs	Ashland Plaza	SOU	Ashland/Tolman Creek (Arrival)	Ashland/Tolman Creek (Departure)	SOU	Downtown Ashland	Jackson Well Springs	Talent	Phoenix	Medford: Front Street Station
5:00	5:18	5:25	5:33	5:39	5:44	5:51	5:58	6:07	6:12	6:16	6:24	6:28	6:49
5:30	5:48	5:55	6:03	6:09	6:14	6:21	6:28	6:37	6:42	6:46	6:54	6:58	7:19
6:00	6:18	6:25	6:33	6:39	6:44	6:51	6:58	7:07	7:12	7:16	7:24	7:28	7:49
6:30	6:48	6:55	7:03	7:09	7:14	7:21	7:28	7:37	7:42	7:46	7:54	7:58	8:19
7:00	7:18	7:25	7:33	7:39	7:44	7:51	7:58	8:07	8:12	8:16	8:24	8:28	8:49
7:20	7:38	7:45	7:53	7:59	8:04	8:11	8:18	8:27	8:32	8:36	8:44	8:48	9:09
7:40	7:58	8:05	8:13	8:19	8:24	8:31	8:38	8:47	8:52	8:56	9:04	9:08	9:29
Every 20 minutes													
16:20	16:20	16:38	16:45	16:53	16:49	17:04	17:11	17:18	17:27	17:32	17:36	17:44	17:48
16:40	16:40	16:58	17:05	17:13	17:09	17:24	17:31	17:38	17:47	17:52	17:56	18:04	18:08
17:00	17:00	17:18	17:25	17:33	17:29	17:44	17:51	17:58	18:07	18:12	18:16	18:24	18:28
17:30	17:30	17:48	17:55	18:03	17:59	18:14	18:21	18:28	18:37	18:42	18:46	18:54	18:58
18:00	18:00	18:18	18:25	18:33	18:29	18:44	18:51	18:58	19:07	19:12	19:16	19:24	19:28
18:30	18:30	18:48	18:55	19:03	18:59	19:14	19:21	19:28	19:37	19:42	19:46	19:54	19:58
19:00	19:00	19:18	19:25	19:33	19:29	19:44	19:51	19:58	20:07	20:12	20:16	20:24	20:28
19:30	19:30	19:48	19:55	20:03	19:59	20:14	20:21	20:28	20:37	20:42	20:46	20:54	20:58
20:00	20:00	20:18	20:25	20:33	20:29	20:44	20:51	20:58	21:07	21:12	21:16	21:24	21:28

Figure 3 Route 10 Saturday Schedule

Medford → Ashland							Ashland → Medford						
Medford: Front Street Station	Phoenix	Talent	Jackson Well Springs	Ashland Plaza	SOU	Ashland/Tolman Creek (Arrival)	Ashland/Tolman Creek (Departure)	SOU	Downtown Ashland	Jackson Well Springs	Talent	Phoenix	Medford: Front Street Station
7:00	7:18	7:25	7:33	7:39	7:44	7:51	7:58	8:07	8:12	8:16	8:24	8:28	8:49
7:30	7:48	7:55	8:03	8:09	8:14	8:21	8:28	8:37	8:42	8:46	8:54	8:58	9:19
8:00	8:18	8:25	8:33	8:39	8:44	8:51	8:58	9:07	9:12	9:16	9:24	9:28	9:49
8:30	8:48	8:55	9:03	9:09	9:14	9:21	9:28	9:37	9:42	9:46	9:54	9:58	10:19
9:00	9:18	9:25	9:33	9:39	9:44	9:51	9:58	10:07	10:12	10:16	10:24	10:28	10:49
Every 30 minutes													
16:00	16:18	16:25	16:33	16:39	16:44	16:51	16:58	17:07	17:12	17:16	17:24	17:28	17:49
16:30	16:48	16:55	17:03	17:09	17:14	17:21	17:28	17:37	17:42	17:46	17:54	17:58	18:19
17:00	17:18	17:25	17:33	17:39	17:44	17:51	17:58	18:07	18:12	18:16	18:24	18:28	18:49
17:30	17:48	17:55	18:03	18:09	18:14	18:21	18:28	18:37	18:42	18:46	18:54	18:58	19:19
18:00	18:18	18:25	18:33	18:39	18:44	18:51	18:58	19:07	19:12	19:16	19:24	19:28	19:49

Appendix C Ridership in Ashland

Figure 4 Route 10 Average Daily Ridership in Ashland, by Stop, 2017

Stop ID	Stop Name	Boardings	Alightings	Total
To Ashland				
10400	N Main St - South of Ashland Mine Rd	0.7	1.3	2.0
10410	N Main St - North of Grant Rd	6.9	3.9	10.8
10420	N Main St - North of Maple St	12.1	12.5	24.6
10430	N Main St - South of Wimer St	8.7	10.7	19.4
10440	N Main St - South of Laurel	4.8	8.8	13.6
10450	N Main St - South of Water St	46.1	72.7	118.8
10460	E Main St - North of 1st St	12.0	22.0	34.0
10470	E Main St - South of Gresham St	30.8	22.0	52.8
10480	Siskiyou Blvd - South of Sherman St	9.9	12.4	22.3
10490	Siskiyou Blvd - North of Liberty St	0.1	1.5	1.6
10500	Siskiyou Blvd - South of Beach St	12.1	32.0	44.1
10510	Siskiyou Blvd - South of University Wy	9.7	37.6	47.3
10520	Siskiyou Blvd - South of Avery St	5.9	32.8	38.6
10530	Ashland St - East of Siskiyou Blvd	13.4	36.5	49.9
10530	Ashland St - East of Siskiyou	8.7	20.6	29.3
10540	Ashland St - East of Walker Ave	7.7	32.5	40.1
10550	Ashland St - East of Lit Wy	5.2	5.8	11.0
10560	Ashland St - East of Park St	5.9	12.9	18.8
10570	Ashland St - West of Tolman Creek Rd	1.3	33.8	35.1
10640	Tolman Creek Rd - South of Ashland St	135.7	112.6	248.3
To Medford				
10650	Tolman Creek Rd - South of Grizzly Dr	3.1	1.2	4.3
10660	Tolman Creek Rd - South of Dianne St	4.8	4.3	9.1
10680	Tolman Creek Rd - North of Siskiyou Blvd	4.8	10.7	15.5
10690	Siskiyou Blvd - North of Bellview Ave	26.3	25.3	51.6
10700	Siskiyou Blvd - South of Glendale Ave	16.0	11.7	27.7
10710	Siskiyou Blvd - North of Faith Ave	27.6	18.8	46.4
10720	Siskiyou Blvd - South of Normal Ave	4.6	3.7	8.2
10730	Siskiyou Blvd - North of Harmony Ln	12.9	10.0	22.8
10740	Siskiyou Blvd - South of Ashland St	32.3	10.6	42.9
10750	Siskiyou Blvd - North of Bridge St	31.0	12.6	43.6

Stop ID	Stop Name	Boardings	Alightings	Total
10760	Siskiyou Blvd - South of Palm St	34.2	6.0	40.2
10770	Siskiyou Blvd - South of Morse St	36.8	12.0	48.8
10780	Siskiyou Blvd - South of Morton St	0.2	1.8	2.0
10790	Siskiyou Blvd - South of Sherman St	16.3	16.8	33.1
10800	Lithia Way - North of 2nd St	25.9	46.4	72.3
10810	Lithia Way - North of Oak St	67.7	37.3	105.0
10820	N Main St - North of Central St	7.9	9.1	17.0
10830	N Main St - South of Glenn St	9.5	10.5	20.0
10840	N Main St - North of Maple St	10.1	10.1	20.2
10850	N Main St - North of Grant St	3.9	5.0	8.8
10860	N Main St - South of Jackson Rd	0.4	1.6	2.0

Source: Rogue Valley Transportation District

Appendix D Bus Stop Amenities

Figure 5 Route 10 Stop Amenities in Ashland, by Stop

Stop ID	Stop Name	Shelter			Lighting	Information	Seating		Landing Pad		Landing Area			Trash Can	Bicycle Parking
		Exists	Condition	Ownership			Type	Condition	Details[A]	Space	Position	Surface	Slope		
To Ashland															
10400	N Main St - South of Ashland Mine Rd	-	No space	-	Street Light	-	-	-	Too small	No space	Shoulder	Dirt	Minor	-	-
10410	N Main St - North of Grant Rd	-	Space exists	-	Street Light	-	-	-	Too small	Space exists	Planter	Concrete	Minor	-	-
10420	N Main St - North of Maple St	-	Space exists	-	Street Light	-	Simmi-seat	Excellent	Meets standard	-	Sidewalk	Concrete	Minor	Yes	-
10430	N Main St - South of Wimer St	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10440	N Main St - South of Laurel	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10450	N Main St - South of Water St	Yes	Good	RVTD	Street Light	Map	Standard	Good	Meets standard	-	Sidewalk	Concrete	Minor	Yes	Yes
10460	E Main St - North of 1st St	-	Space exists	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10470	E Main St - South of Gresham St	Yes	Excellent	Ashland	Adjacent Building	-	Standard	Good	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10480	Siskiyou Blvd - South of Sherman St	Yes	Excellent	RVTD	Street Light	-	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10490	Siskiyou Blvd - North of Liberty St	-	Space exists	-	Street Light	-	-	-	Too small	No space	Planter	Other	Flat	-	-
10500	Siskiyou Blvd - South of Beach St	Yes	Excellent	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10510	Siskiyou Blvd - South of University Wy	Yes	Good	Ashland	Street Light	Map	Standard	Good	Meets standard	-	Sidewalk	Concrete	Major	Yes	Yes
10520	Siskiyou Blvd - South of Avery St	-	Space exists	-	Street Light	-	-	Fair	Meets standard	-	Planter	Other	Flat	Yes	-
10530	Ashland St - East of Siskiyou Blvd	-	Space exists	-	Street Light	-	Simmi-seat	Excellent	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10530	Ashland St - East of Siskiyou	-	Space exists	-	Street Light	-	Simmi-seat	Excellent	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10540	Ashland St - East of Walker Ave	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10550	Ashland St - East of Lit Wy	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10560	Ashland St - East of Park St	-	Space exists	-	Street Light	-	Simmi-seat	Excellent	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10570	Ashland St - West of Tolman Creek Rd	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10640	Tolman Creek Rd - South of Ashland St	-	Possible space	-	Adjacent Building	-	-	Poor	Meets standard	-	Sidewalk	Concrete	Minor	Yes	-
To Medford															
10650	Tolman Creek Rd - South of Grizzly Dr	-	No space	-	-	-	Standard	Good	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10660	Tolman Creek Rd - South of Dianne St	-	Space exists	-	Street Light	-	Standard	Good	Too small	Space exists	Planter	Concrete	Minor	-	-
10680	Tolman Creek Rd - North of Siskiyou Blvd	-	No space	-	-	-	-	-	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10690	Siskiyou Blvd - North of Bellview Ave	Yes	Fair	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10700	Siskiyou Blvd - South of Glendale Ave	-	Space exists	-	Street Light	-	-	-	None	-	Shoulder	Dirt	Minor	-	-
10710	Siskiyou Blvd - North of Faith Ave	Yes	Fair	RVTD	Street Light	-	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	Yes
10720	Siskiyou Blvd - South of Normal Ave	-	Space exists	-	Street Light	-	-	-	None	-	Shoulder	Dirt	Minor	-	-

Stop ID	Stop Name	Shelter			Lighting	Information	Seating		Landing Pad		Landing Area			Trash Can	Bicycle Parking
		Exists	Condition	Ownership			Type	Condition	Details[A]	Space	Position	Surface	Slope		
10730	Siskiyou Blvd - North of Harmony Ln	-	Space exists	-	Street Light	-	-	-	None	-	Shoulder	Dirt	Minor	Yes	-
10740	Siskiyou Blvd - South of Ashland St	Yes	Good	Ashland	Street Light	-	-	Good	Meets standard	-	Sidewalk	Concrete	Flat	Yes	Yes
10750	Siskiyou Blvd - North of Bridge St	-	Space exists	-	Street Light	-	Simmi-seat	Good	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10760	Siskiyou Blvd - South of Palm St	Yes	Excellent	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10770	Siskiyou Blvd - South of Morse St	Yes	Good	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10780	Siskiyou Blvd - South of Morton St	-	Space exists	-	Street Light	-	-	-	Meets standard	-	Planter	Other	Minor	Yes	-
10790	Siskiyou Blvd - South of Sherman St	Yes	Good	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	Yes
10800	Lithia Way - North of 2nd St	Yes	Bad	Ashland	Street Light	-	Standard	Hazardous	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10810	Lithia Way - North of Oak St	Yes	Good	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Flat	Yes	-
10820	N Main St - North of Central St	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10830	N Main St - South of Glenn St	-	No space	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Flat	-	-
10840	N Main St - North of Maple St	Yes	Good	RVTD	Street Light	Map	Standard	-	Meets standard	-	Sidewalk	Concrete	Major	-	-
10850	N Main St - North of Grant St	-	Space exists	-	Street Light	-	-	-	Meets standard	-	Sidewalk	Concrete	Minor	-	-
10860	N Main St - South of Jackson Rd	-	No space	-	Street Light	-	-	-	Too small	No space	Shoulder	Asphalt	Minor	-	-

Source: Rogue Valley Transportation District

Note: [A] Standard is 5 feet by 8 feet.

Appendix E Outreach Materials

TAC MEETING #1

Attendees

Name	Organization
Scott Fleury	City of Ashland, Deputy Public Works Director
Maria Harris	City of Ashland, Planning Manager
David Lohmann	City of Ashland, City Attorney
Fred Creek	Southern Oregon University, Director of Campus Safety
Paige West	Rogue Valley Transportation District
Bruce Borgeson	Ashland Transportation Commission
Michael Dawkins	Ashland Planning Commission
Jamey Dempster	Nelson\Nygaard Consulting Associates
Paul Leitman	Nelson\Nygaard Consulting Associates

Action Items

Nelson\Nygaard will continue drafting the Existing Conditions and Needs Assessment, and will provide that memo to the TAC upon completion. The document will summarize and balance key service needs in Ashland, as heard from the TAC meeting, tabling outreach events, and key stakeholder interviews.

Meeting Notes

- The purpose of the meeting was to hear about Ashland transportation needs and opportunities from TAC members, and how those can be supported by potential public transportation strategies.
- Jamey described the Study and the three phases: Existing Conditions, Strategy Development and Draft/Final Study, with public outreach activities supporting each phase.
  - The TAC role is to review deliverables in each phase / task, and act as a local sounding board for results and recommendations.
- The TAC members identified **goals and needs** for the Study:
  - Provide actionable steps for local stakeholders to pursue, with short term (up to 5 years) and longer term (10 year) strategies.
  - Address innovative transportation solutions and how transportation network companies fit into the transportation system.
  - Provide a study document that City Council can adopt, and projects that RVTD can consider in the regional Transit Master Plan process.
  - Assess past service proposals or ideas: South Route 10 variant (Talent-Ashland), local site-specific shuttles, fare free service, etc.

  - Identify what the best chance for success is, and to focus on solutions and strategies that support that. This is the best strategy to end up with an actionable plan, rather than trying to do everything for everyone.
- The TAC members identified various transportation **needs and opportunities** in the community and
  - Local service for people who don't have cars, don't drive, or cannot drive
  - Local service for residents, employees, and visitors
  - Access to work, school and services/shopping within the City
  - Connections between Ashland and other cities in the region (including employment centers and the airport) – at travel times comparable to automobiles, not necessarily at the same speed.
  - Increased bus frequency and span for SOU students
  - Reduce and mitigate greenhouse gas emissions from transportation through reduced driving and new technologies (engines and trip planning)
  - Reduce downtown parking demand by offering travel alternatives.
  - Safe (and the perception of safety), easy access to public transportation – including sidewalks, street lighting, vehicles.
  - Later evening service for some markets – e.g. many plays or student activities end after 10pm.
  - Low cost fares – while supporting RVTD farebox recovery goals
- The TAC also discussed various **incentives and disincentives** that play a role in individuals' decisions of whether to use transit. These include:
  - Predictability is an important aspect in improving transit's utility. When service is frequent, routes maintain the same alignment, and/or schedules don't change throughout the day, people can easily understand the service and are more likely to ride it more often. Speed of transit trips (too many stops make service too slow)
  - Hills and topography limit the reach of transit because people often don't like to walk uphill
  - Public meetings and civic engagement opportunities (including City Council and commission meetings) are inaccessible by transit: after transit service has ended or in underserved parts of the city.
  - Free or low-cost parking options downtown encourage driving, or don't do enough to encourage mode shifts to transit.
  - Lack of sufficient lighting at night and related concerns about safety
  - Cultural norms regarding automobile
  - The Nevada Street Bridge is not moving forward, which restricts connections north of Main Street.
- Jamey reviewed a few of the preliminary findings from the Existing Conditions regarding **local trends** in Ashland
  - Ashland's population is growing slower than other cities in the region
  - Older adults are growing faster than other groups
  - Lower income and higher income groups are growing, while middle income groups are shrinking

- Over the last 10 years, the number of people that commute in or out of Ashland for work has increased
- Attendees noted that many people are moving to unincorporated areas near Ashland, where land/housing is lower cost; similarly moving to other cities such as Talent. People then have to drive in for work, restaurants, school (students don't have to live in Ashland to attend), etc.
- Transit service alone will not increase transit ridership. Additional programs and strategies need to be implemented, such as paid parking and educational/marketing materials to educate the public about its availability.

Service Preferences

The TAC split into groups of two or three to prioritize their top service preferences. The following list are the top services identified by the group, listed in order by frequency referenced.

Figure 6 TAC Priority Exercise Results

Category	Group 1		Group 2		Group 3		Total Points
	Rank	Points	Rank	Points	Rank	Points	
Direct service to Ashland – Medford (~30 mins)	3	3	2	4	1	5	12
Later evening service (all days)	1a	5			4	2	7
High frequency buses on Siskiyou/Main (Hwy 99)	2	4	3	3			7
Earlier morning service (all days)	1b	5					5
Expand service area/coverage			1a	5			5
Visitor shuttles (mostly fixed routes, connecting parking)			4	2	3	3	5
Flexible, on-demand automobile service (taxis, Uber, Lyft, etc.)			1b	5			5
More door-to-door service for people with limited mobility	4	4					4
Ashland general circulator bus (mostly fixed route)					2a	4	4
Park and rides					2b	4	4
Transportation marketing and information	5	1					1
Provide electric buses or other vehicles			5	1			1
Ashland reduced fare or fareless program							0
Sunday service							0
One-seat ride to Medford Airport							0
Central Mobility Hub or Station							0

Note: For the purpose of this exercise, participate priorities/ranks were converted into points. Rank 1=5 points, 2=4 points, 3=3 points, 4=2 points, 5=1 points

STAKEHOLDER INTERVIEWS

Figure 7 Stakeholder Interviewees

Name	Position	Organization	Type	Date
Ted Delong	General Manager	Oregon Shakespeare Festival	Business	3/24/2018
Katharine Cato	Marketing Director	Ashland Chamber of Commerce	Business	3/24/2018
Chris Borovansky	Community Director	Mountain Meadows	Older Adults	3/24/2018
Fred Creek	Director, Campus Public Safety	Southern Oregon University	Education	5/08/2018
Susan Montgomery	Vice President, Patient Care Services	Asante Ashland Community Hospital	Medical Facility	5/16/2018
Jennifer Boardman	Regional Transit Coordinator	Oregon Department of Transportation	Transportation	6/21/2018
Matthew Bernard	CEO	DAREX	Business	6/21/2018
Don Anway	General Manager	Neuman Hotel Group	Hospitality	6/22/2018
Rachel Dials	Recreation Superintendent	City of Ashland Senior Center	Older Adults	6/22/2018
Natalie Mettler	Senior Program Assistant			
Linda Peterson	Advocate/volunteer	Ashland Citizens for Transit	Transit advocacy	10/19/2018
Corinne Vièville	Commissioner	Transportation Commission	Disability Community	11/02/2018

Interview guide

1. Introductions – What agency, organization, company or group do you represent?
2. What services and products do you provide?
3. How many employees do you have? In what locations?
4. In general, what are your business hours? Does this vary by employee type or location?
5. Do you have any transportation services?
6. Do you offer any transportation services or transportation benefits? Benefits may include free parking, parking or transit subsidies.
    a. If yes, about how many people enroll in the program or otherwise participate?
7. What types of transportation might appeal to your employees?
    a. Fixed-route service running hourly on main roadways
    b. Employee vanpools (one employee drives the van and picks up several neighbors; all split the cost)
    c. Taxis / TNCs
    d. Demand-response service (employees must book trip in advance)
8. Are customers and employees aware that public transportation serves Ashland?
9. Is transportation a challenge in attracting employees and customers?

10. Is public transportation an important part of the community? Why or why not?
11. What public transportation services would be most useful?
12. What market or demand do buses or DAR cover well today? What are the gaps? (Examples: destinations, types of trips, locations, seniors, etc.)
13. Do you see any future trends in the community that might change transit demand?
14. Is there anything else we haven't covered that is important to you? Any other comments?

PUBLIC ENGAGEMENT

Nelson\Nygaard set up tables and talked to be people at Southern Oregon University on Monday, April 23, 2018 and at the Growers' Market on Tuesday, April 24 2018. The boards in the figures below were printed on 2-foot by 3-foot posters, and used to collect and guide participants comments. The project team collected the information and incorporated the findings into existing conditions and strategy development.

Figure 8 Outreach Board 1

HELP ASHLAND THINK ABOUT PUBLIC TRANSIT!

The City of Ashland is conducting a **Public Transportation Feasibility Study** to assess how public transportation can vest serve our residents, workers, and visitors.

Outcomes of the project will include a flexible set of strategies with the critical information the city will need to invest wisely in a rapidly evolving transportation system.

Existing Conditions & Needs Assessment Mar–May 2018 → Strategy Development and Evaluation May–Jul 2018 → Draft and Final Study Aug–Oct2018

For More Information:
Visit the Ashland Public Works Department at **www.ashland.or.us** or contact Scott Fleury at scott.fleury@ashland.or.us

What are the most important things for public transit to do?

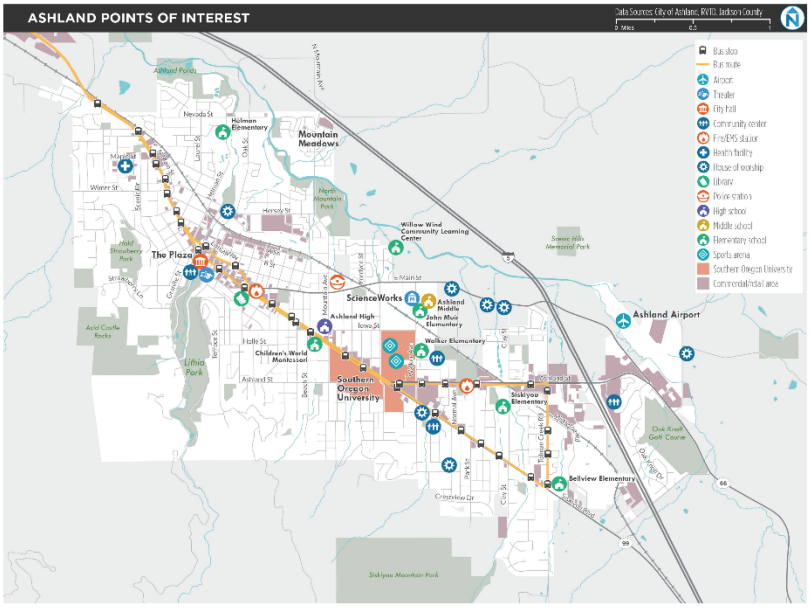
Get people to work and employment	
Get people to services (such as medical appointments)	
Get people to places to shop, meet, and eat	
Help people who don't have cars or don't drive	
Connect Ashland to *other* cities	
Provide connections *within* Ashland	
Help tourists and visitors get around the city	
Provide early morning trips (before 7 am)	
Provide trips at night (after 8 pm)	
Offer more trips during the day (more frequent service)	
Offer more trips on Saturday and Sunday	
Offer low-price travel	
Use and promote clean energy	

Figure 9 Outreach Board 2

HELP ASHLAND THINK ABOUT PUBLIC TRANSIT!

Where do you need to go? Place pins on the map or in the boxes below.

- Grants Pass
- White City
- Central Point
- Medford
  - Medford Airport
  - Downtown Medford
  - Other areas in Medford
- Phoenix
- Talent



For More Information:
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ASHLAND TRANSPORTATION EXPANSION FEASIBILITY STUDY

Technical Memorandum #2
Strategy Development and Evaluation

December 2018

CITY OF ASHLAND

NELSON NYGAARD

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1 EVALUATION OVERVIEW

The purpose of the Strategy Development and Evaluation technical memorandum is to introduce and evaluate public transportation projects, investments, and programs that will support the transportation needs of people living in, working in, and visiting Ashland.

The project team identified the strategies based on research documented in the Existing Conditions and Needs Assessment technical memorandum, and through continued conversations with City staff and project stakeholders. The priority needs identified through the first phase of the plan included:

- High frequency and reliable service
- Local connections and transportation choices
- Expanded hours: Late night (~12 am) and Sunday
- Shorter Travel time to Medford (and the Airport)
- Reducing driving to downtown to reduce car parking and roadway use, and vehicle emissions
- Safe and comfortable transit access
- Clear and easy to find Information
- Low prices

The key markets to consider and serve include:

Residents, especially with low incomes and limited access to automobiles. Residents may seek work, shopping or personal trips with some flexibility, and will prioritize safety, comfort and easy access. Residents are more likely to be interested in expanded service hours, regional express routes, and flexible local service.

Students typically have low incomes and limited access to automobiles. Students may seek transportation to and from events later in the evenings, flexible mobility options, and affordable express transit routes to/from Ashland.

People working in Ashland, or commuting from Ashland, especially people with low incomes and limited access to automobiles. These schedules are typically not flexible, and reliability is a critical issue.

Recreational visitors, who visit Ashland most in the summer months, and travel to and from locations on commercial corridors. Visitors have some flexibility in timing, seek travel later in evenings, and prioritize having easy-to-access information and procedures.

This memorandum is organized into six sections, described below.

Section 2 Strategy Development identifies proposed strategies to support the needs and opportunities identified in the Existing Conditions and Needs Assessment report, with information on project activities, costs, and partners. This is a longer list than might otherwise be feasible, to help stakeholders consider and balance tradeoffs in service and program design.

Section 3 Strategy Evaluation provides a qualitative and quantitative strategy evaluation summary, to help understand how benefits are distributed across potential markets, and how transportation needs would be met.

Section 4 Funding introduces potential funding sources used previously, are upcoming through the new Oregon Statewide Transportation Improvement Fund, and other options available to the City either directly or through partnerships.

Section 5 Governance provides various governance structures for the City of Ashland to consider in order to implement, oversee, and fund local transit services

Section 6 Stakeholder Input summarizes the outcomes of the Technical Advisory Committee and Transportation Commission meetings where the strategies were reviewed, including key takeaways and recommendations

Section 7 Recommended Strategies identifies the strategies that best meet City and project goals, based on analysis and feedback from stakeholders

2 STRATEGY DEVELOPMENT AND EVALUATION

The City of Ashland is pursuing opportunities to improve mobility for people living, working, and visiting the city. One of the ways to do this, and the focus of this project, is through a public transportation system. Public transportation can offer important and effective connections for people and communities, and help Ashland make progress on its local goals. To do this, stakeholders need a clear understanding of transportation needs and how public transportation solutions can address those needs. The City must prioritize the needs and solutions to focus limited financial and organizational resources with the greatest community benefits.

The draft strategies presented in this memorandum were used to solicit feedback from community stakeholders about transportation priorities, technical changes, and potential resources to support implementation. The project team used the input to refine strategy details (e.g., changing routing, adjusting service levels, etc.) both in this memorandum and the Executive Summary document. The Executive Summary presents a prioritized strategy set recommended through this project, following the evaluation and feedback through this technical memorandum.

Figure 4 summarizes the draft strategies organized in six categories. The six categories include 20 preliminary strategy types, each of which include options or variants. The strategy categories and types include:

1. Route 10 modifications
2. New local fixed routes
3. New regional fixed route service
4. Local demand response services
5. Capital strategies
6. Program and mobility management

Individual strategies and variants are described in more detail below.

ROUTE 10 MODIFICATIONS

Route 10 is the only fixed-route in Ashland, and provides a regional connection between Ashland, Talent and Medford. Service currently operates every 20 minutes on weekdays. Route 10 modifications include strategies that increase frequency, improve reliability, extend the route further east, add Sunday service and extend service later into the evening

Figure 2 provides a draft route map illustrating the options for modifying Route 10, as well as local circulation within Ashland.

M-1 through M-5: Increase Frequency on Central Corridor

Strategies M-1 through M-5 increase frequency on the existing Route 10. These strategies are in effect overlay route recommendations, in that the proposed services add capacity to the existing Route 10 operating on Main Street, Siskiyou Boulevard, and Ashland Street.

Previous plans have noted interest in service along this corridor that would connect downtown, SOU and other activity centers with park-and-ride facilities outside the core areas of the city. The

goal of this approach would be to combine this high capacity transit option with other operational strategies, such as parking management and pricing, that decrease automobile capacity and incentivize people to use alternatives to personal automobiles in the core city areas.

Strategies M-1 and M-2 *increase service along the entire Route 10*, between Front Street Station in Medford to Tolman Creek Road, from the existing service level (every 20 minutes) to service as frequent as every 10 minutes. The least expensive option is to increase service to every 15 minutes during peak commute times Monday through Friday. The most expensive option increases frequency to every 10 minutes all-day, Monday through Saturday.

Strategies M-3 and M-4 *increase service on portions of Route 10* by adding additional trips ("overlay service") between the existing trips, to provide 10-minute service. One option is to provide overlay service in Ashland only, between Asante Community Hospital and the terminus (either Tolman Creek Road or Ashland Hills Hotel & Suites – see M7). The other option is to provide overlay service as far north as Talent, to accommodate the increasing connections between the two communities. The buses that provide the overlay service would operate independently of the Route 10 trips that continue to Medford, but would be scheduled to provide consistent 10-minute headways.

Strategy M-5 increases service on portions of Route 10 by adding an overlay route from Exit 14 to Exit 19. This option would provide service to the area's hotels, could serve as a local circulator if coordinated with the establishment of a park-and-ride (Strategies S-2 or S-3), would increase service on the existing corridor served by Route 10, and address recommendations from previous plans for a local transit route connecting the two freeway interchanges. This route is assumed to operate every 30 minutes, Monday through Friday.

A critical issue with the Route 10 modifications is low travel time reliability on Route 10 today. Traffic, ridership demand, and pedestrian crossings create significant delays especially between 10am and 3pm, when Highway 99 traffic is highest. While RVTD could increase frequency on Route 10, the agency noted that the result would be irregular schedules (arrivals and departures), bus "bunching", resulting in low customer satisfaction.

M-6 through M-7: Schedule Reliability Improvements

Stakeholder feedback and on-time performance analysis point to issues with buses adhering to scheduled stop times. On-time performance is affected by a wide range of factors. Two common factors are more riders (affecting boarding time), and traffic and unsignalized pedestrian crossings (affecting travel time). Two proposed strategies could create more time in the existing Route 10 schedule.

- *Add time to the existing schedule to make sure drivers have time to complete the segment on time.* The time needed could range from five to 20 minutes, depending on the time of day. The exact timing would be determined by analyzing past runtimes and driver schedules, and confirmed by test trips under normal conditions. However, increasing the scheduled time may require an additional bus, and would not improve the efficiency or convenience for riders.
- *Consolidate stops in Ashland.* The average spacing between stops in Ashland is 1,133 feet, with a range from 623 to 1,870 feet. Eight stops are located less than 800 feet from the previous stop, and 18 stops are located less than 1,050 feet from the previous stop. These are closer together than is generally recommended to maintain a balance between efficient transit travel speeds and rider access needs (a range of 1,320 to 1,760 feet could

be considered along a major arterial, with anything less than 600 feet as strong candidates for consolidation or relocation). Stop consolidation could be coordinated with strategies V-3 and V-4.

RVTD staff noted that while worthy of considering as conditions on Highway 99 change (see Modifications, above), these options would not result in significant time savings or reliability improvements.

M-8: Route 10 Terminus Realignment

M-8 would change the alignment of Route 10's terminus. Instead of serving a large one-way loop on Ashland Street, Tolman Creek Road and Siskiyou Boulevard, Route 10 would instead provide bi-directional service on Ashland Street, and extend service across I-5 to serve the hotels and businesses located there. This change would simplify the route and reduce travel times for some riders.

A key consideration for this potential change to Route 10 is where to turn the bus around. In the past RVTD has considered turning the bus around in the Ashland Hills Hotel's unused parking lot, and a loop on East Main Street to Tolman Creek Road. Alternatively, service can be extended to the Jackson County Weigh Station where there is sufficient turning radius for a bus to turn around. The weigh station, however, is outside the RVTD district boundary.

RVTD and City staff noted that they will continue to consider this option. However, today there are no available areas or roads on which large buses can turn around at the end of the route. The City is considering development of a transit center or mobility hub near Tolman Creek Road and Ashland Street, and will continue to monitor opportunities with RVTD, and suggest route terminus changes at those times.

M-9 through M-10: Add Sunday service

Strategies M-9 and M-10 would add Sunday service to Route 10 between 8 am and 8 pm. M-9 would add Sunday service along all of Route 10 (from Medford to Ashland) and M-10 would add Sunday service only on Route 10 within Ashland.

RVTD does not have Sunday bus service anywhere in the region today, and the agency would need significant staff and operational changes requiring significant funding. All staff are needed any time vehicles are in revenue operation, including scheduling, maintenance, and executive staff. RVTD will continue to explore Sunday service as a regional policy and investment. Ashland may consider supplementary Sunday service, but would need to explore third-party operations contracts.

M-11 through M-14: Add Late Night Service

Late night service (on Route 10 between 9 pm and midnight) could be provided in Ashland under different operating scenarios with the goal of expanding mobility options for people working in restaurants, students at Southern Oregon University, and people enjoying social and cultural activities after 9 pm.

Strategies M-11 and M-13 assume late night service on the full Route 10, whereas Strategies M-12 and M-14 assume late night service on Route 10 within Ashland only. Strategies M-11 and M-12 assume late night service for the entire week – Monday through Saturday. Strategies M-13 and M-

14 assume late night service on the days of the week that are most likely to have a stronger demand for late-night service (Thursday through Saturday nights). See Figure 1 for a list of strategies broken out by days of the week, and route portion.

Figure 1 Late Night Service Strategies

Route 10 Portion	All week (Mon-Sat)	Partial week (Thur-Sat)
All (Medford-Ashland)	M-11	M-13
Partial (Ashland only)	M-12	M-14

RVTD is not currently prepared to offer service past its existing hours of service (last trip to Ashland leaves at 8 pm and last trip to Medford leaves at 9 pm). This strategy could also be operated by private transportation providers (if available), whether operating a fixed route or on-demand trips.

NEW LOCAL FIXED ROUTES

See **Figure 2** for a draft route map illustrating these strategy options for adding local fixed-route service (i.e., set schedules and stops) in Ashland.

L-1: New Local Route – Asante to East Ashland

The route proposed in L-1 would provide local service within Ashland between Asante Community Hospital and Tolman Creek Road, via Main Street, Laurel Street, Hersey Street, Mountain Avenue, East Main Street, Walker Avenue and Ashland Street. Service would operate every 60 minutes, using one 30-to-40-foot bus. This route would provide coverage and connections where no service exists today, such as to Asante Community Hospital, East Main St, ScienceWorks, Ashland Middle School, within a few blocks of the Senior Center, Clay Street, and Tolman Creek Road north of Ashland Street.

This route configuration would change RVTD's ADA complementary paratransit service area (three-quarter mile from fixed routes) such that it would include Mountain Meadows.

RVTD and City staff provided technical direction and issues related to street size and slope, which are reflected in the recommended route in the Executive Summary document.

L-2: New Local Route – Plaza to Mountain Avenue

The route proposed in L-2 would provide local service within Ashland between Mountain Meadows and downtown Ashland, via Gresham Street, Holly Street, Morton Street, Ashland Street and Mountain Avenue. Service would operate every 30 minutes, using one small bus or van. This route would connect residential areas in steep terrain areas south of downtown Ashland, Ashland High School, and Mountain Meadows. Turning radii and street widths will constrain the vehicle sizes that can operate this route on Mountain Meadows roadways.

L-3: New Downtown/Central Ashland Circulator Route

This proposed route would provide local circulation for visitors, patrons and employees in downtown Ashland and in the Railroad District, as well as students at Ashland High School.

Service would connect to a potential park-and-ride location on Clear Creek Drive. This route would be most effective if implemented along with Strategy T-3 (downtown paid parking). Service would operate in a counter-clockwise direction, with service every 15 minutes using a single bus. The park-and-ride would need a dedicated turnaround facility for the vehicle.

NEW REGIONAL FIXED ROUTE SERVICE

Regional services include routes that operate between Ashland and other communities in the Rogue Valley region. Typically these regional services would operate with limited stops at designated locations.

R-1 and R-2: Route 10 Limited Stop Service

Route 10 would be augmented by limited stop service that would connect Medford and Ashland, with one stop each in Medford, Phoenix, Talent, Downtown Ashland, near SOU, and at Tolman Creek and Ashland Street. Limited stop service would decrease travel times for passengers traveling between these locations. It would take approximately 40 minutes to travel from Downtown Medford to Tolman Creek Road, in comparison to the 60 minutes today.

RVTD staff noted they are exploring this strategy in combination with an Interstate 5 (I-5) express service, to offer express trips and while maintaining local access.

R-3 and R-4: I-5 Express

Alternatively, express service on I-5 can also provide shorter travel times for passengers traveling between Ashland and Medford. This option would not serve intermediate destinations between Ashland and Medford, such as Phoenix or Talent. End-to-end travel times would be approximately 25-30 minutes. Park-and-rides could be located near I-5 and Valley View Road or near I-5 and Ashland Street to provide parking options for Ashland-to-Medford commuters. The terminus and stops in Ashland would be defined following this initial presentation of strategies, if this approach is recommended through stakeholder feedback.

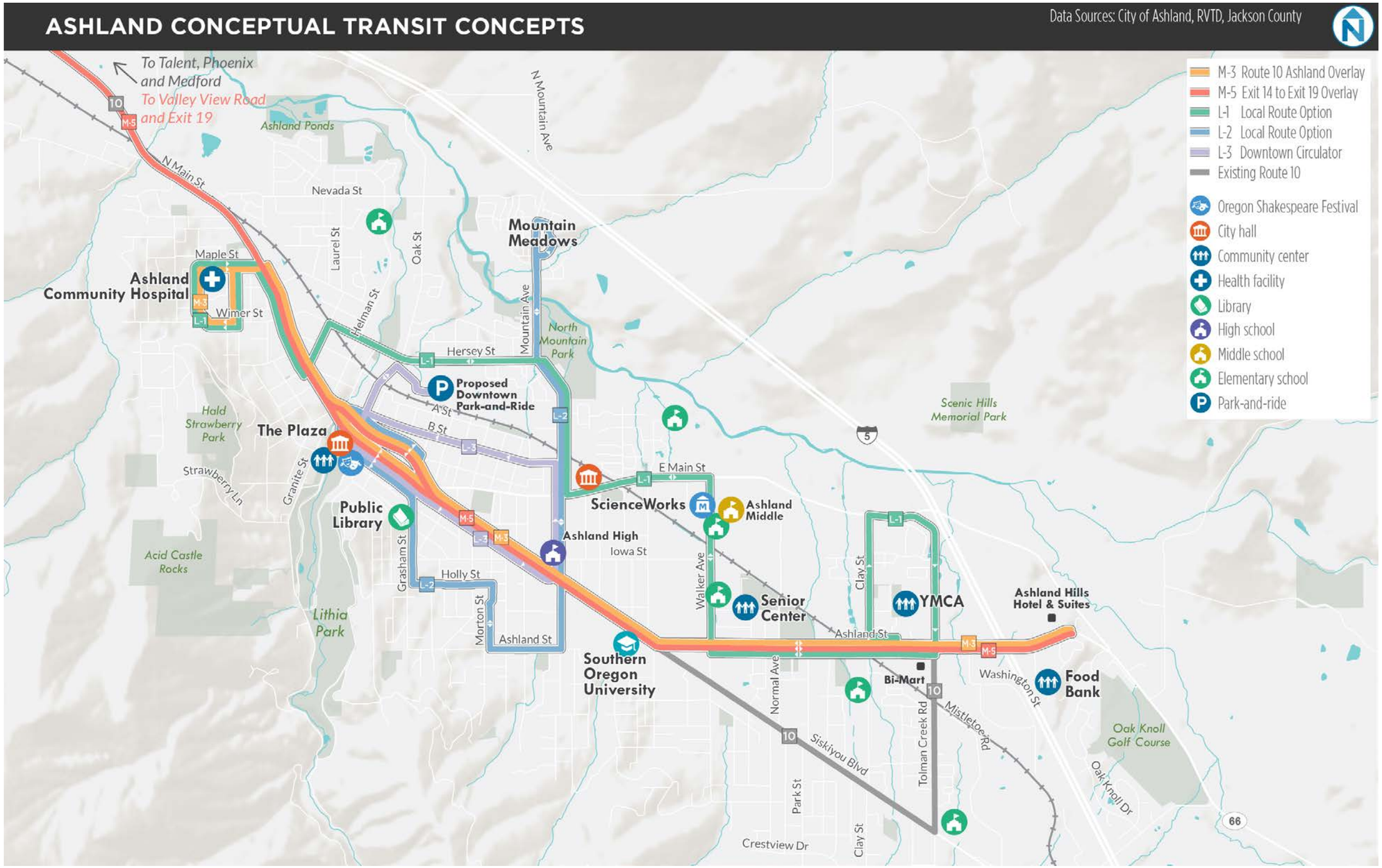
RVTD staff noted they are pursuing intercity strategies through the regional Transit Master Plan, to be completed in 2019.

R-5: Medford Airport Connector

Some stakeholders said that public transportation access to the Medford Airport would be a practical and convenient regional connection, often related to visitors and tourists from out of town, and colleagues arriving for work. Some bus connections today have a very long layover at the Medford Front Street Station, between Route 61 and Route 10 (up to 51 minutes for people connecting from Route 10 to Route 61[1]). To address this issue, a new route could provide a direct connection between Ashland and Medford Airport. The frequency, days of service and hours of service could be adjusted based on demand. This route would be best served initially by 15-passenger vans. This service is envisioned to be managed and funded in large part by private businesses with interest in this connection.

[1] One Route 61 run per hour from or to Medford Airport connects with Route 10 within a 10 minute transfer time. The other two connections per hour can range from about 30 to 50 minutes.

Figure 2 Initial Proposed Local Fixed Route Service Map



LOCAL DEMAND RESPONSE SERVICES

Local demand response services operate differently than fixed-route transit. Instead of serving the same route according to a pre-determined schedule, demand response services pick-up and drop-off passengers at requested locations based on reservations. Reservations can range from 24 hours in advance, to less than 10 minutes depending on the type of service and service availability.

Local demand response services can take multiple forms, and can be provided in a number of ways. Typical public transportation demand response services are provided for seniors or people with disabilities. The RVTD Valley Lift service is an example of this. However, local demand response services can also be provided for the general public, either through the transportation district or other operators. Demand response service in this strategy list also includes ride-hailing, such as taxi providers or transportation network companies (TNCs) that typically provide trips for one- or two people.

The business model, fares, and costs will be more fully developed following input from stakeholders on which of these strategies are seen to best address the priority transportation needs in Ashland. Please refer to Appendix A for more information on emerging mobility services.

D-1 through D-3: General Public Demand Response Shuttles

General public demand response shuttles would provide curb-to-curb service using smaller transit vehicles (vans or cutaways) seating up to eight people. Riders would be able to reserve vehicles less than 60 minutes in advance using either a smartphone application or a telephone number. The scheduling software would group rides as much as possible to increase productivity and efficiency. Rider costs would depend on fare policy, such as matching the local fare, or charging a higher amount for "premium" local service. This operational approach is intended to replace or supplement existing fixed routes where productivity is expected to be less than about six rides per revenue hour. RVTD does not currently have capacity to schedule trips less than 60 minutes in advance. However, they have explored products offered by vendor software and/or operations that can reduce reservation times to 30 minutes or less.

D-4 through D-6: General Public Taxi or Transportation Network Company Subsidy

A taxi or transportation network company (TNC) subsidy program would provide reduced-cost curb-to-curb trips for customers reserving trips using a smartphone application or telephone reservation system. The subsidy can be paid by the city through monthly contract or via a voucher system (trip receipts sent to city as a type of invoice). The city can set the amount of subsidy, typically a flat rate (e.g. $5 per trip), with customers paying the remaining share depending on the distance and time of their trip. This model could supplement fixed route public transportation service where there is expected low productivity (1 to 4 rides per revenue hour) due to geography (low density housing or development) or due to service time (e.g., late night service).

D-7: Senior and Disabled Demand Response

Some local agencies provide specialized door-to-door public transportation service to specialized rider groups with limited mobility options, such as older adults and people with disabilities. This

service would have limited eligibility to ensure capacity for people most vulnerable to transportation limitations. Riders may pay a flat fare, or may vary based on distance. The strategy is envisioned to supplement the existing ADA complementary paratransit service.

CAPITAL STRATEGIES

I-1 through I-8: Pedestrian and Bicycle Infrastructure

Eight strategies support pedestrian and bicycle access. These strategies focus on providing safe and comfortable pedestrian and bicycle infrastructure that improves access to public transportation, including sidewalks, crosswalks, lighting, bike lanes and bicycle parking.

S-1 through S-3: Park and Ride

There are three options for park-and-ride locations in Ashland. Two locations support regional travel by locating park-and-rides near I-5 on/off ramps to provide connections to regional routes that serve Medford, or provide off-site parking for regional residents who are traveling into Ashland. One park-and-ride option supports local circulation by providing peripheral downtown parking. These options are best implemented with downtown paid parking and transit routes that would serve these park-and-ride facilities.

S-4 and S-5: Bus Stops

In addition to actual transportation service, amenities at bus stops are an important aspect of a transit trip. Two strategies provide bus stop amenities or ongoing maintenance to ensure comfortable, clean and safe locations for people to wait for the bus.

The RVTD Bus Stop Design Guidelines include a hierarchy of four classes that are based on boarding volume. Each class has different expectations for the amenities that are provided based on the stop's class - some elements are required, and others are encouraged but optional. RVTD requires a sign, adequate lighting, and access and safety at every bus stop. A shelter, bench, maps and schedule, bike rack, and trash can are required at all stops with up to 60 average daily boardings.

RVTD staff have noted that different reasons lead to required or optional amenities not being available at a bus stop. One key reason is that there is not enough space at the bus stop to fit the amenity, and neighboring land owners do not allow the district to install items on their property. Therefore, one key opportunity is for Ashland and RVTD to work together to find site-specific bus stop design solutions to ensure that riders have full safety, comfort, and convenience at each stop. The number of bus stops needing amenities is listed in Figure 3. The stops and amenity details are listed in this Technical Memorandum's Appendix B.

Figure 3 Bus Stop Amenities in Ashland

Amenity	Number of stops in Ashland lacking an amenity
Bus stop sign	7
Lighting	2
Shelter(s)	2
Bench	5
Map and schedule	4
Bike rack	6
Trash can	0

Source: RVTD

V-1 and V-2: Transit Vehicles

Strategies V-1 and V-2 provide electric buses for Ashland's local transit service, and the necessary infrastructure to support these buses, including a bus maintenance and charging facility.

V-3 and V-4: Implement Transit Priority Treatments

Strategies V-3 and V-4 implement various transit priority treatments to ensure transit reliability and on-time performance. The strategies include transit signal priority, bus only lanes and queue jumps as elements of a transit priority program in Ashland.

PROGRAM AND MOBILITY MANAGEMENT STRATEGIES

T-1 through T-4: Transportation Options

Transportation options includes investments in bike share programs that serve as local extensions of the transit network; marketing and transit information; supporting the vanpool program providing commuters an efficient and shared transportation option; and developing a single payment service for transit and bike sharing.

T-4 through T-6: Marketing and Transit Information

Marketing is an important tool to ensure the public is aware of what transportation services are available, and how to use them. Strategy T-6 is intended to provide marketing materials to the public, including maps and schedules. Strategy T-7 would be a more comprehensive effort to ensure all transportation services at the City of Ashland are coordinated to provide consistent messaging to the public, and to ensure all transportation efforts and activities are mutually supportive.

T-7 through T-12: Subsidized Fares

There are six different strategies to provide subsidized fares. Subsidized fares can range from reduced fare programs to full subsidies so that transit is free for the end user. The six strategies provide these reduced or free fares ranging from limited groups (such as people with low incomes,

people with disabilities, or hotel guests) to the general population (all Ashland residents or all transit boardings in Ashland).

PUBLIC TRANSPORTATION STRATEGY SUMMARY

Figure 4 provides a list of all the strategies, with key information such as revenue hours, cost, vehicles and potential ease of implementing the strategy.

Annual Revenue Hours Added – For transit strategies, these columns provide a high and low estimate for the number of additional revenues hours that would be added each year. The range is based on differences in potential frequency or different alignment options. Most options assume a span of 6 am to 8 pm, six days a week. Values are rounded to the nearest 10 hours.

Additional Operational Cost – The additional annual cost is based on the total annual revenue hours multiplied by an hourly operating cost. Values are rounded to the nearest $1,000. Two hourly operating costs were used:

$40.55 is the cost identified by RVTD as the incremental cost of new service during times when service is already operating.

$64.99 is the cost identified by RVTD as the cost for providing service during a day of the week or time of day when service is not currently provided.

Vehicles – This column identifies the range of new vehicles that would be needed to operate the strategy.

Other Capital Costs –This column identifies the estimated capital cost to implement the strategy, not including vehicles. Costs are either listed as one-time expenses, or as annual, recurring expenses.

Phase – This column classifies each phase as either Near, Medium or Long. The phasing was identified based on the relative level of effort needed to implement the strategy. Near term designates relatively simple strategies or with immediate opportunity identified through this Study. More complex strategies that require additional coordination or resources were assigned the Long term.

Figure 4 Ashland Proposed Public Transportation and Mobility Strategies

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
Modify Route 10									
M-1	Increased frequency on corridor served by existing Route 10	**Increase frequency on Route 10, All day,** Mon-Sat, Medford-Ashland	10,820	29,950	$439,000	$1,215,000	2 to 6	-	Medium
M-2		**Increase frequency on Route 10, Peak commute times,** Mon-Fri, Medford-Ashland	3,120	8,320	$127,000	$337,000	2 to 6	-	Medium
M-3		Central Corridor: All day, Mon-Sat, **Ashland only**		10,950		$444,000	2	-	Long
M-4		Central Corridor: All day, Mon-Sat, **Talent – Ashland**		20,770		$842,000	4 to 6	-	Long
M-5		Central Corridor: All day, Mon-Sat, **Exit 14 to Exit 19,** every 30 minutes		9,460		$409,000	2	-	Long
M-6	Schedule improvements	Improve reliability by adding between 5 and 20 minutes to each cycle to reflect actual run times	2,710	3,030	$110,000	$123,000	1	-	Medium
M-7		Consolidate some stops in Ashland to reduce travel time		0	-	-	-	-	Medium
M-8	Route realignment	Run Route 10 bi-directional on Ashland St (terminating at Ashland Hills Hotel)		2,630		$107,000	1	-	Medium
M-9	Add Sunday service	8 am - 8 pm, Medford-Ashland		2,600		$169,000	4	-	Long
M-10		8 am - 8 pm, Ashland only		1,300		$84,000	2	-	Long
M-11	Late night service on Route 10 (9 pm - 12 am)	**Mon-Sat,** Medford-Ashland		6,030		$392,000	-	-	Long
M-12		Mon-Sat, **Ashland only**		3,020		$196,000	-	-	Medium
M-13		**Thu-Sat,** Medford-Ashland		3,220		$210,000	-	-	Medium
M-14		Thu-Sat, **Ashland only**		1,610		$105,000	-	-	Near

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
New local fixed routes									
L-1	Expand coverage with new fixed routes (see maps) Mon-Sat, 6 am – 8 pm	**New local route** between Asante and Bi-Mart, via Main St, Laurel St, Hersey St, Mountain Ave, E Main St, Walker Ave, Ashland Street and Clay St. Every 30 min.		4,890		$211,000	1	-	Near
L-2		**New local route** between Downtown and Mountain Meadows, via Gresham St, Holly St, Morton St, Ashland St and Mountain Ave. Every 30 min.		4,520		$196,000	1	-	Medium
L-3		**New downtown/central Ashland circulator** from potential park-and-ride on Clear Creek Dr, via downtown, Main St, Siskiyou Boulevard, Mountain Ave, B St, returning to Clear Creek park-and-ride. Every 15 min		4,450		$193,000	1	-	Near (seasonal or pilot)
New regional fixed routes									
R-1	Route 10 limited-stop service *(stops in Medford, Phoenix, Talent, Downtown Ashland, SOU and Ashland St & Tolman Creek Rd)*	**All day** (6 am – 8 pm), Mon-Sat; every 60 minutes		7,020		$285,000	2	-	Long
R-2		**Peak commute times** (6-9 am, 4-7 pm), Mon-Fri; every 30 minutes		5,460		$221,000	3	-	Medium
R-3	I-5 Express (Medford-Ashland) *(no intermediate stops)*	**All day** (6 am – 8 pm), Mon-Sat; every 60 minutes	4,680	5,460	$190,000	$221,000	1 to 2	-	Long
R-4		**Peak commute times** (6-9am, 4-7pm), Mon-Fri; every 30 minutes	3,640	4,250	$148,000	$172,000	2 to 3	-	Medium

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
R-5	Medford Airport Connector	Ashland to Medford Airport **direct service;** every 90 minutes, Mon-Sat; 7am-8pm; seasonal (6 months per year)	2,260	2,260	$92,000	$147,000	1	-	Long
Local demand response services									
D-1	General public demand response shuttles	**Standard:** Citywide, Mo-Sa, 6 am - 9 pm	8,740	17,470	$380,000	$759,000	2 to 4	-	Near
D-2		**Late night:** Citywide, Mo-Sa, 9 pm to 1 am	2,500	4,990	$203,000	$406,000	2 to 4	-	Medium
D-3		**Late night weekend:** Citywide, Th-Sa, 9 pm to 1 am	1,250	2,500	$101,000	$203,000	2 to 4	-	Medium
D-4	General public taxi / TNC subsidy	**Standard:** Citywide, Mo-Sa, 6 am - 9 pm	Varies		-	-	-	-	Medium
D-5		**Late night:** Citywide, Mo-Sa, 9 pm to 1 am	Varies		-	-	-	-	Medium
D-6		**Late night weekend:** Citywide, Th-Sa, 9 pm to 1 am	Varies		-	-	-	-	Near
D-7	Senior and disabled demand response	**Door-to-door** on-demand service for seniors and people with disabilities	4,370	8,740	$177,000	$354,000	1 to 2	-	Medium

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
Pedestrian and Bicycle Infrastructure									
I-1	Sidewalks and streetscapes	Multi-modal infrastructure investments (crosswalks, pedestrian safety, and general investments) - main category	-	-	-	-	-	$100k/yr	Medium
I-2		Add pedestrian scale lighting to bus stops (approximately 5 lights per year). Combine w/ below.	-	-	-	-	-	$20k/yr	Near
I-3		Replace bus stop lighting with energy-efficient or solar-powered lighting (between 4 and 12 lighting retrofits per year)	-	-	-	-	-	$12k/yr	Near
I-4		Sidewalk infill where sidewalks are missing (0.5 miles of sidewalk infill annually)	-	-	-	-	-	$80k/yr	Near
I-5		Widen sidewalks in busy areas and near bus stops	-	-	-	-	-	*Determined during design and prior to construction*	Medium
I-6		Add marked crossings to improve access to stops along high volume and/or high speed roadways (four new high visibility crosswalks per year)	-	-	-	-	-	$10k/yr	Near
I-7		Add buffered or protected bike lanes to provide last-mile connections (0.5 miles per year)	-	-	-	-	-	$16k/yr	Medium
I-8		Add bicycle parking at bus stops (5 racks per year)	-	-	-	-	-	$35k/yr	Near

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
Bus stops and park-and-rides									
S-1	Park and Ride	Clear Creek Drive (see L-1)	-	-	$20,000	$50,000	-	*Based on location and size*	Medium
S-2		Near Valley View Road and I-5 (see R-2, R-3)	-	-	$20,000	$50,000	-		Medium
S-3		Near Ashland Street and I-5 (see R-2, R-3)	-	-	$20,000	$50,000	-		Medium
S-4	Bus stops	Ashland ongoing bus stop maintenance program (direct)	-	-	$18,000	$27,000	-	-	Near
S-5		Add bus stop shelters, benches, and garbage cans (two bus stops per year)	-	-	-	-	-	$30k/yr	Near
Vehicles and Equipment									
V-1	Transit vehicles	Electric bus (35 foot / 25 seats)	-	-	-	-	1 to 3	$800 k	Medium
V-2		Ashland bus barn / storage / charging	-	-	-	-	-	$500k - $1M	Long
V-3	Implement transit priority treatments	Signal timing improvements, including Transit Signal Priority	-	-	-	-	-	$125k-$1M / intersection	Medium
V-4		Establish bus only lanes and queue jumps	-	-	$10k / mile		-	$100k-310k / mile	Long
Programs to support transit use, improve access, reduce costs and improve access to information									
T-1	Transportation Options	Expand existing bike share program (additional 20-50 bicycles)	-	-	$2k – $10k		-	$20k – $50k	Medium
T-2		Add e-bikes to bike share program (additional 20-50 bicycles)	-	-	$4k – $20k		-	$40k - $100k	Medium
T-3		Develop vanpool program	-	-	$10k-20k / vehicle		-	$50k/ vehicle	Near
T-4		Common fare payment service for bike share and public transit	-	-	$50-100k		-	-	Medium

#	Type	Strategy	Annual Revenue Hours Added		Additional Operations Cost		New Vehicles	Other Capital Costs	Potential Phase
			Low	High	Low	High			
T-5	Marketing and transit information	Transit information - local distribution program	-	-	$20-$100k		-	TBD	Near
T-6		Coordinate with city transportation department (transit, parking, TDM, emissions reduction)	-	-	-	-	-	-	Near
T-7	Subsidized fares	Reduced fare program for low-income and people with disabilities	-	-	$100k-$300k		-	-	Medium
T-8		Reduced fare program for all Ashland residents	-	-			-	-	Medium
T-9		Reduced fare program for all Ashland hotel guests	-	-			-	-	Medium
T-10		Free transit for low-income and people with disabilities	-	-			-	-	Medium
T-11		Free transit for all boardings in Ashland	-	-			-	-	Medium
T-12		Free transit for Ashland residents only	-	-			-	-	Medium

3 STRATEGY EVALUATION

Each of the strategies presented above serve Ashland in different ways, and therefore have diverse impacts on the community. To identify the strategies that most effectively support the transportation and mobility needs of Ashland, and to support prioritization, Figure 5 provides an evaluation of each strategy. This evaluation provides a quantitative assessment of access, a qualitative assessment of which focus areas are supported by each strategy, and which markets would be served by each strategy.

Access – These columns provide the number of people and jobs that are within a ¼ mile of proposed routes. For operational or programmatic strategies, no numbers are provided. The values were estimated using the transit planning tool Remix, which creates a ¼ mile straight-line buffer around potential stop locations. These values don't account for guests, tourists, non-resident students, and other populations that neither live nor work in Ashland but travel into Ashland during the day.

Markets Served – Identifies which markets would be served by each strategy (noted with an "X". The five markets are *residents, visitors, employees, students and seniors*.

Electric Vehicle – Identifies which strategies would be able to use an electric vehicle, assuming existing range limitations and charging capacity.

Estimated Daily Ridership – Provides a range of values for the additional daily ridership that may be expected for each strategy (capital, infrastructure and programs strategies do not have estimates). These values are planning-level estimates with a high margin of error.

Figure 5 Strategies Evaluation

#	Type	Strategy	Access		Markets Served					Electric Vehicle	Estimated Daily Ridership
			Population	Jobs	Residents	Visitors	Employees	Students	Seniors		
Route 10 Modifications											
M-1	Increased frequency on corridor served by existing Route 10	**Increase frequency on Route 10, All day,** Mon-Sat, Medford-Ashland	19,521	15,474	●	●	●	●	●	-	1,400 – 4,500
M-2		**Increase frequency on Route 10, Peak commute times,** Mon-Fri, Medford-Ashland	19,521	15,474	-	-	●	●	-	-	420 – 1,440
M-3		New overlay route, All day, Mon-Sat, **Ashland only**	7,181	5,377	●	●	-	●	●	-	825 – 1,155
M-4		New overlay route, All day, Mon-Sat, **Talent - Ashland**	10,460	6,082	●	●	●	●	●	-	1,340 – 2,010
M-5		New overlay route, All day, Mon-Sat, **Exit 14 to Exit 19,** every 30 minutes	7,748	5,530	●	●	●	●	●	-	775 – 1,085
M-6	Schedule improvements	Improve reliability by adding between 5 and 20 minutes to each cycle to reflect actual run times	-	-	●	-	●	●	-	-	350 – 540
M-7		Consolidate some stops in Ashland to reduce travel time	-	-	●	-	●	●	-	-	–
M-8	Route realignment	Run Route 10 bi-directional on Ashland St (terminating at Ashland Hills)	18,293	15,183	●	●	●	●	●	-	250 – 350
M-9	Add Sunday service	8 am - 8 pm, Medford-Ashland	19,521	15,474	●	-	-	-	●	-	1,750 – 2,250
M-10		8 am - 8 pm, Ashland only	7,181	5,377	●	-	-	-	●	-	625 – 875
M-11	Late night service on Route 10 (9 pm - 12 am)	**Mon-Sat**, Medford-Ashland	19,521	15,474	●	-	-	●	-	-	270 – 520
M-12		Mon-Sat, **Ashland only**	7,181	5,377	●	-	-	●	-	-	90 – 260
M-13		**Thu-Sat**, Medford-Ashland	19,521	15,474	●	●	-	-	-	-	360 – 650
M-14		Thu-Sat, **Ashland only**	7,181	5,377	●	●	-	-	-	-	135 – 325
New local fixed routes											
L-1	Expand coverage with new fixed routes (see maps) Mon-Sat, 6 am – 8 pm	**New local route** between Asante and Bi-Mart, via Main St, Laurel St, Hersey St, Mountain Ave, E Main St, Walker Ave, Ashland Street and Clay St. Every 30 min.	6,433	3,068	●	-	-	●	●	●	400 – 560
L-2		**New local route** between Downtown and Mountain Meadows, via Gresham St, Holly St, Morton St, Ashland St and Mountain Ave. Every 30 min.	5,743	4,397	●	-	-	-	●	●	375 – 525
L-3		**New downtown/central Ashland circulator** from potential park-and-ride on Clear Creek Dr, via downtown, Main St, Siskiyou Boulevard, Mountain Ave, B St, returning to Clear Creek park-and-ride. Every 15 min	4,343	4,063	-	●	●	-	●	●	350 – 490

#	Type	Strategy	Access		Markets Served					Electric Vehicle	Estimated Daily Ridership
			Population	Jobs	Residents	Visitors	Employees	Students	Seniors		
New regional fixed routes											
R-1	Route 10 limited-stop service *(stops in Medford, Phoenix, Talent, Downtown Ashland, SOU and Ashland St & Tolman Creek Rd)*	**All day** (6 am – 8 pm), Mon-Sat; every 60 minutes	3,781	4,707	●	-	●	●	-	-	805 – 1,035
R-2		**Peak commute times** (6-9 am, 4-7 pm), Mon-Fri; every 30 minutes	3,781	4,707	●	-	●	●	-	-	420 – 630
R-3	I-5 Express (Medford-Ashland) *(no intermediate stops)*	**All day** (6 am – 8 pm), Mon-Sat; every 60 minutes	2,600	3,834	●	-	●	●	-	-	450 – 630
R-4		**Peak commute times** (6-9am, 4-7pm), Mon-Fri; every 30 minutes	2,600	3,834	●	-	●	●	-	-	280 – 480
R-5	Medford Airport Connector	Ashland to Medford Airport **direct service**; every 90 minutes, Mon-Sat; 7am-8pm; seasonal (6 months per year)6am - 8pm, every 90 minutes (9 runs); Mon-Sat	2,735	2,442	●	●	-		-	X	75 – 225
Local demand response services											
D-1	General public demand response shuttles	**Standard**: Citywide, Mo-Sa, 6 am - 9 pm	21,000	10,000	●	●	●	●	●	●	28 – 224
D-2		**Late night**: Citywide, Mo-Sa, 9 pm to 1 am	21,000	10,000	●	●	-	●	-	●	4 – 48
D-3		**Late night weekend**: Citywide, Th-Sa, 9 pm to 1 am	21,000	10,000	●	●	-	●	-	●	8 – 48
D-4	General public taxi / TNC subsidy	**Standard**: Citywide, Mo-Sa, 6 am - 9 pm	21,000	10,000	●	●	●	●	●	-	–
D-5		**Late night**: Citywide, Mo-Sa, 9 pm to 1 am	21,000	10,000	●	●	-	●	-	-	–
D-6		**Late night weekend**: Citywide, Th-Sa, 9 pm to 1 am	21,000	10,000	●	●	●	●	●	-	–
D-7	Senior and disabled demand response	**Door-to-door** on-demand service for seniors and people with disabilities	21,000	10,000	●	-	-	-	●	●	14 – 84

#	Type	Strategy	Access		Markets Served					Electric Vehicle	Estimated Daily Ridership
			Population	Jobs	Residents	Visitors	Employees	Students	Seniors		
Pedestrian Infrastructure											
I-1	Sidewalks and streetscapes	Multi-modal infrastructure investments (crosswalks, pedestrian safety, and general investments) - main category	-	-	●	●	●	●	●	-	-
I-2		Add pedestrian scale lighting to bus stops (approximately 5 lights per year). Combine w/ below.	-	-	●	●	●	●	●	-	-
I-3		Replace bus stop lighting with energy-efficient or solar-powered lighting (between 4 and 12 lighting retrofits per year)	-	-	●	●	●	●	●	-	-
I-4		Sidewalk infill where sidewalks are missing (0.5 miles of sidewalk infill annually)	-	-	●	●	●	●	●	-	-
I-5		Widen sidewalks in busy areas and near bus stops (combine w/ I-10 prioritization)	-	-	●	●	●	●	●	-	-
I-6		Add marked crossings to improve access to stops along high volume and/or high speed roadways (four new high visibility crosswalks per year)	-	-	●	●	●	●	●	-	-
I-7		Add buffered or protected bike lanes to provide last-mile connections (0.5 miles per year)	-	-	●	-	●	●	-	-	-
I-8		Add bicycle parking at bus stops (5 racks per year)	-	-	●	-	●	●	-	-	-
Bus stops and park-and-rides											
S-1	Park and Ride	Clear Creek Drive (see L-1)	-	-	●	●	●	-	-	-	-
S-2		Near Valley View Road and I-5 (see R-2, R-3)	-	-	●	●	●	-	-	-	-
S-3		Near Ashland Street and I-5 (see R-2, R-3)	-	-	●	●	●	-	-	-	-
S-4	Bus stops	Ashland ongoing bus stop maintenance program (direct)	-	-	●	-	●	●	●	-	-
S-5		Add bus stop shelters, benches, and garbage cans (two bus stops per year)	-	-	●	-	●	●	●	-	-
Vehicles and Equipment											
V-1	Transit vehicles	Electric bus (35 foot / 25 seats)	-	-	●	-	●	-	●	●	-
V-2		Ashland bus barn / storage / charging	-	-	-	-	-	-	-	●	-
V-3	Implement transit priority treatments	Signal timing improvements, including Transit Signal Priority	-	-	●	●	●	●	●	-	-
V-4		Establish bus only lanes and queue jumps	-	-	●	●	●	●	●	-	-

#	Type	Strategy	Access		Markets Served					Electric Vehicle	Estimated Daily Ridership
			Population	Jobs	Residents	Visitors	Employees	Students	Seniors		
Programs to support transit use, improve access, reduce costs and improve access to information											
T-1	Transportation Options	Expand existing bike share program	-	-	●	●	●	●	-	-	-
T-2		Add e-bikes to bike share program	-	-	●	●	●	●	-	-	-
T-3		Implement paid parking downtown	-	-	●	●	●	●	●	-	-
T-4		Develop vanpool program	-	-	●	-	●	-	-	-	-
T-5		Common fare payment service for bike share and public transit	-	-	●	●	●	●	-	-	-
T-6	Marketing and transit information	Transit information - local distribution program	-	-	●		●	●	●	-	-
T-7		Coordinate with city transportation department (transit, parking, TDM, emissions reduction)	-	-	●	●	●	●	●	-	-
T-8	Subsidized fares	Reduced fare program for low-income and people with disabilities	-	-	●	-	-	●	●	-	-
T-9		Reduced fare program for all Ashland residents	-	-	●	-	-	●	●	-	-
T-10		Reduced fare program for all Ashland hotel guests	-	-	-	●	-	-	-	-	-
T-11		Free transit for low-income and people with disabilities	-	-	●	-	-	●	●	-	-
T-12		Free transit for all boardings in Ashland	-	-	●	●	●	●	●	-	-
T-13		Free transit for Ashland residents only	-	-	●	-	-	●	●	-	-

4 FUNDING

The proposed projects above represent a range of project costs, from cost-neutral options representing only staff time, to operations (i.e. ongoing) and capital (i.e. one-time) costs exceeding $1 million. The range of funding options available to the city are likewise far ranging, including local, region, state and federal funds. All strategies proposed for evaluation are considered to have a reasonable likelihood of funding through one or more funding sources. Ashland has not dedicated staff time or funding for any of the transit improvements noted above. In the past the City has used a mix of local funds to support a broader reduced fare program.

Appendix C lists potential funding sources for the City of Ashland and its local partners to consider. There are several important issues to consider for the primary funding sources.

It is important to note that RVTD makes many changes for communities using existing or supplemented federal, state, and regional transit funds. This is a great opportunity for Ashland; it also means that the potential strategies or changes need to fit within RVTD's regional service and funding priorities. The agency must balance needs from across the region, and allocate service to the greatest needs as defined by the organization's vision and goals. The District must also consider funding eligibility criteria, such as serving low income households and meeting complementary paratransit requirements. Therefore, a key part of feasibility – particularly for near-term strategies – is understanding how Ashland and RVTD can address common needs and goals.

Federal Funds

Federal funds are programed in the Rogue Valley area through a regional planning process managed by the Rogue Valley Metropolitan Planning Organization. Federal vehicle funds are at times available through Oregon Department of Transportation (ODOT) solicitations, particularly for projects serving seniors and people with disabilities. Federal Intercity funds §5311(f) are awarded through ODOT to communities serving rural, geographically-separated areas and connecting communities to longer-distance, inter-regional transit services. These funds may be combined with state funding programs (see below) in future funding cycles. RVTD and Ashland are not eligible for these funds because they are in an urbanized area.

Federal grant programs generally require 50% local match for operations, and 20% local match for capital (vehicles, equipment, and bus stops) projects. RVTD uses the funding for operations, new vehicles, and vehicle maintenance.

Direct recipients of Federal funds must comply with Federal transit regulations and manage grants through Federal financial management systems. The same requirements apply if the Federal funds are awarded by ODOT. This can carry significant administrative start-up and maintenance costs. For example, agencies must document annually the agency Certifications and Assurances.[2] These are pre-award certifications that must be signed by an authorized representative, covering 21 categories, including issues such as non-discrimination, procurement, suspension and debarment, financial management, lobbying, private sector competition, asset management and safety, and protections under the Americans with Disabilities Act.

[2] https://www.transit.dot.gov/funding/grantee-resources/certifications-and-assurances/fiscal-year-2018-annual-list-certification-0

State Funds

Statewide Transportation Improvement Fund (STIF) *formula funds* will be allocated to RVTD to serve the Rogue Valley. RVTD must document expected services and projects funded through this program in a STIF Plan every two years, to be approved by an advisory committee made up of local stakeholders. ODOT's estimate for annual funding after 2020 is $3.2 million annually, ramping up from $1.26 starting July 1, 2019. The final amounts will depend on tax revenue collected locally, which is updated annually. The Statewide Transportation Improvement Fund program is intended to improve and expand public transportation in Oregon. This means the STIF is intended to supplement existing public transportation funding sources, and not result in shifts in sources such that total funding remains static. How local agencies and their partners accommodate new funds has yet to be determined.

The Statewide Transportation Improvement Fund *discretionary and intercommunity programs* will provide funding to local agencies for short-term pilot or capital projects. More information on eligibility and project types will be included with the solicitation; Ashland would need to comply with state compliance requirements. Applicants apply directly to ODOT, unlike the formula program which is processed through RVTD.

Private Funds

Transit service can also be funded through private organizations and the local business community. This can be achieved through one of two options:

A partnership in which private organizations or businesses contribute funding to a city or a transit agency to operate public transit services. This can be in the form of increased funding to operate additional service, or to provide free or reduce fares.

Private organizations operate a transit service themselves, either directly or with a contract with a transportation provider. This option is typically provided if there is a specific need that is not served well with existing public transit services, or one in which it would be too costly or inefficient for public transit to serve (such as airport or hotel shuttles).

5 GOVERNANCE

The City of Ashland must determine how to implement, oversee, and fund local transit services. Several potential service delivery models are presented below. The first service delivery scenario below – a partnership with the transit district (i.e., RVTD) – would provide the greatest service coordination and lowest administrative cost for most service types. The potential service delivery scenarios below will help stakeholders understand and inform future decision-making as the service evolves over time. The service models are generalized for discussion, and allow for mixing approaches to best meet service and operational needs, such that some services are with RVTD and some could be managed or procured locally.

In all service delivery models, the most successful partnerships will depend on the City clearly stating the needs to be served through the transportation service, a clear set of desired outcomes, and a balanced and clear process for making changes or adjustments to service. These factors will ensure the City receives the service it expects for the funds expended. It will also help ensure riders and potential riders have access to a reliable transit service with which they build a relationship over time.

SERVICE DELIVERY MODEL SCENARIOS

Transit district, agency, or non-profit partnership

- Ashland would partner with RVTD to implement new or improved transit service.
- Services would be planned, delivered and monitored under conditions detailed in a minimum five-year interagency agreement (see Roles and Responsibilities), such that Ashland is RVTD's "customer". The agreement should specify the service cost and payment structure, the agreement time period, and the services to be provided, and a process for service planning and implementation.
- RVTD would plan transit service in Ashland in coordination with transit service across the region.
- The interagency agreement would ultimately be overseen by the City of Ashland and the RVTD Board of Directors.
- Service and fare coordination would be highest in this scenario.
- Ashland would have responsibility for: interagency agreement management, local funding and budgeting, and supporting RVTD service analysis and planning.
- This service model is used in other Oregon cities such as Philomath and Silverton. RVTD and the City have used this service model in the past. In Forest Grove, the city partners with a non-profit to operate local transit service, and the regional agency continues to provide regional connectivity.

Competitive contracting

- The City would select a transit operations contractor through a competitive procurement (i.e., bid) process. The Ashland City Council or its designees would oversee public transportation services.
- The business-to-government agreement or contract should specify the cost and payment structure, the contract time period, and describe the services to be provided.
- Ashland could apply for and receive some public transportation funding grants through the Oregon Department of Transportation, depending on service type and how the city fits within RVTD. To do this, the City must work closely with RVTD and ODOT to understand eligibility and project types, qualify as a recipient, and ensure service coordination with RVTD; this would require a time consuming administrative process.
- Service and fare coordination would be lower in this scenario.
- With no federal or state public transportation funding, Ashland would have responsibility for: contract management, local funding and budgeting, scheduling, service analysis and planning, marketing, mobility management and coordination, vehicle procurement and maintenance, and fare collection.
- With federal or state public transportation funding, Ashland would add responsibility for grant management, and Federal Transit Administration and ODOT compliance requirements including ADA complementary paratransit.
- This service model is used by other local agencies such as Corvallis Transit System, Canby Area Transit, Yamhill County, and Columbia County. Ashland has not contracted for ongoing transportation services in the past.

In-house service delivery

- The City would provide local transit service directly, with drivers and administrators functioning as City employees. The Ashland City Council or its designees would oversee public transportation services.
- Cost structure and budgeting would be determined by transit managers and, if applicable, the drivers' union.
- Ashland would likely apply for and receive public transportation funding grants through the Oregon Department of Transportation, depending on service type and the city's administrative choices.
- Service and fare coordination would likely be lower in this scenario.
- With federal or state public transportation funding, Ashland would have responsibility for administration, grant management, human resources, local funding and budgeting, scheduling, service analysis and planning, marketing, mobility management and coordination, vehicle procurement and maintenance, fare collection, and Federal Transit Administration and ODOT compliance requirements including ADA complementary paratransit.
- Examples include Wilsonville's South Metro Area Regional Transit (SMART), Sandy Transit, and Albany Transit System.

ROLES AND RESPONSIBILITIES

It's important for an agreement or contract, including any referenced operations plans and other documents, to lay out the process and procedures required for the parties to request and implement significant service changes. In general, the number of service change "windows" should be limited and be based on performance measures that are clear and communicated well to partners and customers. Coordinated and well communicated changes – and the underpinning analysis – will help minimize rider disruptions by providing consistent, reliable service. The coordination process will also minimize "change order" costs (compliance, labor management, and administration) inherent in service analysis and changes.

Operating transit service requires a range of functions and responsibilities. The service models differ in part by which organization takes on these functions and responsibilities, as described below. For more information see the ODOT Compliance Field Guide[3], and the Federal Transit Administration Award Management Circular 5010.1E[4].

- *Human resources (for operations staff):* hiring and supervising staff, managing benefits, training, etc.
- *Legal counsel:* some legal counsel may be necessary to make sure the new service complies with federal and state rules and regulations
- *Grants management:* developing grant applications for state and federal grant sources and ensuring reporting requirements are met
- *Service planning and coordination:* ensuring service meets customer needs and recommending service modifications as necessary, and coordinating with other public transportation services
- *Marketing/customer relations:* marketing the service to residents and workers through a website and printed materials, and responding to customer concerns and complaints
- *Policy oversight:* forming an oversight body to adopt service policies, establish goals and objectives, and routinely review system performance
- *Vehicle maintenance and fueling:* keeping up transit vehicles in good working order
- *Facility oversight:* setting up and maintaining facilities necessary for vehicle maintenance and fueling
- *Road supervision:* direct oversight to make sure transit routes are operated safely and on time
- *Fare collection:* developing a secure method for fare collection, depositing funds in a secure location, and possibly distributing passes and tickets

The figure below provides a comparison of staffing implications and potential strengths and weaknesses of each service model scenario.

[3] https://www.oregon.gov/ODOT/RPTD/Pages/Compliance-Review.aspx as of September 2018.

[4] https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e as of September 2018.

Figure 6 Comparison of Service Delivery Scenarios

Functional Category	Scenario 1: District Partnership	Scenario 2: Contracted	Scenario 3: In-House
Human Resources (for Operations Staff)	Minimal	Low	High
Legal Counsel	Low	Medium	High
Vehicle Maintenance and Fueling	Minimal	Low to high	High
Non-Vehicle Maintenance	Minimal	Medium	High
Road Supervision	Minimal	Low	High
Grants Management	Low	High	High
Fare Collection	Minimal	Low	High
Service Planning and Coordination	Low	High	High
Marketing/Customer Relations	Low	High	High
Policy Oversight	Low	High	High
Estimated FTE	**0.5 FTE**	**1.0 to 2.0 FTE**	**3.0 FTE or more**

6 PROJECT EVALUATION FEEDBACK

The project team shared draft strategy evaluation results with the project Technical Advisory Committee (TAC) and the Ashland Transportation Commission. The purpose of the meetings was to solicit feedback on (a) the city priorities by understanding which strategies appeared to meet the city's goals from the representatives' perspectives, and (b) feedback on specific strategies included in the evaluation. This feedback was in addition to information the project team learned from tabling events at the Growers Market and SOU, and from public testimony provided at three Ashland Transportation Commission meetings.

TECHNICAL ADVISORY COMMITTEE

The second TAC meeting was Tuesday, September 25. The group recommended sharing Technical Memorandum #2 with the Transportation Commission following some recommended changes. Key issues that emerged from the conversation included the following issues.

- The group suggested a blended version of the Route 10 limited stop and the I-5 Express. This blended option would provide I-5 express service between Ashland and Medford during the day, with the route changing to a limited stop service along OR-99 during the evening.
- Some TAC members expressed interest in more detail on net greenhouse gas emissions by strategy. This would be calculated by estimating transit vehicle emissions, less the avoided personal car emissions for people who would otherwise drive. The group recognized, however, that the technical analysis and modeling required for that exercise was unlikely to change which strategies are top priority for those interested in emissions. The analysis was also beyond the scope of this study. Emissions, however, will continue to be an important issue to consider.
- The TAC prioritized strategies given a hypothetical funding constraint. Overall, the group prioritized the following strategies highest:
    - local fixed-route service between Asante Medical Center and Tolman Creek Drive (strategy L1),
    - general public demand response service,
    - bus maintenance/storage facility,
    - bicycle and pedestrian infrastructure supporting access to transit, and
    - downtown circulator (strategy L3), and
    - direct or express Ashland to Medford service (strategy L2)

Figure 7 Strategy Prioritization Feedback

Priority	Strategy	Needs Addressed[5]	Notes
High	Local Route L-1 (Asante to Tolman Creek)	Local connections	Interest in coverage options
	I-5 Express – Direct Medford-Ashland service	Shorter travel time to Medford	Already a priority for RVTD in regional plan; could combine with **Route 10 limited**
	Local Route L-3 (Downtown circulator)	Local connections; Reducing vehicle emissions and parking demand	Interested inasmuch as it supports **downtown parking** implementation
	General public demand response	Local connections	Flexible approach for **low density,** steep areas
	Electric vehicle maintenance/storage facility	Reducing local vehicle emissions	Applies to **any transit service** strategy (small-to-large vehicles)
	Pedestrian/bicycle infrastructure	Comfortable walking environment; Safety & perceived safety	Scalable and easily integrated into **city infrastructure workplans**
Medium	Late Evening/Night Service in Ashland	More service hours: Late night	Important market serving **students, recreational** trips, and people **working late;** requires non-RVTD service
	Route 10 Limited – skip stop on Hwy 99	Shorter travel time to Medford	[See I-5 Express]
	Local Route L-2 (Mountain Meadows to Downtown)	Local connections	Important area to serve but too **low demand** for fixed route. Potentially in Valley Lift w/ Local Route, or citywide general public demand response
	Increased Frequency – Route 10 service area (in Ashland only)	High frequency service; Reliability	Not feasible as a closely integrated strategy with existing Route 10 due to **schedule constraints;** Could operate as a separate service
Low	Bus stop improvements	Safety & perceived safety	Not listed as a priority for Ashland as it fits within RVTD maintenance
	Sunday Service	More service hours: Sunday	Not feasible for action until RVTD has 7-day management and operations in place
	Increased Frequency – Route 10 (Medford to Ashland)	High frequency service; Reliability	Not feasible within existing Route 10 due to schedule adherence constraints on the corridor; Ashland could pursue independent of RVTD service
	Medford Airport Connector	Connections to airport	Not feasible for RVTD action due to existing routes serving the area; low priority given other needs

[5] The needs listed in this column are from Technical Memorandum #1 Existing Conditions and Needs Assessment.

TRANSPORTATION COMMISSION

The Transportation Commission's October meeting (held on Thursday, October 18, 2018) included a presentation of the strategies listed in this report, and the results from the TAC meeting. The Commissioners requested the project team take the following steps to address strategy questions.

- Link strategies to existing Ashland transportation and climate plans that include relevant public transportation projects.
- Clarify and/or consider the impacts on greenhouse gas emissions in the city's implementation processes.
- Adapt the Route 10 overlay project (Increased Frequency – Route 10) to more closely reflect the Exit 14 to Exit 19 route proposed in earlier plans, with the intent to serve hotels and other activity centers in the central corridor. Include potential future park-and-ride facilities.
- The project team should speak with people who can share information about people with disabilities, the school district, and local advocates for public transportation.
- A commissioner was interested in ridership estimates for the proposed services, as an indicator of how "viable" a project is, if ridership productivity is a priority goal.
- Note potential private funding opportunities in the technical report, as one option for the city to pursue.

The project team addressed these comments in the strategy development described in the following section, and throughout the technical memoranda.

7 TRANSIT OPTIONS

The project team identified a set of feasible public transportation strategies that offer the City of Ashland a flexible "menu" of transportation opportunities to carry forward.

The planning process for the Public Transportation Expansion Feasibility Study is focused on potential projects' *operational* and technical feasibility. The project phases capture projects or project elements that are not feasible today and have reasonable expectation to be implemented in the future. The strategies derive from the project evaluations above, and an assessment of transportation needs. The needs reflect information from past transportation plans, discussions with community stakeholders, and existing conditions analysis (see this study's Technical Memorandum 1).

This study, however, was not intended to be a consensus-building process determining the *social* and *financial* feasibility of the public transportation strategies described here. Determining which projects to move forward, and at what scale, will require the City to identify local priorities to which to allocate public resources, whether through purchase or staff time. To assist the city's prioritization process, each strategy includes a description of the transportation markets best served (i.e. the needs addressed and served), action steps, scalable cost and staff time estimates, and potential project partners. The intent is that the city can use the information to decide which needs to address, and how based on the availability of local resources.

Overview

This remainder of this chapter provides details on seven transit options that the project team is recommending to advance to further consideration by the City of Ashland. The projects are based on the strategies outlined earlier in this memorandum, with refinements and modifications. The projects address needs identified through discussions with local stakeholders.

Near Term Funding Opportunities

The information in this Study can support the City of Ashland and related stakeholders advance local public transportation strategies through two project funding and planning opportunities. RVTD is facilitating coordination on each of these processes, and is guided by stakeholder and advisory committees.

RVTD Transit Master Plan. The Master Plan started in 2018 and is expected to conclude in 2019. Some strategies in the Ashland Transit Expansion Feasibility Study are already under consideration in RVTD' long-range Transit Master Plan, to be completed in 2019. The information here can support the City of Ashland stakeholders advocating for local projects in that planning process. The RVTD plan will identify the District's priorities and planned investments over the immediate- to long-term.

Oregon Statewide Transportation Improvement Fund (STIF). Transit expansion projects described here have immediate funding opportunities through the new statewide funding programs. The *STIF formula program* will result in over $2 million annually in new public transportation funds for the Rogue Valley region, starting in Summer 2019 (applications due from RVTD in May 2019). The S*TIF Discretionary and Intercommunity programs* will fund discrete, one-time projects such as capital purchases or pilot projects (applications due February 2019). While ODOT does not allocate the funds specifically to

Ashland, the prioritization and project development process lets stakeholders like Ashland advocate for their projects. The STIF programs are guided by funding requirements set by the Oregon Legislature, which include serving low income communities, coordinating regional transportation service needs, and including projects in a locally adopted transportation plan.

The sections below provide summaries of the strategies, including project purpose and benefits to the community, estimated costs and timing, and action steps that make the project feasible from a technical and operational standpoint.

Bicycle and Pedestrian Investments and Bus Stop Infrastructure

Safe pedestrian and bicycle access and connectivity, and bus stop amenities that improve comfort are key components to a viable, responsive transit system that is well-used, accessible and convenient. These strategies are intended to improve access to transit and to improve the passenger experience.

Access investments include an array of strategies that aim to improve comfort and convenience of walking or bicycling.

Pedestrian investments includes sidewalk infill where sidewalks are missing, widening sidewalks where they are narrow, investing in streetscape elements such as benches and street trees, adding marked crosswalks, median refuge islands and curb extensions at key locations where demand or safety concerns warrant.

Bicycle investments include buffered or protected bike lanes, bicycle parking, wayfinding, and increasing the number of bicycles in the Rogue Bike Share fleet and/or adding additional bike share stations.

Bus stop improvements include ongoing bus stop maintenance; adding new benches, shelters, lighting, bike racks and/or trash cans where demand warrants; and adding signage, wayfinding, maps and schedules to provide confirmation to passengers about what routes serve the stop, where the bus goes, and when it is expected to arrive. Amenities should be prioritized at stops with higher levels of boarding activity, or stops located close to destinations that are used by people with disabilities or older adults.

Funding opportunities are flexible, given the broad base of infrastructure design and construction resources. RVTD is responsible today for bus stop design, construction, and maintenance. Ashland can contribute in-kind design and construction resources for bus stops, particularly for requested design elements that fit in RVTD's design guidelines. Ashland will lead on sidewalk and bicycle facility improvements in the city, and can coordinate with Oregon DOT and RVTD to identify potential funding sources beyond those identified in the Transportation System Plan.

Action Plan

There are a range of different directions and actions the city can take, as described below.

1. **Develop a comprehensive active transportation project list or plan.** The assessment can include a citywide asset and programs inventory. Historical pedestrian and bicycle collision data can help identify high risk areas, and illustrate correlations between collision frequency, severity, location type, and person movements. Include locations with sidewalk gaps, needed pedestrian crossings, bike lanes, and other investments to respond to non-motorized transportation safety.

2. **Conduct a Rogue Bike Share expansion study** to review existing bike share use and demand, locations where demand exceeds supply or capacity, and areas with potential demand but no bike share stations. Recommendations for short- and medium-term improvements, electric bike or e-scooter opportunities and applications, and capital and operational costs and resources.
3. **Develop a comprehensive assessment of bus stop needs** by location, based on existing ridership, adjacent land uses, and available rights of way. Develop Ashland-specific bus stop design and branding guidelines in collaboration with RVTD. Use bus stops needs and guidelines to recommend specific investments by stop.
4. **Review of existing land use codes**, and the development and permitting system to identify opportunities for code and policy changes that can ensure new development contributes to bicycle and pedestrian connectivity that will support public transportation.
5. **Coordinate bicycle and pedestrian investments with Safe Routes to School funding opportunities.** Coordinate with the Ashland School District and RVTD to identify projects that provide safe access for students to local schools, while also meeting local transit access needs. Examples include sidewalks and crosswalks.
6. **Implement priority recommendations** from the active transportation and bike share expansion plans. Leverage funding opportunities from ODOT, Jackson County, Safe Route to School programs, RVMPO, RVCOG, and private development funds.

Category	Description
Roles	
Ashland	Facilitates planning, funding and project development of local infrastructure projects
RVTD	Provides programmatic support through regional transportation options programs, and coordination with regional safe routes to school programs and funding
Other	Oregon DOT can coordinate on active transportation and public transportation projects and funding opportunities. Rogue Bike Share can coordinate with Ashland and RVTD to help provide clear and convenient links between the cycling and transit services. Property owners will provide new sidewalk and bicycle infrastructure through new construction and redevelopment requirements
Operational Summary	
Opportunity timeframe	Medium-long term
Cost	Crosswalks, sidewalk improvement program $100,000 per year
	Bus stop lighting: $5,000 (standard) – $10,000 solar
	Sidewalk infill construction: $100,000 - $200,000 per mile (varies)
	Striped bike lanes: $30,000 – $50,000 per mile
	Bicycle parking racks: $7,000 - $10,000 each

Marketing and Transportation Demand Management

Marketing and transportation demand management (TDM) strategies are crucial to growing ridership on public transportation services. Information about public transportation service was a reported barrier to accessing services in this study, and other transportation plans. Information-sharing strategies are a highly flexible, scalable, and modest investment in encouraging transit use. Through coordinated efforts with RVTD, the City of Ashland can supplement public transportation information sharing. Marketing and TDM programs can appeal to a general audience, or be created for targeted markets.

Action Plan

Key actions to implement the strategy include the following.

1. **Create local, Ashland-specific transit information materials** on the City website, supplementary flyers and posters, or place information in other organizations' materials that have a vested interest in transportation access. This could include partners such as the Chamber of Commerce, Southern Oregon University, or the Ashland Senior Center
2. **Create a local transportation management program** with various responsibilities, including engaging local stakeholders in identifying and addressing transportation needs, creating local transportation information resources (as noted above), planning and hosting promotional events and information sessions, and coordinating with RVTD, ODOT and other transportation providers and facility owners. Depending on selected priorities and the particular strategy, marketing and TDM programs can appeal to a general audience, or be created for targeted markets such as students, tourists, commuter, or older adults and people with disabilities.

Category	Description
Roles	
Ashland	Provides financial support to RVTD's marketing and TDM programs to tailor information and strategies to Ashland
RVTD	Currently manages marketing and TDM programs region-wide
Other	Local partner organization (such as Chamber of Commerce or the city itself): implement a city-led marketing and TDM program; provide transportation service information to local businesses and employers
Operational Summary	
Opportunity timeframe	Immediate-medium term
Cost	Low end: Minimal marketing and TDM program support - $20,000 / year
	High end: One full-time TDM program manager - $80,000 / year

Electric transit vehicles, storage, and charging infrastructure

Investing in electric vehicles will result in, cleaner air, quieter vehicles, and significant emissions reductions compared to conventional fuels. Electric vehicles have higher up-front costs for the propulsion technology than conventional buses, as much at two times more. Operating costs are

lower, however, as electricity is typically less expensive than petroleum based fuels, and experiences less dramatic price changes. Emissions and exhaust from electric buses will be significantly reduced from RVTD's current fleet of 35-foot compressed natural gas (CNG) and diesel vehicles. This is particularly true due to Ashland's commitment to generating and purchasing clean energy for its local electric utility. Figure 8 summarizes estimated vehicle and charging equipment costs.

Figure 8 Electric vehicle costs

Vehicle type	Vehicle cost	Charging equipment
Electric sedan or SUV	$50,000 – $120,000	$1,000 - $5,000
Electric shuttle van (10-15 passenger)	$100,000 – $200,000	$5,000 - $20,000
Electric bus (35-40 foot)	$700,000 – $1,000,000	$4,000 - $65,000 at depot $380,000 - $500,000 on-route

Source: Transit Cooperative Research Program Synthesis 130: Battery Electric Buses – State of the Practice (2018), National Academy of Sciences, Washington, D.C.

Electric vehicles are operating in increasing numbers of transit agencies across the United States, though the practice is still new. In Oregon, transit providers such as Josephine County, Lane Transit District, TriMet, and South Metro Area Transit (SMART) are implementing or testing 35-40 foot electric buses.

Key issues related to charging equipment includes:

- Some charging infrastructure is built into the vehicles
- Costs continue to decline as deployment grows worldwide
- Vehicles must meet FTA and ODOT purchase and testing requirements
- Equipment cost varies based on plug-in or inductive technology
- All costs vary based on vehicle type and size, battery capacity, and manufacturer

Smaller Electric Vehicles

Route 10 is today served by 35-foot buses with CNG or diesel buses. The length of these bus is not well suited to some areas of Ashland, such as streets with steep terrain or tight corners. Ashland and RVTD may consider smaller vehicles, such as **battery electric passenger vans or mini-buses**, rather than the 35 foot buses used today. This will help match vehicle capacity to expected demand, and to provide greater flexibility should the route extend into more narrow streets or steep grades. While vehicles smaller than 30 feet exist, the vehicles are relatively untested in public transportation service. A key issue is that vehicle size does not allow for enough battery capacity to operate regularly available services, without disruptive charging (out of service) time. Industry experts and vendors noted that the vehicles are likely to be available within the next five years. Some current manufacturers with vehicles shorter than 30 feet available in the U.S. include:

- Zenith Motors (Kentucky)
- Lightning systems (Colorado)

- Lion Electric (Canada)
- Emoss (Netherlands)
- Greenpower (Canada, California)[6]
- Hometown Trolley (Wisconsin)[7]

Lifecycle Costs

Researchers and practitioners have noted that it is difficult to clearly assess battery electric bus lifecycle costs because the vehicles have not been in service for the typical 12-year heavy duty bus lifespan. Transit agencies are continually evaluating costs associated with life cycle costs, and how to compare them to conventional technology. Figure 9 presents a brief comparison, however, estimating the Local Route (described above) and how the fuel costs will compare over one year. Over an 8-year assumed vehicle lifespan, the total savings could be $280,000 for fuel alone. Other potential cost differences may include vehicle maintenance, which has been reported by some agencies to be lower.

Figure 9 Local Route Estimated Annual Cost Comparison

Operating Costs	Diesel Bus	Electric Bus	Savings with Electric Bus
Local route kilowatt hours	NA	77,900	
Fuel economy	3.2 miles/gallon	1.73 kWh/mile	
Variable fuel cost rate	$3.27/gallon[8]	$0.11/kWh	
Energy charge	NA	$9,000	
Fixed cost – Basic and other charge	NA	$2,000	
Annual fuel cots	$46,000	$11,000	$35,000

Note: Annual costs based on 45,000 annual vehicle revenue miles on the local coverage route; rates based on 2018 values City of Ashland City Council Resolution Proposing Rate Increase May 1, 2018.

Operational considerations

Deploying an electric bus requires planners and operators to account for the vehicle charge time, or the number of miles the vehicle can travel on a full battery charge. This is especially important for smaller electric vehicles, which could have less than a 100 mile range. The driving range can decrease based on factors related to:

- Operator behavior (acceleration)
- Steep grades
- Heavy loads
- Temperature

The local route (see above) for example, operates about 150 miles per weekday, and 125 miles on Saturdays, as proposed. A 10 to 15 minute quick charge could fit between local route runs, as

[6] Approved FTA Transit Vehicle Manufacturer

[7] Approved FTA Transit Vehicle Manufacturer, and on Oregon DOT Price Agreement

[8] Cost of diesel fuel has ranged between $2.00 and $4.00 between 2014 and 2018. The average diesel retail price in November 2018 was $3.27 (Source: US Energy Information Administration)

currently planned with a 13 minute layover. Two electric vehicles will allow for more charging time and greater flexibility (lengthening route or adding deviations), by swapping vehicles when the battery reached the low threshold. A conventionally fueled backup vehicle could also serve this charge break.

Working with RVTD

RVTD is interested in exploring smaller electric vehicles in the near- to medium-term. The district is not yet exploring electric replacements for its full-sized buses. RVTD requires the vehicles meet the following requirements to operate in public transportation service, per FTA and Oregon DOT requirements:

- Meet vehicle procurement requirements such as Altoona testing, Buy America, etc.[9];
- Accommodate people with disabilities, meaning they need to accommodate a wheelchair ramp or lift[10];
- Include a manufacturers' warranty, to mitigate risk; this RVTD policy applies to most vehicles, and will be especially important for relatively untested technology.

Action Plan

There are several steps Ashland can pursue for electric vehicles, in partnership with RVTD.

Near term

1. **Determine what public transportation service the vehicle will support.** This is an essential step - without a clear problem (i.e. a transportation need) to solve it will be hard to establish clear criteria helping understand if the vehicle is meeting the City's goals. It will also be hard to develop clear vehicle specifications, such as transmission rating, battery capacity, and passenger amenities. Deploying an electric transit vehicle can help meet the city's climate and transportation goals, by testing the concept and gaining local experience with the propulsion technology, in which case the service type is almost a secondary question. However, RVTD can consider only an electric sub-fleet at this time, and will not replace vehicles on Route 10. To work together, therefore the vehicle must be matched to a transportation service.
2. [Optional, if time permits] **Issue a request for information (RFI) from vehicle manufacturers and qualified vendors.** Electric vehicles shorter than 30 feet are available or public transportation service, but are relatively new and the market is changing very quickly. Gaining information from potential suppliers is a useful way to help agencies understand risks related to operations, maintenance and cost. The RFI could also provide information on the pace of development, in case desired specifications will be available in the future. Topics may include: chassis size, batter capacity, battery lifespan, estimated maintenance costs, meeting FTA testing requirements, wheelchair ramp or lift capacity and energy use, build time, ongoing support and warranty conditions.

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[9] For information see Oregon Department of Transportation "Vehicle Purchase Guidance", available December 2018 at https://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/How-to-buy-vehicles.pdf

[10] For information see U.S. Americans with Disabilities Act, 49 CFR Part 37 Subpart E Section 105, accessed December 2018 at https://www.transit.dot.gov/regulations-and-guidance/civil-rights-ada/part-37-transportation-services-individuals-disabilities#sec.37.105

3. **Identify location for vehicle storage and charging facility.** This may be as simple as an uncovered parking area and charging station for smaller vehicles, to a covered facility and specialized inductive charging equipment, for example. In either case, Ashland is a logical lead for site purchase and improvements, and could include equipment installation if not included with vehicle. The location should include area for driver personal vehicle parking and breaks, including access to amenities such as restrooms.
4. **Develop vehicle specifications and procurement plan.** Once the feasible options have been assessed and matched to an operations project, Ashland can support RVTD in developing vehicle specifications, identify primary and local match funding sources, and describe facilities, agency roles and responsibilities, ADA access and other compliance requirements, spare and backup vehicles, and a monitoring plan. This may include letters of support from the City of Ashland, as evidence of strong regional partnerships and funding commitments, as needed. This plan should be submitted to the Oregon DOT and the FTA, as necessary for the procurement process.

Medium- to long-term

5. **Purchase the vehicle, test, and put into operations.** Given preparation, this step will focus on vehicle operations, training, and ensuring charging effectively meets vehicle cycle times. Funding applications may be most likely to succeed as a vehicle deployment pilot project. Other agencies across the country are interested to know how well the vehicles work in real service
6. **Monitor and continually improve service delivery.** As a pilot project, Ashland and RVTD will want to closely monitor the vehicle performance to ensure the vehicle meets operational, maintenance, and service delivery goals. Monitoring should include issues such as battery performance and energy consumption, road calls, interior functions (lights, doors, etc.), driver feedback, drivetrain performance.

Category	Description
Roles	
Ashland	Locate vehicle storage and charging location in the city, provide site improvements as needed and feasible. Support RVTD in developing/ prioritizing service operations plan, vehicle specifications, and funding applications.
RVTD	Procure vehicle meeting all FTA and ODOT requirements; train drivers and other relevant staff, operate vehicle. Lead grant funding applications and developing procurement/operating plans. Work with Ashland to locate and design local storage and charging facility.
Other	ODOT staff can support local agencies through the procurement and funding solicitation processes, ensuring compliance and other needs are fully met. Other transit providers, vendors and vehicle manufacturers are important information sources to help agencies understand risks and benefits associated with electric vehicles.
Operational Summary	

Opportunity timeframe	Short-term: Request for information, deployment planning, procurement (as feasible) Medium- to long-term: ongoing monitoring, vehicle procurement and operations.
Cost	Small transit vehicles: $200,000 per vehicle Large transit vehicles: $750,000+ per vehicle Planning and procurement: TBD, based on staff capacity

General Public Demand Response

Demand response provides flexible public transportation for areas with more geographically dispersed transportation needs, and can provide solutions for areas with low- to moderate transportation demand. Fixed routes accommodate higher operational productivity (riders per hour). However, demand response services with smaller vehicles can fit Ashland's transportation needs in areas off the Route 10 corridor where population and employment density is low to moderate. Demand response typically serves two to six riders per hour.

Local demand response service has been included in regional transportation plans, through stakeholder interviews, and in discussions with project advisors. The service type mentioned for this project was different than dial-a-ride and other demand response service historically offered through Valley Lift, however[11]. People expressed interest in:

- Flexible curb-to-curb service in Ashland;
- Bring people to Route 10 bus stops for regional connections;
- On-demand scheduling similar to taxi or ride-hailing services;
- Shared rides to reduce rider cost and/or operator efficiency; and
- Day-time or late-night service, augmenting existing RVTD service hours.

General public demand response is a very flexible service model. While this brings opportunity, service will be hampered by vague or unspecified goals. Ashland and partners (e.g. RVTD) must determine and publicize clear service goals to guide operating plans delivering maximum benefits to target markets. This critical management step can avoid creating a service that tries to be too many things for many markets, which can reduce utility overall. Likewise, the city needs to set realistic expectations and communicate progress with performance measures that clearly indicate progress toward the intended goals.

Service delivery and procurement models

The **City of Ashland** will support RVTD in creating a local flexible service, possibly as a demonstration project. A preferred delivery model, based on this study, is for RVTD to manage and provide operations, supported by third-party reservation, dispatch, and scheduling software that will enable 30-minute or less reservation windows by phone or smartphone. For evening or event-related demand response service, Ashland may consider directly procuring operations from third-party vendors. Ashland will provide financial support through in-king planning, marketing,

[11] Valley Lift is available to eligible people within ¾ mile of fixed route service with previous-day reservations; see Technical Memorandum #1 for more information.

and stakeholder outreach support. Ashland will also provide in-city vehicle storage and charging equipment.

RVTD delivers local service in coordination with regional transit services, and procures vehicles and charging equipment, and maintains vehicles RVTD will continue to provide administration and management services.

Local partners (institutions, businesses) will explore ways to support and augment service.

Action Plan

There are several ways for Ashland to support delivery of late night transit services, depending on available funding and investment priorities decided by City leadership.

Near term

1. **Create a service plan.** Prioritize and describe the local demand response service, including specific service goals, intended rider market(s), service area, service hours, reservation technology and criteria (i.e. advanced reservation window), vehicle type and spare vehicle plan, providing equivalent service, service quality, eligibility criteria (as applicable), marketing, and feasible costs. The information in this plan will help select a feasible service delivery model. Key elements to include are:
   - Clear goals and performance measures indicating how the service will be deemed successful or not;
   - Program elements in the service plan;
   - Robust marketing and information program to publicize the service and help people understand how it works; and
   - Long-range, sustainable funding plan, should it prove successful for the community.
2. [Optional] **Issue a request for information from private vendors.** This request for information can gauge what service are available locally from third-party transportation service vendors. The RFI can include questions about available services, management, potential delivery models, vehicles, and reservation systems.

Medium- to long-term

3. **Identify funding sources and apply for pilot program grant funding** (as applicable). Framing the service as a one-time pilot project can help mitigate the risks to both funders, Ashland and project partners. To show the service pilot will provide useful information, however, the application will need full information from the operations plan, above.
4. **Implement and monitor service.** The demand response system can continue to evolve in ways that meet service goals, such as increasing service coverage, hours, or increase productivity by evolving into more of a fixed-route service type (i.e. consolidating stops and departure times). Improvements will require good information and a regular program to collect and monitor operations details.

Category	Description
Roles	

Ashland	Lead partner with RVTD (as regional service pilot) or direct procurement manager. Financial support for planning, marketing, and stakeholder outreach
RVTD	Operations, administration (if lead delivery agency) Coordinate local service with regional transit services
Other	Local partners (institutions, businesses) can explore ways to support and augment service
Operational Summary	
Opportunity timeframe	Short-term: Request for information, deployment planning, procurement (as feasible) Medium- to long-term: ongoing monitoring, vehicle procurement and operations.
Cost	$50,000 - $350,000 (dependent on number of hours, and number of days per week)
Vehicles	2 14-passenger vans or small transit buses

Local Coverage Route (Asante Community Hospital to Tolman Creek)

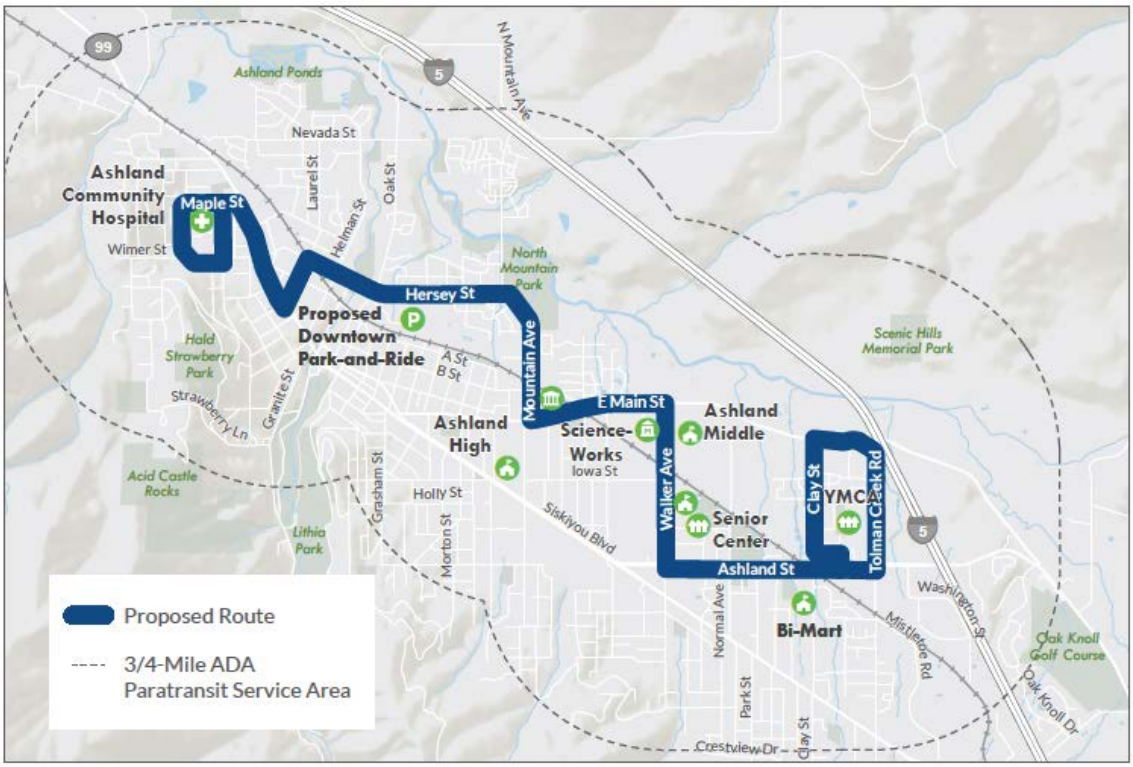
This new route will provide local service between Asante Community Hospital and Tolman Creek Road, via Hersey Street and East Main Street. The purpose of this route is to provide additional **transit service coverage** in areas of Ashland that are not served by transit today. In particular, this route aims to provide transit access to businesses and employers along Hersey Street, Ashland City Council chambers and other municipal offices on East Main Street, the Rogue Valley Growers Market, ScienceWorks, and Ashland Middle School.

This route will also expand the Valley Lift paratransit service area in Ashland to include Mountain Meadows, a neighborhood which has experienced unmet transportation needs. This route will serve low income neighborhoods, as indicated by Census tracts with incomes below 200% of the federal poverty guidelines. These areas include east of Mountain Avenue between East Main Street and Siskiyou Boulevard, including the "transit triangle."

The local transit route fits past planning and public engagement efforts in Ashland. A similar local route was designed in the 2012 Ashland Transportation System Plan, responding to the mobility needs even in lower density population areas having lower potential ridership demand. Other plans, such as the Climate Action Plan support public transportation as one way to encourage people to switch to more efficient mobility options as a way to reduce vehicle emissions, traffic, and parking demands.

RVTD staff have preliminarily indicated this local route will fit with regional funding priorities. The district has operated local routes in Ashland in the past, which were discontinued through service changes, and planners have looked to expand service coverage in the area. Providing access to low income communities is critical for the new STIF program, and this route will provide that nexus. Regional districts must always balance diverse needs and geographies, and ranking the project high enough for funding is uncertain.

Figure 10 Local Coverage Route Concept



Action Plan

The steps to implement this strategy include the following.

1. **Create an operating and capital plan** detailing the route alignment, schedule, vehicle type (size, fuel, other specifications), vehicle storage and fueling plan, bus stops or bus stop improvements, and ongoing service monitoring plan (if different than overall RVTD monitoring).
2. I**dentify sidewalk and crossing improvements** near bus stops, and ensure these improvements line up with planned bicycle and pedestrian investments
3. **Plan out and implement early marketing and TDM** efforts in advance of starting the route, to support rider information, and build up demand.
4. **Secure funding**, as needed, through local planning and solicitation processes, in close partnership with RVTD.
5. **Monitor and report** on route success, using metrics that emphasize local mobility, reliability, and service coverage.
6. **Double frequency** to every 30 minutes by adding another bus and driver, as demand warrants.
7. **Adjust the route and timing** as needed based on annual service reports, rider feedback, and operational experience.

Category	Description
Roles	
Ashland	Coordinates land use and transit-supportive policies along the corridor to ensure long-term ridership growth. The City may decide to contribute funding or provide in-kind funds to RVTD in the form of bus stop development.
RVTD	Operates transit service and in collaboration with the City of Ashland, develops bus stop locations and supports funding.
Other	This route will likely meet requirements and priorities to receive ODOT STIF funds. Southern Oregon University, Ashland Senior Center, Asante Community Hospital, major employers will support marketing of the route by educating employees, students, patients and visitors.
Operational Summary	
Opportunity timeframe	Near term
Operating cost	$200,000
Frequency	60 minutes
Hours	Monday-Friday: 6 am to 9 pm; Saturday: 7 am to 8 pm
Vehicles	1 bus

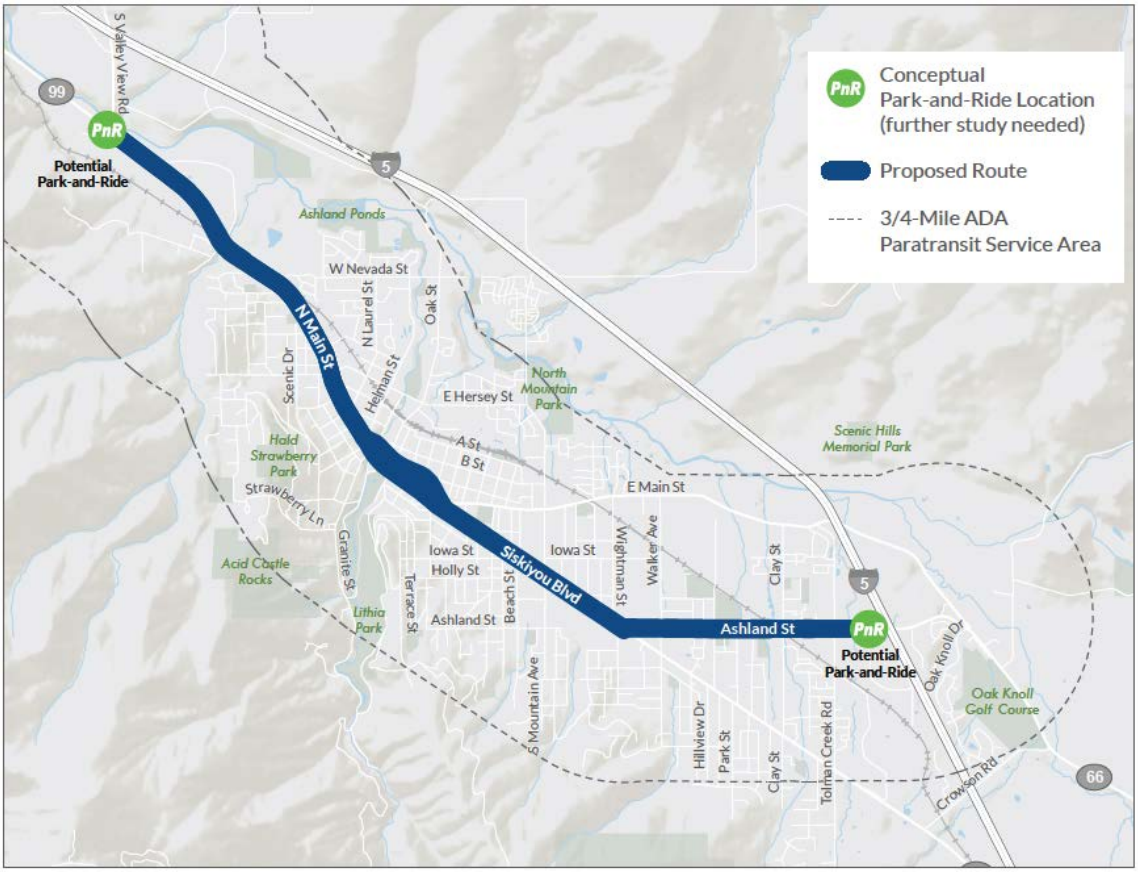
Central Corridor Shuttle

This route will enhance transit service on Ashland's most productive transit and busiest travel corridor on Main Street, Siskiyou Boulevard and Ashland Street. This route will nearly mirror Route 10, effectively adding frequency and rider capacity. The corridor has some of the city's key shopping, employment and tourism centers, including the Oregon Shakespeare Festival, Southern Oregon University, many hotels, downtown Ashland's shops and restaurants, and the "transit triangle" commercial center and one of the busiest transit stop in the region.

The Climate Action Plan and the Downtown Parking Plan captured this long-considered local transit strategy, making a clear link between public transportation use and goals to reduce vehicle *emissions, traffic, and parking issues* borne from personal vehicles. Achieving these ambitious and worthwhile goals will require more than just public transportation service: even the most attractive and well planned route exists alongside roads and parking lots designed to accommodate cars and trucks. A similar hurdle is the transit vehicle emissions and size, which can work against the environmental and spatial goals if the transit service isn't reducing personal vehicle trips.

Ashland may need to lead the funding and implementation of this strategy, as it will be challenging to raise the route in RVTD's regional priorities. RVTD's regional focus is to serve transportation disadvantaged communities, putting resources to areas where public transportation provides crucial mobility and connections to work, services and society.

Figure 11 Central Corridor Route Concept



Action Plan

Regardless of delivery approach, several related efforts need to advance and be in place to create a comprehensive strategy that feasibly achieves the environmental and transportation goals envisioned.

1. **Create an operating and capital plan.** The city, with RVTD or other selected operator, should clearly lay out the operational requirements and how the service will interact with related initiatives, programs, and policies intended to create a comprehensive service that delivers on transportation and environmental goals. The plan should clearly describe the needs to address through this strategy, and the measures used to track progress and continually improve the strategy.
2. **Manage downtown (and other area) parking to incentivize shared transportation modes.** The City identified several projects, programs and policies in the Downtown Parking Plan that will help create an environment where other transportation options are more attractive than driving to and parking in Downtown Ashland. Two key projects include a paid parking management system, and creating a transportation management association. The former will allow for more efficient parking space allocation, while the latter could support the organizational and educational efforts needed to continually improve the system.

3. **Develop park-and-ride near I-5 exits 14 and 19.** Encouraging people to ride buses into Ashland will require safe, comfortable, and easy to access parking areas outside the city where people can leave their vehicles. This will provide key access points for day employees and students (i.e. commuters) and day trip recreational visitors. Overnight recreational visitors could leave their vehicles at hotels, space permitting. Key considerations include enough land for sufficient parking capacity, environmental issues related to parking lot construction and paving, bus stop design, and vehicle (personal and transit) access.
4. **Vehicle storage and fueling facility.** Local routes will be most efficient to operate when the vehicle is kept in Ashland. This will reduce vehicle and driver "deadhead," or driving out of service to and from the facility where the vehicle is housed overnight. Likewise, it will be most efficient to fuel the vehicle in Ashland. This is especially important if the route uses an **electric vehicle**, which will need to maximize service time, and require mid-day charging.
5. **Improve bus stop amenities and sidewalk improvements.** Diverting driving trips to public transportation will require safe, comfortable, and convenient bus stops. This is especially true for this strategy, which will need to capture trips from people who may not typically decide to ride public transportation.
6. **Implement the strategy and monitor progress.** Starting the service will be a major initiative, and will continue to evolve over time. The city and its selected operator should create procedures to continually monitor and report out on the project to build accountability, make improvements, and ensure progress toward the diverse environmental and transportation goals.

Category	Description
Roles	
Ashland	Coordinates land use and transit supportive policies along the corridor to ensure long-term ridership growth, including parking management in downtown Ashland. The City can pursue this strategy by procuring a private vendor to operate the service as part of a contract with the City and/or other local stakeholders.
RVTD	RVTD will be unlikely to fit this service in their regional transit network in the near- to medium-term.
Other	Southern Oregon University, Ashland Senior Center, Asante Community Hospital, Oregon Shakespeare Festival, hotels / tourism industry and major employers can support marketing of the route by educating employees, visitors, patrons and students, and could be potential funders.
Operational Summary	
Opportunity timeframe	Medium to long term
Operating cost	$400,000
Frequency	30 minutes
Hours	Monday-Friday: 6 am to 9 pm; Saturday: 7 am to 8 pm
Vehicles	2 buses

Medford-Ashland Express

The express route will serve intercity travel needs between Medford and Ashland by using I-5 during the day for faster, more reliable service than on Highway 99. The route could end in Ashland at or near Southern Oregon University to improve regional connectivity for students and staff, one of Route 10's largest market segments. With other connections to the limited stops in Ashland, other commuters and travelers in both directions will have improved travel times on efficient and reliable service.

An express route between the two cities is included in several past transportation plans, including the 2012 Ashland Transportation System Plan. The route is likely to replace some personal vehicle trips, as the distance is enough to have noticeable effects on people's daily transportation costs. A key to this strategy is maintain travel times on par with personal vehicles, and reliably adhering to schedule such that people can use it and arrive to work or class on time.

It takes 50 minutes to travel via Route 10 between Ashland and Medford today, a distance that takes 20 to 30 minutes by driving. This travel time difference discourages transit ridership. A new express route will travel from Medford to Ashland via I-5, reducing travel time by 20 minutes each way. The Route 10 will continue serving Phoenix and Talent, providing local connections

The express route is aligned well with RVTD priorities, and the regional transit district is a well suited service provider. The RVTD Transit Master Plan and this study both show a strong travel market between the two cities, and strong transit ridership even on the locally-focused Route 10. With connections in Ashland to Route 10 or a new local route, an express route will enhance local and regional service connections.

The express route will be most effective when scheduled to complement Route 10 (on Highway 99) in ways that meet rider demand. Route 10 today experiences the greatest travel delays in the

middle of the day, as traffic increases on Highway 99 after 10 a.m. As proposed, the Express will operate on I-5 between 9 a.m. and 6 p.m., running on Highway 99 the rest of the day, providing added service capacity

Figure 12 Medford-Ashland Express Route Concept

Action Plan

Key actions to implement the strategy include the following.

1. **Support an operating and capital plan.** RVTD has indicated it will likely advance this strategy over the near and medium terms. Ashland can work closely with RVTD to ensure local stakeholders' needs are considered and addressed to the extent feasible given the operating requirements.
2. **Add to regional marketing and information efforts.** The City can support RVTD's marketing and traveler information programs to ensure local residents, visitors, and employees have access to the most recent information.
3. **Integrate with parking management programs.** Ashland can consider financial or other incentives to encourage commuters to ride the express, if it meets their transportation needs. This will be particularly relevant as part of the Downtown Parking Plan projects, programs, and policies.
4. **Support RVTD in monitoring and evaluating the route.** Ashland can add value to regional transit system development and planning by collecting and sharing local feedback about how the route serves local residents, employees, and visitors. While local

needs won't necessarily override regional needs and operational feasibility, the City can be an active and constructive partner, and identify ways to support transit services.

Category	Description
Roles	
Ashland	Coordinates land use and transit supportive policies along the route to ensure long-term ridership growth. Additionally, the City may offer funding and contribute in-king funds to RVTD in the form of bus stop development and other efforts.
RVTD	Will operate the service and provide partial or full funding.
Other	This route will likely qualify for ODOT STIF funds. Southern Oregon University, Oregon Shakespeare Festival, and major employers can support marketing of the route by educating employees and students about the service.
Operational Summary	
Opportunity timeframe	Short term
Operating cost	$140,000
Frequency	90 minutes
Hours	Monday-Friday: 6 am to 9 pm
Vehicles	1 bus

8 APPENDICES

APPENDIX A MOBILITY SERVICE PROVIDERS SNAPSHOT

Mobility-as-a-Service vendors are often referred to Mobility Service Providers (MSPs). Mobility Service Providers (MSPs) offer transportation services through a mobility manager and/or the rider or customer. This can simplify service delivery for both the riders and a transit agency. However, this can lead to transit agencies losing or weakening their customer relationship. Transit agencies can be both a mobility manager and a mobility service provider.

This summary focuses on private vendors that may be able to partner with a local district/agency, or provide an example of future business models.

Figure 13 At-a-Glance Overview of Mobility Service Providers

Vendor Type		Description
	**Transportation Network Companies (TNCs)/Ride-hailing/Ride sourcing**	Ride-hailing services match riders with drivers with riders in real-time through mobile apps that also accept payment via credit card or voucher. These platforms typically operate through a network of third-party contractor drivers using non-commercial vehicles. Ride-hailing drivers are not themselves travelers and do not share a destination with their fare-paying passengers. Ride-hailing companies are distinguished from taxi services by the inability to street hail (ride-hailing companies can only pick up prearranged rides). They typically offer several ride types, such as private ride (along the lines of a traditional taxi), and pooled-ride/fare splitting (in which multiple users with origins and destinations along a similar route can hail the same driver in real time). Ride splitting is the assigning of fares traveling along similar routes to one car, and enabling the splitting of the fare; their rides are typically 60% less than regular service rides.
	**Microtransit**	Microtransit is a shuttle service that operates along a dynamically generated route using technology to match capacity to demand. Microtransit can be on-demand in real-time or fixed route service updated frequently to meet market needs. The shuttles often operate in areas during peak-period commute hours where public transit is reaching capacity or may be unavailable. Companies can vary by fleet type (buses or vans), route structure (fixed or dynamic), and, more recently, fleet ownership. Microtransit is distinguished from private shuttles because, in addition to being available to the public, of its ability to automate routing, billing, customer feedback and reservations.
	**Autonomous Vehicle Shuttles (AV Shuttles)**	AV shuttles operate on pre-defined, fixed routes in controlled environments, thus minimizing many remaining technical and operational challenges and enabling the vehicles to operate with minimal human intervention.

Vendor Type		Description
	**Car Share**	Car Sharing programs allow people to access a shared fleet of vehicles on as-needed, per-hour or per-mile basis for point-to-point or round-trip trips. Car Sharing programs reduce the need for businesses or households to own vehicles, and they also reduce personal transportation costs and vehicle miles traveled (VMT).
	**Bike share**	Bike sharing is a system of bicycles that is available to users to access as needed for point-to-point or round-trip trips, traditionally to station kiosks in dense urban areas. Docked bike share systems are generally unattended and offered through public-private partnership. Advances in bike share locking technology have allowed for dockless, free-floating bikes, lockable anywhere within a geographic region. This model is becoming increasingly popular and are often privately owned and operated.
	**Scooter share/ eScooters**	Scooter share is a system of electric scooters whereby users use an app to rent and ride to their destination and then park the scooter in a similar fashion to parking a bike.
	**Dynamic Carpooling/ eCarpool**	Ride sharing is the third-party service of matching of riders and drivers with similar shared destinations, enabling them to split the cost of the ride. Unlike ride sourcing and ride splitting, the driver is not fare-motivated. There are two types of new mobility ride sharing services. On-demand, dynamic matching is the matching of riders to drivers who share similar origins and destinations, facilitated through a ride-matching software platform with no long-term commitment required. This model differs from TNCs primarily because the platform pairs the rider with a driver who is taking a trip independent of rider using their personal vehicle, and the cost to the rider is based on the actual cost of the trip. Second is the batching of matches, where travelers enter their desired pickup and drop-off schedule and all of the inputs are matched at a certain hour every day, alerting the users of their upcoming schedule.

APPENDIX B BUS STOP AMENITY NEEDS

Figure 14 Bus Stop Amenities by Stop

Stop ID	Stop Name	Daily Boardings	Class	Bus Stop Sign	Lighting	Shelter(s)	Bench	Map and Schedule	Bike Rack	Trash Can
10400	N Main St - South of Ashland Mine Rd	0.7	D	X	-	-	-	-	-	-
10410	N Main St - North of Grant Rd	6.9	D	-	-	-	-	-	-	-
10420	N Main St - North of Maple St	12.1	C	-	-	-	-	-	-	-
10430	N Main St - South of Wimer St	8.7	D	-	-	-	-	-	-	-
10440	N Main St - South of Laurel	4.8	D	-	-	-	-	-	-	-
10450	N Main St - South of Water St	46.1	B	-	-	-	-	-	-	-
10460	E Main St - North of 1st St	12.0	C	-	-	-	X	-	-	-
10470	E Main St - South of Gresham St	30.8	B	-	-	-	-	X	X	-
10480	Siskiyou Blvd - South of Sherman St	9.9	D	X	-	-	-	-	-	-
10490	Siskiyou Blvd - North of Liberty St	0.1	D	X	-	-	-	-	-	-
10500	Siskiyou Blvd - South of Beach St	12.1	C	-	-	-	-	-	-	-
10510	Siskiyou Blvd - South of University Wy	9.7	D	-	-	-	-	-	-	-
10520	Siskiyou Blvd - South of Avery St	5.9	D	X	-	-	-	-	-	-
10530	Ashland St - East of Siskiyou Blvd	13.4	C	-	-	-	-	-	-	-
10530	Ashland St - East of Siskiyou	8.7	D	-	-	-	-	-	-	-
10540	Ashland St - East of Walker Ave	7.7	D	-	-	-	-	-	-	-
10550	Ashland St - East of Lit Wy	5.2	D	-	-	-	-	-	-	-
10560	Ashland St - East of Park St	5.9	D	-	-	-	-	-	-	-
10570	Ashland St - West of Tolman Creek Rd	1.3	D	-	-	-	-	-	-	-
10640	Tolman Creek Rd - South of Ashland St	135.7	A	-	-	X	X	X	X	-

Stop ID	Stop Name	Daily Boardings	Class	Bus Stop Sign	Lighting	Shelter(s)	Bench	Map and Schedule	Bike Rack	Trash Can
10650	Tolman Creek Rd - South of Grizzly Dr	3.1	D	-	X	-	-	-	-	-
10660	Tolman Creek Rd - South of Dianne St	4.8	D	-	-	-	-	-	-	-
10680	Tolman Creek Rd - North of Siskiyou Blvd	4.8	D	-	X	-	-	-	-	-
10690	Siskiyou Blvd - North of Bellview Ave	26.3	C	-	-	-	-	-	-	-
10700	Siskiyou Blvd - South of Glendale Ave	16.0	C	-	-	-	X	-	-	-
10710	Siskiyou Blvd - North of Faith Ave	27.6	C	-	-	-	-	-	-	-
10720	Siskiyou Blvd - South of Normal Ave	4.6	D	-	-	-	-	-	-	-
10730	Siskiyou Blvd - North of Harmony Ln	12.9	C	-	-	-	X	-	-	-
10740	Siskiyou Blvd - South of Ashland St	32.3	B	-	-	-	X	X	-	-
10750	Siskiyou Blvd - North of Bridge St	31.0	B	-	-	X	-	X	X	-
10760	Siskiyou Blvd - South of Palm St	34.2	B	-	-	-	-	-	X	-
10770	Siskiyou Blvd - South of Morse St	36.8	B	-	-	-	-	-	X	-
10780	Siskiyou Blvd - South of Morton St	0.2	D	-	-	-	-	-	-	-
10790	Siskiyou Blvd - South of Sherman St	16.3	C	-	-	-	-	-	-	-
10800	Lithia Way - North of 2nd St	25.9	C	-	-	-	-	-	-	-
10810	Lithia Way - North of Oak St	67.7	A	-	-	-	-	-	X	-
10820	N Main St - North of Central St	7.9	D	X	-	-	-	-	-	-
10830	N Main St - South of Glenn St	9.5	D	-	-	-	-	-	-	-
10840	N Main St - North of Maple St	10.1	C	X	-	-	-	-	-	-
10850	N Main St - North of Grant St	3.9	D	-	-	-	-	-	-	-
10860	N Main St - South of Jackson Rd	0.4	D	X	-	-	-	-	-	-

Source: Rogue Valley Transit District Bus Stop Amenity Guidelines.

Note: X denotes where amenity is not available.

Figure 15 RVTD Bus Stop Amenity Guidelines

Amenities	Class A	Class B	Class C	Class D
Daily Boardings	**More than 60**	**31-60**	**11-30**	**0-10**
Required Elements				
Bus stop sign	●	●	●	●
Adequate lighting	●	●	●	●
Access and safety	●	●	●	●
Class-based Elements				
Shelter(s)	●	●	-	-
Bench	●	●	●	-
Map and schedule	●	●	O	-
Bike rack	●	●	O	-
Trash can	●	●	O	-
Nearby restrooms	O	-	-	-
Nearby food/drink	O	-	-	-

Notes: ● Required
O Optional, but encouraged

APPENDIX C POTENTIAL FUNDING SOURCES

Figure 16 Public Transportation Funding Options

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Federal				
FTA 5307 Urbanized Area Formula Grants	The 5307 program provides transit capital and operating assistance in urbanized areas and for transportation-related planning. RVTD uses these funds for service in the Rogue Valley.	Transit Districts in urbanized areas. RVTD receives these funds directly from FTA.	Capital (e.g. vehicles, some maintenance) Operations Planning	The formula funds in the Rogue Valley support the existing routes and services across the region. The program funds are not expected to be a funding source for new services.
FTA 5339 Buses and Bus Facilities Grants Program[12]	A national discretionary program available for replacing, rehabilitating, and purchasing transit vehicles and related equipment Also can be used for the construction of transit-related facilities. Local match is 20%.	Public transportation operators/ FTA recipients	Capital	RVTD received $800,000 in FY 2016 from this program. Subject to federal budget availability
USDOT BUILD Grants Program[13]	Competitive grant program for capital projects that will have a significant impact on a region, metropolitan area, or the nation. The grant is available every 2-5 years. Applicants propose projects directly to USDOT. Applications are scored by new (post 2015), non-federal revenue for the project. Local match may vary.	State Local government authorities Public transportation operators Tribal governments Metropolitan planning organizations Multi-jurisdictional	Capital	Could be used for major projects such as a transit center. Highly competitive national fund.

[12] Federal Transit Administration, Fact Sheet: Grants for Bus and Bus Facilities, Chapter 53 Section 5339, U.S. Department of Transportation, 2015. https://www.transit.dot.gov/sites/fta.dot.gov/files/5339%20Bus%20and%20Bus%20Facilities%20Fact%20Sheet.pdf

[13] U.S. Department of Transportation, TIGER Grants Overview, 2015. https://www.transportation.gov/sites/dot.gov/files/docs/TIGER%20Fact%20Sheet_2015.pdf

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
USDOT TIFIA Program[14]	Federal credit assistance program for surface transportation projects for: Secured loans, loan guarantees, and lines of credit. Applicants propose directly to the USDOT.	States US Territories Local government authorities Public transportation operators Private entities undertaking projects sponsored by public authorities	Capital	Could be used for major building projects. Cities may be more competitive and face fewer administrative hurdles through the Oregon Transportation Infrastructure Bank.
State				
Statewide Transportation Improvement Fund (STIF) - Formula	HB2017 passed in 2017 by the Oregon Legislature created a dedicated funding source for public transportation from a payroll tax of one-tenth of one percent on wages paid to employees. The Formula program accounts for 90% of total STIF funding, distributed to/through Qualified Entities.	Public Transportation Service Providers meeting STIF rules to/through Qualified Entities. Local agencies may receive funds through agreements with RVTD.	Operations Capital Planning Marketing	RVTD is the local Qualified Entity; Cities coordinate with RVTD. This will be a significant source of public transportation funding for Oregon agencies starting 2019.
Statewide Transportation Improvement Fund (STIF) – Discretionary and Intercommunity	The Discretionary fund accounts for 5% of total STIF funding. Discretionary fund focus areas are described in program rules. The Intercommunity fund accounts for 4% of total STIF funding. ODOT may combine this fund with other related fund sources, changing eligibility by solicitation year.	Public Transportation Service Providers meeting STIF rules Local agencies apply directly to ODOT.	Capital Planning Operations (vary by solicitation) Marketing Pilot projects	RVTD is the local Qualified Entity; Cities coordinate with RVTD. Discretionary projects are evaluated by QE advisory committee, ODOT Area Commissions on Transportation, and ODOT. Discretionary funds could be used for one-time uses, such as pilot programs or capital expenses.

[14] Federal Highway Administration, Transportation Infrastructure Finance and Innovation Act (TIFIA), U.S. Department of Transportation, 2015. https://www.fhwa.dot.gov/fastact/factsheets/tifiafs.cfm

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Oregon Special Transportation Fund (STF) - Formula[15]	ODOT awards funds every two years to STF agencies by formula based on population. Funds must be used to provide service to older adults and people with disabilities.	Designated STF Agencies receive funds and manage local award process to any public or non-profit transit providers.	Capital Operations Planning	RVTD County is the local STF Agency; eligible providers coordinate through the RVTD process.
Oregon Special Transportation Fund (STF) - Discretionary[16]	Grants for transit agencies providing service to older adults and people with disabilities. ODOT awards funds at irregular intervals based on available funding. Funding criteria target innovative capital, start up and pilot programs, though subject to change.	Public and non-profit local transit providers apply through the local STF agency.	Capital Planning	RVTD is the local STF Agency; eligible providers apply through that partner. This is not considered a sustainable funding source, though a good resource for one-time funding needs.
State Transportation Improvement Program (STIP)[17] Enhance Program	The Enhance program provides funding to projects that enhance, expand, or improve the transportation system. This has included public transportation capital needs. ODOT Area Commissions on Transportation prioritize and recommend Enhance projects. ODOT offers the Enhance program every 1-2 years as funding allows. The program is related to ODOT's maintenance (Fix-It) program, which includes ODOT-selected projects to maintain the roadway system statewide, including bicycle and pedestrian infrastructure. Local match is typically 20% but may vary.	Local government authorities	Capital Sidewalk infrastructure	This program is primarily used for infrastructure projects, including pedestrian infrastructure. Some transit providers have been awarded bus purchases. This is not considered a sustainable funding source given changes in state funding

[15] Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf

[16] Oregon Department of Transportation, Public Transportation Funding in Oregon, 2017. http://www.oregon.gov/ODOT/RPTD/RPTD%20Document%20Library/Transit-funding-in-Oregon.pdf

[17] Oregon Department of Transportation, About the STIP. http://www.oregon.gov/ODOT/STIP/Pages/About.aspx

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Planning Grant Program (from ODOT via FTA 5303, 5304, and 5305)[18]	Discretionary ODOT grant program for transit plans that lead to improved public transportation systems. ODOT awards funds through irregularly-scheduled solicitations depending on available funds, or on an as-needed basis. Local match is 20%	Rural, and small urban public transportation providers	Planning	Flexible, but one-time resource to create and maintain local public transportation plans.
Oregon Transportation Infrastructure Bank (OTIB)[19]	Statewide revolving loan fund "designed to promote innovative financing solutions for transportation needs." Cities as well as transit districts are eligible to borrow from the bank. There is a funding pool set-aside for public transportation projects. Rates are typically very low and more favorable to local agencies than other loan programs.	Cities Counties Transit districts Port authorities Special service districts Tribal governments State agencies Private for-profit and not-for-profit entities	Transit capital projects (facilities, vehicles) Active transportation access projects on highway rights-of-way	This has been a resource for public transportation providers for cost-effective loans for construction projects. A sustainable, regular local funding source is required to demonstrate the provider can make the debt service payments.
ODOT Transportation Growth Management (TGM) Program	TGM Grants help local communities plan for streets and land use to foster more livable, economically vital, and sustainable communities and increase opportunities for transit, walking and bicycling. ODOT solicits proposals and awards funds annually. Local match is 20%.	Counties Cities Public transportation providers	Planning	This is a possible source for future land use and transportation planning. Ashland has received TGM funding for local planning projects.

[18] Oregon Department of Transportation, Public Transportation Funding Options, 2017. http://www.oregon.gov/ODOT/RPTD/Pages/Funding-Opportunities.aspx#2f96a75c-e0ff-4504-aae5-ec14cee35125

[19] Oregon Department of Transportation, Financial Services: Oregon Transportation Infrastructure Bank, 2017. http://www.oregon.gov/odot/about/pages/financial-information.aspx

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Local				
Employer Payroll Tax	An employer payroll tax is a progressive tax imposed directly on the employer. The tax is based on payroll for services performed within a transit district, including traveling sales representatives and employees working from home. This tax applies to covered employees and self-employed workers.	Mass Transit Districts formed under Oregon Revised Statute 267.	Operations Capital Administration Equity	Several transit districts or providers in Oregon use a payroll tax as their primary local funding source, including TriMet, the City of Wilsonville, the City of Sandy, the South Clackamas Transportation District, the City of Canby, and Lane Transit District.
Gasoline Tax	A gas tax is a tax on the sale of gasoline for use in motor vehicles. Motorists already pay federal, state, and local taxes on motor fuel so the levy would not impose a new type of tax.	State Local government authorities	Operations Capital Administration Equity	Various cities and counties in Oregon have local gas taxes, ranging from $0.01 to $0.05 per gallon.[20] Gas tax revenues are currently on a declining trend, due to factors such as increasing vehicle fuel efficiency, and adoption of alternative vehicle fuel sources. This long-term trend is expected to continue.[21]
Transit District Property Tax	A property tax dedicated to funding public transportation is usually assessed at a rate per $1,000 of property value. Property taxes may be permanent, or temporary and need to be re-approved by voters.	State Local government authorities	Any	There are several examples of dedicated property taxes for transit in Oregon. RVTD currently levies $0.30 per $1,000 in property value in Jackson County. Other examples: Tillamook County has a tax of $0.20 per $1,000 in property value to fund operation of its transit system. Basin Transit (Klamath Falls) has a levy of $0.38 per $1,000 in property value. Ashland can support regional tax initiatives to support RVTD services.

[20] State of Oregon, Fuels Tax Group, http://cms.oregon.gov/ODOT/CS/FTG/pages/current_ft_rates.aspx#bm3

[21] Oregon Department of Transportation, Oregon State Fuel Taxes, 2017. http://www.oregon.gov/ODOT/FTG/Pages/Current%20Fuel%20Tax%20Rates.aspx

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Local Option Sales Tax	A tax assessed on the purchase of goods or services within the jurisdiction of a taxing authority.	State Local government authorities	Any	Sales taxes are used to fund transit in other states, despite not currently being used in Oregon. A specific local option sales tax can collect revenue from specific items or activities.
Motor Vehicle Registration Fee	A tax assessed on the registration of private motor vehicles within the jurisdiction of a taxing authority.	Counties Special districts	Any	A $2 annual registration fee likely return $1 per registered vehicle, due to common payment exemptions. Typically implemented by county.
System Development Charges (SDC)	Systems Development Charges (SDCs) are fees paid by land developers intended to reflect the increased capital costs incurred by a municipality or utility as a result of a development. Development charges are calculated to include the costs of impacts on adjacent areas or services, such as increased school enrollment, parks and recreation use, or transit use.	Local government authorities	Capital	Cities use transportation system development charges and other fees associated with new developments. Ashland collects SDCs to address impacts of new development on the City's existing various systems, including water, wastewater, transportation (streets, sidewalks, bike lanes, etc.), storm drains and parks.
Property Access Fee, Land Value Capture, or Benefit Assessment Districts	Property access fee, land value capture, and benefit assessment districts are mechanisms for sharing transit costs with owners of property located near a transit resource who benefit directly from the proximity to the transit resource. These mechanisms help finance transit through taxes on nearby private development, where the property value increased as a result of transit investments.	Local government authorities	• Operations • Capital • Administration	This is not a common source in Oregon.

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Tax Increment Financing	Tax increment financing (TIF) is the primary finance tool used within urban renewal areas. TIF is generated when an urban renewal area (URA) is designated and the assessed value of all property in the area is 'frozen.' Over time, the total assessed value in the area increases above the 'frozen base' from appreciation and new development. The value in the area greater than the frozen base is called the incremental assessed value, and taxes generated on the incremental assessed value are received by the URA, rather than other taxing districts.	Urban Renewal Area	TIF could only be used on capital transit projects that directly benefit the URA. Projects that benefit the broader area can only receive TIF funding proportional to the benefits the URA receives.	Could be used to fund capital improvements in conjunction with an urban renewal district, if established in the future.
Utility fee	A utility fee is a charge assessed to city utility customers on a monthly basis, included in the utility bill. All utility customers pay the fee, including tax-exempt entities. The monthly charge can be fixed or indexed (e.g. to the cost of gasoline), and is typically adjusted each year. Residential customers pay on a per unit basis (different for single-family and multi-family residential customers), and other utility customers pay based on ITE's trip generation estimate for that particular business or industry.	Local government authorities	Any	The City of Corvallis, Oregon has a utility fee called the Transit Operations Fee (TOF). It provides about $1M per year to Corvallis Transit System, which makes up about one-third of CTS' funding. It has proven to be a consistent source of transit funds since implemented in 2011. The revenue from the TOF is dedicated to transit only, and cannot be used for any other purposes.
Public and Private Partnership Funding Programs				
Advertising	Advertisements: Transit providers can display paid advertisements on agency properties, including the inside and outside of fleet vehicles.	Local agencies managing transit vehicles or transit stops	Operations Administration Capital	Has been a stable funding source for some transit providers. Some agencies contract with an advertising broker that provides guaranteed minimum revenue.

Program Name	Description	Eligible Agencies	Eligible Activities	Applicability/Assessment/Comments
Transit Pass Program	Employer transit pass programs are partnerships between a transit agency and private employers, and offer employers the opportunity to purchase a transit pass for all employees, often at discounted rates. The other organization may be able to take a tax deduction on the cost of the transit pass.		Any	Local partnerships have been a stable source of transit funding statewide, providing predictable funding for transit providers, and reduced fare costs for pass purchasers and their stakeholders, members or employees. The Linn-Benton Loop receives partial funding from Samaritan Hospital and HP. The funding allows all employees with either organization to ride free.
Naming Rights / Sponsorships	Historically, the selling of naming rights to people or organizations that make a donation for a capital improvement was most common for large organizations, such as universities or hospitals. Selling naming rights has become more common among smaller organizations and some transit agencies sell naming rights to vehicles, stations, or transit corridors.		Any	Selling naming rights may provide revenue for transit. Typically, naming rights are sold for a defined amount of time, with payments on a recurring basis.
Public-Private Partnerships and Joint Development	A public-private partnership is a mutually beneficial agreement between public and private entities that seek to improve the value of an asset. Transit funding from public-private partnerships can be for capital projects (such as a mixed use development that combined a transit station or center) or for operating funds.		Any	Mountain Line (the transit agency in Missoula, Montana) receives partial funding from 15 local organizations (some public and some private) to offset lost revenue from a temporary fare-free pilot. The organizations provide funding to support transit, reduce congestion and reduce parking constraints.