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ROSEBURG BIKE ROUTES PLAN

VOLUME 1

Roseburg Bike Routes Plan

Prepared for

City of Roseburg

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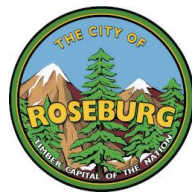


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ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
BLTS	bicycle level of traffic stress
I-5	Interstate 5
ROW	right of way
MUTCD	Manual on Uniform Traffic Control Devices
NACTO	National Association of City Transportation Officials
ODOT	Oregon Department of Transportation
SRTS	Safe Routes to School
STIP	Statewide Transportation Improvement Program
TSP	transportation system plan
UGB	urban growth boundary

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EXECUTIVE SUMMARY

This City of Roseburg Bike Routes Plan was inspired by the community's desire to be able to bike comfortably and conveniently through Roseburg. Many of the existing bike facilities are high stress, close to fast car and truck traffic, and not well marked. They also have limited connections to destinations in the city. A network of safe and connected bike routes will allow children to easily ride to school, adults to bike to and from work and errands, and families to ride together to soccer or a friend's house. With a growing population, increasing housing demands, and additional stresses on the transportation system, Roseburg would benefit from bike routes that make it easier to get around without adding more cars to the road.

This plan aims to realize a vision for a connective bike network with bike route projects that can be implemented within the next 20 years. This plan will develop safe, comfortable, and inviting bike routes that can take people who are interested in biking with the places they want to go. Signs and pavement markings will make the routes easy to follow, remind drivers that people also bike on the road, and beckon people to ride. Community groups will continue to organize events and activities that celebrate biking in Roseburg and encourage people who are biking for the first time.



Image source: ODOT via [Flickr](#)

The study area for this plan is the City of Roseburg urban growth boundary (UGB), as shown in Figure ES-1.

Project Process

This Bike Routes Plan was developed between the summer of 2021 and the spring of 2023. The project team consisted of City of Roseburg staff, Oregon Department of Transportation (ODOT) staff, and the Parametrix consultant team. The project team convened an Advisory Committee of stakeholders and community members to inform plan development. The project team met with the Advisory Committee five times at key points in the planning process.

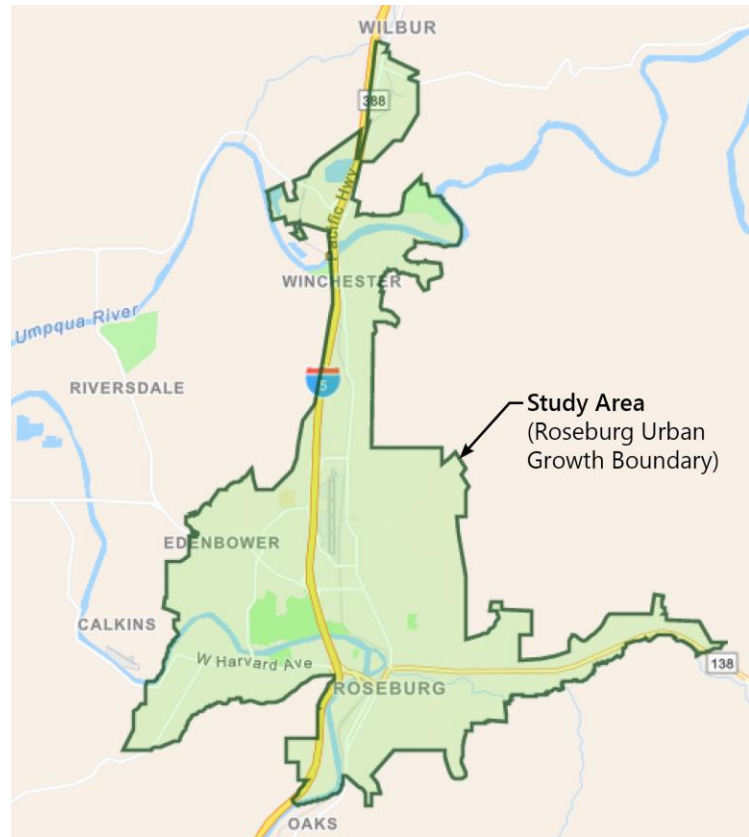


Figure ES-1. Study Area

Plan Objectives

The project team developed objectives to guide the development of the plan, with input from the Advisory Committee, City of Roseburg staff, and ODOT staff. These objectives were adapted from the goals and objectives defined in the TSP. Plan objectives are:

- Develop accessible bike routes for all users.
- Identify and prioritize short- and long-term improvement possibilities.
- Engage community members to determine project priorities.
- Improve mapping, wayfinding, and educational programs.
- Create a connected network of trails.
- Expand existing multi-use routes and trail systems.
- Explore traffic calming measures to increase safety for cyclists.

Bicycle Network Projects

Bike route projects were developed to create a coherent network of bike routes throughout the city that connects with the existing trail and path system. Routes consider factors such as safety, comfort, directness, transit access, and destinations.

The project team developed bike route projects with unique ID numbers and names to aid in the planning process. The City is encouraged to rename the routes — perhaps with a public naming contest — and to choose names that reflect local neighborhood character and reinforce community pride.

Implementation Phase

Bike route projects are categorized by implementation phase:

- *Route from existing facilities* – Routes on facilities that have already been implemented (but currently lack signs).
- *Short-term* – Implement within 5 years.
- *Medium-term* – Implement within 10 years.
- *Long-term* – Implement in 10 to 20 years.

Aspirational Projects

Projects that would be beneficial but are not likely to be implemented within 20 years are considered *Aspirational*. These are not included in the main project list and are therefore not evaluated and do not have costs estimated. These projects would be more challenging to implement, but are documented in this plan because they would provide an immense benefit to the bike network. This plan includes two types of aspirational projects:

- Provide physically separated bike lanes or adjacent paths along arterials.
- Connect the street grid where it has been interrupted by private development.

Full Bicycle Network

The complete collection of bike route projects, including all four phases, is listed in Table ES-1. This vision for the future bike network, with all routes implemented, is shown in Figure ES-3 as well as in the interactive [Companion Map](#).

Table ES-1. Complete List of Bike Route Projects

ID Name	Phase	Details	Facilities	Cost Estimate
NW-10 Garden Valley West	Route from Existing Facilities	Existing bike lanes on NW Garden Valley Blvd west of I-5 connect with existing path at the I-5 interchange.	Existing bike lanes <ul style="list-style-type: none"> • NW Garden Valley Blvd 	(Existing facility)
NW-10 LT Garden Valley West – Path	Long-Term	Path on south side of NW Garden Valley Blvd between Duck Pond St and I-5 path. TSP planned project: Tier 2, BP-22a.	Path (0.31 mi) <ul style="list-style-type: none"> • NW Garden Valley Blvd 	\$490,000

ID Name	Phase	Details	Facilities	Cost Estimate
NW-11 Stewart-Alameda	Medium-Term	Route primarily on existing bike lanes of NW Stewart Pkwy and NE Alameda Ave. Short bicycle boulevard treatment extends the route further into the neighborhood on the east. A sidewalk treatment on the south side of W Harvard Ave connects the route to the proposed Harvard route (SW-71). Bike lanes on the Stewart Pkwy bridge over the South Umpqua River would be improved to be wider and protected either as part of a new bridge or from reconfiguring lanes on the existing bridge. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Existing bike lanes <ul style="list-style-type: none"> NW Stewart Pkwy NE Alameda Ave Bicycle boulevard (0.39 mi) <ul style="list-style-type: none"> NE Alameda Ave Bikes on sidewalk (0.23 mi) <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, Francis St to Stanton St Separated bike lanes (0.18 mi) <ul style="list-style-type: none"> NW Stewart Pkwy bridge 	\$180,000
NW-11 Ext Stewart-Alameda Extension	Long-Term	Extends the Stewart-Alameda route (Short-Term route) further east with a bike lane in the uphill direction and sharrows in the downhill direction. Connects with NE 41 Ext Rocky Ridge Extension.	Bike lane/Sharrows (0.28 mi) <ul style="list-style-type: none"> NE Alameda Ave 	\$76,000
NW-12 Newton Creek-Edenbower	Route from Existing Facilities	Route follows existing Newton Creek path and bike lanes on NW Edenbower Blvd. Will connect with Valley View-Winchester route (NW-17) in the long-term network. Newton Creek path would benefit from curb cuts to provide access from Renann Street and Edenbower Blvd (curb cuts are not included in cost estimates).	Existing bike lanes <ul style="list-style-type: none"> NW Renann St NW Edenbower Blvd Existing path <ul style="list-style-type: none"> Newton Creek path in Charles Gardiner Park 	(Existing facility)
NW-13 Troost	Route from Existing Facilities	Existing bike lanes on NW Troost St from NW Garden Valley Blvd to Katie Dr.	Existing bike lanes <ul style="list-style-type: none"> NW Troost St 	(Existing facility)
NW-13 Ext Troost Extension	Medium-Term	Route improves existing bike lanes by repurposing one or both lanes of underutilized on-street parking to create separated bike lanes between NW Garden Valley Blvd and Katie Dr. Extends route further west into neighborhood with a bicycle boulevard treatment on NW Troost St. Extends route further north to NW Hughwood Dr with a bike lane in the uphill direction and sharrows in the downhill direction. Continues east on NW Hughwood Dr to connect with existing bike lanes.	Separated bike lanes (0.71 mil) <ul style="list-style-type: none"> NW Troost St Bicycle boulevard (0.91 mi) <ul style="list-style-type: none"> NW Troost St Bike lane/Sharrows (0.23 mi) <ul style="list-style-type: none"> NW Troost St NW Hughwood Dr 	\$540,000
NW-14 Keasey	Route from Existing Facilities	Route follows existing bike lanes on NW Keasey St.	Existing bike lanes <ul style="list-style-type: none"> NW Keasey St 	(Existing facility)
NW-15 Hucrest	Short-Term	North-south route connects to Hucrest Elementary on neighborhood streets.	Bicycle boulevard (0.92 mi) <ul style="list-style-type: none"> NW Kline St NW Calkins Ave NW Jefferson St Bike lanes (0.78 mi) <ul style="list-style-type: none"> NW Kline St NW Harvey St 	\$270,000

ID Name	Phase	Details	Facilities	Cost Estimate
NW-15 Ext Hucrest Extension	Medium-Term	Extends the Hucrest route around the back side of Hucrest Elementary School. Routes on school property would require coordinating access with Roseburg Public Schools.	Bicycle boulevard (0.61 mi) <ul style="list-style-type: none"> NW Moore Ave NW Lynwood St NW Calkins Ave 	\$37,000
NW-16 Calkins	Medium-Term	East-west route through neighborhood.	Bicycle boulevard (0.68 mi) <ul style="list-style-type: none"> NW Calkins Ave NW Grove Ln 	\$41,000
NW-17 Valley View-Winchester	Medium-Term	East-west route parallel to Garden Valley Blvd. Crosses NW Stewart Pkwy at the signal at Garden Valley Blvd. Would connect with Newton Creek-Edenbower (NW-12) in the long-term network to create a comfortable north-south route to Winchester.	Bike lanes (0.66 mi) <ul style="list-style-type: none"> NW Valley View Dr Bikes on sidewalk (0.10 mi) <ul style="list-style-type: none"> NW Stewart Pkwy 	\$190,000
NW-17 LT Valley View-Winchester	Long-Term	Family-friendly route from Valley View to Winchester avoids busy roads using the existing tunnel and a path or widened sidewalk along Garden Valley Blvd and Stewart Pkwy. Would have an additional option to cross Stewart Pkwy with a new crosswalk to the south. Bikes on sidewalk and bike lanes would connect to the crossing. Tunnel under Garden Valley Blvd has been closed for security issues, which would need to be addressed before considering opening again. Path adjacent to Newton Creek could be a new path as in the TSP (Tier 2 BP-21b) or coordinated with Walmart. Path along east side of I-5. New bridge over I-5 connects with the Newton Creek Multi-Use Path. Path continues north to Winchester. Planned TSP Tier 2, BP-21d. Would connect with Newton Creek-Edenbower (NW-12).	Path (4.1 mi) <ul style="list-style-type: none"> Along Newton Creek (near Walmart) North of Newton Creek to Winchester Bikes on sidewalk (0.12 mi) <ul style="list-style-type: none"> NW Stewart Pkwy 	\$6,400,000
NW-17 Alt Valley View-Winchester Alternative	Long-Term	Path on west side of I-5 in ODOT ROW. Utilizes existing bike lanes on existing Edenbower bridge as opposed to the new bridge required for NW-17 LT.	Path (0.59 mi) <ul style="list-style-type: none"> West of I-5 in ODOT ROW between I-5 and Edenbower. 	\$920,000
NW-18 Broad	Route from Existing Facilities	Existing bike lanes continue north of Edenbower to the community on the west side of I-5.	Existing bike lanes <ul style="list-style-type: none"> NW Valley View Dr 	(Existing facility)
NW-19 Hill	Long-Term	Separated bike lanes would utilize new arterial bridge connection planned in TSP Tier 2, R-16. Would provide a parallel alternative to Garden Valley Blvd and a more direct east-west route than Stewart Pkwy. Cost estimate includes bike lanes only, bridge to be funded through TSP project.	Separated bike lanes (0.66 mi) <ul style="list-style-type: none"> NW Hill Ave 	\$500,000

ID Name	Phase	Details	Facilities	Cost Estimate
NW-20 Del Rio	Short-Term	Route on Del Rio Rd extending west from NE Stephens St to the Roseburg UGB, where it would connect with Douglas County bike facilities. This is included in the short-term group of projects so it would be implemented at the same time as the Stephens to UCC route (NE-31).	Existing bike lanes • Del Rio Rd	(Existing facility)
NE-30 Aviation-Highland	Short-Term	Existing bike lanes on General Ave, Aviation Dr, and NW Mulholland Dr cross NW Garden Valley Blvd with bikes on the south sidewalk and continue south on NW Highland St. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Existing bike lanes • NW Mulholland Dr • Aviation Dr • General Ave Bicycle boulevard (0.28 mi) • NW Highland St Bikes on sidewalk (0.17 mi) • NW Garden Valley	\$27,000
NE-30 Alt Aviation-Highland Alternative	Short-Term	A potential new pedestrian crossing of NW Garden Valley Blvd near Fairmount St would create an opportunity for a more comfortable north-south route with less travel along NW Garden Valley Blvd. Requires crossing improvement.	Bicycle boulevard (0.48 mi) • NW Cecil Ave • NW Fairmount St	\$29,000
NE-31 Stephens to UCC	Short-Term	Existing bike lanes on NE Stephens (OR 99) connect Garden Valley Blvd with Winchester and Umpqua Community College to the north. Sharrows and signage at the gap in the bike lanes on the bridge crossing the North Umpqua River. The bridge deck is 24 feet curb-to-curb.	Existing bike lanes • NE Stephens St • Umpqua College Rd Sharrows and signs (0.20 mi) • North Umpqua River Bridge	\$12,000
NE-32 Lincoln	Short-Term	Connects the existing bike lanes on NE Garden Valley Blvd with a bike route that continues east and south along NE Lincoln St, NE Malheur Ave, and NE Jackson St. Because of grade on NE Lincoln St, the proposed facility is a bike lane in the uphill direction and a bicycle boulevard treatment in the downhill direction.	Existing bike lanes • NE Garden Valley Blvd Bike lane/Bicycle boulevard (0.35 mi) • NE Lincoln St Bicycle boulevard (0.44 mi) • NE Malheur Ave • NE Jackson St	\$130,000
NE-32 LT Lincoln Extension	Long-Term	Planned sidewalk improvements would create enough space to bike and walk on Garden Valley Blvd between NW Mulholland Dr and NE Stephens. This extends the Lincoln route further west. TSP project Tier 2, BP-3. Includes bike facilities on I-5 overpass in the event that the overpass is reconstructed in the next 20 years.	Separated bike lanes (0.75 mi) • Garden Valley Blvd • Garden Valley Blvd I-5 overpass	\$1,200,000
NE-33 Joseph Lane-Gaddis Park	Medium-Term	Connects Joseph Lane Middle School with Gaddis Park. Crosses Stephens St at existing enhanced crosswalk north of Clover Ave.	Existing bike lanes • NE Airport Rd • NE Cedar St • NE Stephens St Bicycle boulevard (0.26 mi) • NE Clover St • NE Chestnut Ave • NW Highland St	\$16,000

ID Name	Phase	Details	Facilities	Cost Estimate
NE-34 Vine	Short-Term	North-south route parallel to NE Stephens St through neighborhood and to Joseph Lane Middle School. Bicycle boulevard treatment connects existing bike lanes on NE Vine St to NE Stephens St.	Existing bike lanes <ul style="list-style-type: none"> NE Vine St Bicycle boulevard (0.45 mi) <ul style="list-style-type: none"> NE Meadow Ave NE Kerr St NE Hewitt Ave 	\$27,000
NE-34 Ext Vine Extension	Long-Term	Establishes a path from the north end of Vine St to Newton Creek Rd along existing undeveloped trail. Existing bridge over Newton Creek would likely need improvements or replacement. TSP project Tier 2, BP21c.	Path (0.44 mi) <ul style="list-style-type: none"> Vine St path 	\$690,000
NE-35 Newton East	Route from Existing Facilities	Existing bike lanes on NE Newton Creek Rd connect to neighborhood east of airport.	Existing bike lanes <ul style="list-style-type: none"> NE Newton Creek Rd 	N/A
NE-36 Odell	Short-Term	East-west route through neighborhood parallel to NE Diamond Lake Blvd. Connects to path in Deer Creek Park. Would continue east to Rifle Range Rd in the long-term network.	Bicycle boulevard (0.35 mi) <ul style="list-style-type: none"> NE Odell Ave NE Rowe St 	\$21,000
NE-36 Ext Odell Extension	Long-Term	Path at the north edge of the old lumber mill property from the end of Odell St to Rifle Range Rd. Could be implemented with new development.	Path (0.80 mi) <ul style="list-style-type: none"> Odell extension 	\$1,300,000
NE-37 Page	Medium-Term	East-west route through Winchester. Connects to Winchester Elementary School.	Bike lanes (1.2 mi) <ul style="list-style-type: none"> Page Rd 	\$330,000
NE-38 North View	Medium-Term	Route along the east side of Winchester.	Bicycle boulevard (1.42 mil) <ul style="list-style-type: none"> Thora Cir Josephine St Strauss Ave N View Dr Taft Dr Club Ave 	\$86,000
NE-39 Rifle Range	Long-Term	Route along Rifle Range St. Could be implemented with new development or planned road maintenance. Separated bike lanes near Diamond Lake Blvd where traffic is heaviest and the ROW is the widest. North of approximately Spencer Ct the bike lanes could transition to standard bike lanes or a single bike lane in the uphill direction with sharrows in the downhill direction.	Separated bike lanes (0.46 mi) <ul style="list-style-type: none"> Rifle Range St between Douglas Ave and Spencer Ct Bike lanes (0.50 mi) <ul style="list-style-type: none"> Rifle Range St between Spencer Ct and Frontier Ln 	\$480,000

ID Name	Phase	Details	Facilities	Cost Estimate
NE-40 Fulton-Rocky	Long-Term	<p>North-south route through residential areas from Diamond Lake Blvd to Rocky Ridge Dr.</p> <p>Separated bike lanes on Fulton St near Diamond Lake Blvd where traffic is heaviest and the ROW is the widest. North of approximately Commercial Ave, the bike lanes could transition to standard bike lanes or a single bike lane in the uphill direction with sharrows in the downhill direction.</p> <p>North of Tahoe Ave the road becomes a private drive. Access would need to be coordinated.</p> <p>Road is in poor condition and would need improvements.</p>	<p>Separated bike lanes (0.13 mi)</p> <ul style="list-style-type: none"> NE Fulton St <p>Bike lanes (1.1 mi)</p> <ul style="list-style-type: none"> NE Fulton St NE Rocky Dr 	\$400,000
NE-41 Rocky Ridge	Route from Existing Facilities	Route from NE Garden Valley Blvd into residential areas on existing bike lanes.	<p>Existing bike lanes</p> <ul style="list-style-type: none"> NE Rocky Ridge Rd 	N/A
NE-41 Ext Rocky Ridge Extension	Long-Term	Continues existing Rocky Ridge bike route along NE Rocky Ridge Dr through residential area to NE Alameda Ave. Would connect to planned future extension of Rocky Road (TSP project Tier 2, R16m).	<p>Bike lanes (0.40 mi)</p> <p>NE Rocky Ridge Dr</p>	\$110,000
NE-42 Diamond Lake Blvd	Medium-Term	<p>Important east-west route on east side of town. Currently in a separate planning process (the OR138E Design Concept Plan) to determine appropriate improvements for the corridor. A path between Rifle Range St and Sunshine Rd is being planned for the north side of Diamond Lake Blvd.</p> <p>This route should continue the path for the entire length or provide protected bike lanes between Stephens St and Rifle Range St, and between Sunshine Rd and Temple Brown Rd. Because of the volume and speed of motor vehicle traffic, a path or protected bike lanes would serve new development along the corridor with a low stress bike route. TSP project Tier 1, BP-24.</p>	<p>Path (2.2 mi)</p> <ul style="list-style-type: none"> Diamond Lake Blvd <p>Separated bike lanes (1.7 mi)</p> <ul style="list-style-type: none"> Diamond Lake Blvd 	\$4,700,000
SE-50 99-Downtown	Medium-Term	<p>Bike lanes on OR 99 through downtown. A new bike lane on SE Stephens St (northbound) closes the gap in the existing route.</p> <p>The right of way is constrained, and a bike lane would require space from a driving or parking lane. Further study and analysis would be required to determine the potential impacts of removing parking or a driving lane.</p>	<p>Existing bike lanes</p> <ul style="list-style-type: none"> SE Pine St (southbound) SE Stephens St, north of SE Oak Ave <p>Bike lanes (0.80 mi)</p> <ul style="list-style-type: none"> SE Stephens St (northbound), between SE Oak Ave and SE Pine St 	\$220,000
SE-51 Downtown East	Short-Term	North-south route through neighborhood east of downtown. Parallels SE Stephens St (OR 99). Route shifts on to SE Hamilton St because it is lower traffic and has less elevation.	<p>Existing bike lanes</p> <ul style="list-style-type: none"> NE Winchester St <p>Bicycle boulevard (1.90 mi)</p> <ul style="list-style-type: none"> NE/SE Jackson St SE Douglas Ave SE Main St SE Orcutt Ave SE Hamilton St SE Booth Ave 	\$120,000

ID Name	Phase	Details	Facilities	Cost Estimate
SE-52 Eastwood	Short-Term	Connects to Eastwood Elementary School from NE Douglas Ave.	Bicycle boulevard (0.45 mi) <ul style="list-style-type: none"> SE Ramp Rd SE Waldon Ave 	\$27,000
SE-52 Ext Eastwood Extension	Long-Term	Creates a path on the east side of the school north to Eastwood Park along an existing undeveloped trail. Bridge over Deer Creek may require improvements or replacement. This route would require coordination with Roseburg Public Schools for access on Eastwood Elementary School property.	Path (0.34 mi) <ul style="list-style-type: none"> Eastwood Extension 	\$530,000
SE-53 Mill-Roberts	Short-Term	Route connects the area between OR 99 and the railroad south of downtown.	Bicycle boulevard (0.64 mi) <ul style="list-style-type: none"> SE Mill St SE Burke St SE Stephens St SE Roberts Ave 	\$39,000
SE-54 Micelli	Short-Term	Bikeway between the railroad and the South Umpqua River connects Micelli Park and Deer Creek Park.	Existing path <ul style="list-style-type: none"> Riverside Park and SE Pine St Bicycle boulevard (0.60 mi) <ul style="list-style-type: none"> SE Flint St SE Mosher Ave SE Fullerton St SE Micelli St 	\$36,000
SE-54 Ext Micelli Extension	Long-Term	Path continues south through Micelli Park, then across the South Umpqua River with a new bridge connecting to Portland Ave near the county fairgrounds. Planned TSP project Tier 2, BP7.	Path (0.43 mi) <ul style="list-style-type: none"> Micelli Extension 	\$3,600,000 ¹
SE-55 Douglas	Medium-Term	Bikeway along NE Douglas Ave provides an east-west route parallel to NE Diamond Lake Blvd. Bike lanes are included in plans for the separate Douglas Avenue Improvements project. Estimate includes striping and signage. Does not include widening.	Existing bike lanes <ul style="list-style-type: none"> NE Douglas Ave Bike lanes (3.00 mi) <ul style="list-style-type: none"> NE Douglas Ave 	\$810,000
SE-56 Mosher	Short-Term	East-west route across railroad and OR 99 south of downtown. Proposed as bike lanes, but could be a bicycle boulevard treatment.	Bike lanes (0.35 mi) <ul style="list-style-type: none"> SE Mosher Ave 	\$94,000
SW-70 High School to County Fairgrounds	Medium-Term	Connects the high school to the south side of town past the fairgrounds. New bicycle boulevard treatments on Kendall St and Frear St close the gap in the I-5 path near the county fairgrounds.	Existing path <ul style="list-style-type: none"> I-5 multi-use path Bicycle boulevard (0.87 mi) <ul style="list-style-type: none"> Kendall St SW Portland Ave Frear St 	\$53,000

¹ Cost estimate was sourced from the TSP and adjusted for inflation.

ID Name	Phase	Details	Facilities	Cost Estimate
SW-70 LT High School to County Fair Path Connection	Long-Term	Connects the gap in the I-5 path near the county fairgrounds. Path would be adjacent to I-5 on east side in ODOT ROW.	Path (0.78 mi) • I-5 path	\$1,300,000
SW-71 Harvard Neighborhoods (bicycle boulevards)	Short-Term	<p>East-west route south of the South Umpqua River connecting the west side of the city with downtown. Uses neighborhood streets as much as possible to avoid traffic on W Harvard Ave. Connects neighborhood segments with bikes on the south sidewalk of W Harvard Ave.</p> <p>Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.</p> <p>Consider implementing bike lanes on Harvard Ave when there are opportunities to restripe. Driving lanes could be narrowed, which would help calm traffic and allow dedicated lanes for biking.</p>	<p>Existing bike lanes</p> <ul style="list-style-type: none"> W Harvard Ave (west of Lookingglass Rd and east of W Umpqua St) SW/SE Washington Ave SW/SE Oak Ave <p>Bicycle boulevard (1.87 mi)</p> <ul style="list-style-type: none"> W Shasta Ave W Jay Ave W Kenwood St W Francis St W Bertha Ave W Stanton Ave W Fairhaven St W Brown Ave Military Ave W Umpqua St <p>Bikes on sidewalk (0.43 mi)</p> <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, Kenwood St to Francis St W Harvard Ave, south sidewalk, Stanton St to Fairhaven St 	\$146,000
SW-71 Ext Harvard Neighborhoods Extension	Long-Term	Continues the Harvard Neighborhoods route west across the South Umpqua River on a planned bridge and road extension. The route would then turn north with planned improvements on Charter Oaks Dr. Planned TSP Tier 2 projects R-16p and R-13. Requires new bridge and roadway buildout.	<p>Separated bike lanes (0.57 mi)</p> <ul style="list-style-type: none"> W Harvard Ave W Charter Oaks Dr 	\$430,000
SW-71 LT Harvard Neighborhoods Fremont Connection	Long-Term	<p>Would use west gate to middle school and travel through school property to southeast corner where it would loop to the south around houses (staying on school property) and connect with Nebo St. Bicycle boulevard treatments continue to connect with the short-term SW-71 route at W Brown Ave.</p> <p>This route would require coordination with Roseburg Public Schools for access on Fremont Middle School property.</p>	<p>Path (0.25 mi)</p> <ul style="list-style-type: none"> On school grounds <p>Bicycle boulevard (0.42 mi)</p> <ul style="list-style-type: none"> Fremont Middle School parking lot W Nebo St W Catherine Ave W Fairhaven St 	\$420,000
SW-72 Lookingglass	Route from Existing Facilities	Route along existing bike lanes on Lookingglass Rd.	<p>Existing bike lanes</p> <ul style="list-style-type: none"> Lookingglass Rd 	N/A

ID Name	Phase	Details	Facilities	Cost Estimate
SW-72 LT Lookingglass Separated Bike Lanes	Long-Term	Upgrade existing bike lanes on Lookingglass Rd to be separated from W Harvard Ave to W Woodside Rd. Can coincide with planned sidewalk improvement, TSP Tier 2 BP23.	Separated bike lanes (0.90 mi) <ul style="list-style-type: none"> Lookingglass Rd 	\$680,000
SW-73 Fullerton	Short-Term	Route through neighborhood connects with Fullerton Elementary School. Bikes on sidewalk treatment along both sides of W Harvard Ave connect to marked crossing between W Shenandoah St and W Fair St. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Bicycle boulevard (0.67 mi) <ul style="list-style-type: none"> W Sharp Ave W Broccoli St Bikes on sidewalk (0.35 mi) <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, W Shenandoah St to W Fair St W Harvard Ave, north sidewalk, W Shenandoah St to W Fair St 	\$62,000
SW-73 Ext Fullerton Extension	Medium-Term	Extends Fullerton route further east to W Agee St and to connect with entrance to Fullerton Elementary School.	Bicycle boulevard (0.34 mi) <ul style="list-style-type: none"> W Bradford Ct W Agee St 	\$21,000
SW-74 Umpqua Street	Short-Term	A comfortable neighborhood connection between W Harvard Ave and River Front Park using the I-5 bridge over the South Umpqua River.	Bicycle boulevard (0.32 mi) <ul style="list-style-type: none"> W Umpqua St 	\$20,000
SW-75 Myrtle-VA	Medium-Term	Connects neighborhood south of W Harvard Ave with River Front Park and Stewart Park along Stewart Park Dr. Potential for long-term path through Fir Grove Park. Opportunity to implement sharrows when Stewart Park Bridge is repainted.	Bicycle boulevard (0.22 mi) <ul style="list-style-type: none"> Stewart Park Dr W Wharton St 	\$14,000
SW-76 Military Avenue	Medium-Term	Route along Military Ave from Lookingglass Rd to Harrison St. Hilly. Pavement is in poor condition and should be improved before implementing the bike facility.	Bicycle boulevard (2.31 mi) <ul style="list-style-type: none"> Military Ave 	\$140,000
SW-77 Old Melrose	Route from Existing Facilities	Existing bike lanes on Old Melrose Rd continue south from the west end of Harvard Ave.	Existing bike lanes <ul style="list-style-type: none"> Old Melrose Rd 	N/A
SW-78 Laurelwood	Long-Term	Creates a comfortable route on the north and east sides of high school. Would require a connection through what is now private property at the northeast corner of the high school. The route would connect with Laurelwood Park. Route is contingent on future property acquisition by school. This route would require coordination with Roseburg Public Schools for access on Roseburg High School property.	Bicycle boulevard (0.56 mi) <ul style="list-style-type: none"> W Finlay Ave W Bowden St W Riverside Dr W Casey St W Chapman Ave W Madrone St Path (0.10 mi) <ul style="list-style-type: none"> Connection between W Finlay Ave and W Bowden St 	\$190,000

ID Name	Phase	Details	Facilities	Cost Estimate
SW-79 Harvard Path	Long-Term	Would widen north sidewalk to make space for walking and biking and establish a comfortable east-west route through this part of the city. Planned TSP Tier 2 BP-5. Sidewalk widening could require extending the sidewalk into the roadway because of ROW limitations. This could require removing a driving lane. This route would be a more direct and comfortable alternative to SW-71 Harvard Neighborhoods.	Path (1.4 mi) <ul style="list-style-type: none"> North sidewalk of W Harvard Ave 	\$2,200,000
N/A = not applicable; Ave = avenue; Blvd = boulevard; Dr = drive; mi = miles; St = street; Cir = circle; Ct = court; Pkwy = parkway; mi = miles; ROW = right of way; UCC = Umpqua Community College				

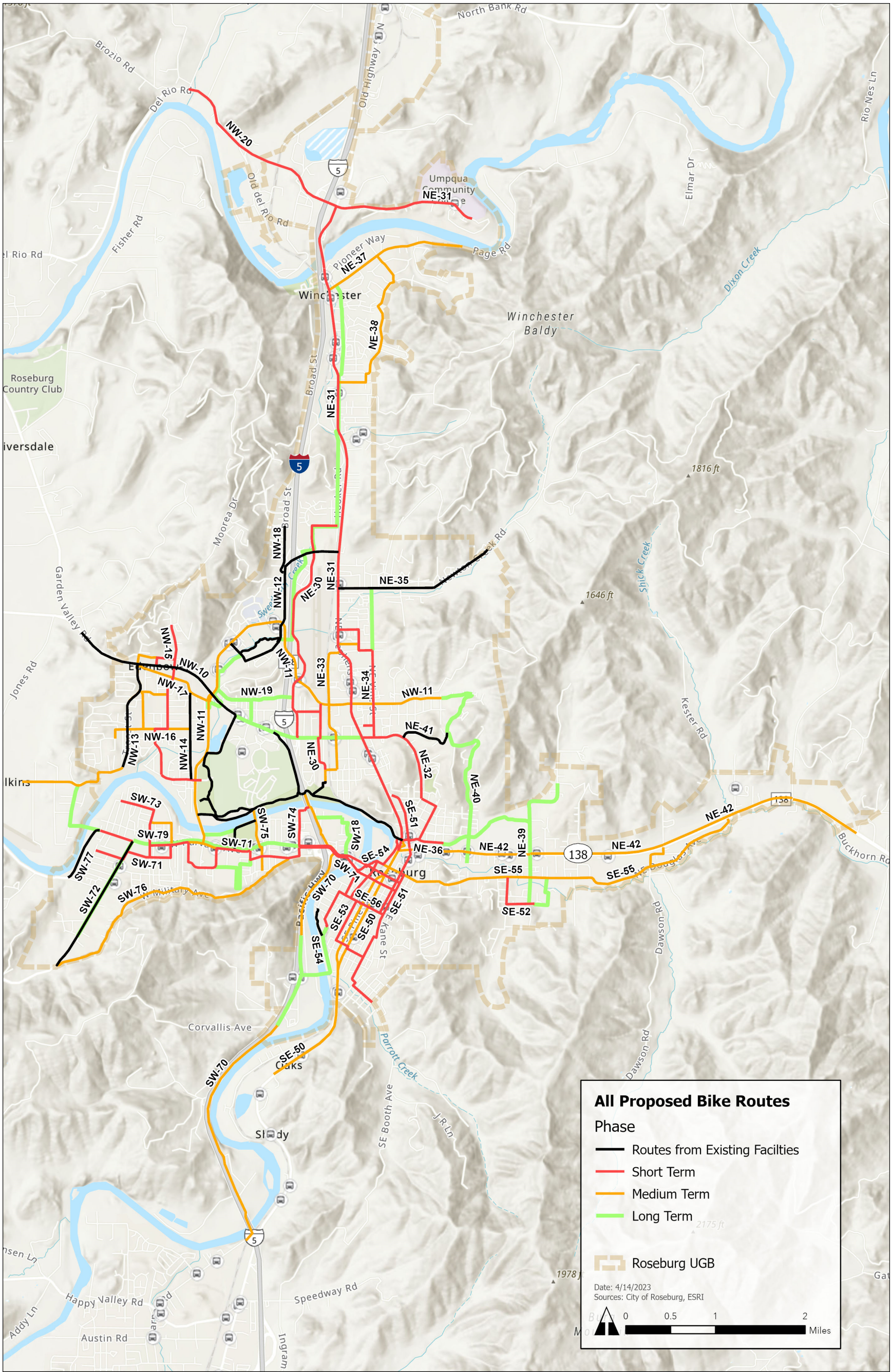


Figure ES-2. All Proposed Bike Routes by Phase

Additional Supportive Elements

The following additional elements of the Bike Routes Plan will be critical to ensuring that Roseburg’s planned bike network is safe, viable, and welcoming to all users.

- **Intersection improvements:** High quality intersections and crossings of busy roads are crucial for bike routes to feel comfortable and safe. This plan includes a toolkit of strategies to improve intersections and crossings, such as protected intersections, crossbikes, bike boxes, and bike signal phases, and others.
- **Traffic calming:** Motor vehicle speeds strongly influence comfort and safety while biking. This plan includes a toolkit of traffic calming strategies that can be applied in locations where a bike route feels unsafe or uncomfortable. Examples of treatments include speed bumps, traffic diverters, lane reconfigurations, radar speed signs, and landscaping.
- **Provisions:** Provisions, such as secure bike parking, ADA-compliant ramps and curb cuts where needed, and improved illumination, can make the difference of whether biking is or is not a feasible option.
- **Amenities:** Amenities, such as water stations and leaning rails, enhance the experience and demonstrate the City’s support of biking.
- **Wayfinding:** Wayfinding signs and markings are essential for a functional bike network. Bike route signs also remind drivers to watch for people biking.
- **Mapping:** Clear and accurate maps are necessary for people to know where bike routes are and to plan their travels accordingly.

Promotion

Bicycling promotional events and programs encourage people to bike in Roseburg. Many local groups — Umpqua Velo Club and Thrive Umpqua are just two examples — are already organizing group bike rides and events that celebrate biking (see Figure ES-3). The City should encourage and support more promotional activities and events as the bike network grows. Activities should aim to inform the community about bike network improvements and inspire enthusiasm for biking. An effective promotional campaign can build momentum toward investing in more future bike improvements.

This plan includes a menu of promotional and educational activities that the City can consider for implementation or to encourage other groups to implement.



Figure ES-3. Umpqua Velo Club Beginner Ride

Image source: Umpqua Velo Club

Implementation

These bike route projects were developed to be implemented expediently. Many of the routes use existing bike facilities and require only signs and isolated facility improvements. Routes with bike lane and bike boulevard improvements can be implemented along with regular paving projects; these bike route projects should be coordinated with capital improvement plans and paving plans. Most of the larger projects scheduled for the long-term phase, such as new paths, new bridges, and arterial improvements, align with planned projects previously identified in the TSP. Bike routes may also be implemented more quickly as stand-alone projects as funding allows.

Project phasing is intended to be a tool for organizing implementation in a digestible way. Phases are not, however, intended to be prescriptive. When and how routes are implemented will depend on costs, available funding, and opportunities to tie in with other projects. Improvements should be implemented as opportunities arise — even if earlier than planned.

It is important for a route to be continuous and connected for it to be a coherent and functional part of the bike network. Facilities that are disconnected or implemented in a piecemeal way can be difficult to follow and may feel unsafe. A substantial, continuous portion of the route should be completed before considering it part of the network, adding it to the bike route map, and installing signs.

Short-Term Implementation Recommendations

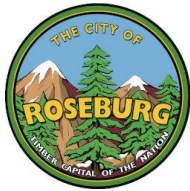
With this in mind, here are some first steps the City can take to establish the bike network:

- *Routes from existing facilities* can be implemented immediately by installing new signs.
- *Short term* routes and some *medium term* routes can be implemented with sharrows in select locations and signs throughout. Where routes align with planned or recently-completed paving projects, the City should incorporate sharrow installation with new striping.
- Promote new routes as they are completed! Some ideas to get people excited include holding a naming contest for each new route, hosting a ribbon-cutting ceremony, and organizing a community ride of the new route(s).



Image source: ODOT via [Flickr](#)

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ROSEBURG BIKE ROUTES PLAN

1. INTRODUCTION

1.1 Project Overview

This City of Roseburg Bike Routes Plan builds from the 2020 City of Roseburg Transportation System Plan (TSP), which identified gaps in the bicycle network and included policies to improve bicycle facilities and circulation. The City of Roseburg Bike Routes Plan refines the designated bicycle route system and includes improvements to make biking comfortable for people of all ages and abilities. It provides a plan for implementation and prioritizes improvements that can be implemented quickly and relatively easily. Many of the routes require only striping and signs that can be implemented along with regular maintenance and paving projects.

This plan aims to create safe, comfortable, and inviting bike routes that connect people who are interested in biking with the places they want to go. With a growing population and increasing housing demands, Roseburg would benefit from bike routes that improve mobility throughout the city and create transportation options without expanding roadways. Safe bike routes allow students to get to school on their own and workers to get to their jobs without the need and expense of driving. These bike routes would allow people to travel across the city without contributing to — or being impeded by — automotive traffic.

The study area is the City of Roseburg urban growth boundary (UGB), as shown in Figure 1-1. Roseburg is the social, commercial, and economic hub of central Douglas County. Many people who live in nearby communities work in or visit the city. As a result, the plan also considers intercity connections and rural bicycle routes that extend beyond the study area to accommodate residents of the broader region.

1.2 Project Team

The team that contributed to this project included staff from the City of Roseburg, the Oregon Department of Transportation (ODOT), and the consultant team from Parametrix.

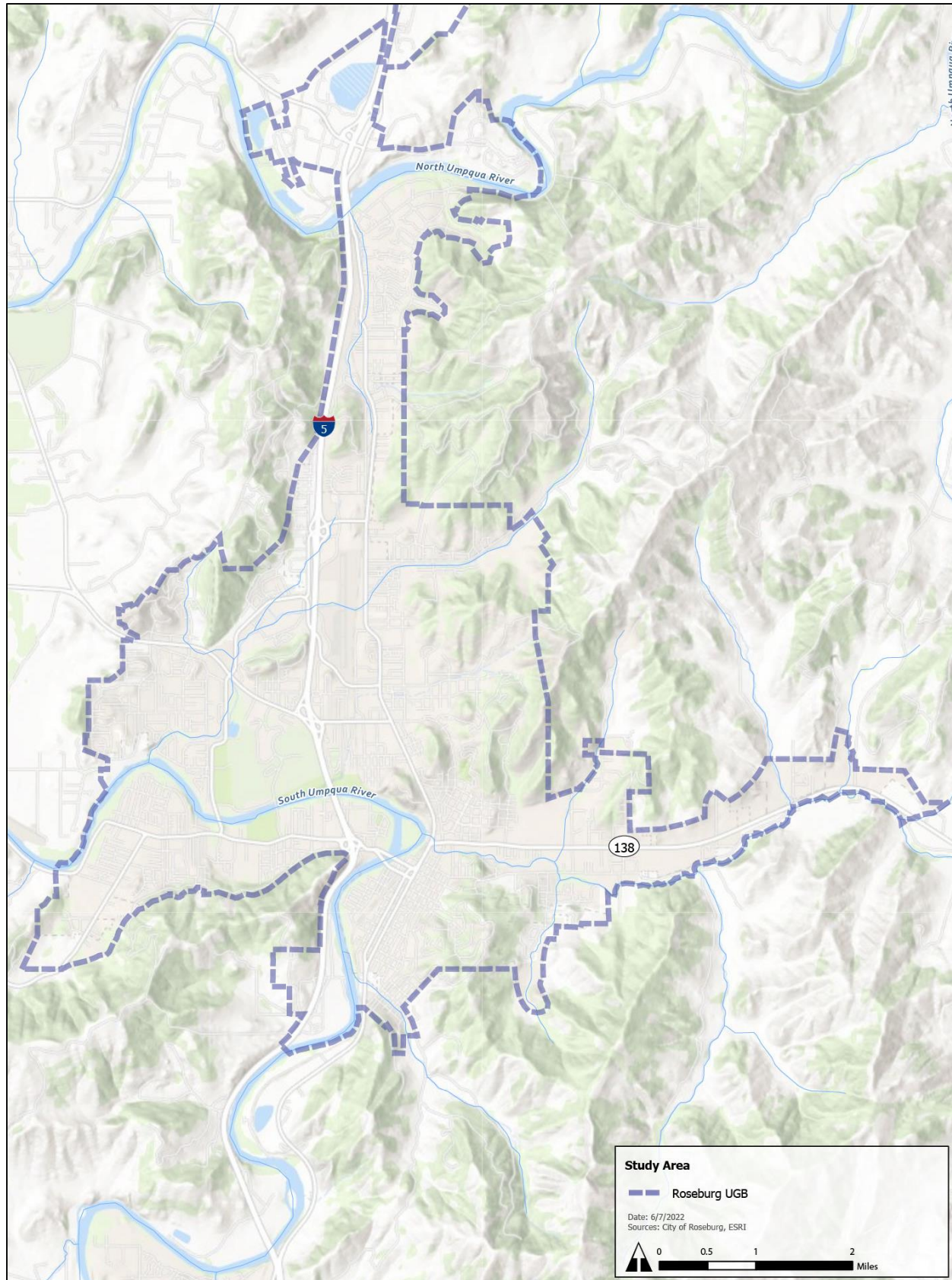


Figure 1-1. Study Area

1.3 Project Process

This Bike Routes Plan was developed between the summer of 2021 and the end of 2022. The project team visited the study area early in the planning process. In fall and winter 2021–22, the project team developed existing and future conditions, goals and policies, evaluation criteria, and project alternatives. In spring 2022, the project team focused on refining project alternatives, traffic calming devices, intersection treatments, and amenities. In summer 2022, the project team finalized the project alternatives, mapping and wayfinding, and bicycling promotion. The Bike Routes Plan was drafted in fall 2022 and finalized at the end of 2022.

1.4 Advisory Committee

A project Advisory Committee, consisting of stakeholders convened by the City, helped inform the planning process. The Advisory Committee provided input on evaluation criteria, project alternatives, bicycling promotion, and mapping and wayfinding, and will provide input on the Draft Bike Routes Plan. The Advisory Committee met virtually five times over the course of the planning process. This outreach process helped the project team refine bike network priorities, propose educational opportunities and training workshops, and develop a low-stress bike network.

1.5 Plan Objectives

Based on input from the Advisory Committee, City of Roseburg staff, and ODOT, the project team developed the Bike Routes Plan objectives described below. These objectives are rooted in the goals and objectives defined in the TSP and are refined to be more applicable for this Bike Routes Plan. The resulting objectives are more cycling-specific and appropriate for implementation. These objectives do not supersede existing TSP goals, but instead reflect those goals and provide more specificity for the Bike Routes Plan. These objectives guided the development of this Bike Routes Plan, including the project priorities and future funding allocation.

- **Develop accessible bike routes for all users.** Focus on developing and improving bicycle routes that will increase safety, accessibility, and comfort for all bicycle users, especially children and older adults.
- **Identify and prioritize short- and long-term improvement possibilities.** Develop an incremental improvement plan including priority short-term improvement projects that require minimal funding and are easily implemented and long-term capital improvement programs that encompass broader goals.
- **Engage community members to determine project priorities.** Identify the facilities most needed to improve and increase bicycle use. Understand the needs of those who may not regularly cycle including more vulnerable roadway users such as children and older adults.
- **Improve mapping, wayfinding, and educational programs.** Develop an implementation plan for wayfinding through maps, signage, and cycling encouragement programs to promote bicycle use by all members of the community.
- **Create a connected network of trails.** Develop connections from new bicycle routes to existing facilities including to and between the Umpqua River Trail and surrounding neighborhoods, commercial areas, parks, and schools.
- **Expand existing multi-use routes and trail systems.** Identify locations in which the existing Umpqua River Trail can be expanded or a new multi-use trail should be established.
- **Explore traffic calming measures to increase safety for cyclists.** Determine whether additional traffic calming measures are appropriate or necessary along portions of the bicycle routes.

1.6 Evaluation Criteria

Table 1-1 shows the criteria used for evaluating solution alternatives based on the Bike Routes Plan goals and objectives. The evaluation criteria also served as a tool for prioritizing projects and were used to establish whether a project was recommended to be implemented in the near, medium, or long-term.

Table 1-1. Evaluation Criteria

Objective	Criteria
Develop accessible bike routes for all users. Focus on developing and improving bicycle routes that will increase safety, accessibility, and comfort for all bicycle users, especially children and older adults.	Increases comfort for children, older adults, and less experienced cyclists. Increases access to economic hubs, commercial destinations, education centers, parks, and social/health services.
Identify and prioritize short- and long-term improvement possibilities. Develop an incremental improvement plan including priority short-term improvement projects that require minimal funding and are easily implemented and long-term capital improvement programs that encompass broader goals.	Improvements are phased based on priority and simplicity of implementation, are cost effective, and comply with existing plans and policies
Engage community members and stakeholder organizations to determine project priorities. Identify the facilities most needed to improve and increase bicycle use.	Community members support the preferred improvements. Needs of more vulnerable roadway users such as children and older adults are considered.
Improve mapping, wayfinding, and support educational programs. Develop an implementation plan for wayfinding signage and cycling encouragement programs to promote bicycle use by all members of the community.	Less confident riders and those unfamiliar with the area are able to navigate bike network with ease. Bicycle network is comprehensive and easily identifiable.
Create and improve connections to multi-use paths and trails. Develop connections from new bicycle routes to existing facilities including the Umpqua River Trail.	Expands multi-use path and trail networks. Connects bike routes to multi-use path and trail networks. Improves existing bikeways and multi-use paths.
Explore traffic calming measures to increase safety for cyclists. Determine whether additional traffic calming measures are appropriate or necessary along portions of the bicycle routes.	Makes biking more comfortable and safer by calming nearby traffic.

2. EXISTING AND FUTURE CONDITIONS

2.1 Existing Conditions

2.1.1 Demographics

In 2020, the population within Roseburg’s city limits was 23,683 people,² making it the most populous city in Douglas County. Notable community characteristics relevant to the Bike Routes Plan are outlined below.³ County numbers are also reported to illustrate the demographics of the nearby communities whose members are likely to work in, shop in, or visit Roseburg. For a full description of Roseburg demographics and transportation characteristics, refer to Appendix A: Memo 1 – Existing and Future System Conditions.

- The portion of Roseburg households without access to a motor vehicle (12 percent) was substantially higher than the county (6 percent) or the state (7 percent).
- Roseburg’s population was 87 percent white and 7 percent Hispanic or Latino, while Douglas County’s population was 88 percent white and 6 percent Hispanic or Latino. Roseburg’s population identifying as two or more races was estimated to be 4 percent. Other races and ethnicities in Roseburg were 1 percent or less of the population.
- The population of young people is similar for Roseburg, Douglas County, and Oregon, between 19 and 21 percent.
- Incomes in Roseburg were relatively low when compared with Douglas County or Oregon. The city median household income was \$44,970, nearly \$18,000 below the state median of \$62,818. The [Companion Map](#) illustrates that income was not evenly distributed across the city. Median incomes ranged between \$97,159 at the west edge of the city to as low as \$27,288 east of the airport.
- The proportion of people with disabilities was higher in Roseburg and Douglas County than in Oregon, at 19 and 20 percent, respectively, compared with 14 percent for the state overall.

The [Companion Map](#) includes demographic layers for the study area. The layers include Median Household Income, Percent Low Income (200 Percent Poverty Level), Percent Minority (Not White Alone) and Percent Limited English-Speaking Households.

2.1.2 Existing Bicycle Network

Roseburg’s existing bicycle system is centered on a strong foundation of multi-use paths. Comfortable and convenient routes travel through Stewart Park, River Front Park, and along the South Umpqua River. Beyond multi-use paths, bike facilities are primarily bike lanes on busy collectors and arterials. Documentation of the existing bicycle network is based on the findings from the TSP, input from the City

² Population data is from the 2020 Decennial Census.

³ Detailed demographic data is from American Community Survey 5-Year Estimate (2015–2019).

and ODOT, updated American Community Survey data, and observations from a September 15, 2021, city tour.

The existing bicycle network is shown in Figure 2-1. The map shows three classes of bike facilities:

- **Class 1 Facility** – Separated path, which includes multi-use paths. Roseburg has several multi-use paths that form the foundation of the bike network, including the Umpqua River Trail.
- **Class 2 Facility** – Road-adjacent, physically separated bikeway. Only a few of these are present in Roseburg, including the protected shared sidewalk on the Oak Avenue Bridge.
- **Class 3 Facility** – Shared roadway designated for bikes with striping or signing; this includes roads with bike lanes on collector or arterial streets. These facilities share the road with motor vehicles. This is the most common class of bike facility in Roseburg.

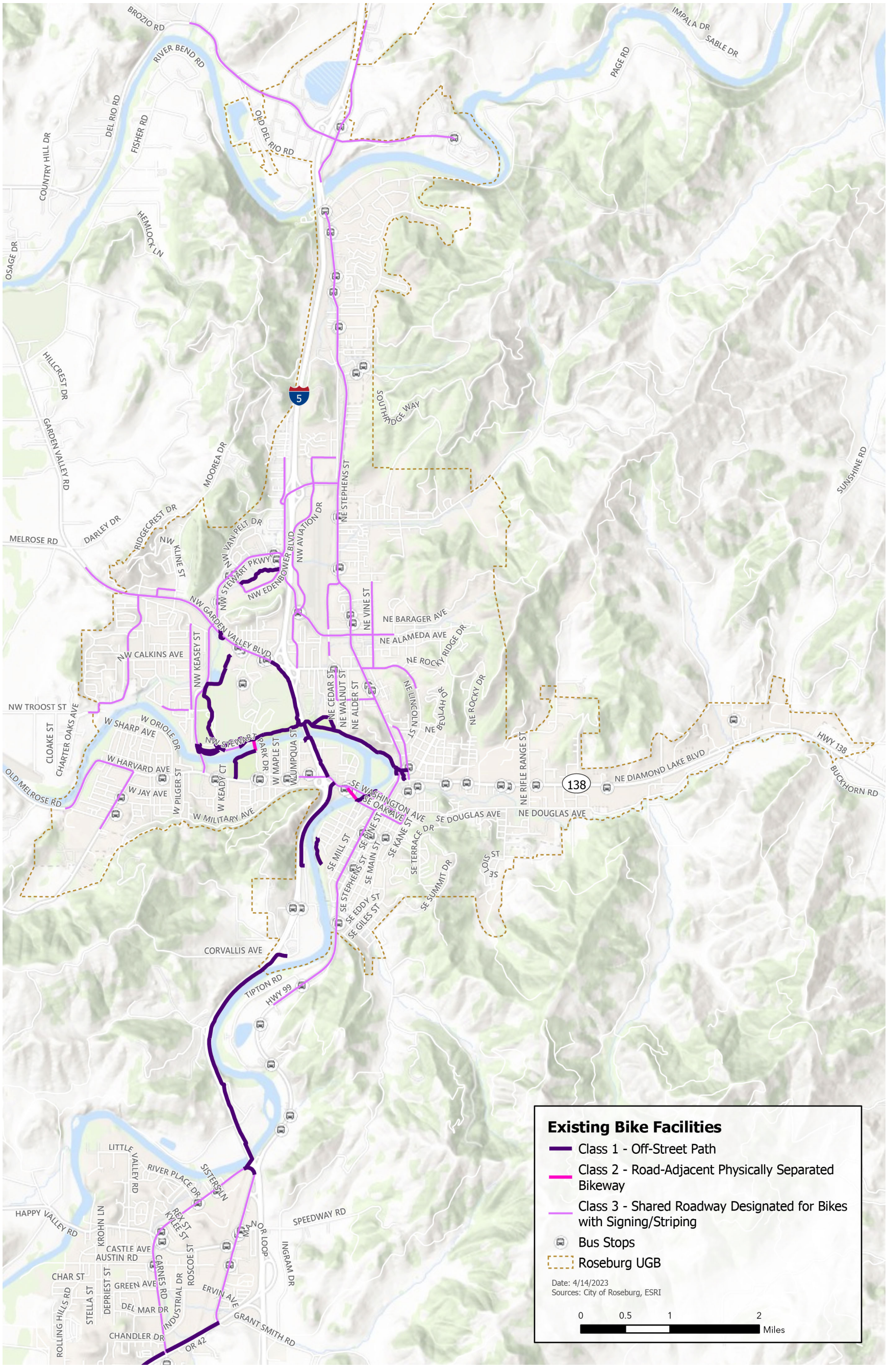


Figure 2-1. Existing Bike Facilities in Roseburg

2.1.3 Gaps and Needs Summary

Roseburg’s biking gaps and needs were derived from the Roseburg TSP, an existing conditions analysis, and feedback from the Advisory Committee, City staff, and other stakeholders. The need for a cohesive, low-stress system was identified in the TSP. In addition to needing better connections of bike facilities, analysis of the existing network’s level of bicycle level of traffic stress (BLTS) found that many existing bike facilities have a high level of stress.

BLTS is a qualitative measure of the perceived stress of a bike facility based on the speed and proximity of adjacent motor vehicle traffic.⁴ The assessment grades bike facilities on a scale of 1 to 4. BLTS 1 is the lowest stress and most comfortable, appropriate for people of all ages and abilities. BLTS 4 is the highest stress and least comfortable, and requires people to bike in close proximity to fast-moving motor vehicles. BLTS 4 is appropriate only for people who are strong and fearless on a bike.

A BLTS analysis of the existing bicycle facilities developed for the TSP reveals a high quantity of routes rated BLTS 3 and BLTS 4, indicating high levels of traffic-based stress and low levels of comfort for people biking in Roseburg (see Figure 2-3). In practice, people who are uncomfortable riding on the street often choose to bike on the sidewalk (see Figure 2-2).



Figure 2-2. Young People Biking on the Sidewalk of Harvard Ave

Major bike network needs in Roseburg include:

- **Bicycle Level of Traffic Stress** – Many existing bicycle facilities have a high BLTS, indicating high levels of traffic-based stress and low levels of comfort for people biking.
- **Physical Barriers** – The existing bike network has a strong foundation of multi-use paths through the city’s park system. However, beyond these paths, physical barriers such as Interstate 5 (I-5), the South Umpqua River, and hilly terrain create challenges for establishing a connected and comfortable system.
- **Lack of Connectivity** – Gaps in the bike network likely discourage those who may be interested in biking from doing so because existing facilities are not set up to serve users of all abilities. Many segments of the current system share the road with high volumes of fast-moving motor vehicles, which may feel uncomfortable and unsafe for people biking or driving. The lack of connectivity also makes it so people who are willing to bike often use routes that lack bike facilities.

⁴ For more details about BLTS, see section 14.4 in ODOT’s *Analysis Procedures Manual Version 2* (2020).
<https://www.oregon.gov/ODOT/Planning/Pages/APM.aspx>

- **Bikes on Sidewalk** – People will sometimes bike on the sidewalk because it feels safer than the roadway. The sidewalk is often crossed by driveways, and drivers do not consistently stop and look before crossing the sidewalk, posing a safety risk for people biking on the sidewalk. Biking on the sidewalk can also create safety concerns for people walking or using a mobility device on the sidewalk.
- **Lack of Signage** – Existing bike route signs are not placed consistently. Not all bike routes have signs, and signs do not always indicate the presence of a bike facility.

The projects in this Bike Routes Plan seek to address deficiencies in the existing bicycle network and gaps in connectivity. Programmatic concepts aim to increase the awareness of biking in Roseburg and encourage people to bike.

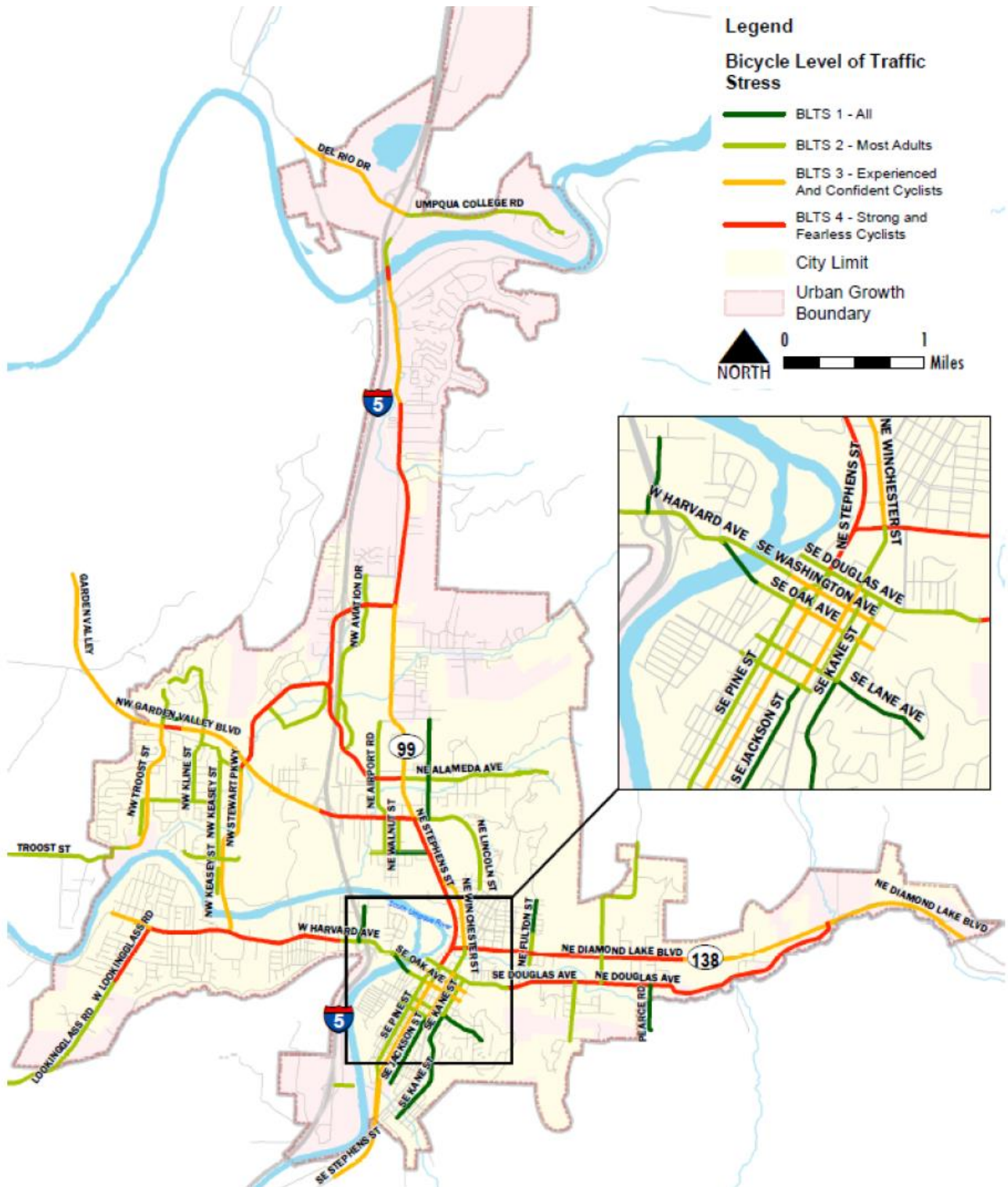


Figure 2-3. BLTS of Bicycle Routes

Image source: Roseburg 2020 TSP

2.2 Future Conditions

This Roseburg Bike Routes Plan builds on the 2020 TSP and other plans that have already been developed, and its implementation should be coordinated with other projects in progress. Plans that impacted the development of the Roseburg Bike Routes Plan are outlined below. For a full description of relevant plans, see Appendix A: Memo 1 – Existing and Future System Conditions.

Roseburg TSP – Projects identified in the TSP aim to address identified deficiencies and gaps in connectivity, amenities, safety, and operations. Many of these projects directly improve the bicycle network or include opportunities to improve bicycle facilities within the project area.

Diamond Lake Corridor Plan –The plan will consider how OR 138 (Diamond Lake Boulevard), and other routes in the corridor, can be improved to accommodate multimodal travel and support the development planned through the Urban Renewal Plan.⁵ This planning effort is currently underway.

Planned Capital Improvement Projects – Roseburg’s 2021–2025 Capital Improvement Plan is a 5-year plan for implementing facility and infrastructure improvements for the street system, bike network, water system, and storm drainage system, among others.

Pavement Maintenance Plan – This is a 5-year plan for maintaining pavement on city roads. Repaving projects (overlay, grind and inlay, or slurry seal) require restriping, which creates opportunities to improve the bike facilities with new striping and minimal additional resources.

⁵ The purpose of the Diamond Lake Urban Renewal Plan (2018) is to improve underdeveloped areas of the City (within the Diamond Lake Urban Renewal Area). This plan details planned improvements to the transportation system within the Urban Renewal Area, including multimodal connections and safety.

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3. PREFERRED BICYCLE NETWORK

3.1 Bicycle Facility Types

Each bike route is composed of bike facility treatments. This section describes common existing and proposed bike facilities for Roseburg bike routes. For a more detailed description of bicycle facility types, see Appendix E: Memo 5 – Final Project Alternatives.

Path – Within this plan, a path, sometimes called a *multi-use path* or *shared-use path*, is a paved facility used for walking, biking, mobility devices, and other small devices (such as skateboards, scooters, and roller skates). Paths are considered Class 1 bike facilities and are comfortable to bike along for people of all ages and abilities. Similar to the design shown in Figure 3-1, paths can often be found in parks, such as the existing Umpqua River Trail that travels through Stewart Park, Riverfront Park, and Gaddis Park.

Roseburg’s existing path network is a great asset for biking and is intended to be the foundation of the future bike route system. Many of the routes included in this plan connect with Roseburg’s path network and radiate out to other areas in the city.

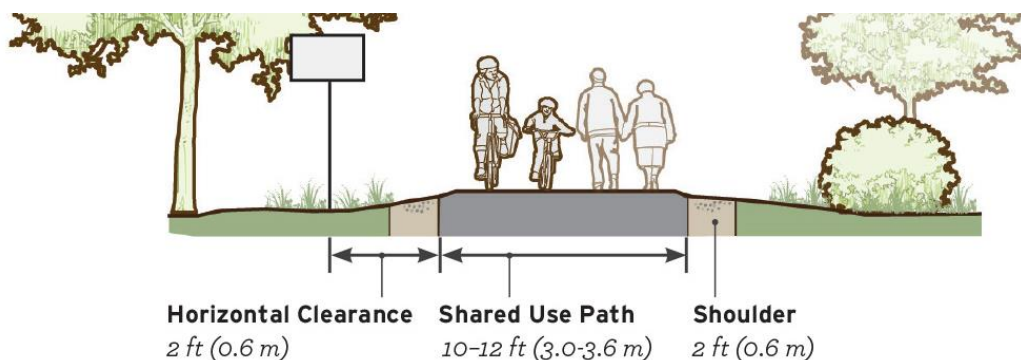


Figure 3-1. Path Design

Image source: FHWA Rural Design Guide

Separated Bike Lanes – Within this plan, *separated bike lanes* include *protected bike lanes* (bike lanes separated by a barrier such as a median, flexible delineators, or on-street parking) and *buffered bike lanes* (separated by a painted buffer of 2 feet or more). Protected and buffered bike lanes are grouped together here because they require a similar amount of space to implement and because a buffered bike lane can have physical barriers added to it to create a protected bike lane. Separated bike lanes are considered Class 2 bike facilities. Separated bike lanes generally feel more comfortable and safer than traditional bike lanes. Separated bike lanes can be designed for two-way travel or one-way travel on each side of the street, with bikes moving in the same direction as motor vehicles as shown in Figure 3-2.



Figure 3-2. Separated Bike Lanes

Left: One-Way Buffered Bike Lane in Corvallis, OR. Source: City of Corvallis

Middle: Protected Bike Lane. Source: NACTO Urban Bikeway Design Guide.

Right: Two-Way Separated Bike Lane with Flexible Delineators in Seattle

Standard Bike Lane – Standard bike lanes are visually separated from automobile traffic by striping or pavement markers as shown in Figure 3-3. They are intended to be used exclusively for biking without interference from motor vehicles. They run adjacent to traffic lanes, typically in the same direction as motorized traffic, and are not physically separated from motorized traffic. Standard bike lanes are considered Class 3 facilities. Roseburg has existing standard bike lanes along many of its roads including NE Garden Valley Boulevard, NE Stephens, NW Edenbower Boulevard, NW Stewart Parkway, and others.

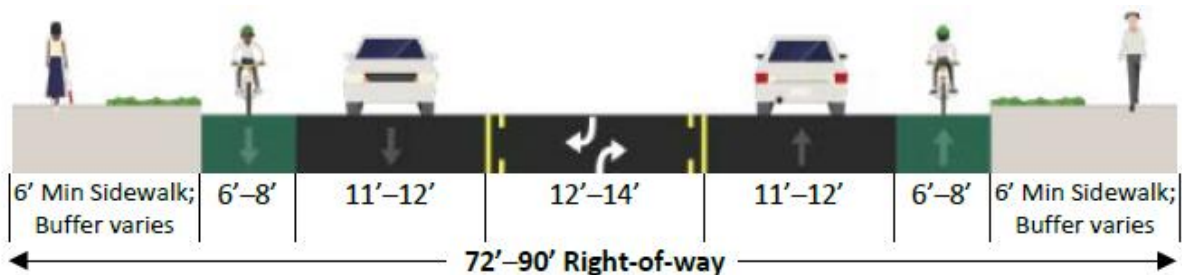


Figure 3-3. Standard Bike Lanes in a Three-Lane Arterial Standard Configuration

Image source: Roseburg TSP

Bicycle Boulevard – A *bicycle boulevard*, sometimes called a *greenway*, is a shared-lane facility where bike traffic and motorized traffic use the same lane without separation as shown in Figure 3-4. Bicycle boulevards are considered Class 3 facilities. When implemented on quiet streets, bicycle boulevards can be pleasant to bike along and comfortable for people of all ages and abilities. They should be implemented only on roadways where traffic volumes are under 1,500 vehicles per day and speeds are 25 miles per hour or less, such as on local streets. Bicycle boulevards are marked with shared lane markings, or *sharrows*, for wayfinding and to remind drivers that people may be biking on the roadway. Bicycle boulevards include directional signs and pavement markings to create a continuous route that is easy to navigate. Traffic calming measures help improve comfort and safety.

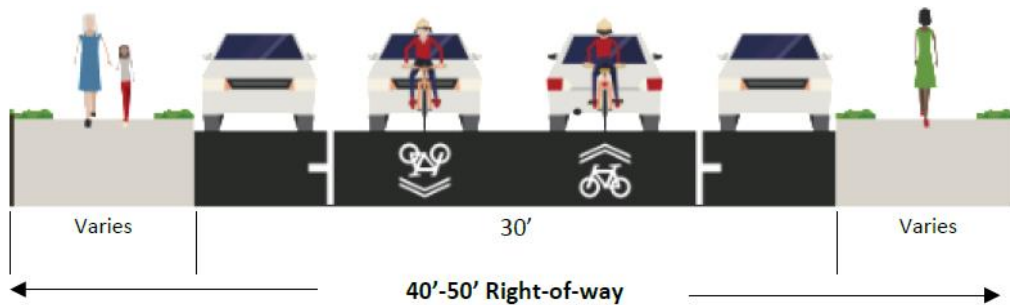


Figure 3-4. Bicycle Boulevard Cross Section

Image source: Roseburg TSP

Bikes on Sidewalk – Because of the established land use and transportation network, some bike routes must use a busy road that lacks dedicated bike facilities. An example of this is Harvard Avenue, which lacks a dedicated bike facility and also lacks a parallel alternative route. In situations like this, some bike route alternatives propose directing people to bike on the sidewalk until a dedicated bicycle facility can be implemented. Signs would direct people biking to yield to pedestrians, similar to the shared sidewalk shown in Figure 3-5. Biking on the sidewalk would be more comfortable than biking in traffic for younger or less experienced riders. This can already be seen today as people choose to bike on sidewalks instead of on the road. People would still be able to bike with motorized traffic if they choose to.

Bikes on sidewalk treatments are not intended to be long-term solutions. Sidewalks along these roads tend to be relatively narrow (6 feet or narrower) and so are not ideal for mixing walking and biking. The presence of obstacles, including utility poles, signs, and trees, reduces the width of a sidewalk even further. The long-term solution would be a dedicated facility for biking or a facility that is sized appropriately for shared use.



Figure 3-5. Bikes on Sidewalk Treatment in Portland

3.1.1 Bicycle Level of Traffic Stress

The first goal of this project is to “develop accessible bike routes for all users.” To be accessible for all users, bike routes must be comfortable and low stress. The BLTS, discussed in section 2.1, is one measure used to assess perceived stress for people biking. The measure uses motor vehicle speed and proximity to determine an approximate stress level.

BLTS is a useful, high-level assessment of conditions for biking. However, it is not a perfect or comprehensive tool. Factors beyond what is considered with BLTS can influence a person’s perceived stress while biking. These factors should also be considered for making the bike network as comfortable as possible.

Some examples of stress-contributing factors that are not included in the BLTS assessment are:

- Topographical conditions, namely steep or long hills.
- Poor pavement conditions or insufficient maintenance.
- Driveway density and traffic.
- Drivers using the bike lane for parking or loading.
- Proximity of parked cars.
- Sight lines.
- Lighting.
- Noise.
- Air quality.
- Weather.

Many of the new bike routes in this plan are expected to provide a BLTS of 1 or 2 that would be comfortable for most people. However, a number of existing facilities have a high BLTS of 3 or 4 (see Figure 2-3). Additionally, planned facilities may ultimately include segments with a higher level of stress for biking than desired.

The City should consider each high stress location and apply strategies that would be effective and timely, given the conditions and constraints. ODOT lists potential strategies for decreasing stress in section 14.4.10 of ODOT's *Analysis Procedures Manual Version 2* (2020).⁶ Relevant strategies are adapted and summarized below and combined with additional strategies from the project team:

- Upgrade the existing facility to provide more separation from motor vehicle traffic, with facilities such as separated bike lanes, protected bike lanes, or paths.
- Remove parking or reduce the number of driving lanes to create more space for biking.
- Reduce speeds through traffic calming (see section 3.3 below), speed limit enforcement, or education about speed.
- Improve pavement conditions and remove debris and vegetation along bike routes, especially in bike lanes.
- Add flashing beacons at crossing locations.
- Provide grade-separated crossings over highways or railroads.
- Add two-stage left-turn bike boxes.
- Add bike signals to clarify bike movements.
- Plant trees for shade and to improve visual, air, and noise quality.
- Add or improve illumination.
- Consolidate and clarify driveways to reduce potential conflict points.

⁶ <https://www.oregon.gov/ODOT/Planning/Pages/APM.aspx>

3.2 Bicycle Network Projects

Bike route projects were developed to create a coherent network of bike routes that reaches a broad area of the city and consider factors such as safety, comfort, directness, transit access, and destinations in their planning. For example, planned bike routes connect with Roseburg bus routes throughout the city and to downtown Roseburg (see Figure 3-6), where people can catch intercity transit and the planned future Downtown Transit Center. Projects were shaped around the Bike Routes Plan objectives and evaluated based on criteria from these objectives.

Bike route projects are organized by implementation phase — existing, short-term, medium-term, and long-term — and by location within the city — northwest, northeast, southwest, and southeast. Planning-level cost estimates are also reported for each project.

Phasing

Projects are organized by four implementation phases:

- *Existing* – Routes on facilities that have already been implemented (but route signs would still be needed).
- *Short-term* – Implement within 5 years.
- *Medium-term* – Implement within 10 years.
- *Long-term* – Implement in 10 to 20 years.

Projects that would be beneficial but are not likely to be implemented within 20 years are considered *Aspirational* (see section 3.2.7 below).

Phasing was determined from various factors:

- The need for the improvement.
- How well the project addresses the evaluation criteria.
- The estimated cost and potential of available funding.
- The amount of coordination needed to implement.
- The likely level of community support.
- Alignment with existing policies and plans including the TSP and Comprehensive Plan.

Bicycle “Connectors” Versus “Routes”

Bike routes are intended to be comfortable, safe, and easy for people to use. Important aspects to their design are:

- Routes would bring people to or near destinations.
- Routes would join with existing trails and paths where possible.
- Routes would be long enough to be identifiable and collectively form a network.
- Routes would be named to simplify wayfinding.

However, a handful of short segments have existing bike facilities or are opportune locations to add new bike facilities, but they are generally too short to be considered standalone *routes*. Instead of carrying people through the city, these segments provide short connections between designated bike routes or to destinations that are near but off of the designated bike routes. These *connectors* would have bike

facilities and wayfinding just as routes would, but they would not be named. Proposed connectors are displayed in the full bike network map (Figure 3-6).

3.2.1 Cost Estimates

Planning-level cost estimates associated with bike route projects were developed to help understand the relative costs for each project. Cost estimates are detailed in Appendix H: Cost Estimates. Estimates are based on construction costs for the proposed bike facilities. Calculations used estimated unit costs for each improvement type and dimensions from aerial imagery. These are high-level estimates and should be refined as projects progress beyond this plan.

Estimates are in 2021 U.S. dollars. At the time of writing this plan (November 2022), the annual rate of inflation for construction costs is estimated to be near 15 percent or higher. To help account for present inflation and other unknowns, these cost estimates include a 40 percent contingency. If construction costs continue to escalate, cost estimates may need to be revised upward when seeking project funding.

Generally, this type of cost estimate is a Class 5 estimate, ranging -30 percent to +50 percent. Estimates are for both capital costs and owner costs and include materials, labor rates, and equipment.

Estimates do not include costs associated with:

- New roadway construction, structural work (such as bridge work or retaining walls), or roadway maintenance.
- Project finance costs.
- Escalation to year of expenditure.
- Unforeseen subsurface or existing conditions.
- Construction contingency (change order contingency).
- Owner's contingency.
- Right of way acquisition.
- Utilities.

Estimates for projects do not include intersection enhancements, crossing improvements, traffic calming treatments, provisions, or amenities. Those can be added as needed from the menu of options (see Table 3-6, Table 3-7, Table 3-9, and Table 3-10).

Several assumptions were made to streamline the process for these initial planning estimates:

- Costs do not include maintenance or new signage to improve existing bike facilities.
- Costs for bike lanes include striping of a buffer.
- Costs for separated bike lanes include striping and flexible delineator posts. Estimates do not include costs for curb separation. Costs for separated bike lanes assume a lane on each side of the road. (A two-way bike lane on one side of the road would generally cost less.)
- Costs for bikes on sidewalk improvements include signs and pavement markings. They do not include striping, sidewalk repair, or ramps.
- Costs for a single bike lane were estimated as a bike lane on both sides.
- Costs for paths assume a 12-foot-wide paved surface, though actual widths will depend on future design and constraints specific to each location.

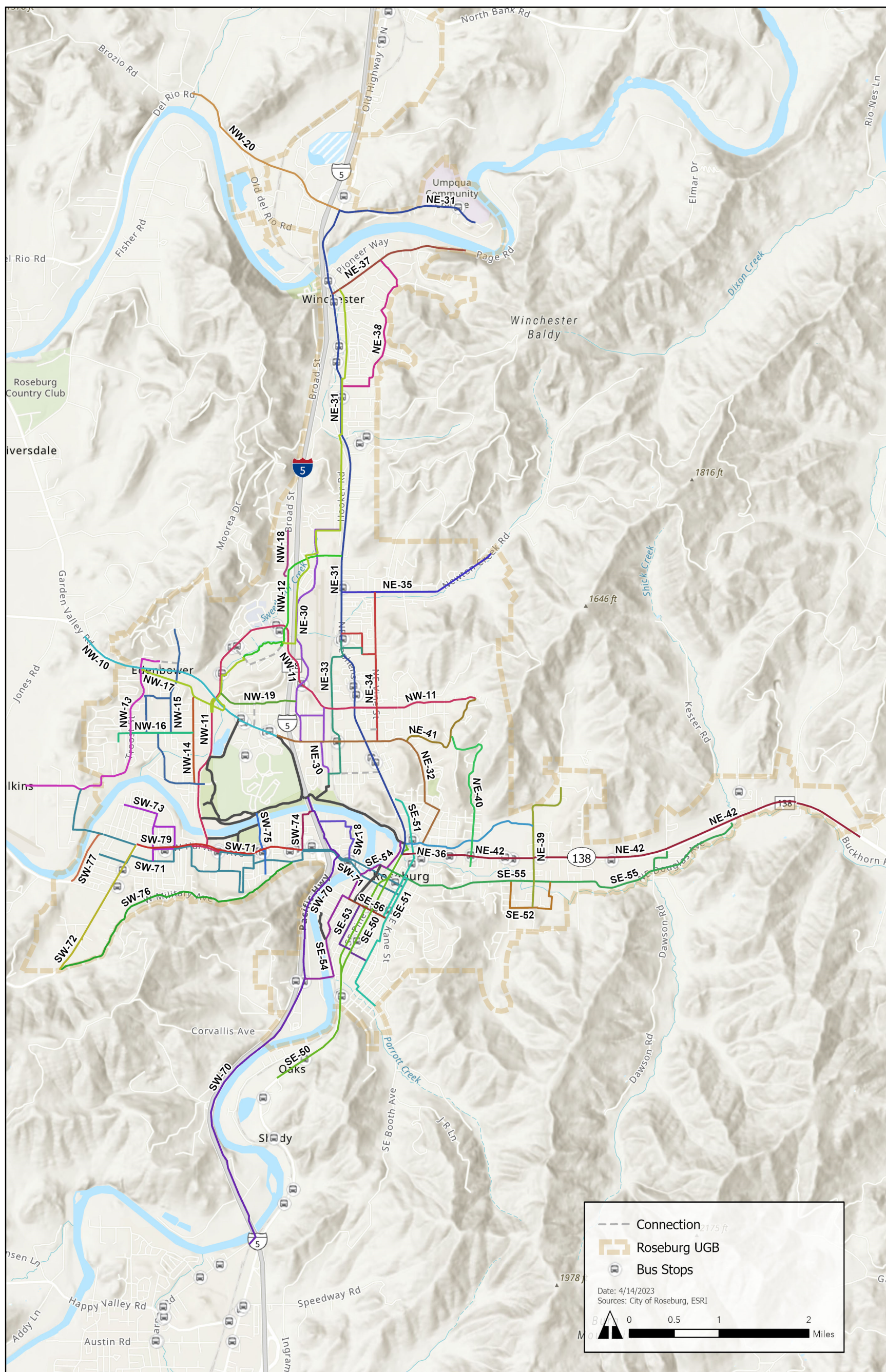


Figure 3-6. Full Bike Route Network

3.2.2 Full Network

The vision for the full bike network, with all routes implemented, is shown in Figure 3-6, as well as in the interactive [Companion Map](#). This includes existing, short-term, medium-term, and long-term phased projects. Routes were developed to lead to destinations and connect with the existing trail and path network in the heart of the city.

ID Numbers

Each route was assigned an ID number to simplify identification during the planning process. ID numbers were not intended to be used after routes are implemented. Instead, routes would be referred to by their names. Route names developed for this Bike Routes Plan are primarily for internal project development purposes. The City may wish to change route names for public use and should consider public engagement opportunities to involve the community in developing route names.

The first two characters in the ID are derived from the geographic quadrant of the city (divided by the Umpqua River, I-5, and OR 138) the route is primarily located in. (Note that a few routes, including NW-11, extend beyond their primary quadrant.) The last two digits are a unique number for each route. Each quadrant was allocated 20 numbers for up to 20 routes. Each quadrant has 13 or fewer routes in this plan, so it is possible to accommodate additional routes with this numbering system. The quadrants and numbering are described in Table 3-1.

Table 3-1. Route Naming Convention

Quadrant	Description	Allocated Numbers	Routes Used in Plan
NW	North of the South Umpqua River, west of I-5	NW-10 to NW-29	NW-10 to NW-20
NE	North of the South Umpqua River or Deer Creek, east of I-5	NE-30 to NE-49	NE-30 to NE-42
SE	South of the South Umpqua River or Deer Creek, east of the South Umpqua River	SE-50 to SE-69	SE-50 to SE-56
SW	South and west of the South Umpqua River	SW-70 to SW-89	SW-70 to SW-79

Additional identifiers are appended to the number when subsequent phases of improvement are proposed for a route or when an alternative alignment is possible for the same route. These mostly appear in long-term projects when an extension of a route is proposed (Ext), a long-term improvement is proposed (LT), or an alternative alignment is proposed (Alt).

Paths that serve many bike routes will be important connectors in the future bike system. For the route naming, these paths are treated as destinations — routes will lead to the path, then a person can follow the path to another route to reach a further destination. This simplifies the route naming and it allows paths, such as the Umpqua River Trail, to maintain its current identity.

3.2.3 Existing Facilities

The bike route network would start with facilities already on the ground, such as existing paths and bike lanes. The routes listed here currently have adequate facilities and could be implemented with only additional signage. Cost estimates for bike routes on existing facilities were not calculated because they do not require construction of additional facilities. Some short-term and medium-term route projects

also include existing facilities, but these would require additional improvements beyond the existing facilities.

Routes from existing facilities are listed in Table 3-2 and are displayed in Figure 3-7. Routes are also displayed in the interactive [Companion Map](#).

Table 3-2. Existing Facility Routes

ID	Name	Description and Notes	Facilities
NW-10	Garden Valley West	Existing bike lanes on NW Garden Valley Blvd west of I-5 connect with existing path at the I-5 interchange.	Existing bike lanes <ul style="list-style-type: none"> NW Garden Valley Blvd
NW-12	Newton Creek-Edenbower	Route follows existing Newton Creek path and bike lanes on NW Edenbower Blvd. Will connect with Valley View-Winchester route (NW-17) in the long-term network. Newton Creek path would benefit from curb cuts to provide access from Renann Street and Edenbower Blvd (curb cuts are not included in cost estimates).	Existing bike lanes <ul style="list-style-type: none"> NW Renann St NW Edenbower Blvd Existing path <ul style="list-style-type: none"> Newton Creek path in Charles Gardiner Park
NW-13	Troost	Existing bike lanes on NW Troost St from NW Garden Valley Blvd to Katie Dr.	Existing bike lanes <ul style="list-style-type: none"> NW Troost St
NW-14	Keasey	Route follows existing bike lanes on NW Keasey St.	Existing bike lanes <ul style="list-style-type: none"> NW Keasey St
NW-18	Broad	Existing bike lanes continue north of Edenbower to the community on the west side of I-5.	Existing bike lanes <ul style="list-style-type: none"> NW Valley View Dr
NE-35	Newton East	Existing bike lanes on NE Newton Creek Rd connect to neighborhood east of airport.	Existing bike lanes <ul style="list-style-type: none"> NE Newton Creek Rd
NE-41	Rocky Ridge	Route from NE Garden Valley Blvd into residential areas on existing bike lanes.	Existing bike lanes <ul style="list-style-type: none"> NE Rocky Ridge Rd
SW-72	Lookingglass	Route along existing bike lanes on Lookingglass Rd.	Existing bike lanes <ul style="list-style-type: none"> Lookingglass Rd
SW-77	Old Melrose	Existing bike lanes on Old Melrose Rd continue south from the west end of Harvard Ave.	Existing bike lanes <ul style="list-style-type: none"> Old Melrose Rd

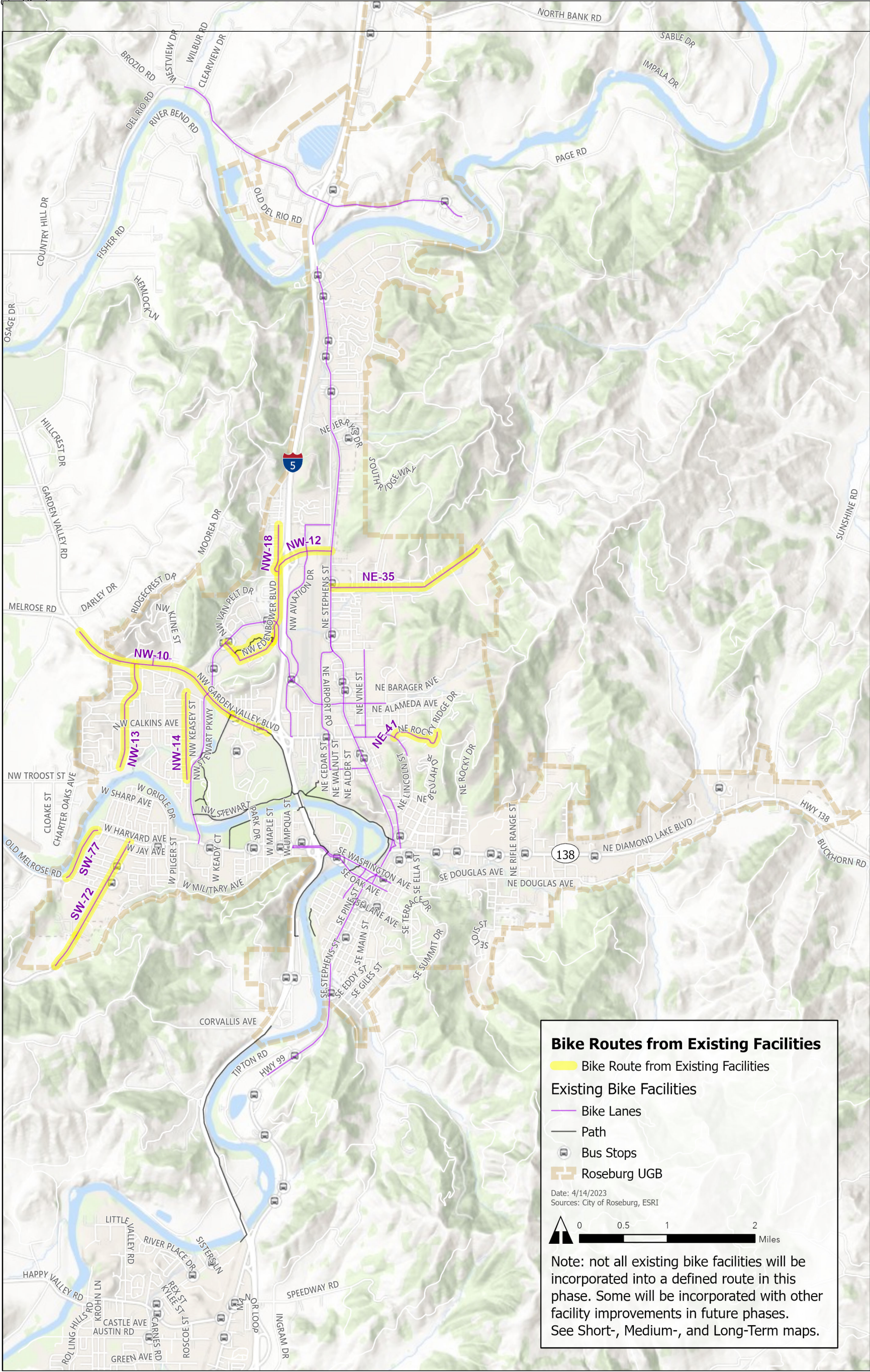


Figure 3-7. Bike Routes from Existing Facilities

3.2.4 Short-Term Routes

Short-term projects implement relatively straightforward treatments, such as sharrows and signs for bicycle boulevards, to quickly establish continuous, connected routes. These are the “low-hanging fruit” of the projects and were chosen to make early progress in priority locations and build momentum for more complex bike routes in the future.

Short-term routes serve important destinations, such as schools, or make important connections to the existing path network. Short-term routes were chosen so that improvements would be geographically distributed through the city. Short-term routes are intended to be the first phase of implementation, built within 5 years.

Short-term routes are listed in Table 3-3 and are displayed in Figure 3-8. Routes are also displayed in the interactive [Companion Map](#).

Table 3-3. Short-Term Route Projects

ID	Name	Cost Estimate	Description and Notes	Facilities
NW-15	Hucrest	\$270,000	North-south route connects to Hucrest Elementary on neighborhood streets.	Bicycle boulevard (0.92 mi) <ul style="list-style-type: none"> NW Kline St NW Calkins Ave NW Jefferson St Bike lanes (0.78 mi) <ul style="list-style-type: none"> NW Kline St NW Harvey St
NW-20	Del Rio	(Existing facility)	Route on Del Rio Rd extending west from NE Stephens St to the Roseburg UGB, where it would connect with Douglas County bike facilities. This is included in the short-term group of projects so it would be implemented at the same time as the Stephens to UCC route (NE-31).	Existing bike lanes <ul style="list-style-type: none"> Del Rio Rd
NE-30	Aviation-Highland	\$27,000	Existing bike lanes on General Ave, Aviation Dr, and NW Mulholland Dr cross NW Garden Valley Blvd with bikes on the south sidewalk and continue south on NW Highland St. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Existing bike lanes <ul style="list-style-type: none"> NW Mulholland Dr Aviation Dr General Ave Bicycle boulevard (0.28 mi) <ul style="list-style-type: none"> NW Highland St Bikes on sidewalk (0.17 mi) <ul style="list-style-type: none"> NW Garden Valley
NE-30 Alt	Aviation-Highland Alternative	\$29,000	A potential new pedestrian crossing of NW Garden Valley Blvd near Fairmount St would create an opportunity for a more comfortable north-south route with less travel along NW Garden Valley Blvd. Requires crossing improvement.	Bicycle boulevard (0.48 mi) <ul style="list-style-type: none"> NW Cecil Ave NW Fairmount St

ID	Name	Cost Estimate	Description and Notes	Facilities
NE-31	Stephens to UCC	\$12,000	Existing bike lanes on NE Stephens (OR 99) connect Garden Valley Blvd with Winchester and Umpqua Community College to the north. Sharrows and signage at the gap in the bike lanes on the bridge crossing the North Umpqua River. The bridge deck is 24 feet curb-to-curb.	Existing bike lanes <ul style="list-style-type: none"> NE Stephens St Umpqua College Rd Sharrows and signs (0.20 mi) <ul style="list-style-type: none"> North Umpqua River Bridge
NE-32	Lincoln	\$130,000	Connects the existing bike lanes on NE Garden Valley Blvd with a bike route that continues east and south along NE Lincoln St, NE Malheur Ave, and NE Jackson St. Because of grade on NE Lincoln St, the proposed facility is a bike lane in the uphill direction and a bicycle boulevard treatment in the downhill direction.	Existing bike lanes <ul style="list-style-type: none"> NE Garden Valley Blvd Bike lane/Bicycle boulevard (0.35 mi) <ul style="list-style-type: none"> NE Lincoln St Bicycle boulevard (0.44 mi) <ul style="list-style-type: none"> NE Malheur Ave NE Jackson St
NE-34	Vine	\$27,000	North-south route parallel to NE Stephens St through neighborhood and to Joseph Lane Middle School. Bicycle boulevard treatment connects existing bike lanes on NE Vine St to NE Stephens St.	Existing bike lanes <ul style="list-style-type: none"> NE Vine St Bicycle boulevard (0.45 mi) <ul style="list-style-type: none"> NE Meadow Ave NE Kerr St NE Hewitt Ave
NE-36	Odell	\$21,000	East-west route through neighborhood parallel to NE Diamond Lake Blvd. Connects to path in Deer Creek Park. Would continue east to Rifle Range Rd in the long-term network.	Bicycle boulevard (0.35 mi) <ul style="list-style-type: none"> NE Odell Ave NE Rowe St
SE-51	Downtown East	\$120,000	North-south route through neighborhood east of downtown. Parallels SE Stephens St (OR 99). Route shifts on to SE Hamilton St because it is lower traffic and has less elevation.	Existing bike lanes <ul style="list-style-type: none"> NE Winchester St Bicycle boulevard (1.90 mi) <ul style="list-style-type: none"> NE/SE Jackson St SE Douglas Ave SE Main St SE Orcutt Ave SE Hamilton St SE Booth Ave
SE-52	Eastwood	\$27,000	Connects to Eastwood Elementary School from NE Douglas Ave.	Bicycle boulevard (0.45 mi) <ul style="list-style-type: none"> SE Ramp Rd SE Waldon Ave
SE-53	Mill-Roberts	\$39,000	Route connects the area between OR 99 and the railroad south of downtown.	Bicycle boulevard (0.64 mi) <ul style="list-style-type: none"> SE Mill St SE Burke St SE Stephens St SE Roberts Ave

ID	Name	Cost Estimate	Description and Notes	Facilities
SE-54	Micelli	\$36,000	Bikeway between the railroad and the South Umpqua River connects Micelli Park and Deer Creek Park.	Existing path <ul style="list-style-type: none"> Riverside Park and SE Pine St Bicycle boulevard (0.60 mi) <ul style="list-style-type: none"> SE Flint St SE Mosher Ave SE Fullerton St SE Micelli St
SE-56	Mosher	\$94,000	East-west route across railroad and OR 99 south of downtown. Proposed as bike lanes, but could be a bicycle boulevard treatment.	Bike lanes (0.35 mi) <ul style="list-style-type: none"> SE Mosher Ave
SW-71	Harvard Neighborhoods (bicycle boulevards)	\$146,000	East-west route south of the South Umpqua River connecting the west side of the city with downtown. Uses neighborhood streets as much as possible to avoid traffic on W Harvard Ave. Connects neighborhood segments with bikes on the south sidewalk of W Harvard Ave. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees. Consider implementing bike lanes on Harvard Ave when there are opportunities to restripe. Driving lanes could be narrowed, which would help calm traffic and allow dedicated lanes for biking.	Existing bike lanes <ul style="list-style-type: none"> W Harvard Ave (west of Lookingglass Rd and east of W Umpqua St) SW/SE Washington Ave SW/SE Oak Ave Bicycle boulevard (1.87 mi) <ul style="list-style-type: none"> W Shasta Ave W Jay Ave W Kenwood St W Francis St W Bertha Ave W Stanton Ave W Fairhaven St W Brown Ave Military Ave W Umpqua St Bikes on sidewalk (0.43 mi) <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, Kenwood St to Francis St W Harvard Ave, south sidewalk, Stanton St to Fairhaven St
SW-73	Fullerton	\$62,000	Route through neighborhood connects with Fullerton Elementary School. Bikes on sidewalk treatment along both sides of W Harvard Ave connect to marked crossing between W Shenandoah St and W Fair St. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Bicycle boulevard (0.67 mi) <ul style="list-style-type: none"> W Sharp Ave W Broccoli St Bikes on sidewalk (0.35 mi) <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, W Shenandoah St to W Fair St W Harvard Ave, north sidewalk, W Shenandoah St to W Fair St

ID	Name	Cost Estimate	Description and Notes	Facilities
SW-74	Umpqua Street	\$20,000	A comfortable neighborhood connection between W Harvard Ave and River Front Park using the I-5 bridge over the South Umpqua River.	Bicycle boulevard (0.32 mi) <ul style="list-style-type: none"> W Umpqua St

Ave = avenue; Blvd = boulevard; Dr = drive; mi = miles; St = street; UCC = Umpqua Community College
See section 3.2.1 Cost Estimates for details about project cost estimates.

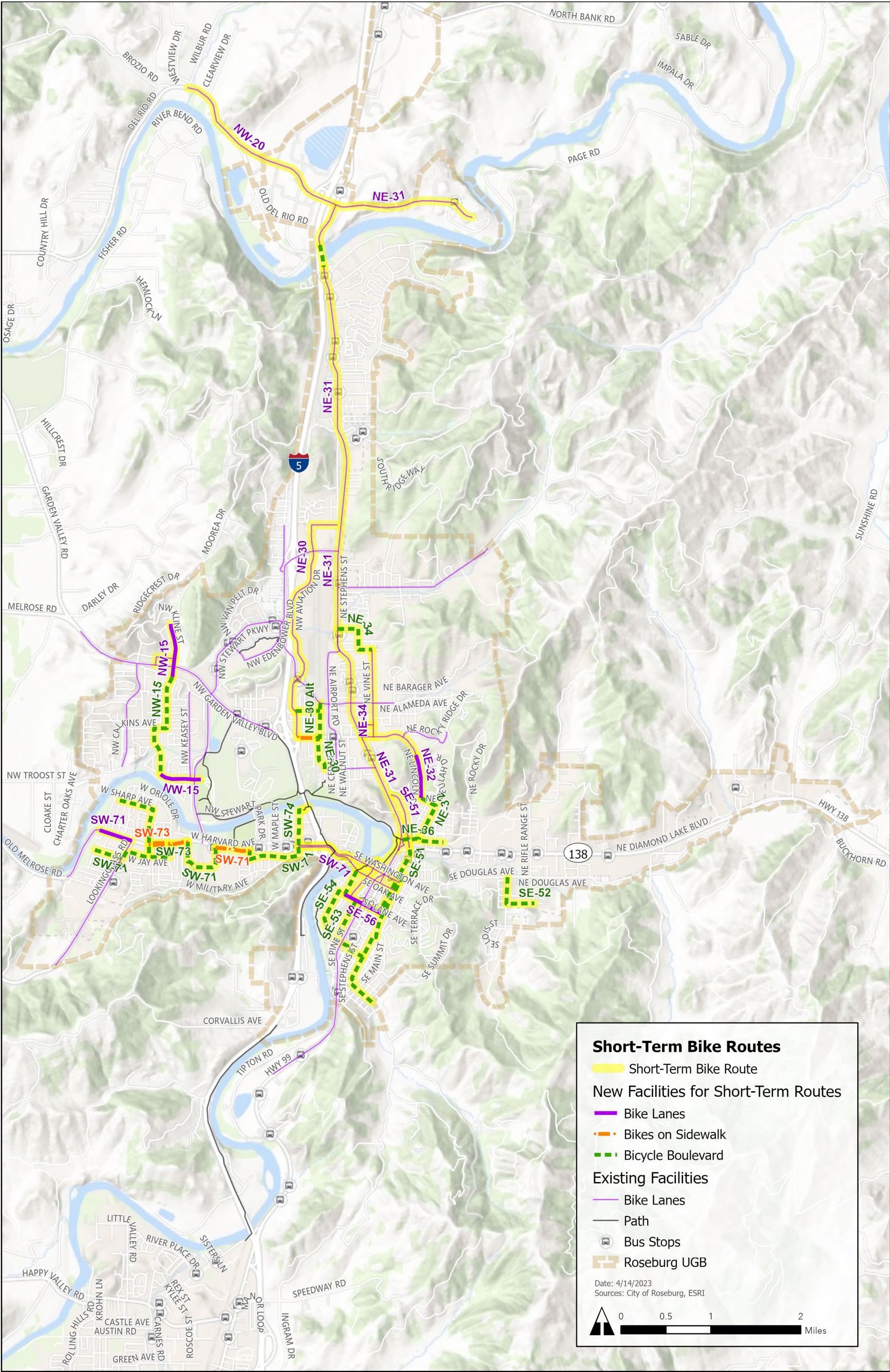


Figure 3-8. Short-Term Bike Routes

3.2.5 Medium-Term Routes

Medium-term route projects are intended to be implemented within 10 years. These projects include treatments that may require more resources or coordination to implement than short-term projects. These projects also include improvements that are not as high priority as those in the short-term network but that are still important for the bike system. Examples include bikes on sidewalk treatments and extensions of short-term bicycle boulevard routes.

Medium-term routes may be implemented simultaneously with short-term routes when favorable opportunities arise. For example, if a medium-term route is scheduled for maintenance or if a medium-term route is proximate to a short-term route that is being implemented, work could be combined.

Medium-term route projects are listed in Table 3-4 and are displayed in Figure 3-9. Routes are also displayed in the interactive [Companion Map](#).

Table 3-4. Medium-Term Route Projects

ID	Name	Cost Estimate	Description and Notes	Facilities
NW-11	Stewart-Alameda	\$180,000	Route primarily on existing bike lanes of NW Stewart Pkwy and NE Alameda Ave. Short bicycle boulevard treatment extends the route further into the neighborhood on the east. A sidewalk treatment on the south side of W Harvard Ave connects the route to the proposed Harvard route (SW-71). Bike lanes on the Stewart Pkwy bridge over the South Umpqua River would be improved to be wider and protected either as part of a new bridge or from reconfiguring lanes on the existing bridge. Bikes on sidewalks may encounter obstacles including utility poles, signs, and trees.	Existing bike lanes <ul style="list-style-type: none"> NW Stewart Pkwy NE Alameda Ave Bicycle boulevard (0.39 mi) <ul style="list-style-type: none"> NE Alameda Ave Bikes on sidewalk (0.23 mi) <ul style="list-style-type: none"> W Harvard Ave, south sidewalk, Francis St to Stanton St Separated bike lanes (0.18 mi) <ul style="list-style-type: none"> NW Stewart Pkwy bridge
NW-13 Ext	Troost Extension	\$540,000	Route improves existing bike lanes by repurposing one or both lanes of underutilized on-street parking to create separated bike lanes between NW Garden Valley Blvd and Katie Dr. Extends route further west into neighborhood with a bicycle boulevard treatment on NW Troost St. Extends route further north to NW Hughwood Dr with a bike lane in the uphill direction and sharrows in the downhill direction. Continues east on NW Hughwood Dr to connect with existing bike lanes.	Separated bike lanes (0.71 mil) <ul style="list-style-type: none"> NW Troost St Bicycle boulevard (0.91 mi) <ul style="list-style-type: none"> NW Troost St Bike lane/Sharrows (0.23 mi) <ul style="list-style-type: none"> NW Troost St NW Hughwood Dr
NW-15 Ext	Hucrest Extension	\$37,000	Extends the Hucrest route around the back side of Hucrest Elementary School. Routes on school property would require coordinating access with Roseburg Public Schools.	Bicycle boulevard (0.61 mi) <ul style="list-style-type: none"> NW Moore Ave NW Lynwood St NW Calkins Ave

ID	Name	Cost Estimate	Description and Notes	Facilities
NW-16	Calkins	\$41,000	East-west route through neighborhood.	Bicycle boulevard (0.68 mi) <ul style="list-style-type: none"> NW Calkins Ave NW Grove Ln
NW-17	Valley View-Winchester	\$190,000	East-west route parallel to Garden Valley Blvd. Crosses NW Stewart Pkwy at the signal at Garden Valley Blvd. Would connect with Newton Creek-Edenbower (NW-12) in the long-term network to create a comfortable north-south route to Winchester.	Bike lanes (0.66 mi) <ul style="list-style-type: none"> NW Valley View Dr Bikes on sidewalk (0.10 mi) <ul style="list-style-type: none"> NW Stewart Pkwy
NE-33	Joseph Lane-Gaddis Park	\$16,000	Connects Joseph Lane Middle School with Gaddis Park. Crosses Stephens St at existing enhanced crosswalk north of Clover Ave.	Existing bike lanes <ul style="list-style-type: none"> NE Airport Rd NE Cedar St NE Stephens St Bicycle boulevard (0.26 mi) <ul style="list-style-type: none"> NE Clover St NE Chestnut Ave NW Highland St
NE-37	Page	\$330,000	East-west route through Winchester. Connects to Winchester Elementary School.	Bike lanes (1.2 mi) <ul style="list-style-type: none"> Page Rd
NE-38	North View	\$86,000	Route along the east side of Winchester.	Bicycle boulevard (1.42 mil) <ul style="list-style-type: none"> Thora Cir Josephine St Strauss Ave N View Dr Taft Dr Club Ave
NE-42	Diamond Lake Blvd	\$4,700,000	Important east-west route on east side of town. Currently in a separate planning process (the OR138E Design Concept Plan) to determine appropriate improvements for the corridor. A path between Rifle Range St and Sunshine Rd is being planned for the north side of Diamond Lake Blvd. This route should continue the path for the entire length or provide protected bike lanes between Stephens St and Rifle Range St, and between Sunshine Rd and Temple Brown Rd. Because of the volume and speed of motor vehicle traffic, a path or protected bike lanes would serve new development along the corridor with a low stress bike route. TSP project Tier 1, BP-24.	Path (2.2 mi) <ul style="list-style-type: none"> Diamond Lake Blvd Separated bike lanes (1.7 mi) <ul style="list-style-type: none"> Diamond Lake Blvd

ID	Name	Cost Estimate	Description and Notes	Facilities
SE-50	99-Downtown	\$220,000	Bike lanes on OR 99 through downtown. A new bike lane on SE Stephens St (northbound) closes the gap in the existing route. The right of way is constrained, and a bike lane would require space from a driving or parking lane. Further study and analysis would be required to determine the potential impacts of removing parking or a driving lane. If the bike lane uses the existing parking lane (adjacent to the curb), it will need to narrow and swerve around existing bulb outs. There is enough space between existing bulb outs to fit driving lanes and a bike lane.	Existing bike lanes <ul style="list-style-type: none"> SE Pine St (southbound) SE Stephens St, north of SE Oak Ave Bike lanes (0.80 mi) <ul style="list-style-type: none"> SE Stephens St (northbound), between SE Oak Ave and SE Pine St
SE-55	Douglas	\$810,000	Bikeway along NE Douglas Ave provides an east-west route parallel to NE Diamond Lake Blvd. Bike lanes are included in plans for the separate Douglas Avenue Improvements project. Estimate includes striping and signage. Does not include widening.	Existing bike lanes <ul style="list-style-type: none"> NE Douglas Ave Bike lanes (3.00 mi) <ul style="list-style-type: none"> NE Douglas Ave
SW-70	High School to County Fairgrounds	\$53,000	Connects the high school to the south side of town past the fairgrounds. New bicycle boulevard treatments on Kendall St and Frear St close the gap in the I-5 path near the county fairgrounds.	Existing path <ul style="list-style-type: none"> I-5 multi-use path Bicycle boulevard (0.87 mi) <ul style="list-style-type: none"> Kendall St SW Portland Ave Frear St
SW-73 Ext	Fullerton Extension	\$21,000	Extends Fullerton route further east to W Agee St and to connect with entrance to Fullerton Elementary School.	Bicycle boulevard (0.34 mi) <ul style="list-style-type: none"> W Bradford Ct W Agee St
SW-75	Myrtle-VA	\$14,000	Connects neighborhood south of W Harvard Ave with River Front Park and Stewart Park along Stewart Park Dr. Potential for long-term path through Fir Grove Park. Opportunity to implement sharrows when Stewart Park Bridge is repainted.	Bicycle boulevard (0.22 mi) <ul style="list-style-type: none"> Stewart Park Dr W Wharton St
SW-76	Military Avenue	\$140,000	Route along Military Ave from Lookingglass Rd to Harrison St. Hilly. Pavement is in poor condition and should be improved before implementing the bike facility.	Bicycle boulevard (2.31 mi) <ul style="list-style-type: none"> Military Ave

Ave = avenue; Blvd = boulevard; Cir = circle; Dr = drive; mi = miles; Pkwy = parkway; St = street

See section 3.2.1 Cost Estimates for details about project cost estimates.

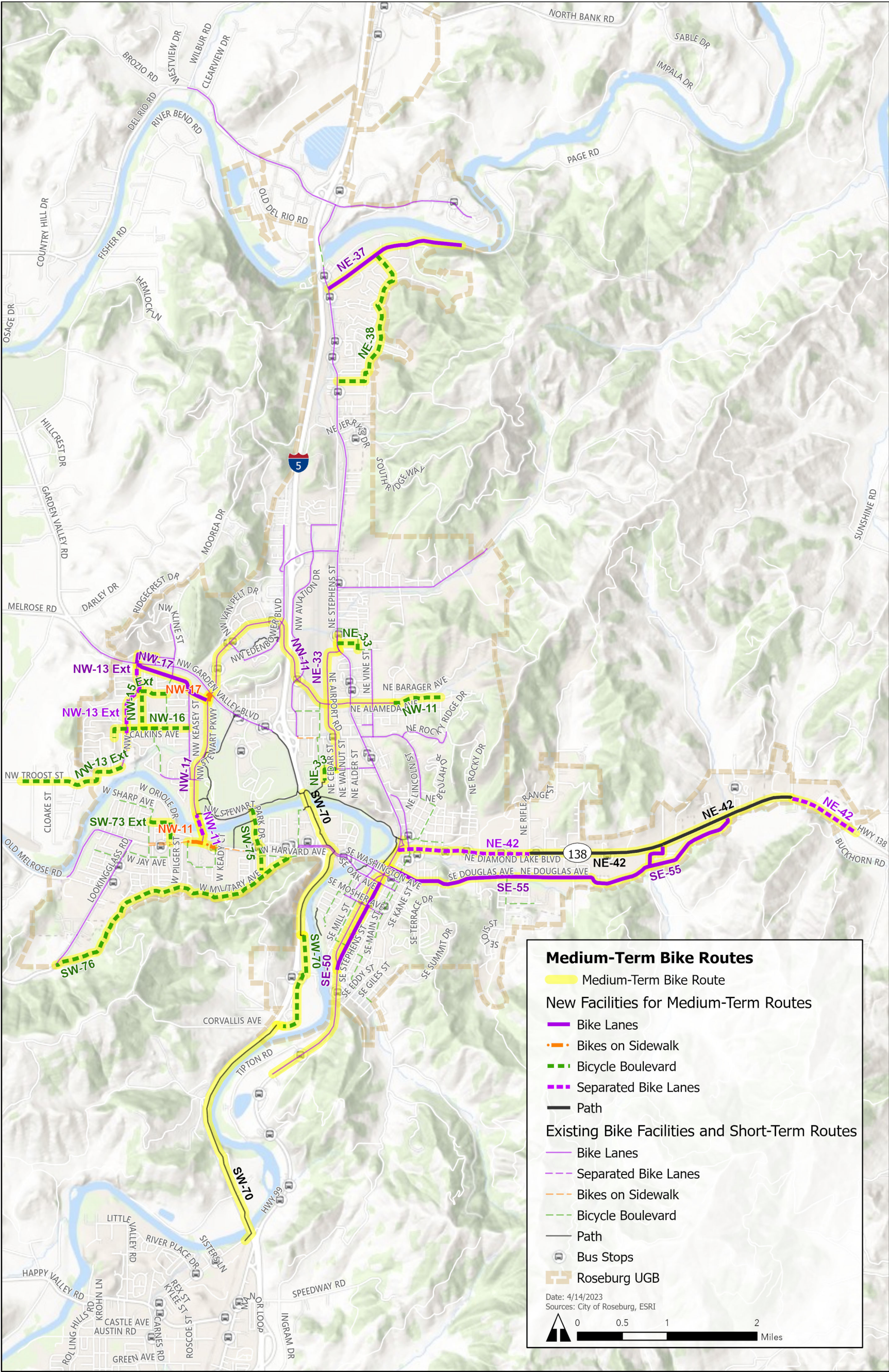


Figure 3-9. Medium-Term Bike Routes

3.2.6 Long-Term Routes

The list of long-term routes includes projects that aim to ultimately create a low-stress network of connected bikeways that are comfortable for people of all ages and abilities. Long-term projects tend to be projects that require more coordination or resources to implement and may be phased as funding becomes available or other opportunities arise. Some long-term projects are included with larger planned roadway projects and will be implemented with them.

Three long-term routes would use school property to improve neighborhood access and establish continuous, connected bike routes. Access does not currently exist at these locations and would require coordination with Roseburg Public Schools. These routes are:

- SE-52 Ext: Eastwood Elementary School
- SW-71 LT: Fremont Middle School
- SW-78: Roseburg High School

Long-term route projects are listed in Table 3-5 and are displayed in Figure 3-10. Routes are also displayed in the interactive [Companion Map](#).

Projects developed for the Roseburg Bike Routes Plan are intended to be implementable within the next 20 years. Projects that would involve higher amounts of investment, private property impacts, or potential political contention are excluded. Instead, these projects are listed in section 3.2.7 below.

Table 3-5. Long-Term Route Projects

ID	Name	Cost Estimate	Description and Notes	Facilities
NW-10 LT	Garden Valley West – Path	\$490,000	Path on south side of NW Garden Valley Blvd between Duck Pond St and I-5 path. TSP planned project: Tier 2, BP-22a.	Path (0.31 mi) • NW Garden Valley Blvd
NW-11 Ext	Stewart-Alameda Extension	\$76,000	Extends the Stewart-Alameda route (Short-Term route) further east with a bike lane in the uphill direction and sharrows in the downhill direction. Connects with NE 41 Ext Rocky Ridge Extension.	Bike lane/Sharrows (0.28 mi) • NE Alameda Ave

ID	Name	Cost Estimate	Description and Notes	Facilities
NW-17 LT	Valley View-Winchester	\$6,400,000	<p>Family-friendly route from Valley View to Winchester avoids busy roads using the existing tunnel and a path or widened sidewalk along Garden Valley Blvd and Stewart Pkwy.</p> <p>Would have an additional option to cross Stewart Pkwy with a new crosswalk to the south. Bikes on sidewalk and bike lanes would connect to the crossing.</p> <p>Tunnel under Garden Valley Blvd has been closed for security issues, which would need to be addressed before considering opening again.</p> <p>Path adjacent to Newton Creek could be a new path as in the TSP (Tier 2 BP-21b) or coordinated with Walmart.</p> <p>Path along east side of I-5. New bridge over I-5 connects with the Newton Creek Multi-Use Path. Path continues north to Winchester. Planned TSP Tier 2, BP-21d.</p> <p>Would connect with Newton Creek-Edenbower (NW-12).</p>	<p>Path (4.1 mi)</p> <ul style="list-style-type: none"> Along Newton Creek (near Walmart) North of Newton Creek to Winchester <p>Bikes on sidewalk (0.12 mi)</p> <ul style="list-style-type: none"> NW Stewart Pkwy
NW-17 Alt	Valley View-Winchester Alternative	\$920,000	Path on west side of I-5 in ODOT ROW. Utilizes existing bike lanes on existing Edenbower bridge as opposed to the new bridge required for NW-17.	<p>Path (0.59 mi)</p> <ul style="list-style-type: none"> West of I-5 in ODOT ROW between I-5 and Edenbower.
NW-19	Hill	\$500,000	Separated bike lanes would utilize new arterial bridge connection planned in TSP Tier 2, R-16. Would provide a parallel alternative to Garden Valley Blvd and a more direct east-west route than Stewart Pkwy. Cost estimate includes bike lanes only, bridge to be funded through TSP project.	<p>Separated bike lanes (0.66 mi)</p> <ul style="list-style-type: none"> NW Hill Ave
NE-32 LT	Lincoln Extension	\$1,200,000	Planned sidewalk improvements would create enough space to bike and walk on Garden Valley Blvd between NW Mulholland Dr and NE Stephens. This extends the Lincoln route further west. TSP project Tier 2, BP-3. Includes bike facilities on I-5 overpass in the event that the overpass is reconstructed in the next 20 years.	<p>Separated bike lanes (0.75 mi)</p> <ul style="list-style-type: none"> Garden Valley Blvd Garden Valley Blvd I-5 overpass
NE-34 Ext	Vine Extension	\$690,000	Establishes a path from the north end of Vine St to Newton Creek Rd along existing undeveloped trail. Existing bridge over Newton Creek would likely need improvements or replacement. TSP project Tier 2, BP21c.	<p>Path (0.44 mi)</p> <ul style="list-style-type: none"> Vine St path
NE-36 Ext	Odell Extension	\$1,300,000	Path at the north edge of the old lumber mill property from the end of Odell St to Rifle Range Rd. Could be implemented with new development.	<p>Path (0.80 mi)</p> <ul style="list-style-type: none"> Odell extension
NE-39	Rifle Range	\$480,000	Route along Rifle Range St. Could be implemented with new development or planned road maintenance. Separated bike lanes near Diamond Lake Blvd where traffic is heaviest and the ROW is the widest. North of approximately Spencer Ct the bike lanes could transition to standard bike lanes or a single bike lane in the uphill direction with sharrows in the downhill direction.	<p>Separated bike lanes (0.46 mi)</p> <ul style="list-style-type: none"> Rifle Range St between Douglas Ave and Spencer Ct <p>Bike lanes (0.50 mi)</p> <ul style="list-style-type: none"> Rifle Range St between Spencer Ct and Frontier Ln

ID	Name	Cost Estimate	Description and Notes	Facilities
NE-40	Fulton-Rocky	\$400,000	<p>North-south route through residential areas from Diamond Lake Blvd to Rocky Ridge Dr.</p> <p>Separated bike lanes on Fulton St near Diamond Lake Blvd where traffic is heaviest and the ROW is the widest. North of approximately Commercial Ave, the bike lanes could transition to standard bike lanes or a single bike lane in the uphill direction with sharrows in the downhill direction.</p> <p>North of Tahoe Ave the road becomes a private drive. Access would need to be coordinated.</p> <p>Road is in poor condition and would need improvements.</p>	<p>Separated bike lanes (0.13 mi)</p> <ul style="list-style-type: none"> NE Fulton St <p>Bike lanes (1.1 mi)</p> <ul style="list-style-type: none"> NE Fulton St NE Rocky Dr
NE-41 Ext	Rocky Ridge Extension	\$110,000	Continues existing Rocky Ridge bike route along NE Rocky Ridge Dr through residential area to NE Alameda Ave. Would connect to planned future extension of Rocky Road (TSP project Tier 2, R16m).	<p>Bike lanes (0.40 mi)</p> <ul style="list-style-type: none"> NE Rocky Ridge Dr
SE-52 Ext	Eastwood Extension	\$530,000	<p>Creates a path on the east side of the school north to Eastwood Park along an existing undeveloped trail. Bridge over Deer Creek may require improvements or replacement.</p> <p>This route would require coordination with Roseburg Public Schools for access on Eastwood Elementary School property.</p>	<p>Path (0.34 mi)</p> <ul style="list-style-type: none"> Eastwood Extension
SE-54 Ext	Micelli Extension	\$3,600,000 ⁷	Path continues south through Micelli Park, then across the South Umpqua River with a new bridge connecting to Portland Ave near the county fairgrounds. Planned TSP project Tier 2, BP7.	<p>Path (0.43 mi)</p> <ul style="list-style-type: none"> Micelli Extension
SW-70 LT	High School to County Fair Path Connection	\$1,300,000	Connects the gap in the I-5 path near the county fairgrounds. Path would be adjacent to I-5 on east side in ODOT ROW.	<p>Path (0.78 mi)</p> <ul style="list-style-type: none"> I-5 path
SW-71 Ext	Harvard Neighborhoods Extension	\$430,000	Continues the Harvard Neighborhoods route west across the South Umpqua River on a planned bridge and road extension. The route would then turn north with planned improvements on Charter Oaks Dr. Planned TSP Tier 2 projects R-16p and R-13. Requires new bridge and roadway buildout.	<p>Separated bike lanes (0.57 mi)</p> <ul style="list-style-type: none"> W Harvard Ave W Charter Oaks Dr
SW-71 LT	Harvard Neighborhoods Fremont Connection	\$420,000	<p>Would use west gate to middle school and travel through school property to southeast corner where it would loop to the south around houses (staying on school property) and connect with Nebo St. Bicycle boulevard treatments continue to connect with the short-term SW-71 route at W Brown Ave.</p> <p>This route would require coordination with Roseburg Public Schools for access on Fremont Middle School property.</p>	<p>Path (0.25 mi)</p> <ul style="list-style-type: none"> On school grounds <p>Bicycle boulevard (0.42 mi)</p> <ul style="list-style-type: none"> Fremont Middle School parking lot W Nebo St W Catherine Ave W Fairhaven St

⁷ This cost estimate was sourced from the TSP and adjusted for inflation.

ID	Name	Cost Estimate	Description and Notes	Facilities
SW-72 LT	Lookingglass Separated Bike Lanes	\$680,000	Upgrade existing bike lanes on Lookingglass Rd to be separated from W Harvard Ave to W Woodside Rd. Can coincide with planned sidewalk improvement, TSP Tier 2 BP23.	Separated bike lanes (0.90 mi) <ul style="list-style-type: none"> Lookingglass Rd
SW-78	Laurelwood	\$190,000	Creates a comfortable route on the north and east sides of high school. Would require a connection through what is now private property at the northeast corner of the high school. The route would connect with Laurelwood Park. Route is contingent on future property acquisition by school. This route would require coordination with Roseburg Public Schools for access on Roseburg High School property.	Bicycle boulevard (0.56 mi) <ul style="list-style-type: none"> W Finlay Ave W Bowden St W Riverside Dr W Casey St W Chapman Ave W Madrone St Path (0.10 mi) <ul style="list-style-type: none"> Connection between W Finlay Ave and W Bowden St
SW-79	Harvard Path	\$2,200,000	Would widen north sidewalk to make space for walking and biking and establish a comfortable east-west route through this part of the city. Planned TSP Tier 2 BP-5. Sidewalk widening could require extending the sidewalk into the roadway because of ROW limitations. This could require removing a driving lane. This route would be a more direct and comfortable alternative to SW-71 Harvard Neighborhoods.	Path (1.4 mi) <ul style="list-style-type: none"> North sidewalk of W Harvard Ave

Ave = avenue; Blvd = boulevard; Cir = circle; Ct = court; Dr = drive; mi = miles; Pkwy = parkway; ROW = right of way; St = street; UCC = Umpqua Community College
See section 3.2.1 Cost Estimates for details about project cost estimates.

3.2.7 Aspirational Improvements

Improvements that are unlikely to be implemented within the long-term time frame but would still be beneficial to the Roseburg bike network are described here. These are documented in case prospects for funding, redevelopment, or other opportunities arise. These are not included in the main projects list and are therefore not evaluated and do not have costs estimated.

One collection of aspirational projects is to implement physically separated bike lanes or adjacent paths along all arterials. These would create direct routes through the city that would feel more comfortable and safer than standard bike lanes. These arterials include:

- Stephens Street
- Pine Street
- Garden Valley Boulevard
- Edenbower Boulevard
- South sidewalk of Harvard Avenue to improve access to neighborhoods on south side

Another collection of aspirational projects is to connect the street grid where it has been interrupted by private development. Interruptions in the street grid have the result of funneling all roadway users to one of a few busy streets to travel through the city. Connecting the street grid, either by roads or paths, would allow people to bike through neighborhoods and avoid busy arterials. Notable locations that could use new connections include:

- Residential areas south of Harvard Avenue
- Fir Grove Park to I-5 along the south bank of the South Umpqua River
- Micelli Park to Mosher Avenue along the east bank of the South Umpqua River

3.3 Intersection and Crossing Treatments

High quality intersections and crossings of busy roads are crucial for bike routes to feel comfortable and safe. Biking across a busy road or intersection can feel scary, particularly for people with less experience biking. However, if treated properly with accommodations for people biking and strategies to calm traffic, busy intersections can be navigated comfortably and safely. In addition to helping people bike, improved crossings also benefit people walking or using a mobility device.

Every location where a bike route crosses a high-speed or high-volume road should include treatments to make it comfortable for biking. Signs and pavement markings must clearly indicate where the bike route goes. Signs and markings should also alert drivers of the possible presence of people wanting to cross. Where possible, crossing locations should include strategies to stop or slow motor vehicle traffic (see also section 3.4 Traffic Calming below).

Bike routes in early phases of this plan make use of existing crossings and signalized intersections. However, stakeholders have indicated that there are opportunities for more crossings and for improving existing intersections. Some considerations for accommodating biking at signalized intersections include:

- **Provide space for biking.** Indicate with paint, posts, or hardscape where people should wait or move through the intersection when biking. Use bike boxes and two-stage turn queue boxes.

- **Make people biking visible to drivers.** Use bike boxes, two-stage turn queue boxes, and bicycle signal phases to get cyclists in front of drivers so they are easily seen. Bike markings and signs help remind drivers to watch for people biking.
- **Make sure signals are responsive to bikes.** Signal loop detectors must be sensitive to bikes, and people biking need to know where to position their bikes to activate the signal. The City of Portland improves this by marking the sensor for cyclists and installing blue feedback lights so people can see that they have activated the sensor.
- **Protect against right hooks.** “Right hook” collisions (when a right-turning driver strikes someone biking in the right-side bike lane) is a common type of crash. A few enhancements can help reduce the risk of right hooks, including bike boxes, protected intersections, disallowing right turns on red, and reconfiguring the intersection to make the potential conflict point more visible.

The following toolkit of strategies should be consulted to improve intersection and crossing locations as needed (Table 3-6). Planning-level cost estimates were developed to help plan implementation and are only to be used as an approximation. These are high-level estimates. Actual costs will depend on the specific context and conditions at each location. Cost estimates should be refined as projects develop. Important intersections and crossings on the proposed bike route network are included in the interactive [Companion Map](#).

Table 3-6. Intersection and Crossing Toolkit

Treatment	Description	Considerations	Recommended Locations	Cost Estimate
Intersection Tools				
Bike boxes	Designated spaces for people biking to wait in front of the motor vehicle stop bar. Increases visibility and reduces the potential for a driver turning right to collide with a person biking.	Can help with left turns if the box extends across to the left turn lane. Helps prevent vehicles from encroaching into the crosswalk. Right turns on red should be prohibited.	At signalized intersections.	\$20,000 each
Bicycle forward stop bar	The bicycle stop bar is placed closer to the intersection than the motor vehicle stop bar to put bikers in a more visible location and reduce their crossing distance.	Position so cyclists do not impede the crosswalk. Colored paint can bring more attention to the space. Similar to a bike box, but does not occupy the lane in front of the motor vehicles.	At stop-controlled intersections.	\$6,000 each
Two-stage turn queue boxes	Two stage turn queue boxes simplify left turns by providing a space on the right, in front of the cross traffic, to wait for oncoming traffic to clear or the signal to change.	This allows a more comfortable option for left turns, but adds delay for people biking. Provides a space for left-turning cyclists to wait for the signal to change.	At intersections where the bike route requires turning left on a road with traffic. Where people biking often turn left.	\$3,000 each

Treatment	Description	Considerations	Recommended Locations	Cost Estimate
No right turns on red	Drivers have a tendency to roll through red lights when making right turns, and fail to look for people walking and biking. This creates dangerous conditions for vulnerable road users. Disallowing right turns on red can help encourage drivers to pay attention for other road users.	Drivers often ignore “No Right on Red” signs, so enforcement will be important. This can affect right turn queuing at intersections.	At signalized intersections, especially where there are safety concerns.	Varies.
Bicycle signal phases	A signal phase that accommodates biking can reduce potential conflicts. Different types of phases can be implemented.	Reduces potential conflicts between drivers and cyclists. Can allow people to bike through the intersection before drivers, making them more visible and reducing their exposure to engine exhaust. Can be relatively expensive to implement.	At signalized intersections with safety concerns or that are important for the bike network.	\$1,250,000 <i>Includes installation of a new signal, update of ADA sidewalk ramps, and striping at a three-lane intersection.</i>
Reduced turning radii	Tightens the corner turning radius by extending the curb and sidewalk. Encourages slower right turns for motor vehicles and shortens pedestrian crossing distances.	Can combine with curb extensions. Can integrate sidewalk improvements with the extended curb.	At intersections with large corner radii.	\$94,000 for hardscape curb extension. <i>Includes curb work, ADA ramp reconstruction, crosswalk striping.</i> \$18,000 for paint and flexible posts. <i>Does not include curb work or ramp reconstruction.</i>
Protected intersections	Keeps people biking separate from motor vehicles until reaching the intersection. Uses a corner island to protect the bike lane.	Perhaps the most comfortable intersection treatment because it provides extra protection and visibility. However, it requires more space than other intersection treatments.	At intersections with physically separated bike lanes.	\$1,443,000 <i>Includes installation of a new signal, curb improvements, ADA ramps, and striping at a three-lane intersection.</i>
Crossbikes	Crossbikes are green striped lanes, similar to crosswalks, that increase visibility of people biking and clearly delineate the continued bike route.	This treatment is effective for encouraging drivers to yield to people wanting to cross on bikes. However, there is no legal requirement for drivers to stop for people at crossbikes, and confusion over yielding right-of-way may occur.	At crossings where the bike route is stop controlled and the cross street is not.	\$72,000 <i>Includes installation of crosswalk and crossbike striping across a three-lane road.</i>

Treatment	Description	Considerations	Recommended Locations	Cost Estimate
Crossing Tools				
Curb extensions, or "bulb outs"	Extend the sidewalk curb into the parking lane to improve visibility and reduce crossing distance.	Conflicts with curb-adjacent bike lanes. Expanded sidewalk space can be used for many purposes, including bike parking or by adjacent businesses. Can be designed to minimize impacts to stormwater flow or to integrate bioswales for stormwater management.	Crossing roads with curb-adjacent parking lanes. NOT on roads with curb-adjacent bike lanes.	\$94,000 for hardscape curb extension. <i>Includes curb work, ADA ramp reconstruction, crosswalk striping.</i> \$18,000 for paint and flexible posts. <i>Does not include curb work or ramp reconstruction.</i>
Median refuge islands	A raised barrier placed at a crosswalk between lanes of traffic (excluding turn lanes). Islands provide a refuge area for people walking across the street.	Good for multilane roadways. Should be at least 4 ft. wide, preferably 8 ft. for more comfort. Median refuge islands in a center turn lane will impact left turn movements.	Where a bike route crosses a road with high traffic volumes and has space for a median island. Example locations may include mid-block crossings, bike route crossings, near transit stops or other pedestrian focused sites.	\$185,000 <i>Includes median, crossbikes striping, and four ADA ramps.</i>
Rectangular rapid flashing beacons (RRFBs)	Push button activated flashing lights indicate to approaching drivers that someone wants to cross.	Push button should be located for convenient use by people on bikes. Light bars should be placed on both sides of a crossing.	Crossing roads with high vehicle traffic volumes, high speeds, or that are wide. Most beneficial for multilane crossings with speeds of 40 mph or lower.	\$240,000 <i>Includes RRFB, crosswalk and crossbike striping, and four ADA ramps.</i>
Raised crosswalks	Elevates the crosswalk or an entire intersection like a speed hump or speed table to increase pedestrian visibility and encourage motorists to slow down and yield to pedestrians, to slow traffic speeds, and to indicate a priority for walking and biking. They are typically raised to 3 inches below the level of the sidewalk.	Raised crosswalks encourage slower driving. Appropriate for speeds of 25 to 30 miles per hour. Can be designed to minimize impact to transit or emergency vehicles.	In areas with high pedestrian activity. On streets with speeds of 30 mile per hour or lower. Example locations may include school zones, parks, trail crossings, and transitional zones into residential areas.	\$15,000 - \$20,000

3.4 Traffic Calming

Traffic calming treatments help reduce motor vehicle traffic speeds, which improves drivers' time to see other road users and allows them more time to react. Most often, traffic calming treatments involve physical changes to the roadway that encourage slower and more careful driving. Bringing driving speeds closer to biking speeds feels more comfortable for cyclists and lowers the risk of injury in a collision. Traffic calming also helps reduce the likelihood that drivers will try to overtake people biking in shared-lane facilities.

Traffic calming treatments should be applied on bike routes where motor vehicle traffic feels unsafe or uncomfortable for cyclists. This is especially important on shared-lane facilities, such as bicycle boulevards, where people biking mix in with motor vehicle traffic. For a detailed description of where and how traffic calming should be applied, see Appendix E: Memo 5 – Final Project Alternatives.

A menu of traffic calming treatment options is summarized in Table 3-7.

Table 3-7. Traffic Calming Toolkit

Treatment	Description	Considerations	Recommended Locations	Cost Estimate
Speed humps or “bumps”	Elevates the roadway surface to encourage speeds of 15 to 20 mph. They are designed to be 3 to 4 inches high and are 12 to 14 feet long.	Effective at slowing traffic to speeds of 15 to 20 mph.	Bicycle boulevards or other routes where traffic speeds of 20 mph or less are desired.	\$5,000 to \$20,000
Speed cushions	Like speed bumps but with cut-outs in the bump to allow emergency vehicles to pass more easily.	Speed cushions are less effective than speed bumps at slowing traffic and can cause unpredictable driving as drivers swerve to align their wheels with the cut-outs.	Bikeways along emergency routes where traffic speeds of 25 mph or less are desired.	\$5,000 to \$20,000
Lane reconfiguration (also known as a road diet or lane conversion)	Reduces the number of driving lanes to lower speeds. Redistributes space and creates a safer, balanced multimodal street by expanding sidewalks and adding protected bike lanes.	Lane conversions reduce motor vehicle speeds and crashes and increase space for biking and walking facilities. Lane conversions reduce motor vehicle capacity.	Along routes that have more than one driving lane in each direction. Along routes where additional space is needed for a biking or walking facility.	\$745,000 per mile <i>Assumes a four-lane initial configuration. Includes adding buffered bike lanes with plastic delineator posts. Does not include pavement overlay.</i>
Radar speed signs	Sign displays the speed of oncoming traffic along with the speed limit. This feedback is effective at reducing speeding.	A mobile radar speed sign is versatile because it can be moved to locations where speeding is an issue.	Where speeding is a known issue.	\$10,000 to \$50,000
Diverter	A feature placed on a street to prohibit traffic from entering or exiting, or both, the street (they can be designed for either left or right turns) while people walking or biking can freely travel through the intersection.	Diverter restrict motor vehicle movements. Diverter are effective at reducing the number of vehicles on local streets and should be coordinated with affected residents.	In locations where there is a need to reduce motor vehicle traffic.	\$185,000 <i>Includes median, crossbike striping, and four ADA ramps.</i>
Intersection median barriers	A barrier in the median of the road at an intersection allows people to cross a street by walking or biking and restricts motor vehicle left turns and road crossings.	Intersection median barriers restrict motor vehicle movement when necessary because their movement compromises the safety of other modes.	In locations where there is a need to reduce potential turning or cross street conflicts.	\$185,000 <i>Includes median, crossbike striping, and four ADA ramps.</i>

Treatment	Description	Considerations	Recommended Locations	Cost Estimate
Street trees and landscaping	Street trees narrow the field of vision for people driving, which encourages them to drive slower and more carefully.	Consider sight lines, particularly at intersections and crosswalks. Vegetation must be regularly maintained. Street trees can provide shade, making routes more comfortable for biking in the summer.	Street trees and landscaping would benefit most bike routes, provided they do not impede visibility of other road users.	Varies
Chicanes	Chicanes are offset curb extensions or parking bays designed to slow traffic speeds. They are typically on residential or low-volume streets. Chicanes can increase the amount of public space and can be activated using benches, bicycle parking, and other amenities.	Chicanes in two-way streets are most effective when traffic is balanced in both directions. Otherwise, drivers can pick a straight path through the middle of the road. Where chicanes are implemented with unprotected bike lanes, drivers are likely to encroach on the bike lanes. The City is developing a chicane plan for Pine St to slow traffic west of Douglas Ave.	Along routes where slow speeds are critical and people walking, biking, and driving all use the same street surface.	\$94,000 for hardscape curb extension. <i>Includes curb work, ADA ramp reconstruction, crosswalk striping.</i> \$18,000 for paint and flexible posts. <i>Does not include curb work or ramp reconstruction.</i>

ADA - Americans with Disabilities Act; Ave = avenue; mph = miles per hour; St = street

A list of potential locations for traffic calming treatments was developed for the City to consider as a starting point. Potential traffic calming locations were given ID numbers beginning with “TC-” and are listed in Table 3-8. Potential traffic calming locations are mapped in Figure 3-11 as well as on the interactive [Companion Map](#). Locations were chosen for short- and medium-term routes based on several criteria:

- Proximity to a school
- Grade/steepness of the road (Uphill segments increase the difference in speed between biking and driving)
- Reports of fast motor vehicle traffic

Each location on this list would require closer study, which is outside the scope of this plan. This list of potential traffic calming locations is not exhaustive. The City should consider traffic volumes, speeds, and public feedback as bike routes are implemented and apply traffic calming treatments accordingly. Locations focus on short-term and medium-term bike routes because these are higher priority.

Table 3-8. Potential Traffic Calming Locations

Location ID	Associated Bike Route ID	Notes
TC-11 E	NW-11	Along Alameda Avenue where there is a moderate hill and high-speed traffic.
TC-11 W	NW-11	On Stewart Parkway, which has heavy, fast-moving traffic.
TC-13	NW-13	At Roseburg Christian Academy.
TC-15	NW-15	At Hucrest Elementary.
TC-15 Ext	NW-15 Ext	At downhill approach to Hucrest Elementary.
TC-16	NW-16	On Calkins, which is a long straight road that serves Roseburg Christian Academy and Hucrest Elementary.
TC-32	NE-32	Along the hill where Lincoln Street and Garden Valley Boulevard meet.
TC-34	NE-34	At Joseph Lane Middle School.
TC-37	NE-37	At Winchester Elementary.
TC-51	SE-51	On Main Street south of Lane Avenue where Main Street is two-way and the grade becomes steeper.
TC-52	SE-52	At Eastwood Elementary.
TC-55	SE-55	Along Douglas Avenue, which is a long, windy somewhat hilly road with few stop controls for cars.
TC-71	SW-71	At the crossing of Lookingglass Road between Jay Avenue and Shasta Avenue.
TC-72	SW-72	At the south end of Lookingglass Road just inside the speed zone.
TC-73 Ext	SW-73 Ext	At Fullerton Elementary.
TC-75	SW-75	On Stewart Park Drive, which is narrow and can have heavy traffic.
TC-79	SW-79	Along Harvard Boulevard.

TC – Traffic Calming

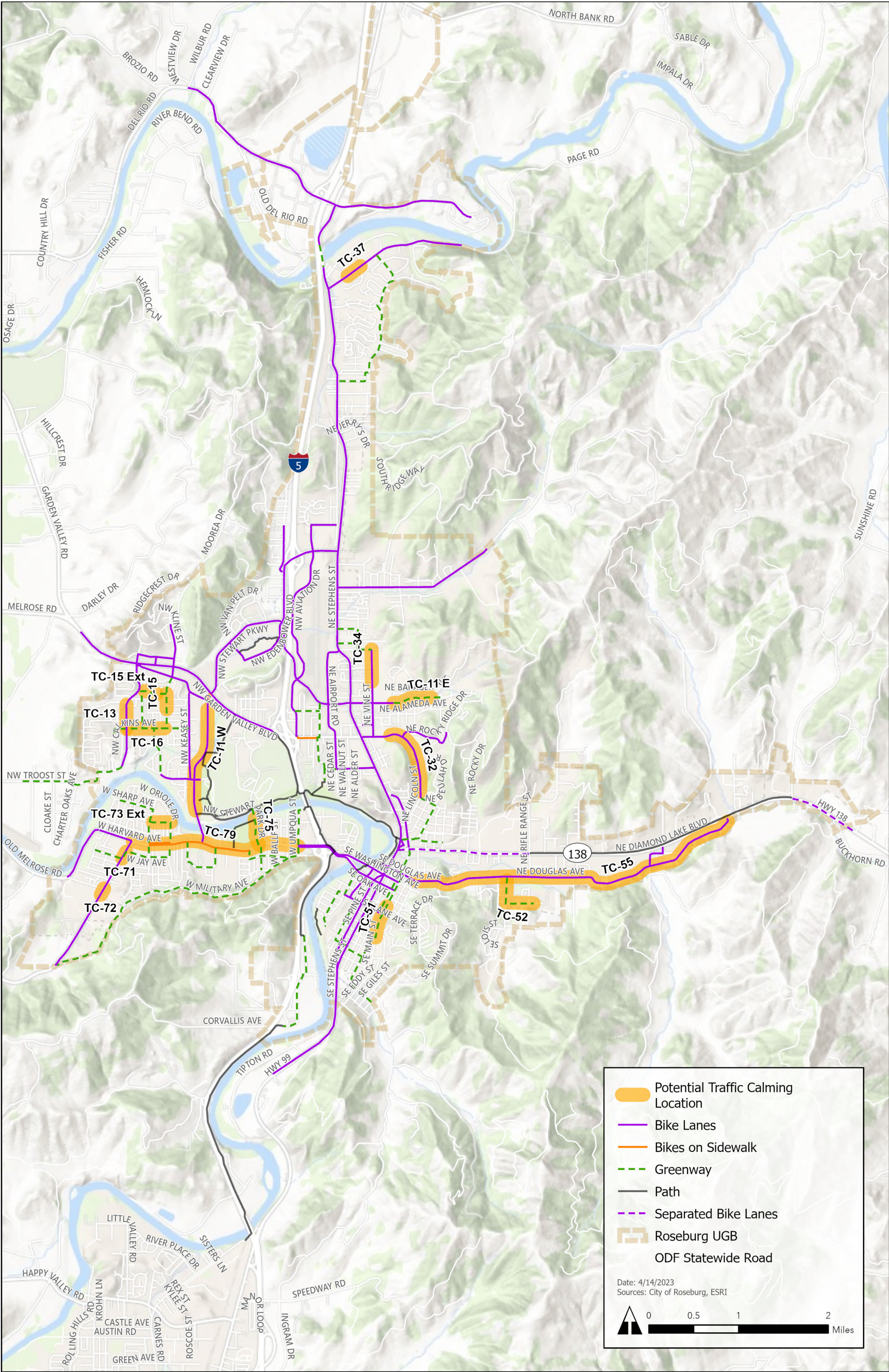


Figure 3-11. Potential Traffic Calming Locations

3.5 Bicycle Provisions and Amenities

Bicycle provisions and amenities can make biking a more attractive or feasible transportation option. Provisions, such as the availability of secure bike parking, can make the difference of whether biking is or is not a practical option. Amenities, such as water stations and leaning rails, enhance the experience and demonstrate the City’s support of biking. Important bicycle provisions and recommended amenities are described in Table 3-9 and Table 3-10.

Table 3-9. Bicycle Provisions

Amenity	Description	Consideration	Recommended Locations
Bicycle Parking	Ensure that people will be able to find a place to park their bike when they arrive at a destination.	<ul style="list-style-type: none"> • Separate bike parking requirements from car parking. • Craft the policy so bike parking is required by default. • Include long-term and short-term bike parking guidelines. • Include a requirement for a number of covered bike parking spaces. 	<ul style="list-style-type: none"> • In a visible location, as near as possible to entrances. • At transit stops • May be accompanied or used in conjunction with storage lockers, locked rooms or enclosures, and parking areas inside the building.
Ramps and Curb Cuts	Provide a transition in grade between the street and the sidewalk, raised bicycle lane, or shared path for people walking or biking.	<ul style="list-style-type: none"> • Ramps are necessary for connecting roadway-level bike lanes and shared lanes to sidewalks and sidewalk-level paths. • When choosing locations, must consider visibility for oncoming traffic and safety of where people would be entering the roadway from the sidewalk, path, or raised bike facility. • Ramps and curb cuts are not included cost estimates. 	<ul style="list-style-type: none"> • At locations where a bike route intersects a curb, or where there is a need to access the bikeway from the roadway surface. • As required by ADA or for accessibility best practices. • Specific locations include (but are not limited to): • Edenbower Blvd at Charles Gardiner Park. • Renann Street at Charles Gardiner Park. • Connections to Flint St path through Riverside Park. • Troost St at connection to Valley View Dr.
Illumination	Better lighting can make it easier for drivers to see people biking or walking, and it can make it easier for cyclists to see hazards on the roadway surface.	<ul style="list-style-type: none"> • Design lighting for human-scale visibility (as opposed to standard overhead roadway lighting). • Consider designing illumination to minimize light pollution, particularly where it can impact natural areas. 	<ul style="list-style-type: none"> • Locations where drivers and cyclists are likely to interact. • Along trails and paths. • Locations with identified safety concerns.

Table 3-10. Recommended Bicycle Amenities

Amenity	Description	Consideration	Recommended Locations
Water Stations	Places where a person can get fresh drinking water.	Can be modern bottle-filling station, standard water fountain, or even just a faucet. They are practical to implement where plumbing already exists, e.g., at public restrooms.	<ul style="list-style-type: none"> • Parks • Downtown • Schools
Bike Leaning Rails	People can stay seated on their bikes while propped against the rail for balance.	Leaning rails are appropriate at intersections on curb-adjacent bike lanes or on paths. They provide an added benefit on paths and sidewalks shared with pedestrians by encouraging cyclists to wait along the edge of the path, clearing space for other users.	<ul style="list-style-type: none"> • At signalized intersections where a path crosses a road. • At signalized intersections where a bike lane crosses a road.
Bike-Friendly Trash Cans	Trash cans designed to be used by people biking, running, or otherwise in motion make it easier to deposit waste.	They also can serve as a visual reminder of the City's commitment to being bike-friendly.	<ul style="list-style-type: none"> • In parks, angled to receive on the right-hand side of trails and paths.

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4. MAPPING AND WAYFINDING

Mapping and wayfinding are primarily used to indicate safe and comfortable routes for people to use when biking. This is particularly helpful for less confident riders or those unfamiliar with the area, as wayfinding and mapping can take the guesswork out of route-finding and provide a clear path to popular destinations. Wayfinding and mapping also create the foundation for a comprehensive and identifiable bicycle network. Maps, signs, and pavement markings indicate to everyone that a bike route is present, alert drivers to the presence of people biking, and can encourage more people to bike.

4.1 Mapping Options

Both physical and electronic maps, as listed in Table 4-1, are important to support a bike route system. Maps should indicate whether bike routes are designated as comfortable for people of all ages and abilities, potentially with a phrase such as “family friendly,” to make clear the preferred routes for young riders or people who are uncomfortable riding on higher stress facilities. Maps should also indicate other amenities or locations that are important for biking. These may include public bike parking (especially covered bike parking), public water sources and bathrooms, bike shops, parks, and schools.

Table 4-1. Mapping Options

Option	Description	Considerations	Locations
Interactive Online Web Map or Mobile App	Electronic maps provide detailed bike route information for residents and visitors. They allow users to find detailed information and virtually explore the bicycle network (see Figure 4-1).	Can be updated regularly to reflect changes. Can be used at home or while riding for trip planning and navigation.	Can be hosted on the City’s website and be linked to from bike shop websites, school websites, etc. Can be integrated into a mobile app.
Downloadable File	KML, GPX, and other files contain geographic information. These would allow people to download wayfinding and route information into geographic navigation systems, such as Google Maps and bike computers.	Can be downloaded and imported into navigation systems for use on mobile devices. May not be intuitive to use for many people.	Can be hosted on the City’s website.
Outdoor Maps and Trailhead Kiosk Map	Informational kiosks at trailheads or along popular routes can include maps to provide an overview of the bike network and proximity to services and other destinations.	Map could be designed in a similar style as the Umpqua River Trail map to maintain consistency (see Figure 4-2).	<ul style="list-style-type: none"> • Umpqua River Trail • Fir Grove Park • Micelli Park • Gaddis Park • Downtown • Umpqua Community College • Major routes and trailheads
Printed Brochure Bike Route Map	Printed, folded brochure-style map for individual use.	Should be concise and easy to read and clearly delineate bike routes and popular community destinations.	Distributed by mail and at community destinations.

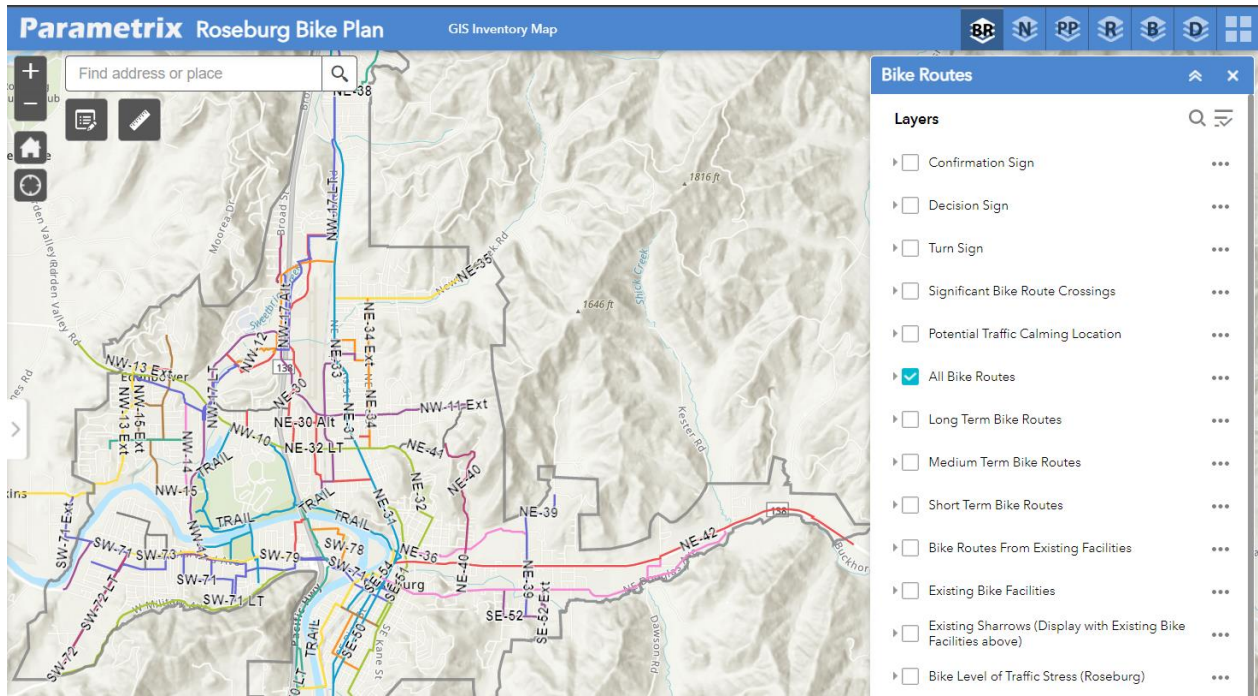


Figure 4-1. Roseburg Bike Plan – Online Inventory Map

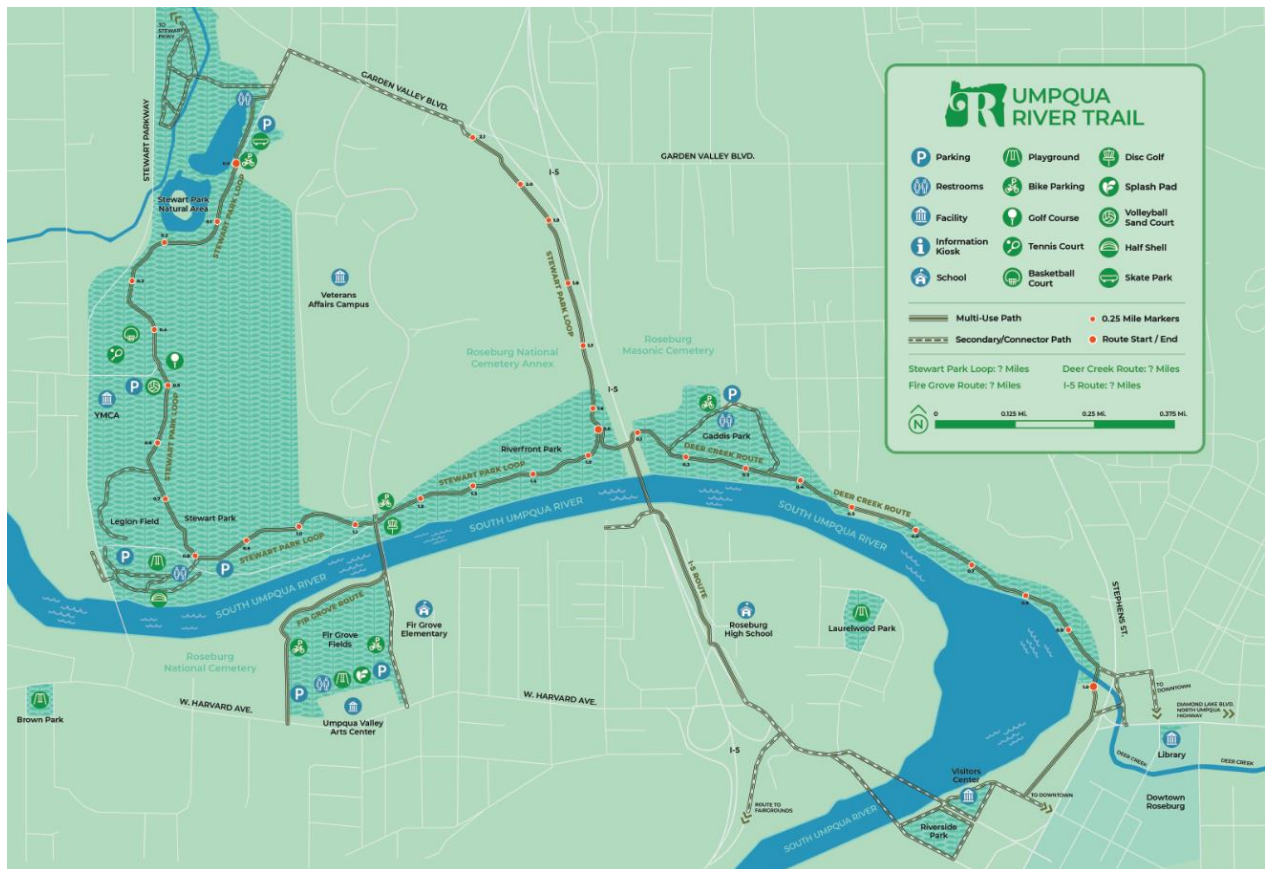


Figure 4-2. Umpqua River Trail Map

4.2 Wayfinding Recommendations

Wayfinding signs indicate which route people are on as well as the directions and distances to key destinations. Signs are most useful when placed at decision points along bicycle routes, such as at the intersection of bike facilities, when a bike route turns, when a bike route crosses an arterial, and at consistently spaced intervals to reassure the user that they are still on the bike route. Bike route signs indicate to drivers that people may be bicycling on the route. Signs should be human-scaled for people walking or biking to indicate that the signs are for them (and not for people driving) and to demonstrate that the City recognizes the legitimacy of walking and biking. Bicycle wayfinding signs should include unifying elements that help visitors recognize they are using a cohesive system of bike routes.

4.2.1 Bike Route Signs

Roseburg's bike route wayfinding system should include a comprehensive system of signs to guide people riding bikes to their destinations along preferred bicycle routes. Signs can include custom designs for the City of Roseburg (see Figure 4-3), but should follow Manual on Uniform Traffic Control Devices (MUTCD) Mounting Height Standards and ODOT Bike Route Sign Design Standards for size, height, and placement along the street network. Route signs are especially important for bicycle boulevard treatments, as the right of way is shared between modes and the signs will reinforce that biking is encouraged on these streets. Route signs should be installed on all types of bike routes. See Appendix F: Memo 6 – Mapping and Wayfinding for a full description of mounting and design standards.

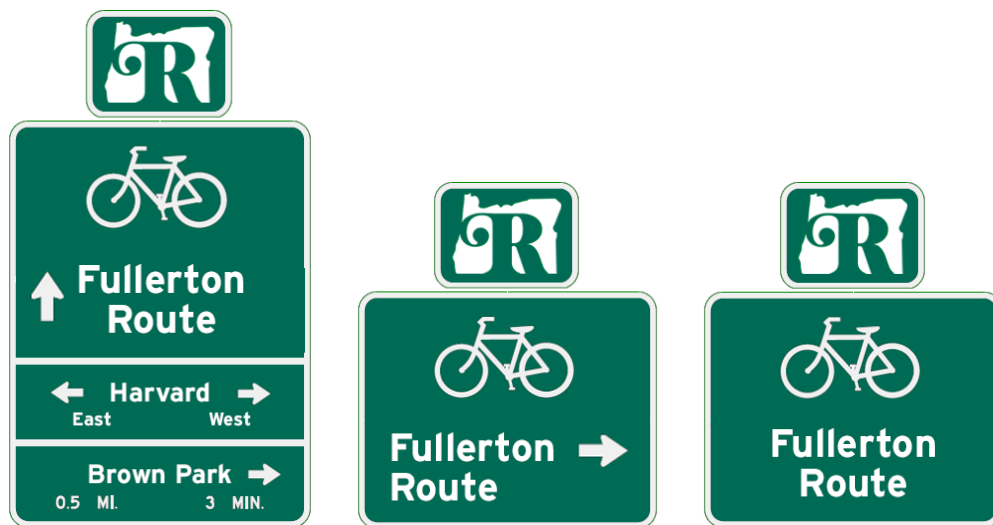


Figure 4-3. Conceptual Sign Designs (left to right): Decision Sign, Turn Sign, and Confirmation Sign

Suggested sign placements for the bike routes on existing facilities and in the short-term and medium-term networks were developed using the standards listed below. Placements are displayed in Figure 4-4 and in the interactive [Companion Map](#). Sign placements for the long-term network are not mapped in

this plan, but for consistency should follow the same standards used for the routes implemented in earlier phases.⁸

Decision Signs – Decision signs mark the junction of two or more bike routes or indicate nearby popular destinations. They include the names of the bike routes or destinations and arrows pointing in their directions, as shown in the conceptual design in Figure 4-3.

When indicating intersecting bike routes, decision signs should include the cardinal directions of the intersecting routes or well-known landmarks in each direction to orient people. Decision signs can be used to indicate nearby popular destinations such as schools, parks, and commercial areas. These should include the name of the destinations, arrows, distances, and travel times. All decision signs must clearly indicate the route riders are on and the default direction to stay on the current route. One way to do this is to consistently write the current route on the top of the sign and use a larger font and arrow. This is important for people to easily follow a route. Decision signs should be placed in advance of all turns (near side of the intersection) or decision points along the route. As the bike network grows, more decision signs will be needed at each intersection of routes.

Turn Signs – Turn signs indicate where a bike route turns from one street or facility onto another. These signs include the name of the bike route and an arrow pointing in the direction of the turn. Pavement markings should supplement turn signs to make it very clear where to turn. Turn signs should be placed on the near-side of the intersection.

Confirmation Signs – Confirmation signs play an important role in wayfinding by indicating the bike route and reassuring riders that they are still on the route. They should include the name of the route and can include destinations and distance/time. These signs do not indicate turns. Confirmation signs should be placed with the following considerations:

- Bike route signs, including turn and decision signs (described below), should be spaced no more than two to three blocks or one-quarter mile apart along on-street facilities.
- Bike route signs, including turn and decision signs, should be spaced no more than one-quarter to one-half mile apart along off-street facilities.
- Place shortly (within 200 feet) after turns.
- Place shortly after intersections with streets of higher classification (or streets that function like a roadway of higher classification).
- Place shortly after intersections at which the roadway is offset and undergoes a name change.
- Place on the near side of a change in facility type, e.g., where a route transitions from a path to an on-street bikeway or vice-versa.

Pavement markings (described below) can supplement confirmation signs to indicate a bike route.

⁸ Sign placement for long-term routes was not developed because these routes are expected to be implemented more than 10 years in the future. By this time, the City should have experience with sign placement after implementing short-term and medium-term routes.

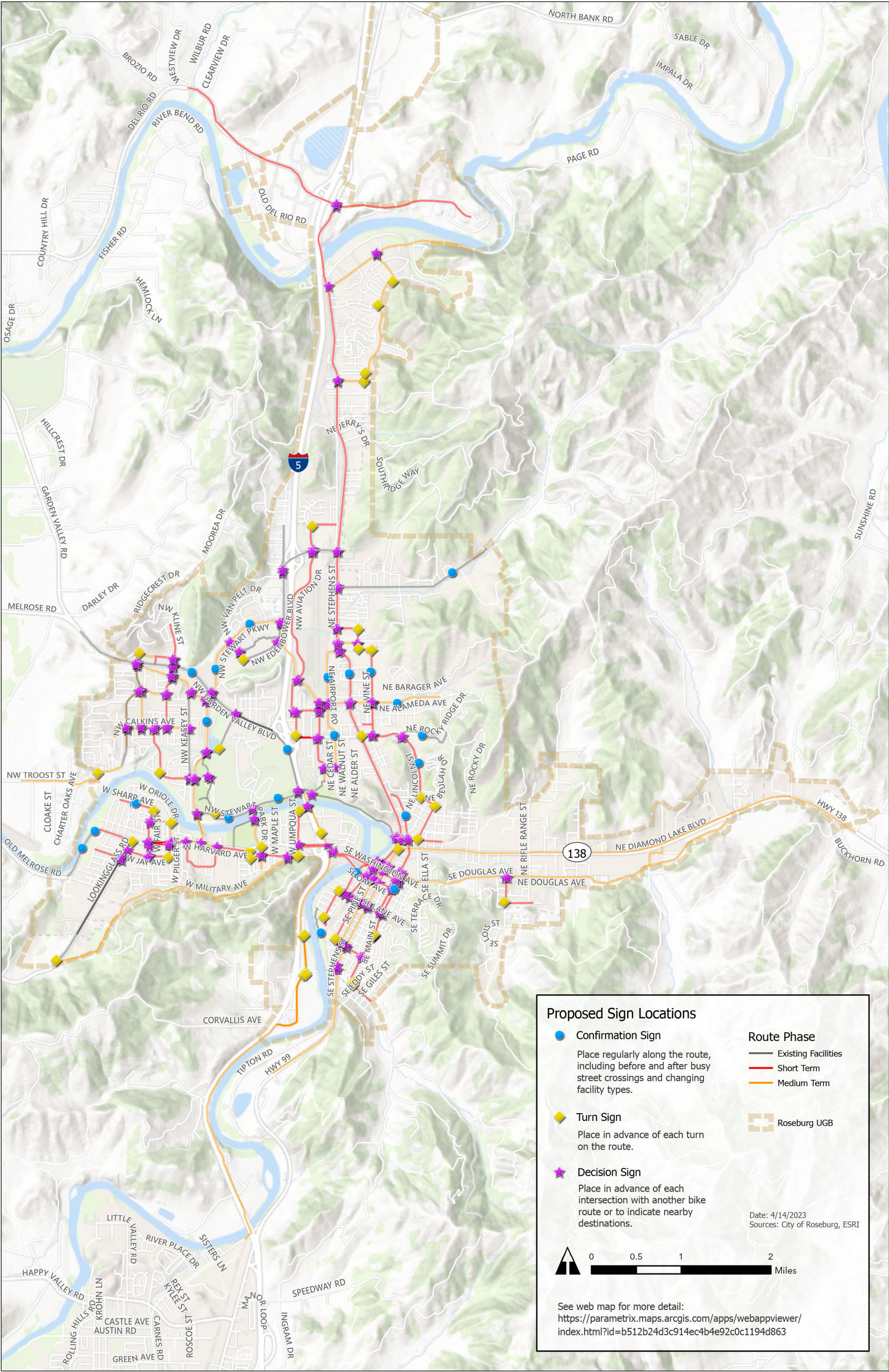


Figure 4-4. Proposed Wayfinding Sign Locations
See the [Companion Map](#) for more detail.

4.2.2 Trail Wayfinding Signs

The City of Roseburg has already developed and implemented wayfinding signs for trails in city parks (Figure 4-5). It is recommended that these signs be continued and updated to point to nearby bike routes as new bike routes are implemented.

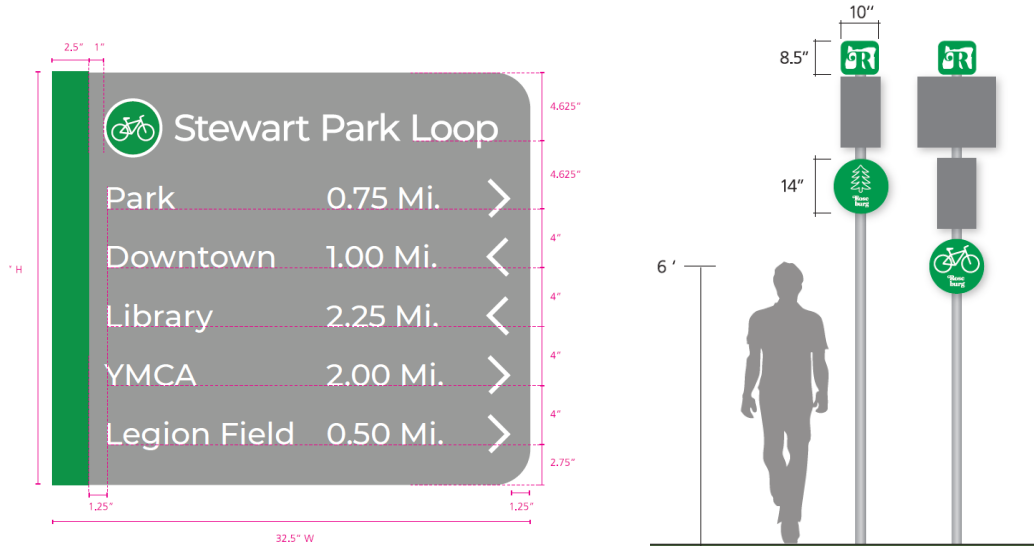


Figure 4-5. Wayfinding Signs Designed for Roseburg's Park Trails

4.2.3 Informational Kiosks

Informational kiosks, such as the design in Figure 4-6, can include maps and other relevant information. They are best installed at popular locations or intersections to provide an overview of the bike network and proximity to services and other destinations. Kiosks are helpful at trailheads and park entrances and can also be useful at schools, transit centers, and popular downtown areas. Roseburg has existing informational kiosks for the Umpqua River Trail along the trail and in the downtown area.

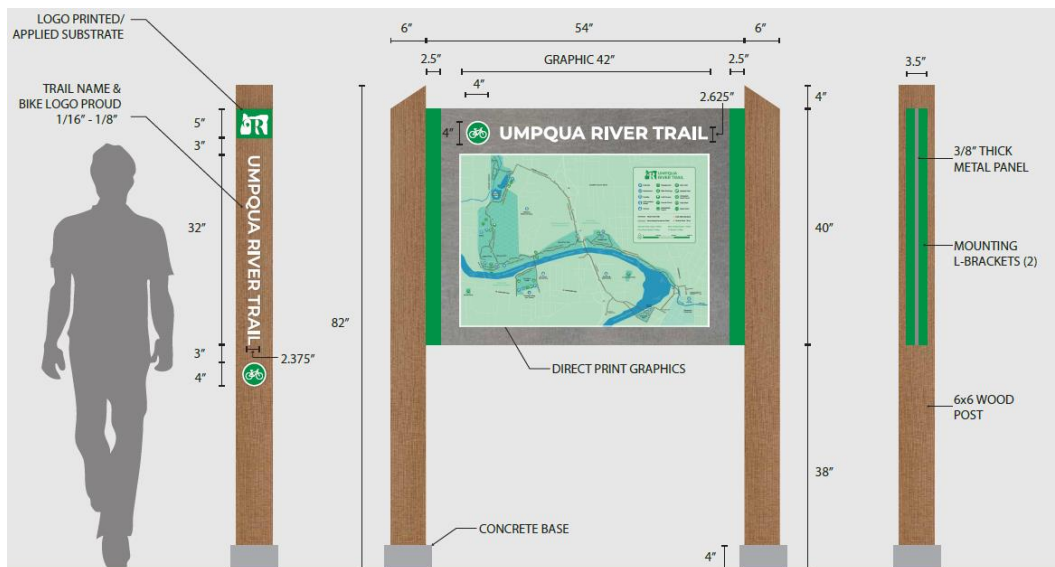


Figure 4-6. Trail Kiosk Designed for Roseburg

4.2.4 Bike Route Pavement Markings

Pavement markings can be effective at indicating bike routes. Pavement markings are often more visible than signs because people biking and driving are already looking at the surface of the road.

Sharrows

In addition to indicating that the lane is shared with cars and bikes, shared lane markings, or *sharrows*, also assure people that they are still on the bike route and can help with wayfinding navigation. Their large size can be seen from a distance, so people can tell they are heading in the right direction.

The chevron arrows should be oriented toward the direction of the bike route; this helps direct users at intersections and turns. Sharrows should be placed on all bicycle boulevard treatments as shown in Figure 4-8. Placement should be frequent and highly visible, and sharrows should be placed in the center of the lane between wheel treads to minimize wear.⁹ The City should refer to MUTCD guidance for sharrow (Shared Lane Marking) placement standards.¹⁰



Figure 4-7. Wayfinding Using Sharrows

Image source: NACTO Urban Bikeway Design Guide

⁹ <https://nacto.org/publication/urban-bikeway-design-guide/bikeway-signing-marking/shared-lane-markings/>

Note: ODOT does not use standards based on NACTO. See the ODOT Design Manual and AASHTO's Guide for the Development of Bicycle Facilities for state-owned facilities.

¹⁰ https://www.oregon.gov/odot/engineering/documents_trafficstandards/traffic-line-manual.pdf

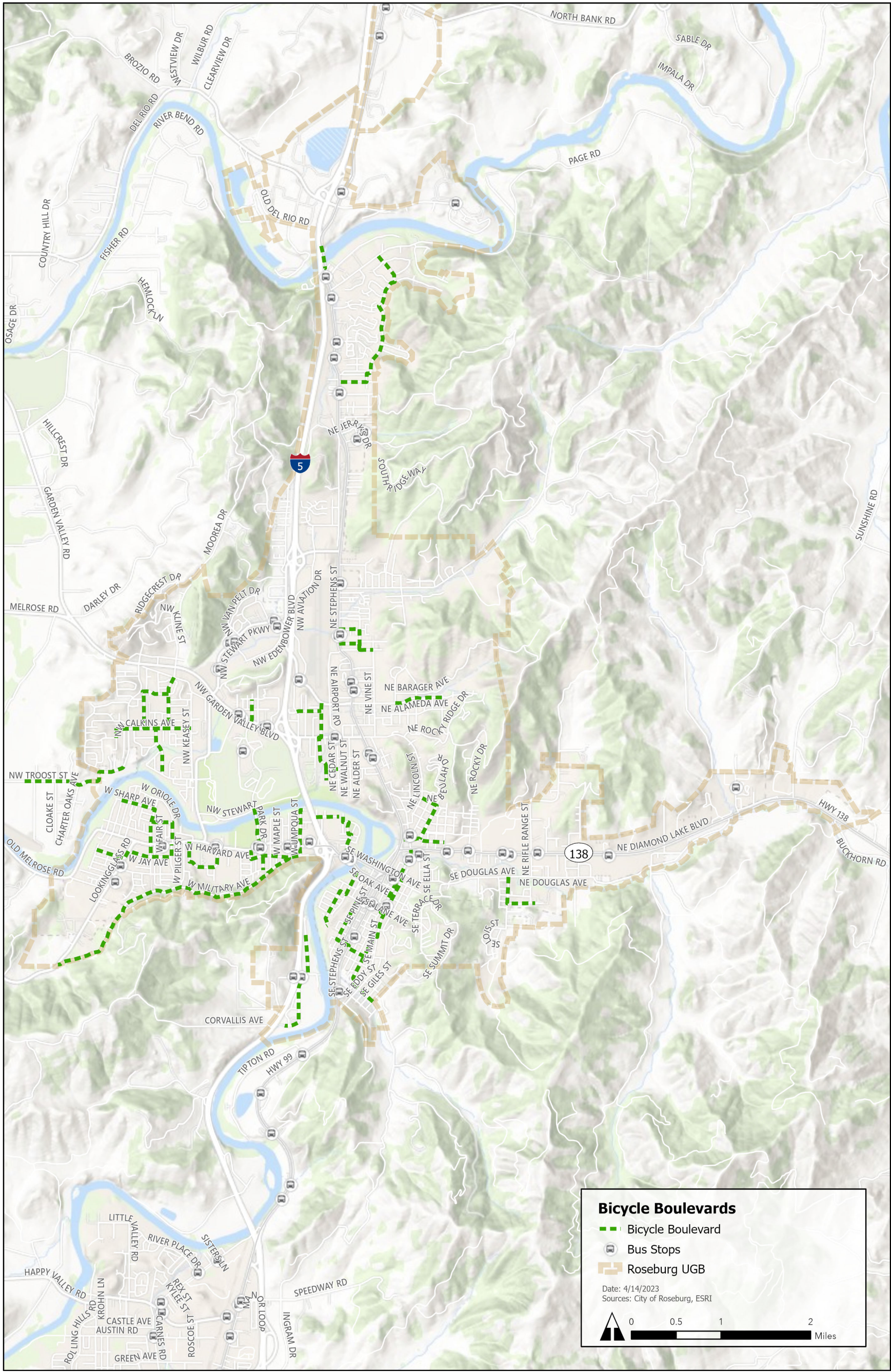


Figure 4-8. Bicycle Boulevard Treatments for All Bike Routes

Trail Pavement Markings

The City of Roseburg developed custom bike path markers for the Umpqua River Trail (see Figure 4-9). These markings are relatively small and are not recommended for use on roadways because they can be difficult to see. However, they can be effective on trails and paths because these are relatively narrow and markings last longer without the wear of heavy vehicular traffic.

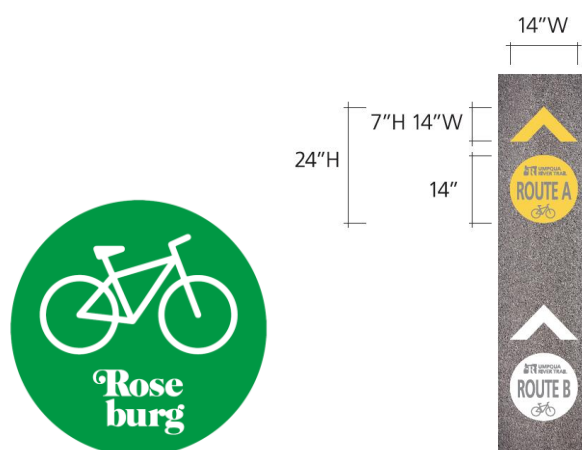


Figure 4-9. Custom Pavement Markers for the Umpqua River Trail

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5. BICYCLING PROMOTION

Bicycling promotional events and programs encourage people to ride in Roseburg. In addition to providing an overview of potential events and programs, this section lists existing community organizations that could be involved in implementation and management. The events and programs listed below are a menu of options for the City to consider for implementation or to encourage other groups to implement. It is up to the City's discretion to decide which events, programs, and promotion are worth pursuing, as well as which organizations to involve in the planning and implementation process.

5.1 Community Programs and Events

Educational and promotional programs help encourage biking and build confidence for people of all ages and abilities, especially when paired with infrastructure improvements. Educational programs can teach people how to get around safely and comfortably by bike and how to drive safely around people biking.

Events such as “Bike to School Days” and “Car-Free Street Days” develop community awareness and a sense of comfort for biking on the road. Programs can help educate people about the existence of bike routes, increase traffic safety knowledge, and promote the use of bicycle infrastructure by all members of the community. Family and kid-focused events and programs, such as a sharrow design contest (Figure 5-1) and traffic gardens (Figure 5-2), can increase familiarity and comfort with biking at a young age. Bike riding can help children build a sense of independence, get to know their neighborhood, and feel like a part of their community.

Options for promotional bike events and programs are described in Table 5-1 through Table 5-3. These events, classes, and programs have been successful in Roseburg and/or other cities. Several can be funded and hosted by partner organizations and local businesses. Many require relatively little funding. For full descriptions of promotional events and programs, including potential partners and funding sources, see Appendix G: Memo 7 – Bicycling Promotion.



Figure 5-1. Bike to Books Sharrow Installation

Image source: Portland Bureau of Transportation



Figure 5-2. Traffic Garden at Open Streets DC

Image source: Discover Traffic Garden

Table 5-1. Family/Children’s Events and Programs

Event	Description
Safe Routes to School	Safe Routes to School (SRTS) programs use education, encouragement, and enforcement to promote walking and biking to school as a safe means of transportation and to promote health benefits. <i>This is an ongoing program in Roseburg.</i>
School Streets Initiatives	These programs improve safety on school-adjacent roads before and after school hours by temporarily opening roads to walking and biking (and closing the roads to motor vehicles). By creating direct, safe routes to schools, School Streets initiatives increase driver awareness and encourage parents and children to travel to schools by walking and biking. They are relatively inexpensive to implement and can be adjusted based on community feedback.
All Kids Bike	Non-profit organization that aims to teach kids how to ride a bike by placing learn-to-ride programs in kindergarten classes. Each sponsored school is expected to host the program as part of ongoing curriculum for a minimum of 5 years. <i>Douglas Education Service District has done this with support from the Street Trust.</i>
Preferred Routes to School	Defining preferred, safe routes to school from different neighborhoods helps students and parents know the best roads or paths to take when walking or biking. At a minimum, routes should be mapped and maps should be distributed to families. Routes can also have yard signs or other markings to indicate that they are safe routes. Markings can also be used as wayfinding, perhaps with color-coded or age-appropriate labels, that point the direction to the school.
Bike Trains	Bike trains are informally organized groups of students biking to school together. As a group, biking feels safer and helps encourage kids to ride. Bike trains could have adult supervision depending on the ages of the students.
Sharrow Design Contest	Children are encouraged to design bike lane art. Winning designs are installed on a bike route. These build excitement for biking and create something fun for kids to look for when biking.
Earn-a-Bike Youth Program	Youth between 12 and 25 years old in need of a bike can participate in the earn-a-bike program. Umpqua Valley Bicycle Outreach provides bike parts and guidance for participants to build and maintain their bikes. <i>This is an ongoing program in Roseburg.</i>
Bike-to-School Days	Annual or monthly bike-to-school days build community awareness and excitement about biking. They create community support for biking; coworkers or classmates encourage each other to bike. Increasing the number of people biking on the roads may also result in a safety-in-numbers effect and cause drivers to be more cautious while sharing the roadway. When paired with educational opportunities such as bike maintenance classes and lively events with food and activities, these events can build biking habits and lower the barrier of entry for first-time commuters. <i>This is an ongoing program in Roseburg.</i>
Citywide Sticker Hunt	Scavenger hunt–style sticker hunt and self-guided bike rides encourage families to ride their bikes to different locations in the City, such as parks and landmarks. Sidewalk stickers provide fun activities for kids who can fill their sticker “passports.” <i>Douglas County Education Service District SRTS has implemented similar scavenger hunts in the past.</i>
Traffic Garden	This is a child-sized model, built with mats, that reproduces everyday urban traffic. It can be permanent or portable and brought to schools and other institutions interested in showing children how to navigate safely and use sustainable and safe transportation options. Children move through the traffic garden and teachers show them how to safely walk and cycle, how to read traffic signals, and how to interact with other road users. <i>Douglas County Education Service District SRTS has implemented traffic gardens in the past.</i>
Bike Fairy	The bike fairy visits schools while students are in class to leave a small surprise on bikes, scooters, and skateboards parked on school campus to reward kids for riding their bikes. The Bike Fairy acts as an encouragement tool for biking to school.

Table 5-2. Community-Wide Events

Event	Description
Bike Routes Ribbon Cutting	Can involve bike/ped organizations to distribute maps and promote ribbon-cutting events when new routes are opened.
Bike Routes Naming Challenge	Community members are invited to submit ideas to help develop names for the new routes in the Roseburg Bike Routes Plan.
#RoseburgSafeStreets Campaign	<p>This campaign began in 2019 to facilitate public education about street safety, sharing the road, and the need for increased safety measures. In previous years, this campaign has provided a bike fleet and bike safety curriculum to elementary school students, coordinated Walking School Buses and Bike-to-School Days, hosted bike rodeos, and hosted workshops such as the Friendly Driver Program. The program also increased awareness through the distribution of Safe Streets yard signs and a radio program to promote safe streets.</p> <p><i>This is an ongoing program in Roseburg, though current activities may vary.</i></p>
Better Block Project	Demonstration projects that temporarily transform underutilized streets with inexpensive and removable materials. Can be used as a way to test street design concepts before committing with more expensive, long-term materials. Community engagement is a major element to Better Block Projects to introduce new ideas of using the street.
Car-Free Street Days	Car-free days provide an opportunity for residents to experience what streets feel like without cars and can shift the focus of what modes of travel are prioritized. These events are popular in cities around the world and are often paired with street fair–like activities and programming, which can foster community pride.
Know Your Bike Routes Rides and Educational Events	A series of bike rides led by a local expert that combines two or more bike routes to form a loop ride. These kinds of local-led rides can help people riding bikes feel more comfortable on shared-use roads, explore how traffic calming measures work, and learn how the bike network is connected.
Group Rides (Varying Experience Levels)	<p>Umpqua Velo Club leads weekly group rides for a variety of abilities including Tuesday Easy Rides, beginner-friendly rides for kids, grandparents, or people who are not as comfortable riding a bike. Bigger annual rides, such as the Vineyard Tour, also build enthusiasm for biking.</p> <p><i>Multiple rides are organized in Roseburg on an ongoing basis.</i></p>
National Bike Month	<p>May is National Bike Month – a chance to showcase the many benefits of bicycling and encourage more folks to bike. Events can include themed rides, promotional social media campaigns, and bike commuter challenges. The National Bike Month Guide from the League of American Cyclists¹¹ provides resources and outlines for organizing bike month events.</p> <p><i>This is an ongoing program coordinated by Thrive Umpqua and the Umpqua Velo Club.</i></p>
Bike Tune-Up Days	Local bike clubs or shops can host tune-up events for those who haven’t used their bikes in a while or may not have the skills to tune up their bike. These events can be volunteer-based or can be sponsored by local businesses or large corporations.
Bike Fairs	<p>Bike fairs are community events, often held at a park, that host a variety of bike-related activities including classes, maintenance, and contests. Bike fairs are good opportunities for local bike businesses and organizations to come together and be seen by people interested in biking.</p> <p><i>Bike fairs have been hosted in Roseburg and are popular in the community. See Figure 5-3.</i></p>
Community Bike Sale/Swap	Designated location and time to encourage community members to bring their no-longer-needed bike-related items including bicycles, parts and accessories. Can provide a solution for those curious about riding but unsure or unable to obtain a bike.
Neighborhood Bike-Ability Audit	Organize a ride where participants locate potential hazards and issues for biking in the neighborhood and create a list of areas of concern. Inviting elected officials will help them understand the community’s needs for better facilities.

¹¹ https://bikeleague.org/sites/default/files/LAB_Natl%20Bike%20Month%20Guide.pdf

Event	Description
Bicycle Friendly Community Status	The Bicycle Friendly Community program is operated by the League of American Bicyclists as a way of encouraging and recognizing communities that invest in accommodating bicycling. The program considers a broad range of factors that contribute to making a community better for bicycling such as infrastructure, programs, and plans for the future. Businesses can also apply to be recognized as Bicycle Friendly Businesses. <i>Roseburg is currently a Bronze-level Bicycle Friendly Community.</i>
Bike and Shop Restaurant and Business Week or Month	Those who can show they rode their bike to participating businesses receive a discount on their purchase. These can be combined with National Bike Month. <i>Thrive Umpqua has coordinated these during Bike Month</i>
Bike Town Hall	Host a town hall to hear from community members on what would encourage them to ride more. Find out the barriers for bicycling
Bike More Challenge	The Bike More Challenge is a free month-long program. Participants are encouraged to register teams, recruit members, and get around by bike. Oregon Love to Ride (lovetoride.net/Oregon) provides a platform for people to log their trips. Participants can win prizes by logging trips. Can be combined with National Bike Month or aligned with the broader statewide Bike More Challenge.

Thrive Umpqua - formerly Blue Zones Project

Table 5-3. Educational Opportunities and Training Workshops

Event	Description
Oregon Friendly Driver Program	Interactive class sponsored by ODOT to educate people who drive about the best and safest ways to use the road with people walking or biking. The Oregon Friendly Driver class addresses: <ul style="list-style-type: none"> • The rules of the road for people driving, biking, and walking. • How to avoid common crashes. • How to share the road with other users. • How to use roadway features such as sharrows, bike lanes, and rapid flashing beacons. Companies can schedule an Oregon Friendly Driver presentation at their workplace
Bicycle Safety Education ¹² Classes	Bicycle Safety Education is taught to fourth- through sixth-grade students during the school day. The curriculum includes 10 hours of in-class instruction and outdoor on-the-bike practice. The class ends with at least one graduation group ride through the neighborhood. <i>This is an ongoing program in Roseburg schools.</i>
Local Club-Led Group Activities and Classes	This can include bike repair learning opportunities, skill sharing, bike shop discounts, group rides, and a social community for people of all abilities. Classes may be held in community spaces or schools.
Learn to Load Bikes on the Bus	To familiarize people with the process of loading and unloading bikes on buses, UTrans (or other transportation advocates) can set up demonstration bus bike racks for people to practice. People would be available to describe the process and answer questions. Demonstration bus bike racks can be in permanent locations, such as at the Umpqua Public Transportation District office, and can be brought to events where people are likely to have their bikes.
Adult Bicycle Education Classes	Workshops to prepare people for biking safely on the road. May include how to choose a bike, how to ride safely in different contexts, and best practices for commuting. May include practicing biking on the street in small groups and with instructors to gain comfort and familiarity.
Cycle Umpqua Ride Information Website	Website that provides cycling information for the Umpqua Valley. Provides tips for planning rides and several recommended rides, including the "Heart of Roseburg Figure 8".

¹² <https://www.portlandoregon.gov/transportation/69808>

Thrive Umpqua - formerly Blue Zones Project

5.2 Community Organizations

Local organizations will be integral to planning and orchestrating events to raise awareness of Roseburg's bike route system. Local nonprofits, schools, and advocacy groups can help promote biking and familiarize community members with new bike facilities. Several organizations have been identified as potential partners that may be interested in helping promote the bike routes project. Many of these organizations have previously hosted events and campaigns centered around bicycle and pedestrian safety.

For example, Thrive Umpqua (formerly known as Blue Zones Project) launched the #RoseburgSafeStreets Campaign in 2019 to remind people to share the road safely when driving, biking, and walking. Umpqua Velo Club organizes many special community events as well as regular rides, such as their Tuesday Easy Rides that encourage novice riders to join. Umpqua Valley Bicycle Outreach offers discounted bike repairs, runs a youth earn-a-bike program, and hosts bike events. Douglas Education Service District's SRTS program hosted a bike fair in May 2022 in cooperation with Thrive Umpqua and other organizations (see Figure 5-3). The event featured bike maintenance classes, games, helmet fitting, a skills course, safety materials, and free prizes.

A traffic safety playground, also known as a traffic garden, was installed in Stewart Park through a collaborative effort between Roseburg Parks and Recreation, Douglas County SRTS, and Thrive Umpqua to teach children bike and traffic safety. The City should continue to partner with these organizations and engage with other community groups when planning larger events and ongoing campaigns. Existing bike and pedestrian organizations in Roseburg are listed below. For a full list of organizations that may be willing to support or participate in bike events and programs, see Appendix G: Memo 7 – Bicycling Promotion.

Existing Roseburg bike and pedestrian organizations:

- Bike Walk Roseburg
- Douglas County SRTS
- LUMBR (Land of Umpqua Mountain Bike Riders)
- Thrive Umpqua
- Umpqua Velo Club



Figure 5-3. Roseburg Bike Fair Poster

Image source: Douglas Education Service District

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6. IMPLEMENTATION AND FUNDING

These bike route projects were developed to be implemented expediently. Many of the routes use existing bike facilities and require only signs and isolated facility improvements. Routes with bike lane and bike boulevard improvements can be implemented along with regular paving projects. Most of the larger projects scheduled for the long-term Phase, such as new paths and new bridges, align with already planned projects identified in the TSP. Bike routes may also be implemented more quickly as stand-alone projects as funding allows.

6.1 Funding Opportunities

This section provides an overview of available funding and identifies other potential funding sources for implementing the improvements identified in this Roseburg Bike Routes Plan. For detailed descriptions of funding opportunities, refer to Appendix A: Memo 1 – Existing and Future System Conditions.

6.1.1 Revenues and Expenses

The City of Roseburg maintains three funds that could fund bicycle improvements:

- **The Transportation Fund** – Accounts for the financial resources used for infrastructure construction and major improvements other than those related to drainage, parks, and proprietary fund assets. Historically, this has funded street reconstruction and new street projects. Revenue for the Transportation Fund comes primarily from a mix of state gas tax revenue, franchise fees, and system development charge fees. Expenses are split roughly equally between materials/services and capital improvements.
- **The Streetlights and Sidewalk Fund** – Finances the sidewalk rehabilitation program. It can also fund sidewalks or streetlights on major improvement projects. Many of these resources are dedicated to ADA improvements in the Five-Year Capital Improvement Plan. Revenue is primarily generated through the Hotel/Motel Fund.
- **The Bike Trail Fund** – Accounts for the state-mandated one percent share of gasoline subventions and grant revenues for the construction and maintenance of bike trails. Projects in the Bike Trail Fund are coordinated through the Parks Division and Parks & Recreation Commission.

An overview of the revenue for these funds is listed in Table 6-1, and an overview of expenses is listed in Table 6-2.

Table 6-1. Budgeted Revenue

Revenue	Adopted Budget 2021–2022
Transportation Fund	
City Franchise Fees	\$516,144
Gas State Subventions	\$1,887,660
Transportation system development charges	\$150,000
Other	\$24,000
Streetlights/Sidewalk Fund	
Interest Income	\$3,500
Transfer from Hotel/Motel Fund	\$399,477
Bike Trail Fund	
Gasoline Subvention	\$18,000
Other Grants	\$132,450
Interest Income	\$1,700
Transfer from Transportation Fund	\$10,000
Total Revenue	\$3,143,431

Table 6-2. Total Expenses

Expense	Adopted Budget 2021–2022
Transportation Fund	
Materials and Services	\$1,392,393
Capital Improvements	\$1,480,000
Streetlights/Sidewalk Fund	
Materials and Services	\$88,655
Capital Outlay	\$410,000
Bike Trail Fund	
Bike Trail Maintenance	\$10,000
Bike Trail Improvements	\$147,610
Total Expenses	\$3,528,658

Source for Table 6-1 and Table 6-2: City of Roseburg, Oregon
Adopted Budget 2021-2022

6.1.2 Funding Options

Various funding sources are available to fund projects and programs depending on the type of project, the roadway (state or local) the project is on, and project cost. This section outlines local transportation funding sources that could be enacted or modified to increase general levels of transportation funding as well as grants that Roseburg could apply to for funding. For a full description of funding options, refer to Appendix A: Memo 1 – Existing and Future System Conditions.

Local funding options that can be leveraged by the City include the following:

- System development charges
- Local gas tax
- Property taxes and bonds
- Tax increment financing (urban renewal areas)
- Leveraging utility funds

Table 6-3 summarizes grant funding opportunities, the types of improvements that would be eligible, and provides a high-level assessment of the viability of each grant option for funding projects in Roseburg.

Table 6-3. Promising Grant Sources for Bike Plan Projects

Grant Source	Agency	Project Eligibility	Match Required	Funding Amount ^a	Likelihood of Success ^b
Statewide Transportation Improvement Program (STIP)	ODOT	Many types, generally must be of regional significance	Varies	~\$2 billion statewide	Low. Major projects on OR 138 are most likely for funding, though the STIP process is extremely competitive.
Oregon Community Paths	ODOT	Paths and trails that are generally of regional significance or that fill gaps in a trail network	10 to 30% depending on funding source (federal or state)	\$75,000 to \$750,000 for project refinement \$200,000 to \$4,000,000 for construction <i>\$15 million statewide</i>	Medium. Trails projects would need to demonstrate merit in terms of closing gaps or enhancing regional connectivity.
Safe Routes to School	ODOT	Projects within a one-mile radius of a school, within a local roadway, and in a jurisdictional plan	20 to 40%	\$60,000 to \$2,000,000 <i>\$15 million for construction, \$2 million for programs (non-infrastructure)</i>	High. This Roseburg Bike Routes Plan includes multiple projects that would have a direct impact on cycling and walking to school.
Recreational Trails Program	Oregon Parks and Recreation Department	Wide variety of trail projects in local communities	20% match	\$10,000 to \$150,000 for most projects <i>\$1.5 million statewide</i>	Medium. Small overall funding pool, but it could be a great opportunity to fund local trail improvements.

^a Funding range per project provided, *total amount available is italicized*.

^b Likelihood of Success was determined through a subjective assessment by the consultant team.

