

CONNECTIVITY PLAN:

Planning for Community Connectivity in the City of Monroe and South Benton County

FINAL REPORT

A cooperative project sponsored by:

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EXECUTIVE SUMMARY

This *Connectivity Plan: Planning for Community Connectivity in the City of Monroe and South Benton County (Connectivity Plan)* is a planning document that provides a clear foundation for developing improved multimodal connectivity options in and around the City of Monroe, Oregon. It also connects many previous planning efforts and needs assessments, which establish the need for, and locations of, an interconnected system of paths, trails, sidewalks, and other amenities that will promote bicycle and pedestrian connectivity. The *Connectivity Plan* is a document to connect the plans, with critical outstanding elements needed to move toward construction.

In addition to connecting existing planning work, there are several unique and key contributions the document makes:

- A comprehensive list of phased pathway development proposals;
- Detailed analysis of which types of pathways and connections are most appropriate;
- Preliminary design guidelines of proposed paths and intersections improvements;
- A robust catalog of grants and funding mechanisms to support construction.

The *Connectivity Plan* recognizes the clear need for multimodal connectivity facilities that exist in and around Monroe, long established by planning efforts and needs assessment dating back to 1979. The document identifies building opportunities; their locations and design parameters; basic costing and potential sources of funding for each project. This *Connectivity Plan* is a guide to construction success for the city of Monroe and Benton County, and while it does not contain technical detail to move directly to construction, it provides enough to help a non-planner/road engineer help guide specific improvements through to construction.

INTRODUCTION

The City of Monroe, Oregon, established in 1853 along the historic Applegate Trail, serves as the central hub for the area economically and socially; however, the community has experienced stagnation in commercial and residential growth in the last several years. Residents of the area wish to see their community expand and flourish while simultaneously attracting new businesses and homeowners. One of the significant barriers to community and economic development is the lack of multimodal paths and connections throughout Monroe and surrounding communities. Under current conditions, residents are limited to accessing schools, the commercial district, and healthy outdoor recreational facilities by disjointed connections, often lacking adequate safety amenities for cyclists and pedestrians. The lack of multimodal connections not only results in unsafe and limited transportation options, but distracts from a sense of community. Conversely, a well-developed network of paths, trails, sidewalks, and bike lanes promote safe and healthy travel alternatives to automobiles; creates opportunities for community engagement with one another and local businesses; and promotes safe and independent access to schools, parks, and other recreational sites for youth.

The residents of Monroe and southern Benton County have long been concerned with the lack of safe alternative travel options. Since the first comprehensive plan was developed in 1979, to the most recent needs assessment and planning documents, community members have consistently voiced their desire for bicycle and pedestrian specific paths and amenities. In 2012, a group of citizens formed the South Benton County Recreation Alliance (SBCRA), facilitated by the Alliance for Recreation and Natural Areas (AFRANA), to develop a vision and concepts to meet this need. The SBCRA sought to build connections within communities and recreational areas to advance the safety, health, and economic vitality of the communities in south Benton County. Throughout the process, SBCRA endeavored to build partnerships with local government, planning, and development groups, and other interested parties. Working with Jenna Tilt of Oregon State University (OSU) and her rural planning students, Benton County staff, the City of Monroe and the Army Corps of Engineers, SBCRA developed a three-phase conceptual connectivity plan:

- Phase I focuses on the City of Monroe:
- Phase II on connecting Monroe with Alpine and Belfountain; and
- Phase III focuses on surrounding natural amenities and recreational opportunities.

In early 2016, the city of Monroe and Benton County agreed to mutually support the creation of a robust planning document aimed at establishing a roadmap to multimodal transportation improvements and connectivity in Monroe and throughout southern Benton County. This planning document was meant to build on work already done by the SBCRA, OSU, Benton County, and Monroe city planners. Furthermore, this document was to serve as a compatible effort with future phased connectivity development outside of Monroe, in part through Benton County's *2017 Transportation System Plan* update. The hope expressed by all parties was to create a guiding document, formally adopted by both Monroe and Benton County. Additionally, the creation of this plan and resulting partnership, represents an improved partnership between Benton County and communities throughout the southern portion of the County.

Coming out of the agreement between Monroe and Benton County, a committee was formed to guide the work of planning staff at the Oregon Cascades West Council of Governments. The South Benton County Connectivity Committee (SBCC) recognized the challenges of bringing longstanding community desires for improved multimodal connectivity to fruition, and assembled key partners to inform and oversee the effort. Committee members included City Council and administrative representatives from Monroe, grassroots community groups, Benton County, Public Works, Public Health, Community Development, Parks and Natural Areas, County Commissioners, and the Oregon Department of Transportation. The work of this Committee largely focused on how to create a useful document for Monroe and the County; identifying barriers to building the envisioned network of paths with agreeable solutions; identifying funding mechanisms; and establishing basic construction frameworks. Through Committee meetings and technical advising from the Committee, staff at the Oregon Cascades West Council of Governments (OCWCOG) created this planning document to serve as a guide for utilizing the existing Bailey Branch Rail Corridor through Monroe.

A significant portion of the work that went into this document was the review of existing planning documents and needs assessments, previously developed for Monroe and south Benton County. This review was important for two primary reasons. First, it established the longstanding community desire for multimodal facilities for the Region. Secondly, it created a robust list of multimodal infrastructure and amenity needs, already desired by community members. These two elements combined, provide the foundation for well vetted and welcomed connectivity improvements in Monroe and surrounding communities.

Multimodal connectivity needs in south Benton County, relative to this planning effort, can be divided into two phases.

- *Phase I* focuses on the southern portion of the Bailey Branch Rail Corridor from either the Alpine Road, or Alpine cut-off road southward to the Monroe Grade School (see Appendix A). This section of proposed pathway is considered the backbone of all future connectivity efforts for Monroe and the Region. Establishing a multi-use path there will effectively connect the core of Monroe residents to the schools; a commercial district poised to grow; parks; and community centers, such as the library and Legion Hall.
- *Phase II & III* includes connections from the Phase I path to the communities of Alpine and Bellfountain, as well as other recreational and natural amenities within Monroe and potentially as far reaching as Alsea Falls and the Willamette River.

COMMUNITY CONTEXT¹

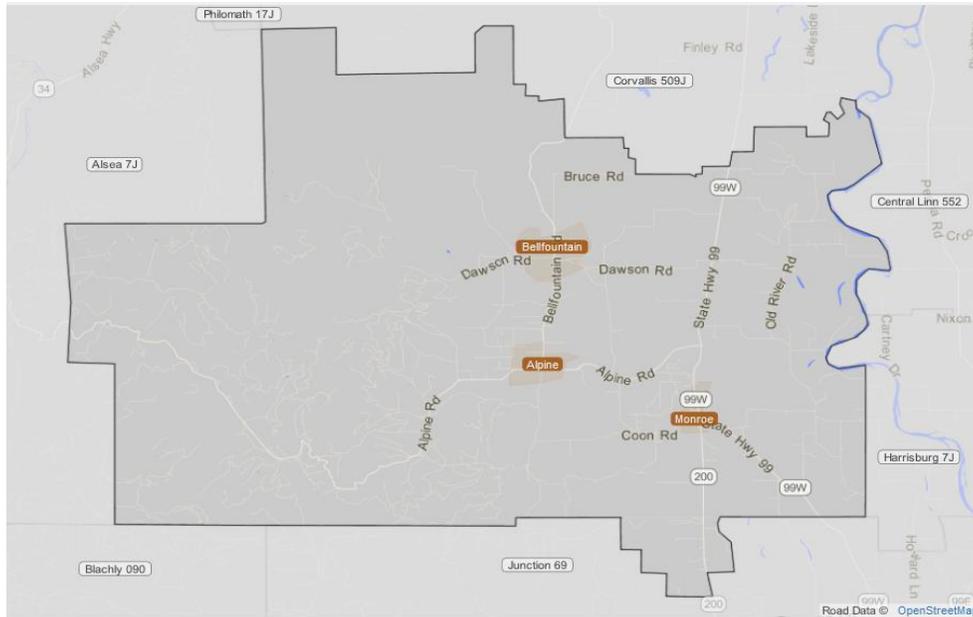


Figure 1. Monroe, Alpine, and Bellfountain School District Boundaries.

POPULATION

The City of Monroe is a small town in south Benton County, Oregon with an estimated population of 677 as of 2014.² Monroe serves as the population center for nearly 3,000 surrounding Benton County residents, living outside the incorporated towns of Alpine, Bellfountain, and Monroe. Other communities in the Region (of Benton, Lincoln, and Linn Counties) include Alpine (84) people and Bellfountain (101 people).³ Monroe has experienced some population growth since 2009, estimated at 10%.⁴ Of note in terms of significant population changes in Monroe over the eight years is the increase in the Latino population. The 2014 American Community Survey indicates that this population has grown by 10% between 2006 and 2014.

¹ Community context information was provided by Oregon State University GEO 452/552 students. As a part of the winter 2016 course offering, students created the *Monroe Area Community Revitalization Opportunities* document, from which this context was derived, with permission from the instructor, Jenna Tilt.

² 2015 American Community Survey (5-year estimate)

³ *ibid*

⁴ 2009 American Community Survey (5-year estimate)

AGE

The City of Monroe has a higher than average median age, relative to the county, at 44.3 years old, but is close to the median age for south Benton County at 43.3 years old. The median age of Monroe is older than the median age for Benton County and Oregon. The median age in Alpine is older than Monroe at 54.5 years.⁵ From 1990-2015, the largest percent of age group growth were people between the ages of 45-65, representing 17% of all aging people. By contrast, residents between the ages of 1 and 34 decreased by 13% over the same time period.⁶

HOUSEHOLD INCOME

Communities in south Benton County are less affluent when compared to Benton County and Oregon. The median household income in Monroe is \$37,576 and 14.5% of the population is below poverty level (see Table 3). In the surrounding area of Alpine, the median household income is very low at \$22,083, with 23.5% of the population below poverty level (see Table 1).

	Monroe	Alpine	Bellfountain	South Benton County	Benton County	Oregon
2015 Median household income	\$37,576	\$18,806	\$43,877	\$43,877	\$49,338	\$50,521
2014 Poverty rate	14.5%	23.5%	0.0%	15.6%	22.7%	16.7%

*Table 1 Median Household Income and Poverty Rate*⁷

EMPLOYMENT AND COMMUTE PATTERNS

The percentage of people working in Monroe for the total population of the area is 2.6%. 43.6% of people travel to other location, which could be up to 50-mile commute. A small percent commute as far as Springfield and Salem (27 and 54 miles from Monroe, respectively). The chart below shows percentages of people who work in various locations.⁸

⁵ (ACS 2015)

⁶ (ACS 2015)

⁷ (ACS 2015)

⁸ (US Census 2014)

Job Counts Where Workers are Employed

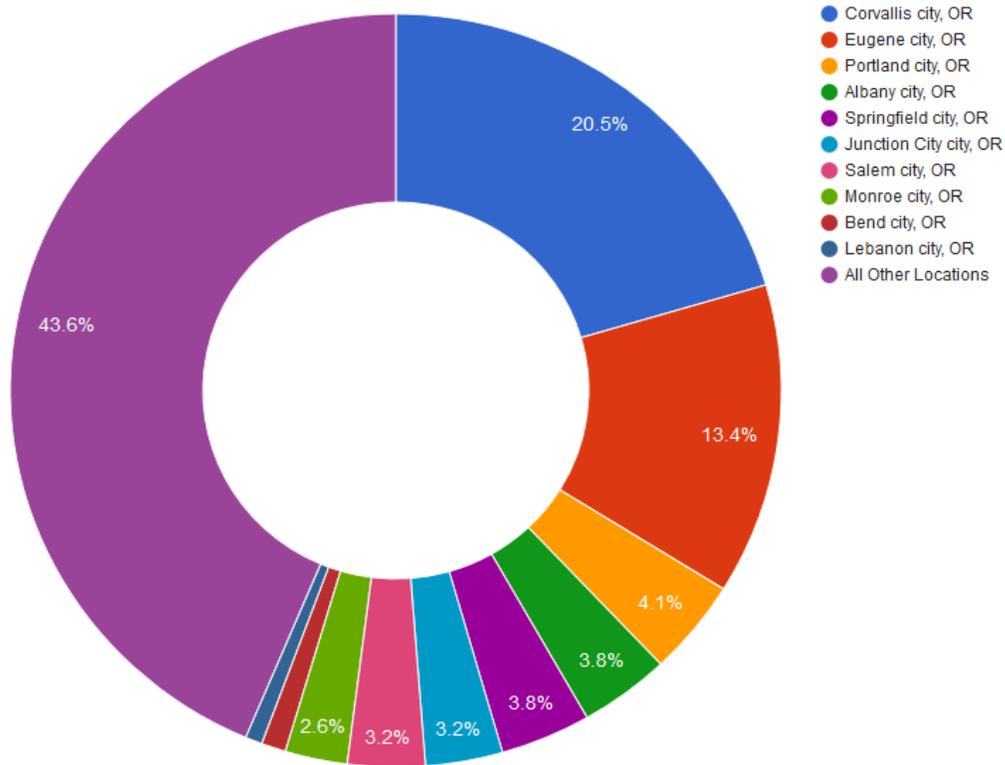


Figure 2: Percentages represent workers that travel to the colored location destination to work.

From 2005 to 2014, number of south Benton County residents commuting out of the area for work has increased from 1,015 in 2005, to 1,172 in 2014. Those commuting into the south Benton County area has also increased slightly from 318 in 2005, to 406 in 2014; residents who work and live in the area has slightly decreased to 93 individuals (see Figure 2).

TRANSPORTATION

Transportation options are very limited in Monroe and basic services are only safely accessible by car. Unfortunately, there are very few improved alternative transportation options around south Benton County. A bus program did exist that shuttled people on the Highway 99 corridor, but it was discontinued in 2012. The city of Monroe has very few sidewalks, and Highway 99 is often a dangerous road to cross. Historically, transportation issues and concerns have been central to many planning documents. Focal issues have been: improving sidewalks, improving street-lighting, improving Highway 99 pedestrian crossings, and improving the bus service.

ACCESS TO PARKS

Within Monroe, there are two public parks: a recently built park at the end of Commercial Street (*Reservoir Heights Park*) and an unnamed City park across the Long Tom River. The recently built *Reservoir Heights Park* provides a great view of the City and central Willamette Valley,

while also giving residents great open space. This park is a positive achievement for Monroe. The City Park across the Long Tom River is a nice asset for the City, but underdeveloped and difficult to access without the use of a vehicle.

Within Monroe there are open spaces at both the elementary school and high school, which operate as open spaces for residents as well. The high school has a track and open fields. The elementary school has outdoor basketball courts, a playground, and open fields. There is a *Nature Play Park* currently being built at the elementary school. With funding from donors, construction on the Park began in summer of 2015.

Throughout south Benton County, there are multiple parks and natural areas. The *William Finley Wildlife Refuge*, located eight miles north of Alpine and Monroe, is a great asset for the community. The *Refuge* provides many hiking trails and attracts various wildlife enthusiasts to the area. Alsea Falls, located 15 miles west of Monroe is an additional recreational asset for the south Benton community. The recreational area contains hiking and equestrian trails, camping, a day use area, and world class mountain biking trails.

COMMUNITY VENUES

Community venues act as an important part of any town; they are a meeting place and locations where the people of the community are encouraged to interact with their neighbors. In 2013, after six years of fundraising, a \$2.4 million-dollar community library was built at the northern end of town, right across from the high school. This new community center serves as a great indoor venue for a variety of activities. Another important community venue is the Legion Hall, which many recognize as the community center and operates as a senior center. Other public venues include the elementary school and high school.

In the larger south Benton County region, the Alpine Community Center (ACC) acts serves as another community venue. The ACC provides South Benton with activities and programs, including art classes, a pre-school, music nights, bingo nights, community dinners, and more. In Bellfountain, a building formerly holding a school in Bellfountain, is also used a community center for the people around that area.

SUMMARY OF PREVIOUS PLANNING WORK

As far as the South Benton County Connectivity Committee (SBCC) is aware, since the first *Monroe Comprehensive Plan* (1979) was drafted and adopted, there have been 11 additional planning documents created with direct mention of, and planning for, non-motorized connectivity and trail development throughout the Monroe, Alpine, and Bellfountain Region. Additionally, another seven community assessments of various sorts have been undertaken to lay the foundation for community development, including pathway/trail development. Included in the scope of work for this *Connectivity Plan: Planning for Community Connectivity in the City of Monroe and South Benton County* (*Connectivity Plan*) was the request to review the following documents (bolded) for relative context and community support for various potential connectivity projects:

Monroe Comprehensive Plan (1986)

Monroe Comprehensive Revitalization Plan (1999)

Monroe School Action Plan (2010)

Monroe Parks Master Plan (2011)

Benton County Natural Areas and Parks System Comprehensive Plan (2012)

Alpine Community Plan (2013)

Greenberry Plan (2013)

Bellfountain Rural Community Plan (2013)

Benton County Community Health Improvement Plan (2013)

Bailey Branch Rail Corridor Management Strategy (September, 2014)

United Way of Benton & Lincoln County Community Needs Assessment (2014)

South Benton County Needs Assessment Planning Summary (2015)

Local Issues Final Paper (2015)

Local Connections Final Paper (2015)

Bridge Site I: Site Report (2015)

Monroe Area Community Revitalization Opportunities – MACRO (2016)

Monroe Walkability Assessment – Spanish Language (2016)

Monroe Walkability Assessment – English Language (2016)

The following summaries will highlight commonalities in the community's desire for non-motorized pathways and connectivity options in and around Monroe. Further, given that all the documents reviewed were developed with community input and often publicly vetted, these commonalities in connectivity demonstrate a significant demand in the community.

Monroe Comprehensive Plan (1986)

Proposed as a “guide to be continually used in making decisions regarding change in the community,” the *Monroe Comprehensive Plan* was used to determine and implement policy, a reference for projects involving infrastructure improvement or land use, and as “a source of information and a means of communication and education for the public.”⁹ Included in this plan

⁹ (“Monroe Comprehensive Plan 1986” 1986, 1)

are templates that outlined development standards, procedures, and locations in sectors such as land use, public facilities, transportation, housing, and urbanization.

Sections devoted to recreation, historic and scenic spaces, and air and water quality outline the goals and policies that were either suggested by the City and County or the Land Conservation and Development Commission (LCDC), which approved the *Monroe Comprehensive Plan* in accordance with Oregon Land Use Laws (e.g. Senate Bill 100, 1973). Specific reference to bike/pedestrian amenities are made in section V and VI on recreation and transportation.

Sidewalk construction should be encouraged whenever it is necessary to facilitate safe pedestrian travel, particularly from the residential areas to the commercial areas and the schools.

The following areas need improved access controls to assure pedestrian and vehicular safety:

1. *On the west side of Highway 99W, with particular attention given to the intersections of Kelly, Commercial, Main, and Orchard Streets.*¹⁰

Monroe Parks Master Plan (2011)

The *Monroe Parks Master Plan* addressed the community's needs in terms of parks and recreational opportunities. It provided demographic information, a community profile, and an outlined process of how various planning steps were incorporated into the plan. Some of these steps involved covering broad topics like: Where are we as a community now? Where do we want to be? And how do we get there? Then, once those questions were discussed and a collective vision was framed, strategies, and the steps toward their adoption were defined. These steps could include partnering with local schools and hosting afterschool activities; securing funds; or prioritizing projects in which meeting *Monroe Parks Master Plan* needs were the top necessity.

*Monroe residents identified walking, hiking trails, clean facilities and closer parks as top opportunities that would increase their engagement in outdoor recreation.*¹¹

To address the concern of community well-being, goals and their related policies were defined. The first goal dealt with recreation – mainly providing enough playground-type parks and river access to the Long Tom River. The second goal is an outline of policies and procedures related to park and natural space development, and recreational opportunities. Park types were then classified and public input was assessed. Residents listed walking, jogging, and picnicking as their favorite park activities. From this analysis, it was recommended that the City of Monroe provide adequate park and facility space to meet the recreational needs of the residents.

¹⁰ ("Monroe Comprehensive Plan 1986" 1986, 29)

¹¹ ("Monroe Comprehensive Parks Plan" 2011, 25)

*Local trail networks ... will provide important connections between neighborhoods, parks and schools and simply an off-street place to walk or bicycle for exercise. The purpose of this project is to focus on potential paths that would improve the convenience of daily trips to school, work and shopping areas. The project is part of a broader strategy to get people out of their cars and to promote a healthier, more sustainable community.*¹²

*Monroe School Action Plan*¹³

In 2010, a *Safe Routes to School* action plan (also called the *Monroe School Action Plan*) was created in preparation for applying for funding to improve multimodal access to the Monroe Grade School. During the process of developing the plan, a survey of parents with children at the grade school was conducted. This survey identified the main obstacles to safely accessing the school grounds without an automobile. The obstacles relative were:

- Lack of sidewalks;
- No bicycle lanes;
- Streets leading to the school are not pedestrian and bicycle friendly;
- High traffic volumes on Highway 99 and the Territorial Highway; and
- Coordinating infrastructure improvements is difficult because of multi-jurisdictional control of roads (City, County, and State).

In addition to educational, parental/crossing guard oversight, and training needs, infrastructure improvements relative to this document are identified as:

- Sidewalks along 6th Street, and
- Intersection improvements at 6th Street and Orchard Street.

The plan also notes that most students are within walking distance of Monroe Grade School, but because of many of the barriers discussed, only an estimated 4% of students walk to school and 0% ride bicycles.

Benton County Natural Areas and Parks System Comprehensive Plan (2012)

In 2012, the *Benton County Natural Areas and Parks System Comprehensive Plan* served as an update to a previous version of the *Benton County Parks Plan* made in 1995. It was structured in a way that included a clear vision statement, purpose, and process. The document detailed the benefits of having natural spaces – health and well-being, a greater sense of community, and preservation of the surrounding environment. Public input was gathered and assessed; feedback included a need for environmental education, community health, and habitat preservation. The plan also included a profile of the community, recreation trends, and issues. Finally, contained the document was an inventory and community capacity assessment.

¹² (“Monroe Comprehensive Parks Plan” 2011, 42)

¹³ This plan was not requested for review by the South Benton County Connectivity Committee, but was deemed relevant by the author of this document and included for reference.

The plan incorporated two recommendations:

1. *Create an interconnected and integrated system of accessible natural areas, parks, and trails.*
*System analysis result - The existing system is not interconnected. More organized and collaborative effort is needed to capitalize on major assets such as the Willamette River corridor and trail and connectivity opportunities. The future is very promising with emerging initiatives of a number of managing agencies and non-profit organizations creating opportunities for collaboration and partnering.*¹⁴

*Mission Statement - We provide opportunities for everyone to connect with the natural environment and engage in outdoor recreation, which we value as essential for physical health and well-being. We place special emphasis on achieving connectivity between major parks, natural areas, and communities in the county.*¹⁵

*Policy Goals, Connectivity and Accessibility - To develop an interconnected and integrated system of accessible natural areas, parks and open space, working with landowners and other agencies to fill gaps, acquire easements, create alternative transportation opportunities, and promote green infrastructure. Promote healthy transportation choices through connectivity and public safety. To meet needs of persons with all abilities and demographics.*¹⁶

Alpine Community Plan (2013)

Alpine, an unincorporated area in south Benton County, has experienced a social and economic decline in recent years. Thus, stores, the post office, and schools have been shut down or consolidated, which has led to a loss of jobs and a decline in residential and commercial growth in the community. In response to this, Alpine community members saw it necessary to devise a plan that outlined goals and strategies for improvement. The *Alpine Community Plan* provides an overview of the planning processes that were involved; a statistical rundown of community needs, assets, and barriers; and the results of meetings and public surveys. The document also includes steps taken before planning included the recognition of the community boundary; collecting data pertaining to existing land uses, available public services, and zoning regulations; holding town meetings; and conducting public surveys.

In an organized list, assets and barriers to planning were recognized, collated based on a survey mailed to all residents. The top assets were identified as the community center that

¹⁴(“Benton County Natural Areas and Parks System; Comprehensive Plan” 2012, 25–26)

¹⁵ (“Benton County Natural Areas and Parks System; Comprehensive Plan” 2012, 28)

¹⁶ (“Benton County Natural Areas and Parks System; Comprehensive Plan” 2012, 29)

serves as a gathering place; the spaciousness that comes with low density development; and the quiet atmosphere offered by the small rural area. The top barriers were properties that needed to be cleaned up; a shortage of water due to the limited reach of the local water company; and the lack of an integrated trail system (for both bicycles and pedestrians).

The *Alpine Community Plan* outlines several goals and policies to achieve those goals. With respect to multimodal connectivity, the following excerpts are illustrative:

Community Goals

Goal 1: Alpine will be a small, rural, attractive community in a setting of natural beauty, with diverse opportunities to enjoy the outdoors.

Policy 1.c: Benton County shall work with residents, property owners, and community groups to enhance bicycling and pedestrian opportunities in and around Alpine, providing safe links between important community destinations.

Policy 1.d: Benton County shall work with residents and community groups to preserve and enhance existing park lands within the community.¹⁷

Parks and Recreation Goals - Connectivity & Access; Alpine will improve connectivity and access to outdoor resources in the area.

Policy 1 b: Benton County shall work with property owners along Bellfountain Road and as the roadway widening and separate multi-use trails.

Policy 1 c: Benton County shall work with Alpine residents and [the] Alliance for Recreation and Natural Areas to construct multi-use trails on the abandon[ed] railroad lines.

Policy1 d: Benton County should work with Alpine residents to pursue improved access to the Long Tom and Willamette River[s].¹⁸

Survey results confirmed the importance of outdoor resources to the community, with 52.8% of respondents identifying parks, recreation, and open space as very important to the quality of life in Alpine. Focus groups expressed concern over bike and pedestrian safety. Residents believe

¹⁷ (“Alpine Community Plan” 2013, 13–14)

¹⁸ (“Alpine Community Plan” 2013, vii–viii)

narrow road shoulders and excessive vehicular traffic speeds create dangerous bike and pedestrian conditions on Bellfountain Road and Alpine Road.

The survey also reinforced concerns expressed at the focus groups, with 63.6% of survey respondents identified the construction of bike and pedestrian trails (separate from the road) as a way to make it easier to get from Alpine to parks and recreational opportunities.

Bellfountain Rural Community Plan (2013)

The *Bellfountain Rural Community Plan* was created during the same time as the *Alpine Plan*. In December 1994, the State of Oregon's LCDC adopted Oregon Administrative Rule (OAR) amendments that provided a framework for counties to use in identifying and designating unincorporated communities outside established Urban Growth Boundaries (UGB). Known as the Unincorporated Communities Rule, or simply "the Rule", OAR Chapter 660, Division 22 establishes planning rules for unincorporated communities pertaining to allowed land uses, public facilities, and development standards. The Unincorporated Communities Rule requires counties to adopt land use and zoning measures specific to unincorporated communities to ensure that cumulative development in the communities will not:

- Result in public health hazards or adverse environmental impacts that violate state or federal water quality regulations; or
- Exceed the carrying capacity of the soil or of existing water supply resources and sewer services.

Only three residents participated in the planning process and all agreed that they were satisfied with the current condition of Bellfountain and saw no need to change. Two goals, along with supporting policies were identified:

Community Goals

Goal 1: Bellfountain will be a small, family-oriented community in which residents know each other and enjoy a quiet rural life-style.

Policy 1.a: Benton County recognizes the rural atmosphere of Bellfountain and will work with individuals, organizations, and property owners who wish to maintain the community's character

Goal 2: Bellfountain will provide opportunities for future small-scale business appropriate for its quiet rural character, providing limited goods and services to locals and tourists.

*Policy 2.b: Benton County shall refine the residential zoning designation to offer options for existing organizations to thrive there, now and in the future.*¹⁹

Bailey Branch Rail Corridor Management Strategy (2014)

After the 2013 purchase of the Bailey Branch Rail Corridor by Benton County, the *Bailey Branch Rail Corridor Management Strategy* was created by the Benton County Avery Department Directors (a technical advisory group) to provide options that inform and directs how the Rail Corridor will be managed and preserved for short- and long-term public benefit. The Corridor was purchased to “protect a valuable transportation corridor in Benton County,” but as the *Strategy* outlines, there are various possible transportation uses that could be implemented. The *Bailey Branch Corridor Management Strategy* outlines five management options²⁰:

Option 1. Railroad Only - Preserve and manage the Corridor, as necessary and feasible, to only allow for the future restoration of freight, passenger, or excursion rail.

Option 2. Develop Trails - Develop and manage multimodal (walking, biking, equestrian) trails within the highest priority locations of the Corridor possibly prior to and/or after rail service is potentially restored.

Option 3. Maintain Current Condition and Use - Complete minimal maintenance, and allow existing uses within the Corridor.

Option 4. Transfer of Corridor Location - Exchange railroad land ownership on the north-south Corridor with private landowners, for equal land area that is in closer proximity to current public right of way adjacent to Highway 99.

Option 5. Selling, Leasing, and Granting Easements - Evaluate and complete sales and/or use agreements where requested by adjacent landowners and other organizations.²¹

In addition to expounding on these five management options, the strategy also outlines criteria for evaluating Bailey Branch usage and development proposals. These criteria are important not only for evaluating proposals for the entire length of the Bailey Branch, but also small sections, including the portion in review for this planning document, which includes the southern terminus of the Rail Corridor from the Alpine Cut-off Road south (see Appendix A).

¹⁹ (“Bellfountain Rural Community Plan” 2013, 8–9)

²⁰ (“Bailey Branch Rail Corridor Management Strategy” 2014)

²¹ (“Bailey Branch Rail Corridor Management Strategy” 2014, 6)

United Way of Benton & Lincoln Counties Community Needs Assessment (2014)

United Way is a global organization that empowers communities and helps families and individuals thrive through continued involvement in education, health, and business. In 2013, the United Way of Benton & Lincoln Counties received a 15-year endowment from the Margaret E. Hull Fund to help communities grow and flourish in south Benton County. To accurately identify the areas of need, a *Community Needs Assessment* was created to evaluate resident input and recognize the community's existing strengths. The following needs were identified through surveys and focus groups:

- Healthy and safe options for outdoor recreation and exercise;
- Trail development between grade school and library;
- Safe routes to school;
- Economic development; and
- Activities for families and youth.

Interviews conducted for the *Community Needs Assessment* specifically discuss utilizing the Bailey Branch Rail Corridor as the best use for meeting many of the community's needs.

Benton County Community Health Improvement Plan (2013)

The *Benton County Community Health Improvement Plan* (CHIP) is a "call-to-action" resolution for collective County-wide efforts to implement and achieve community well-being and overall health. The CHIP aligns with health improvement efforts occurring throughout the city of Monroe and south Benton County, including the improvement of coordination and leveraging of resources, and increasing health equity. This *Connectivity Plan* furthers the CHIP goals, with two of the five priority areas.

- The *Connectivity Plan* addresses *Obesity Prevention* by encouraging an increase in physical activity.
- The CHIP also supports the priority area of *Housing and Transportation*, within the *Connectivity Plan*, with the goals of 1) improving utilization of alternative modes of transportation; 2) improving safety for pedestrians and bicyclists; and 3) expansion of trails, bicycle lanes, and connections among all communities within Benton County.

The demand for multimodal paths, bike lanes, and more sidewalks in Monroe and connecting throughout south Benton County is strong. The planning documents reviewed demonstrate a desire from the public in south Benton County for bike and pedestrian amenities and connections. Additionally, numerous planning documents and needs assessments reviewed in for this *Connectivity Plan* exhibit that these types of facilities are deficient, and that their absence is critically limiting the community and economic development potential of Monroe and the surrounding communities.²²

The 2016 MACRO report provides some illustrative reflection on the demand of residents for improved bicycle and pedestrian facilities.²³ The following quotes reflect a limited cross section of the community, but are consistent with other outreach efforts targeting a broader reach of citizens, including Spanish speaking residents.

Limited Alternative Transportation Options or Infrastructure
Forum participants only briefly highlighted limited infrastructure for walking or biking, but Interviews consistently cited a lack of sidewalks, bicycle or walking paths, or public transportation options. This seemed particularly limiting for local high school students, many of which could not drive or did not have access to a vehicle. Some interviewees also stressed the importance of having safe and healthy walking or biking options, especially to the school, and emphasized the impact that providing these transportation options might have on health and exercise in the community.

Lack of Local Opportunities
Youth in particular identified a lack of diverse academic elective opportunities, job opportunities, or extracurricular activities in the Monroe area. Compounded by other barriers, such as declining businesses and limited alternative transportation opportunities, this barrier may make it particularly difficult for the Monroe area to retain current residents or attract new ones – especially younger generations.²⁴

²²(“Monroe School Action Plan” 2010; “Monroe Area Community Revitalization Opportunities” 2016; “Monroe Comprehensive Plan” 1979; “Monroe Comprehensive Parks Plan” 2011; “United Way of Benton & Lincoln County Community Needs Assessment” 2014; “Monroe Walkability Assessment - Spanish Language” 2016; “Monroe Walkability Assessment - English Language” 2016)

²³ (“Monroe Area Community Revitalization Opportunities” 2016)

²⁴ (“Monroe Area Community Revitalization Opportunities” 2016, 27)

While most of the needs assessments and planning documents reviewed have different foci (health²⁵, safety²⁶, parks/recreation²⁷, economic development²⁸, community development²⁹), one of the unifying elements are common requests for specific multimodal infrastructure improvements. These commonalities are highlighted in the table contained in *Appendix B*. This table describes projects that are mentioned in all the planning documents reviewed. The listed projects that either demonstrate a demand from City of Monroe residents, and or have been highlighted as critical for development and the wellbeing of the citizens of the City of Monroe and throughout southern Benton County.

In summary, the City of Monroe and south Benton County share many of the same challenges facing other rural communities throughout the United States. For example, the National Center for Safe Routes to School reports that rural communities have a special need for the benefits of *Safe Routes to School* programs and active transportation. Rural communities have higher levels of physical inactivity than urban areas; high injury and fatality rates from collisions; and poorer infrastructure for safe and convenient walking and bicycling. Residents in the City of Monroe and throughout south Benton County recognize these barriers and have expressed a desire for multimodal pathway development in response.³⁰

²⁵ (“United Way of Benton & Lincoln County Community Needs Assessment” 2014)

²⁶ (“Monroe School Action Plan” 2010)

²⁷ (“Monroe Comprehensive Parks Plan” 2011)

²⁸ (“Monroe Area Community Revitalization Opportunities” 2016)

²⁹ (“United Way of Benton & Lincoln Counties Community Needs Assessment” 2014; “Monroe Comprehensive Parks Plan” 2011)

³⁰ (“Safe Routes to School in Small Rural Communities : Challenges and Strategies to Accessing Funding” 2016)

PROJECT BENEFITS

Safe and connected multi-modal paths throughout the City of Monroe and its surrounding communities have the potential to provide numerous benefits to both current and future residents: increased safety in better planned and managed public biking and pedestrian traffic; health advantages of more outdoor space; better environmental planning efforts; and planning to support appropriate economic development. The Pedestrian and Bicycle Information Center (PBIC) maintains a current list of benefits non-motorized transportation, based on case studies.³¹ Monroe and its surrounding communities in south Benton County can expect some of the following benefits from investing in the construction of more connected communities, focused on bicycle and pedestrian traffic.

SAFETY

There are many public safety benefits to developing shared use-paths, sidewalks, and improved intersections throughout Monroe and south Benton County. Currently, very few multimodal amenities exist, and therefore, very few individuals walk or bike around the community. Nearly all planning documents reviewed for this *Connectivity Plan* demonstrate resident's fear of walking and biking, and resulting desire for safer routes and paths.

Developing a safe and well-marked system of paths, sidewalks, and other multimodal facilities throughout Monroe and south Benton County will create the means for safe travel and reduced potential for conflict with vehicular traffic. These paths will not only benefit the safe travel for youth to and from schools, citizens to parks and commercial centers, but overlap with their access to these destinations, as well as healthy exercise options.

HEALTH

Multimodal paths and safe access to parks in Monroe are “low hanging fruit” for improved health of residents. The PBIC reports that the health benefits of regular physical activity are far-reaching: reduced risk of coronary heart disease, stroke, diabetes, and other chronic diseases; lower health care costs; and improved quality of life for people of all ages. Regular exercise specifically provides the opportunity for health benefits for older adults such as a stronger heart; a more positive mental outlook; and an increased chance of remaining indefinitely independent—a benefit that will become increasingly important as the population in Monroe continues to age.³²

The Benton County Health Department noted in their 2012 *Benton County Health Status Report* the following health benefits from parks and trails:

- *Increased Physical Activity.* Walkable access to appropriate recreational sites motivates people to participate in physical activity and to do so more frequently.
- *Improved mental health.* Parks can serve as a venue for stress reduction.
- *Community interaction.* Parks and trails can provide meeting places for neighbors.

³¹ (“Pedestrian and Bicycle Information Center” 2017)

³² (“Health Benefits of Biking and Walkingmatation Center” 2016)

- *Reduce injury.* Parks and trails can provide safe spaces for people to play and exercise, away from busy streets and commercial zones.
- *Equality.* Physical environments, like parks and trails which promote good health, might be important locations to reduce socioeconomic health inequalities.³³

ECONOMIC DEVELOPMENT

As of the publication of this *Connectivity Plan*, the City of Monroe is in the process of updating its comprehensive development plan, which was last updated in 1986. Since this time, supporting planning documents and needs assessments have identified economic development and transportation planning, as a priority for residents of Monroe and south Benton County. Developing safe and connected active transportation options in Monroe will provide a significant platform for economic development for south Benton County. The PBIC reports several economic benefits to increased active transportation development and usage.³⁴

Savings on Automobile Costs

Residents in the City of Monroe and south Benton County have one option of transportation in and around their community: automobile. Walking and bicycling are affordable forms of transportation, but the infrastructure to do so safely in their community is not available.

Car ownership is expensive and consumes a major portion of many Americans' income. AAA[®] estimates that the average cost of ownership for a middle-sized sedan is \$10,374, representing nearly 20% of a typical household's income. Normalized for an average household in the City of Monroe and south Benton County, this represents nearly 28% of income is spent towards vehicle ownership.

Property Value

In a 2009 study of the relationship between walkability and real estate value, evidence shows an increase in assessed value of \$700 to \$3,000 for every one-point increase in Walk Score.^{35 36}

Enhancing Commerce

The *Bicycling Means Business* report by the League of American Bicyclists summarizes the numerous ways bicycling has a positive economic impact on communities, and evidences how such investments are a cost-effective way to enhance shopping districts and communities, generate tourism, and support business.³⁷ The formula for commerce growth put forth by the *Bicycling Means Business* report is straightforward and supported by numerous case studies:

³³ ("The Health of Benton County; Community Health Assessment" 2012)

³⁴ ("Economic Benefits of Walking and Bicycling" 2016)

³⁵ (Cortright 2009)

³⁶ Walk Score measures the number of typical consumer destinations within walking distance of a house, with scores ranging from 0 (car dependent) to 100 (most walkable). By the Walk Score measure, walkability is a direct function of how many destinations are located within a short distance (generally between one-quarter mile and one mile of a home).

³⁷ (Flusche 2012)

People who ride bikes, not only buy bikes, but buy other goods within biking distance as well; bike assessable commerce benefits from catering to these customers.

People on bikes are more likely to make repeat trips to local stores and because bikes are much less expensive to maintain than cars, cyclists have more money to spend at local businesses.³⁸

The *Bicycling Means Business* report concludes that bicycling is popular across America among all types of people.³⁹ Communities that have fostered that popularity by providing bicycle infrastructure for transportation and recreation have seen considerable economic benefits by attracting businesses, tourism, and active residents.⁴⁰

Neighborhoods become more desirable when traffic slows down and residents have more transportation choices. Businesses can encourage shopping among loyal, local customers by making getting there by bike more appealing. Individuals benefit from increased levels of fitness and health that result in real cost savings and employers have healthier employees who miss fewer days of work.

The benefits other communities are now enjoying from bike and pedestrian pathway development and utilization are desirable for the City of Monroe and south Benton County. Previous planning efforts have established a strong community based desire for the positive outcomes associated with developing trails and paths in Monroe and its neighboring communities (see *Demand Analysis* section).

³⁸ (Flusche 2012, 4)

³⁹ (Flusche 2012)

⁴⁰ (Flusche 2012)

Two primary efforts were made to integrate this *Connectivity Plan* with the forthcoming *Benton County Transportation Systems Plan (TSP)*.⁴¹

1. Staff from OCWCOG met early and often with Benton County Public Work staff to ensure that this planning effort would integrate into a final updated TSP. It was agreed that this document would be a useful tool for directly informing a Monroe specific TSP element. Language from the TSP scope of work regarding the Monroe Element is as follows:

Consultant shall prepare a Draft Monroe TSP Element, a stand-alone document that contains transportation-related plan elements for potential adoption by the City of Monroe. At a minimum, the Draft Monroe TSP Element must contain:

- *Transportation-related policies for inclusion in the City's Comprehensive Plan;*
- *Standards for the physical aspects of public streets, sidewalks, multi-use paths;*
- *Standards for the operation of public streets;*
- *A list of transportation-related improvement projects needed within the Monroe UGB in the planning period;*
- *Public transit service needs for Monroe; and*
- *Recommended plan and code changes for consistency with the TSP Element and the TPR.*

Consultant shall organize and lead one work session with City of Monroe staff of up to three hours in length to review and discuss draft recommendations.

The Draft Monroe TSP Element must reference the Draft Updated County TSP as needed in order to rely on analysis in the Updated TSP to support the plan policies, standards, and projects in the Draft Monroe TSP Element.

2. In cooperation with the Oregon Department of Transportation (ODOT) and Benton County, the capital improvements highlighted in this document will be assessed for cost by the same team assessing other projects throughout Benton County. This is an essential component of compatibility because it allows consistency in costing. Initial cost estimates were made with input from Benton County Public Works staff and are contained in the *Technical Analysis* portion of this document.

⁴¹ Expected start date for TSP update is spring 2017. It is anticipated that the TSP update will last approximately 1 year.

It should also be noted that while projects relative to this planning document will be assessed for cost and technical detail along with all other TSP related projects in Monroe, they are not guaranteed funding or priority.

A Stakeholder Advisory Committee (SAC) was formed to assist with assigning projects to the constrained and aspirational projects list.^{42 43} The SAC will meet periodically to review policy issues related to the TSP Project and provide guidance to the Project. Issues addressed by the SAC include a review of key deficiencies to be addressed in the Project, and proposed solutions to those deficiencies; an overview of public involvement efforts; and coordination with adopted plans and ongoing planning projects.

In addition to the SAC, a Technical Advisory Committee (TAC) will also be formed. The TAC is intended to be a small group that will meet periodically to review technical issues and project guidance related to a Project. Technical issues addressed by the TAC may include review of assumptions and methodologies for analysis, and coordination of the Project with adopted plans and ongoing planning projects.

Lastly, the SBCC highlighted the necessity that this *Connectivity Plan*, proposed pathways, and other amenities be compatible with *Phase II* projects (outlined below). During the inception stage of this *Connectivity Plan* document, and based on work done by several grassroots interest groups in Benton County and Monroe, a preliminary plan called the *Monroe Concept Plan* was created.⁴⁴

1. *Phase I*: The *Monroe Concept Plan* listed current and future planned projects connected with utilizing the southern portion of Bailey Branch for multimodal transportation. The document also identifies developing the Bailey Branch from the Alpine Cut-off Road (or Alpine Road), to the Monroe Grade school as the primary effort, in connecting south Benton County, and developing access to recreational and commercial resources throughout the region.
2. *Phase II*: Projects will build off this pathway, connecting Monroe to neighboring communities such as Alpine and Bellfountain.
3. *Phase III*: Projects will focus on connecting the communities to the Long Tom River and possibly other natural and recreational resources, such as Alsea Falls and Finely National Wildlife Refuge.

⁴² “Constrained” projects fall within the expected budget capacity of Benton County over the next 20 years. These projects are expected to be funded and constructed over that time period.

⁴³ “Aspirational” projects are those that are not expected to be funded through the expected county budget over the next 20 years. These projects will be built out as additional, funds become available, either through unexpected county income or grants and other funding.

⁴⁴ The Alliance for Recreation and Natural Areas, OSU,

PUBLIC OUTREACH EVENTS

Proposed Improvements Prioritization Public Outreach

The SBCC agreed that while many of the ideas for improved connectivity throughout Monroe and surrounding communities were publicly vetted, an event should be held to rate the community's interest in specific improvements. Considerations for limited resources and public input are particularly important when planning for *Phase II* connections, such as those to the Bailey Branch pathway that is outlined in this *Connectivity Plan*.

It is anticipated that in mid-2017, a community open house will take place in Monroe, highlighting various efforts. At this open house, OCWCOG staff will provide an opportunity for area residents to prioritize the proposed multimodal improvements and design options.

At the completion of this *Connectivity Plan*, and following a review by the SBCC, a formal presentation will be made to the Monroe City Council, with the goal of formal adoption by the City of Monroe and Benton County.

FEASIBILITY

The nature of this *Connectivity Plan* is to serve as well vetted, semi-technical guide to potential alternative transportation projects in Monroe and south Benton County. As such, decisions on the feasibility of specific projects are ultimately going to be made by those who carry these projects forward to construction. This section will briefly list factors that decision-makers will need to consider when deciding on how to prioritize and implement the projects outlined in *Appendix B*. Where possible, some initial commentary on specific projects is provided, using this following list of feasibility factors as reference:

- Cost (including feasibility of acquiring applicable grant money)⁴⁵
- Land Use Impacts (right of way acquisitions, land swaps, public access)
- Environmental Impacts (wetlands, endangered species, historic sites)
- Health (human health implications)
- Security (access by public safety officials, like police and fire)
- Safety (signage, location, striping)
- Weather impacts to use
- Floodplain
- Potential Usership vs. Cost (cost/benefit)
- Public Buy-In (political will)
- Tourism (any increase and is that a good thing)
- Impact on industry (changes to farming or other operations)

The backbone for improved connectivity and safe multimodal transportation in the City of Monroe is the proposed pathway development from the Monroe Community Library (Ash Street and Bailey Branch intersection) to the Monroe Grade School (Dragon Drive and Bailey Branch intersection). Utilizing the former Bailey Branch through Monroe as a designated multimodal path will provide many benefits to the City and its residents (see *Project Benefits* section). Developing this pathway is highly feasible given that there are no right of way issues and or land acquisitions that need to occur before construction could begin. There is documented public support for this pathway.

⁴⁵ See section on grants for information and other funding options.

The following construction options and design standards are only suggestions and users of this *Connectivity Plan* will need to make decisions with the aid of traffic engineers and in the context of feasibility models (see *Feasibility* section). This document is meant to serve as guide for potential building design and includes minimum standards for incremental development. Where possible, any recommended construction is designed to allow for future improvements to the pathways. All potential projects contained in this section are derived from existing planning documents and needs assessments (see *Summary of Previous Planning Work* section).

Cost estimates for these projects will be provided as an addendum to this *Connectivity Plan*, once the Benton County TSP update is finalized this year. On recommendation from the SBCC, OCWCOG will use the Benton County TSP as a tool for cost estimate, providing a consistent cost comparison with other Monroe area and county wide capital improvement projects; and the increased chance many of the projects in this *Connectivity Plan* will be considered for inclusion in TSP update.

Notes on using and interpreting this *Technical Analysis*:

- Numbers for the following projects correspond with the Project List Table (see *Appendix B*).
- This section is meant to be compatible with the recently published *Small Town and Rural Multimodal Networks Guide*.⁴⁶ This *Guide* was produced by the Federal Highways Administration and contains building requirements consistent with the *Manual on Uniform Traffic Control Devices* (MUTCD) and the *American Association of State and Highway Transportation Officials*. Local variations in these standards will be applied by traffic engineers as projects are selected for construction.
- Functional Street Type used in this analysis are derived from the *Monroe Comprehensive Plan*.⁴⁷

⁴⁶ (Dickman et al. 2016)

⁴⁷ Monroe Comprehensive Plan (1979) p.26

Type of Street	Minimum Right-of-Way	Minimum Curb-to-Curb	Traffic Volumes (Vehicles/Day)	Driving Speed (MPH)
Highway (Principle Arterial)	As determined by ODOT		6,000 +	25-45 in urban areas
Arterial - Local	70-80 ft.	42 ft.; two 12 ft. moving lanes; two 9 ft. parking lanes	1,000-6,000	25-45
Collector	60 ft.	36 ft.; two 10 ft. moving lanes; two 8 ft. parking lanes	500-2,000	20-35
Minor Street	60 ft.	36 ft.; two moving lanes; two parking lanes	<1,000	25 unless otherwise stated

1 Alpine Road to Alpine Cut-off Road Path

Former Bailey Branch Rail Corridor; Railbanking Status⁴⁸

Recommended Path Type: Shared Use Path⁴⁹

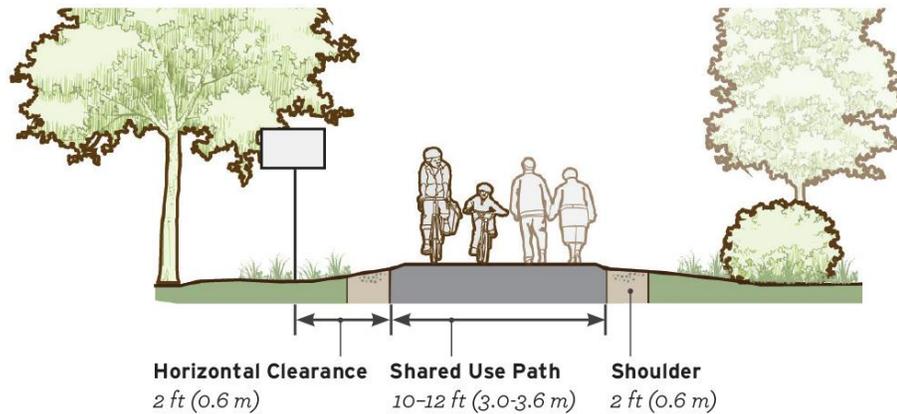
Benefits

- ❖ Provides a dedicated facility for users of all ages and abilities
- ❖ Provides, in some cases, non-motorized access to areas that are otherwise served only by limited-access roadways
- ❖ Provides non-motorized transportation access to natural and recreational areas, which can help low-income people obtain access to recreational assets.
- ❖ Provides, in some cases, a short-cut between cities or neighborhoods
- ❖ Paths have a small footprint and can display a distinctly rural character

DESIGN DETAILS

⁴⁸ *Railbanking* (16 USC 1247 (d)) is a voluntary agreement between a railroad company and another agency to manage an out-of-service rail corridor until some railroad might need the corridor again for rail service.

⁴⁹ A *shared use path* provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.



MARKINGS

Under most conditions, center line markings are not necessary, and path users will naturally keep right, except to pass.

On shared use paths with heavy peak hour and/or seasonal volumes, the use of a center line stripe may help organize pathway traffic.

- When striping is required, use a 4-inch broken yellow center line stripe with 4-inch solid white edge lines.
- Solid center lines can be provided on tight or blind corners, and on the approaches to roadway crossings.
- Mark edge lines on paths expecting evening use.

SIGNS

In a mixed user environment, *Yield* etiquette signs may be used. Communities have created customized signage to reflect local user groups and conditions.

- *Bikes Yield to Pedestrians (R9-6)* signs may be used at the entrances of path segments to remind bicyclists of the requirement to yield.⁵⁰

INTERSECTIONS

There are no intersections between the Alpine Road and Alpine Cut-off Road.

IMPLEMENTATION

Asphalt is the most common surface for shared use paths. The use of concrete for paths has proven to be more durable and significantly reduces maintenance costs over the long-term. Saw-cut concrete joints rather than troweled improve the experience for wheeled path users.

Benton County shared use path building standards indicate that the current surface material along the former Bailey Branch is insufficient for use as a building substrate. Therefore, it is

⁵⁰ Federal Highways Administration uniform code.

recommended that a minimum of 6 inches of new gravel be added, with the addition of a stabilizer.

The City of Monroe and Benton County will need to decide what modes of transportation will be accommodated by the shared use path to determine what surface application is made. For example, gravel with a stabilizing agent would be suitable for both pedestrian and bicycle travel, but may pose issues for American with Disabilities Act (ADA) compatibility and would not be suitable for skateboards, roller skates, rollerblades, strollers, or other small wheeled vehicles.

ACCESSIBILITY

A shared use path is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Shared use paths are required to be accessible by all users, including those with mobility devices and vision disabilities.

2 Alpine Cut-off to Kelly Street Path

Former Bailey Branch Rail Corridor; Rail Banking Status⁵¹

Recommended Path Type: Shared Use Path⁵²

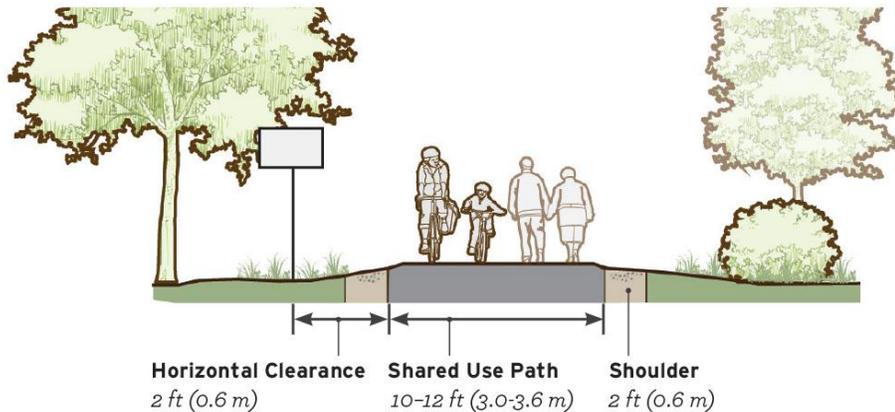
Benefits

- ❖ Provides a dedicated facility for users of all ages and abilities
- ❖ Provides, in some cases, access to areas that are otherwise served only by limited-access roadways
- ❖ Provides non-motorized transportation access to natural and recreational areas, which can help low-income people obtain access to recreation
- ❖ Provides, in some cases, a short-cut between cities or neighborhoods
- ❖ Paths have a small footprint and can display a distinctly rural character

⁵¹ *Railbanking* (16 USC 1247 (d)) is a voluntary agreement between a railroad company and another agency to manage an out-of-service rail corridor until some railroad might need the corridor again for rail service.

⁵² A *shared use path* provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.

DESIGN DETAILS



MARKINGS

Under most conditions, center line markings are not necessary, and path users will naturally keep right, except to pass.

On shared use paths with heavy peak hour and/or seasonal volumes, the use of a center line stripe may help organize pathway traffic.

- When striping is required, use a 4-inch broken yellow center line stripe with 4-inch solid white edge lines.
- Solid center lines can be provided on tight or blind corners, and on the approaches to roadway crossings.
- Mark edge lines on paths expecting evening use.

SIGNS

In a mixed user environment, *Yield* etiquette signs may be used. Communities have created customized signage to reflect local user groups and conditions.

- *Bikes Yield to Pedestrians* (R9-6) signs may be used at the entrances of path segments to remind bicyclists of the requirement to yield.⁵³

INTERSECTIONS

There are three intersections between the Alpine Cut-off Road and Kelly Street.

Monroe Cemetery Road
Ash Street
Depot Street

⁵³ Federal Highways Administration uniform code.

The recommended intersection improvements for these cross streets would be a *Marked Crosswalk*.



A marked shared use path crossing consists of a *marked crosswalk*, plus signs and other markings to slow or stop traffic.

- Crosswalk markings establish a legal crosswalk at areas away from intersections.
- Crossing sign assemblies and advance crossing sign assemblies using W11-15 (Bike and Ped Crossing sign) and W16-7P (arrow) signs should be used to warn users of the crossing location.

IMPLEMENTATION

Asphalt is the most common surface for shared use paths. The use of concrete for paths has proven to be more durable and significantly reduces maintenance costs over the long-term. Saw-cut concrete joints rather than troweled improve the experience for wheeled path users.

See *Project 1* in this section for discussion on surface material options.

ACCESSIBILITY

A shared use path is a separated facility intended for use by pedestrians, and must meet accessibility guidelines for walkways and curb transitions. Shared use paths are required to be accessible by all users, including those with mobility devices and vision disabilities.

3 Kelly Street to Grade School Path⁵⁴

(6th Street) Minor Street

The ideal infrastructure improvements to 6th Street would include re-surfacing the road and shoulders, and adding continuous sidewalks. The shoulders of the roadway are not consolidated enough to add demarcation for bike lanes. Sidewalks exist on the east and west side of the block between Main Street and Commercial Street, and on the east side of the road between Commercial Street and Orchard Street. It is anticipated that as the Benton County TSP is updated, Monroe and Benton County will prioritize these improvements. Each of these improvements are classified as “urbanizing” (see *Compatibility with Subsequent Phase and Benton County TSP* section).

While adding bike lanes is a standard part of urbanization, it should be noted that bike lanes can distract from the rural atmosphere, reflecting a more urban environment. Given the consistent and strong public voice around preserving the safety⁵⁵ of pedestrians, it is advisable to pursue the construction of sidewalks along this route. However, a shared use option for bicycles may be lower cost, and a preferable accommodation to bike lanes. Possible shared use designs to accommodate both bicycles and automobiles can be found in the *Rural Design Guide*.⁵⁶ This Guide provides two options that require little to know additional infrastructure and minimal shared use lane markings: *Bicycle Boulevard* or *Yield Roadway*.^{57 58}

*Recommended Path Type: Sidewalks*⁵⁹

Benefits

- ❖ Provides a dedicated place within the public right-of-way for pedestrians to safely travel and reduces pedestrian collisions in rural areas
- ❖ Reduces “walking along roadway” crashes

⁵⁴ This path is a continuation of the path utilizing the former Bailey Branch from either Alpine Rd., or the Alpine cut-off Rd. It follows what is now 6th St. to its intersection with Orchard Ave., and continues on the existing gravel path from Orchard to the Grade School.

⁵⁵ (“Monroe School Action Plan” 2010; “Monroe Comprehensive Parks Plan” 2011; “Monroe Area Community Revitalization Opportunities” 2016)

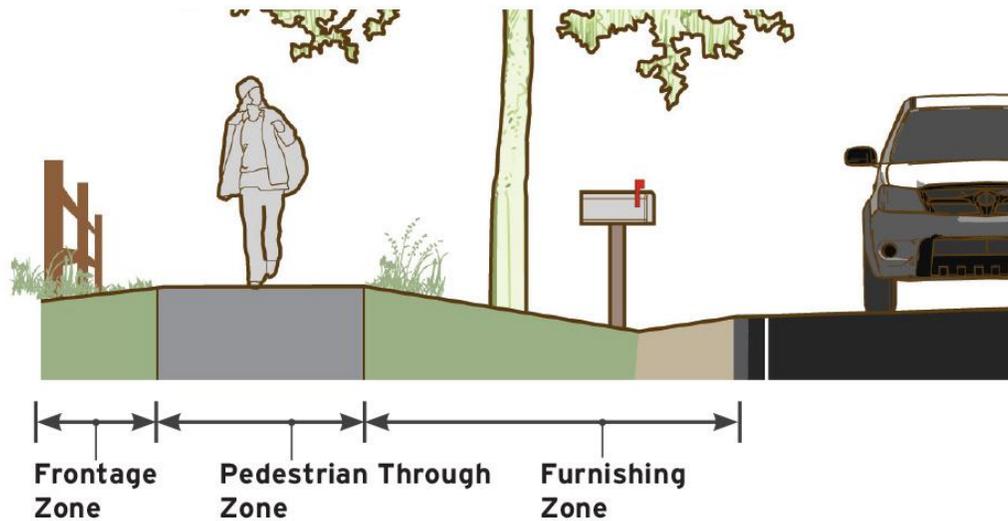
⁵⁶ <http://ruraldesignguide.com/>

⁵⁷ A *bicycle boulevard* is a low-stress shared roadway bicycle facility, designed to offer priority for bicyclists operating within a roadway shared with motor vehicle traffic.

⁵⁸ A *yield roadway* is designed to serve pedestrians, bicyclists, and motor vehicle traffic in the same slow-speed travel area. Yield roadways serve bidirectional motor vehicle traffic without lane markings in the roadway travel area.

⁵⁹ *Sidewalks* provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space.

DESIGN DETAILS



The *Rural Design Guide* indicates that there are a few appropriate design options for sidewalks along 6th Street. One important design consideration is “furnishing zones”. These zones essentially describe the area between the sidewalk and the street. Ideally, larger furnishing zones can accommodate space for mailboxes, signs, street lighting, or other utilities. Furthermore, they provide a barrier to pedestrians from splash during rain events by passing vehicles and can be used as snow storage if streets are plowed. A furnishing zone of 4–6 feet (1.2–1.8 meters) is preferred for comfort and aesthetics. This width allows for trees, benches, and other large furnishing items. However, sidewalks can be built with no furnishing zone and a curb gutter directly adjacent to the roadway. This last design option also limits flexibility in intersection design.

MARKINGS

No roadway markings are required on sidewalk installation. Markings at intersections, stop lines, yield lines, and crosswalks may be used to clarify pedestrian crosswalk area.

SIGNS

No signs are required on sidewalk installation. Signs may be used to enhance the awareness of crosswalk locations, or to remind drivers of the obligation to yield to crossing pedestrians, such as the R10-15 (turning traffic must yield to pedestrians) sign.

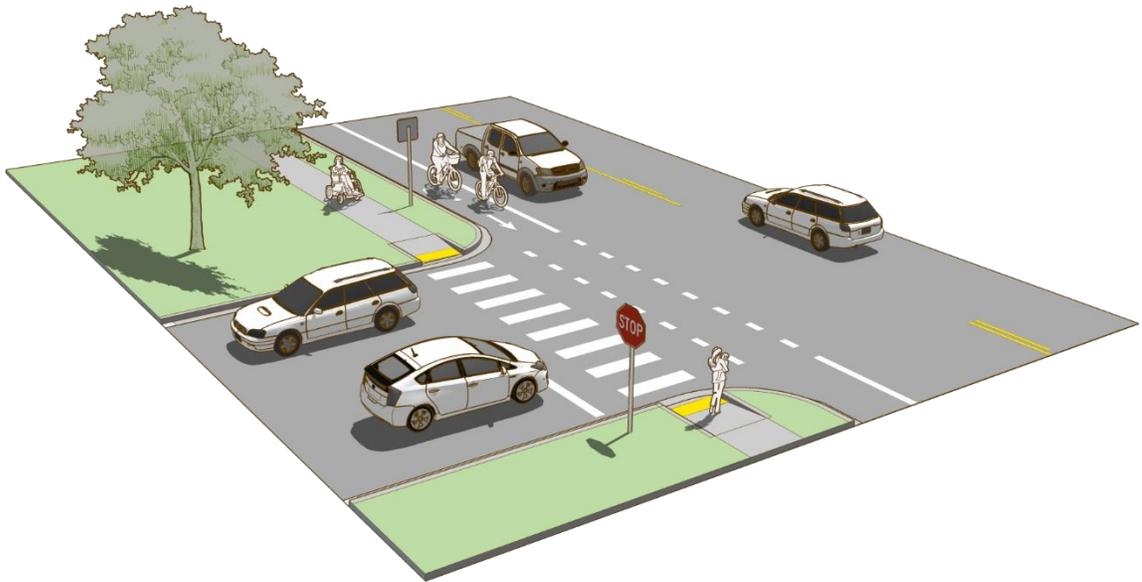
INTERSECTIONS

There are four intersections between the Kelly Street to the Grade School.

Kelly Street
Main Street
Commercial Street
Orchard Street

City of Monroe officials and roadway engineers will need to decide where crosswalks are prudent. The MUTCD indicates standards for crosswalk design, but also notes that crosswalks should be marked at all intersections that have “substantial conflict between vehicular and pedestrian movements.”⁶⁰ Therefore, there may be no need for intersection development. However, at a minimum, through public input, there is a strong appeal for an enhanced crosswalk at Orchard Street.⁶¹

The recommended intersection improvements for cross streets would be a *Marked Crosswalk*.



A marked shared use path crossing consists of a *marked crosswalk*, plus signs and other markings to slow or stop traffic.

- Crosswalk markings establish a legal crosswalk at areas away from intersections.
- Crossing sign assemblies and advance crossing sign assemblies using W11-15 and W16-7P signs should be used to warn users of the crossing location.
- Other emphasizing features could be added, such as elevating the crosswalk above the normal street surface height.

IMPLEMENTATION

While sidewalks are commonly constructed with concrete, less expensive walkways constructed of asphalt, crushed stone, or other stabilized surfaces may be appropriate.

ACCESSIBILITY

A sidewalk is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Sidewalks are required to be accessible by all users.

⁶⁰ (FHWA 2016)

⁶¹ See sections *Summary of Previous Planning Work* and *Demand Analysis*.

4 5km Path / Cross Country Route

From the *Monroe Concept Plan (2015)*:

There is an active cross country team in Monroe with little access to safe running routes. A pathway connecting Main Street on the east and Commercial Street on the west, with the development of the Bailey Branch pathway, will provide a safer and longer running/walking route with minimal traffic exposure. This approximately 3-mile route would start at the Monroe Library and follow the Bailey Bike pathway south to Main Street, turning west on Main up through the Reservoir Heights Park to Shady Oak Drive. The route would continue north on Shady Oak Drive and Orchard Tract to Alpine Cutoff Road, then back to the Bailey Branch pathway turning south towards the Monroe Library. Another lower traffic option would be to add a path to connect Shady Oak and Fairwood Drive to the Bailey Branch pathway.

The feasibility of this route depends largely on how it is built. In discussion with Benton County Public Works officials on this concept, it appears unlikely that large swaths of this route, particularly the Shady Oaks portion, could be widened to accommodate a bike or pedestrian path on the shoulder. This is largely due to private ownership challenges and cost. However, simpler options such as adding signage to promote awareness of pedestrians and cyclists on the roadway would be possible, and positive improvements for the community.

5 Long Tom West Side Trail

The concept for the Long Tom West Side Trail was explored in the *2011 Monroe Master Parks Plan*. The development of this trail would extend and create important connections to the other proposed pathway developments as outlined in this *Connectivity Plan*. Development of this path would connect future housing developments near the Brickyard residential area (not yet existing), southward along the west side of the Long Tom River, linking to the proposed footbridge to the Monroe City Park on the east side of the River, and the downtown commercial district. An additional connection could be made to Highway 99 and the Bailey Branch Corridor multiuse path.

From the *Monroe Parks Master Plan (2011)*:

It is anticipated that the trail along the river will be a natural surface trail of gravel or dirt, 12-feet in width and will run from the bridge north and west to the 8th Street. With a distance of roughly 7,450 linear feet, and a cost of \$16 per lineal foot, this section is anticipated to cost roughly \$120,000. It is assumed that land acquisition will occur through public and private donations or easements; however, private lands between the bridge and high school may need to be purchased. This is roughly 1,400 lineal feet

and should have a minimum width of 50-feet; anticipated cost is \$140,000.⁶²

6 Long Tom Foot Bridge

Current pedestrian access to the Monroe City Park from Monroe is unsafe; residents must walk along the narrow Highway 99 bridge over the Long Tom River on a bend with low visibility, at the southern edge of Monroe. Providing a direct access point to the park via a foot bridge across the Long Tom River would provide safe passage to the Monroe City Park, as well as an aesthetically pleasing amenity to the community. The City of Monroe has a small piece of property on the west side of the Long Tom River that could potentially serve as the foot bridge access point from downtown Monroe. The U.S. Army Corp of Engineers (USACE) also owns and easement on the east side of the River at a point leads directly into Monroe City property and the Monroe City Park.

The City is working with the USACE to evaluate permitting requirements and bridge materials. In addition, the USACE plans to replace a culvert on the original Long Tom River near the foot bridge location. The road above this culvert could be cleared of brush and restored to provide a direct access point into the Park. A loop trail could be made at this point that extends walkability opportunities and an appreciation of the Long Tom River as an asset to the community. A boat put-in (non-motorized) for paddlers has been discussed as an added amenity that could be designed in.

7 Orchard Street and 6th Street Intersection

The intersection of 6th Street and Orchard Street is repeatedly cited as safety concern for residents of south Benton County.⁶³ This intersection leads to the Monroe Grade School to the south, crossing Orchard Street, which serves relatively high volumes of traffic for the City. According to the *Monroe School Action Plan*, existing traffic control is not effective, serves as a deterrent to pedestrian travel, and has almost eliminated bicycle traffic to the school.⁶⁴ In addition to new striping and additional pedestrian and bicycle yield signage, the supplementation of Rectangular Rapid Flash Beacons (RRFBs) are a proven tool in slowing traffic when pedestrians and bicycles utilize the crosswalk. The unique nature of the stutter flash elicits a greater response from drivers than traditional methods.⁶⁵

Recommended Treatment: *Rectangular Active Flash Beacons*⁶⁶

Benefits

- ❖ Offers lower cost alternative to traffic signals and *Hybrid Beacons*.

⁶² (“Monroe Comprehensive Parks Plan” 2011, 12)

⁶³ (“Monroe School Action Plan” 2010; “Monroe Area Community Revitalization Opportunities” 2016; “Monroe Comprehensive Parks Plan” 2011; “Monroe Comprehensive Plan” 1979)

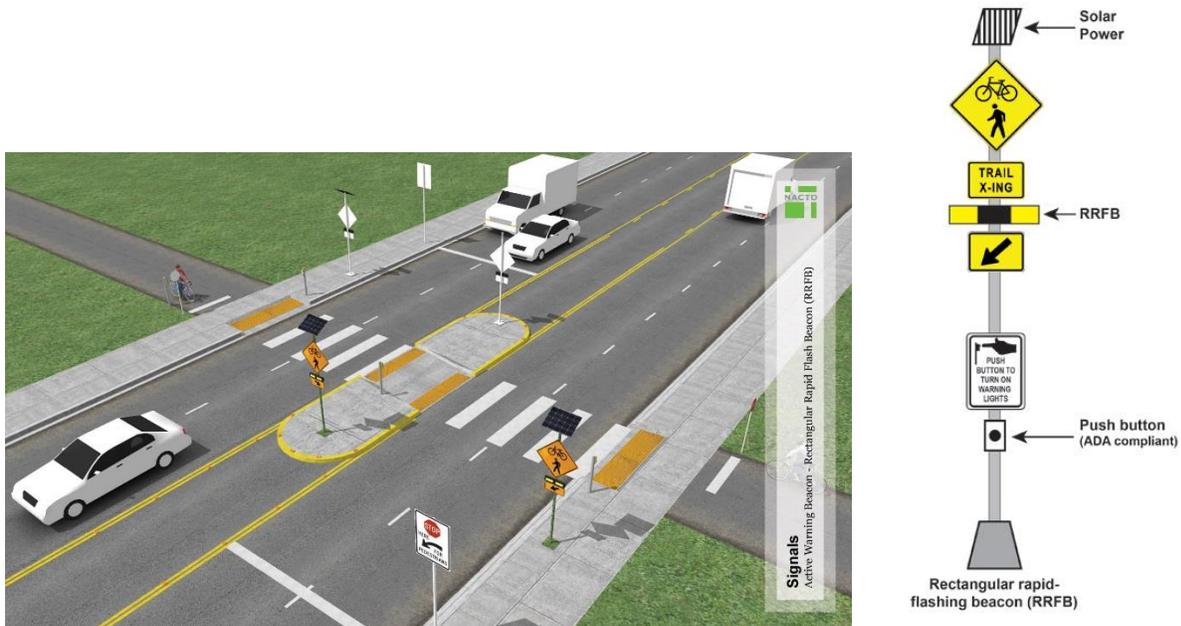
⁶⁴ (Goracke 2010)

⁶⁵ (NACTO 2014)

⁶⁶ Active warning beacons are user-actuated amber flashing lights that supplement warning signs at un-signalized intersections or mid-block crosswalks. Beacons can be actuated either manually by a push-button or passively through detection. *Rectangular Rapid Flash Beacons* (RRFBs), a type of active warning beacon, use an irregular flash pattern similar to emergency flashers on police vehicles and can be installed on either two-lane or multi-lane roadways.

- ❖ Significantly increases driver yielding behavior at crossings, when supplementing standard crossing warning signs and markings.
- ❖ The unique nature of the stutter flash elicits a greater response from drivers than traditional methods.
- ❖ Depending on power supply, maintenance can be minimal. If solar power is used, RRFBs should run for years without issue.

DESIGN DETAILS



The use of RRFBs is simply an addition to a standard *Marked Crosswalk* (see *Project 2 and 3 in this section for discussion on marked crosswalks*). An optional road island can be installed to further constrict automobile travel if deemed necessary by road engineers. The MUTCD indicates the required and recommended features if RRFBs are used:

- Active warning beacons shall be installed on the side of the road. If center islands or medians exist, providing secondary installations in these locations marginally improves driver yielding behavior.
- Beacons shall remain unlit when not activated.
- If intended for use by bicyclists, push button actuation shall be provided, and should be located so bicyclists can activate the signal without dismounting. Push buttons should have a supplemental sign facing the bicyclist's approach to increase visibility.
- Active warning beacons shall be used to supplement standard pedestrian and bicycle crossing signs and markings.

8 Library Connection

The Monroe Community Library represents the only improved parking available adjacent to the Bailey Branch Corridor. Residents have expressed their interest to add improved access to the Corridor and an eventual shared use path from the Library.

9 Depot Street through Street Intersection

Depot Street is an unimproved, gravel throughway, connecting several residential homes to Highway 99. While the Road technically connects with 7th Street to the west, it's blocked by a cable barrier. When the Bailey Branch pathway to the north is built, it will intersect Depot Street, traveling south to Kelly Street.

Even with low amounts of traffic, a crosswalk will be required as the shared use path will cross Depot Street. A simple *Marked Crosswalk* would be sufficient.

See Project 2 and 3 in this section for discussion on marked crosswalks.

10 Bailey Branch Industrial Site Barrier

There are several locations between Ash Street and Kelly Street that would benefit the peaceful and contained nature of a shared use path by creating a barrier between the path and industrial properties. This suggestion was brought forth by Monroe residents during two separate *walkability assessments* performed in spring 2016.

Residents suggested a vegetative wall or fencing of some kind would be a welcome barrier to the industrial sites.

11 Industrial Site Bailey Branch Drainage Improvements

Residents have noted that the Bailey Branch Corridor directly behind the industrial land between Pine Street and Kelley Street routinely experiences minor flooding or pooling of water.

In consultation with Benton County Public Works personnel, it was suggested this issue should in part be resolved with the additional material added to construct a continuous pathway along the Bailey Branch Corridor. A minimum addition of six inches of rock will need to be added to create a suitable base for pathway construction, effectively raising the pathway out of any standing water. The additional benefit of raising the path surface for drainage is the increased potential to that it will shed water more easily to the west, directly adjacent to the rail corridor and a vegetated water catchment area.

GROUPS TO CONNECT WITH FOR SUPPORT

- Benton County Health Department - *Healthy Kids, Healthy Communities*⁶⁷
- Benton-Lane Winery
- Ford Family Foundation
- McKenzie River Trust / Long Tom Watershed Council
- Monroe High School Cross Country Club
- Monroe Parent Teacher Association
- Monroe School District
- Oregon Cascades West Council of Governments
- Oregon Health Authority
- Oregon State University
- OSU Extension - Grow Healthy Communities
- *Safe Routes to School*⁶⁸
- Strengthening Rural Families
- Team Dirt
- Travel Oregon

⁶⁷ Also known as “Creciendo En Salud”, this program's goal is to narrow disparities by improving access to affordable, healthy foods for low-income families, including the migrant and seasonal farm workers. Contact - Tatiana Dierwechter or Rocio Munoz.

⁶⁸ Note; previous safe routes to school support efforts have been pursued, most recently in 2010. Documentation on these applications can be found at Monroe City Hall or the Oregon Cascades West Council of Governments.

FUNDING OPPORTUNITIES

Potential Funder	Description
<p align="center">Citizens' Institute on Rural Design (CIRD)</p>	<p>CIRD is a program of <i>Project for Public Spaces</i> and is accepting applications for its <i>2016-2017 Rural Communities Facing Design Challenge</i>. The Request for Proposals is intended to help small towns and rural communities, with populations of 50,000 or less, build their capacity and acquire technical expertise to solve their design challenges. As many as six communities will be selected, and receive a \$10,000 stipend and in-kind professional design expertise from CIRD to host a two-and-a-half-day workshop. CIRD will assemble a resource team of subject matter experts to guide your community in addressing the challenges that matter most to you.</p> <p>Timeline: January, Annual</p> <p>Match: 1:1 match, cash or in-kind. Match needs to be used for the planning and execution of the workshop. Federal funds are not eligible as match. (With a \$10,000 stipend, total budget should be \$20,000.)</p> <p>http://www.rural-design.org/</p>
<p align="center">Transportation and Growth Management (TGM) Planning Grant</p>	<p>Jointly run by the LCDC and ODOT, the TGM program offers grants for improving transportation system plans and planning efforts that integrate land use and transportation. Grants help communities plan for streets and land use in a way that leads to more livable, economically vital, and sustainable communities, and supports opportunities for transit, walking, and bicycling.</p> <p>TGM awards two types of grants:</p> <ul style="list-style-type: none"> • Category 1: Transportation System Planning

	<ul style="list-style-type: none"> • Category 2: Integrated Land Use & Transportation Planning to promote compact, mixed-use development supported by improved pedestrian, bicycle, transit, and multi-modal street facilities <p>Timeline: Annual grant cycle. The 2017 Application Packet will be available in April, with pre-application in February. Applications are due in June and awards are made in August.</p> <p>Match: 12% of the total project cost in cash or indirect. Communities defined as "distressed" by the Oregon Business Development Department may request a partial match waiver.</p> <p>http://www.oregon4biz.com/Publications/Distressed-List/.</p>
<p>TGM Education and Outreach</p>	<p>TGM Education and Outreach services consist of workshops, lecture series, conferences, and other public forums. These services are provided at no cost to local governments. Workshops are targeted to local public officials, civic and business leaders, developers, planning commissioners, and the public. The goal is to explore local solutions to transportation and growth management issues through creative and proven strategies.</p> <p>Workshop topics include:</p> <ul style="list-style-type: none"> • Active Transportation (health impacts of urban design and transportation networks) • Community design to support economically vibrant, walkable, and livable communities • <i>Complete Street</i> options for making communities more pedestrian, bicycle, and transit friendly • Land use and transportation planning strategies to expand and improve local travel options • Main Street and downtown revitalization • Mixed land use and Transit Oriented Development • Parking management

	<ul style="list-style-type: none"> • School siting and safe routes to school • Smart growth strategies for reducing greenhouse gas emissions <p>Timeline: None specified. As needed, based on submission of letter to DLCD staff</p> <p>Match: None specified. Local in-kind work anticipated.</p> <p>http://www.oregon.gov/lcd/tgm/pages/outreach.aspx</p>
<p style="text-align: center;">Oregon State Parks – Recreational Trails Program</p>	<p>Recreational Trails Grants are national grants administered by the Oregon Parks and Recreation Department (OPRD) for recreational trail related projects, such as hiking, running, bicycling, off-road motorcycling, and all-terrain vehicle riding. Funding for recreational trail projects, rather than utilitarian transportation-based projects. Funds can go towards building new recreation trails, including building trail bridges and installing wayfinding signs; restoring existing trails, including trail bridges and signing; developing and rehabilitating trailhead facilities; acquiring land and permanent easements; and water trails.</p> <p>Timeline: Yearly based on funding from U.S. Congress.</p> <p>Match: 20% of total project cost. Cash or in-kind. Federal, state, and local grants eligible as match.</p> <p>http://www.oregon.gov/oprd/grants/pages/trails.aspx</p>
<p style="text-align: center;">Oregon State Parks – Local Government Grant Program</p>	<p>Eligible projects involve land acquisition, development, and major rehabilitation projects that are consistent with the outdoor recreation goals and objectives contained in the Statewide Comprehensive Outdoor Recreation Plan. Planning and feasibility studies are eligible, can determine a project's viability, and help decide whether or how to proceed with the project (e.g.</p>

	<p>determine its public need and benefit, how many, locations, activities and likely users, etc.).</p> <p>Timeline: Annual grant funds are available upon Legislative approval of OPRD's budget.</p> <p>Match: 20% match for small cities. Max award for Small Community Planning Grants is \$40,000.</p>
<p>Oregon Community Foundation (OCF)</p> <p>Community Grant Program</p>	<p>As a responsive arm of OCF, the <i>Community Grant Program</i> awards about 300 grants each year, mostly to small- and moderate-size nonprofits. Target areas include: 'Health & Wellbeing of Vulnerable Populations,' and 'Community Livability, Environment & Citizen Engagement'.</p> <p>Timeline: Spring Cycle: Application window opens December 1st and closes January 15th. Awards in May. Fall Cycle: Application window opens June 1st and closes July 15th. Awards in November.</p> <p>Match: No exact required, match but in-kind match highly recommended to be competitive.</p> <p>http://www.oregoncf.org/grants-scholarships/grants/community-grants</p>
<p>Oregon Community Foundation</p> <p>Oregon Parks Foundation (OPF)</p>	<p>The OPF Fund invites proposals for support from nonprofit organizations and public agencies at the community, district, county, or regional level. Grant recommendations are made to the OCF Board of Directors by an Advisory Committee created by the Oregon Parks Foundation. Grants disbursed by the OPF Fund generally range from \$1,500 to \$5,000.</p> <p>Timeline: Due February 15th</p> <p>Match: No required match, but in-kind match highly recommended to be competitive.</p>

	http://www.oregoncf.org/grants-scholarships/grants/ocf-funds/oregon-parks-foundation
<p>Plum Creek Foundation</p>	<p>The Plum Creek Foundation provides grants to rural communities that do not have access to a wide range of services. The funding is intended for social service needs, educational programming, environmental stewardship projects and opportunities in the arts. (Specific examples: Environmental education and conservation programs. Civic service organizations that handle crime prevention, parks and recreation facilities, or community development.) Up to \$10,000. Applicants must be either a 501(c)(3) or a public entity such as a city, school, or fire department. Applicants must operate in areas where Plum Creek operates.</p> <p>Timeline: Accepts applications on a year-round basis, with quarterly review periods.</p> <p>Match: None specified.</p> <p>http://www.plumcreek.com/community/plum-creek-foundation</p>
<p>Benton County Foundation (BCF)</p>	<p>BCF will only grant to charitable organizations that are tax-exempt as a public charity under IRS Code Section 501(c)(3); governmental units; school districts; and universities. Each year the foundations chooses emphasis areas. Grant awards are in the range of \$500 to \$5,000 and the funded amount should be used within the year of award.</p> <p>Timeline: Due in April 17, 2017</p> <p>Match: None specified.</p>

<p style="text-align: center;">Reser Family Foundation</p>	<p>The Reser Family Foundation makes transformational charitable contributions, to programs and projects, in the areas of the arts, education, environment, and health that will result in broad public benefit, primarily in Oregon. Characteristics the Foundation will look for include:</p> <p style="padding-left: 40px;">Significant projects which hold promise to accomplish a measurable impact in the area and for the purpose for which the applicant requests support;</p> <p style="padding-left: 40px;">Organizations that are experienced in delivering effective programs, have talented and motivated leadership and possess the ability to achieve uncommon results; and</p> <p style="padding-left: 40px;">Programs which are consistent with the Reser Family Foundation identified areas of giving.</p> <p>Timeline: Grant Request Letter due February 1 and August 1</p> <p>http://www.thereserfamilyfoundation.org</p>
<p style="text-align: center;">Chambers Family Foundation</p>	<p>The Chambers Family Foundation is a private, non-profit foundation based in Eugene, Oregon. The Foundation awards grants to residents and organizations throughout Oregon's Lane, Benton and Deschutes Counties and looks to shape stronger communities through the support of arts, education, medical, health, and human needs. Funding is typically between \$1,000 - \$10,000.</p> <p>Timeline: Proposals reviewed March 31 and September 30.</p> <p>http://chambersfamilyfoundation.com/</p>
<p style="text-align: center;">Ann and Bill Swindells Charitable Trust</p>	<p>Ann and Bill Swindells Charitable Trust contributes to organizations whose principal mission is to improve the quality of life of the citizens of Oregon, and to assist and sustain the educational, cultural, and scientific endeavors of</p>

	<p>the State. Proposals are accepted from colleges and universities, arts, cultural, civic, and social service organizations who seek to improve the health and welfare of Oregon citizens. Non-profit or public organizations are welcome to apply.</p> <p>Timeline: Grants reviewed February 1st, May 1st, August 1st, and November 1st.</p> <p>Match: Other funding is encouraged.</p> <p>http://www.swindellstrust.org/index.htm</p>
<p>Pacific Power Foundation</p>	<p>The Pacific Power Foundation awards grants to nonprofit organizations in the categories of education; civic and community betterment; culture and arts; and health, welfare and social services. Grants are typically between \$2,000 and \$5,000, and no more than \$10,000.</p> <p>Timeline: Civic, community due June 15th; Health, welfare and social service due December 15th.</p> <p>https://www.pacificpower.net/about/itc/foundation.html</p>
<p>Juan Young Trust</p>	<p>Grants are awarded to 501(c)(3) organizations based in Oregon. Grants are funded for projects and activities to enhance the health, education, and welfare of children with emphasis on the Portland area.</p> <p>Timeline: March 31st, June 30th, September 30th, and December 31st</p> <p>http://gosw.org/sites/juanyoungtrust/</p>
<p>Aetna Foundation</p>	<p>Aetna Foundation directs its funding toward programs that are local, national, and international. The Foundation looks for programs that can improve the health of underserved populations in the areas that they serve. One initiative is promoting physical activity, even in</p>

	<p>communities where physically activity may be limited or more difficult.</p> <p>https://www.aetna-foundation.org/index.html</p>
Trust Management Services	<p>Trust Management Services provide grant funding (up to \$10,000) for programs or projects with emphasis on education, community service, cultural, youth activities, and historical preservation.</p> <p>Timeline: Deadline for Benton County, February 15, 2018.</p> <p>http://trustmanagementservices.net/</p>
General Mills Champions for Healthy Kids	<p>General Mills awards 50 grants of \$10,000 each annually.</p> <p>Timeline: The 2016/2017 funding cycle is not yet open.</p> <p>https://www.generalmills.com/Responsibility</p>
Coca Cola Foundation	<p>The Coca Cola Foundation provides community investments in program areas of: water stewardship, active healthy living, community recycling, and education.</p> <p>http://www.coca-colacompany.com/stories/community-requests-guidelines-application/</p>
M.J. Murdock Charitable Trust	<p>The M.J. Murdock Charitable Trust awards grants for projects that are consistent with its mission of serving the Pacific Northwest through enrichment programs and providing grants to organizations that strengthen the Pacific Northwest’s cultural, educational, and spiritual based in creative and spiritual ways. Preventive efforts that address physical, spiritual, social, and psychological</p>

	<p>needs, especially those focused on youth, are preferred. Grant applications must be non-profit organizations; funding is typically greater than \$50,000.</p> <p>http://murdocktrust.org/grant-opportunities/</p>
<p>Linn Benton Health Equity Alliance</p>	<p>The Linn Benton Health Equity Alliance awards small grants from funds received from the Oregon Health Authority. Awards for policy and systems change projects will be \$5,000 - \$10,000 based on the strength of the application and on the degree to which the application addresses identified coalition priorities, policy/systems opportunities, and engagement of underserved populations.</p> <p>Timeline: Revolving</p>
<p>The Oregon Action Framework for Health and the Outdoors</p>	<p>Recently launched by the Oregon Public Health Institute, Willamette Partnership, Portland State University's Institute for Sustainable Solutions, Solid Ground Consulting, and the Intertwine Alliance, the Oregon Action Framework for Health and the Outdoors will provide direct support for communities to reduce the barriers that prevent people from spending more time outdoors. Action Framework partners are currently looking for projects that seek to improve physical health; behavioral health and mental health; and strengthen social cohesion. Interest areas include:</p> <ul style="list-style-type: none"> • Address barriers to spending time outdoors; • Increase parks, trails, and trees; • Increase access to safe green space; and • Activate and scale programs to get people outdoors. <p>http://oregon.healthandoutdoors.org/wp-content/uploads/2015/11/HealthFramework-Handout.pdf</p>

FUNDING RESOURCES (non-grant)

System Development Charges (SDC)/Transportation Impact Fees

SDC are a one-time fee on new developments (and redevelopment) to recover some of the costs from the impact of those developments (Oregon Revised Statutes [ORS] 223). Transportation SDC can be used for both on- and off-street facilities.

http://www.orcities.org/Portals/17/Premium/SDC_Survey_Report_2013.pdf

Local Improvement Districts (LID)

LID are used by cities or private property owners to fund and construct local projects such as streets, bike infrastructure, sidewalks, and storm water management features (ORS 223). Using the LID process, area property owners share the cost of transportation improvements. LIDs have been used to install new sidewalks in Baker City and Portland, as well as bicycle facilities in Ashland. An example of a LID process:

<http://bendoregon.gov/modules/showdocument.aspx?documentid=6067>

Transportation Utility Fees (TUF)

TUF (also known as Street Utility, Road User, or Street Maintenance Fees) are monthly fees collected from residences and businesses via their water/sewer bills. Fees are assessed based on the expected number of trips for each land use. Funds are usually used primarily for road maintenance and sidewalks, but can cover capital improvements. At least nineteen Oregon cities have TUF. The Corvallis sidewalk maintenance fund is funded through fees on utility account holders (80 cents/month for most residential users). These funds can add up; roughly half of Medford's Public Works operations budget comes from a street utility fee. The League of Oregon Cities report:

<http://www.apwa-wa.org/uploads/forums/OregonCities2007TUFReport.pdf>

General funds

Many Oregon cities use small amounts of their general funds for transportation maintenance or improvements. City general funds are the most flexible funds.

Local Funds

Transportation touches all parts of our lives; public destinations and services aren't worth much if we cannot safely get to them. Local governments looking for walking and bicycling improvement funds can explore using general transportation revenue; parks and recreation funding (especially for multi-use trails); school transportation department funds; public school bonds; public works budgets; county health department funding; and county traffic safety citation revenue; among other sources. Regional Metropolitan Planning Organizations can also

be asked to dedicate some of their flexible federal funds or safety monies for walking and biking improvements

OTHER

The TGM Program in Oregon routinely publishes a guide called the *Funding Walking & Biking Improvements*. Additional grants and revenue generating options can be found there:

<https://www.oregon.gov/LCD/TGM/Pages/walkbikefunding.aspx>

The National Center for Safe Routes to School also published a guide for rural communities trying to improve safe routes to school:

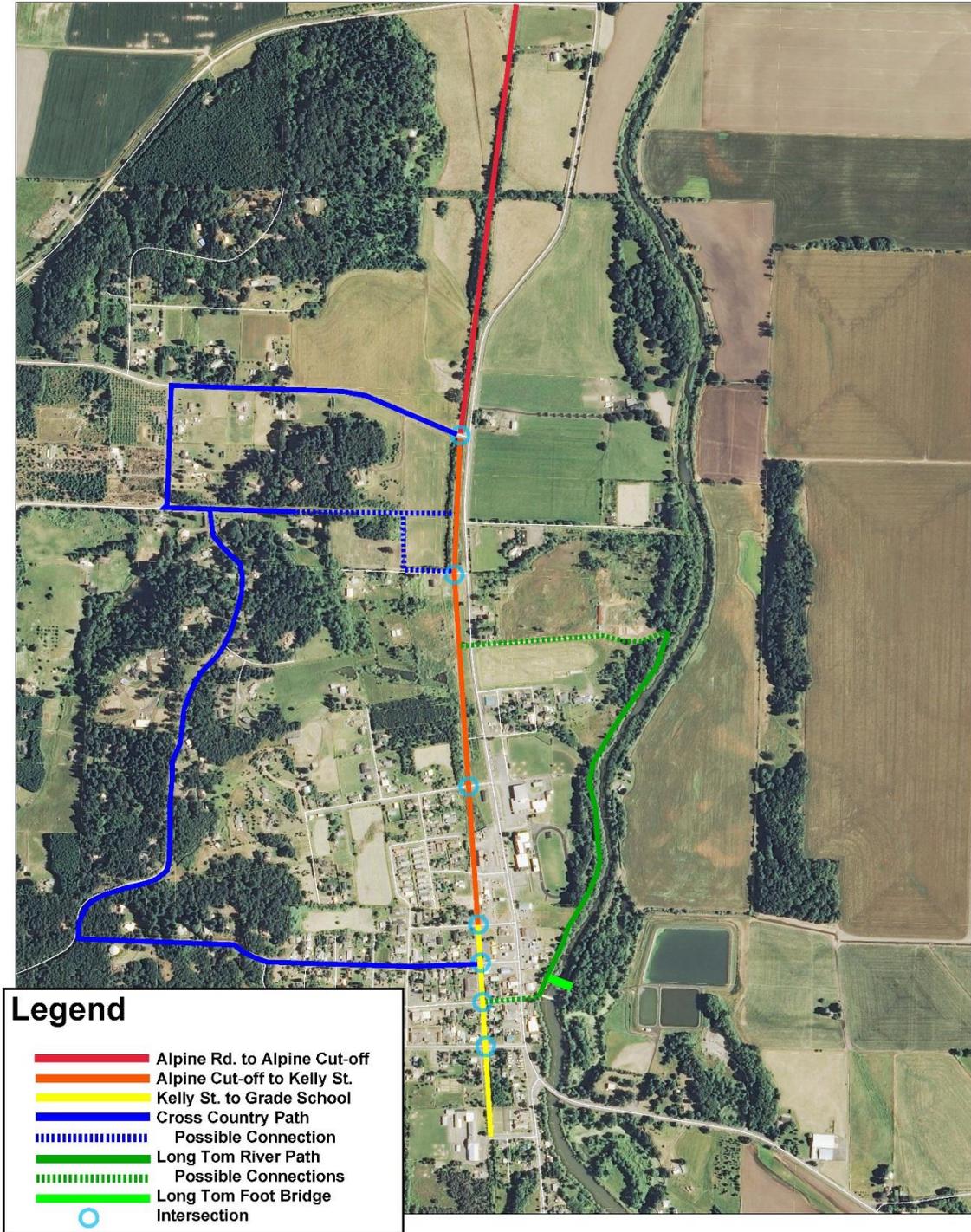
http://saferoutesinfo.org/sites/default/files/SRTS_brief_RuralComm_final.pdf

IMPLEMENTATION PLAN AND TIMEFRAME

Implementation of the multimodal improvements described in this *Connectivity Plan* are subject to the availability of funding, political will, and technical feasibility of for each project. This *Plan* is intended to serve as a roadmap for piecemeal and achievable pathway construction, as partners are willing and able to build.

One of the key factors influencing implementation is the *Benton County TSP* update, beginning in Spring 2017. As described in the *Compatibility with Subsequent Phase and Benton County TSP* section of this document, the Stakeholder Advisory Committee will make recommendations as to the priority and available funding for projects outlined in this document and subsequent *Monroe Element* of the *TSP*. Implementation of the projects will be based on these recommendations.

Connectivity Plan Proposed Pathways and Connections



APPENDIX B. PROJECT LIST

ID	Project Name	Project Type	Timeline	Project Description	Notes
	Primary				
1	Alpine Road to Alpine Cut-off Road	Usability	Short-Term	Add improved path surface and drainage; add bollards, where feasible.	Path needs drainage improvements and widening in placed were vegetation has encroached. Most importantly, there needs to be a surface that accommodates various uses.
2	Alpine Cut-off to Kelley Street Bike/Pedestrian Pathway	Usability	Short-Term	Add improved path surface and drainage; add bollards, where feasible	Path needs drainage improvements and widening in placed were vegetation has encroached. Most importantly, there needs to be a surface that accommodates various uses.
3	Kelly St. to Grade School Bike Path	Connectivity	Short-Term	Add painted bike/pedestrian pathway along the old Bailey Branch Corridor, now 6th Street.	Natural extension of the Bailey Branch "path" onto paved streets, connecting path to Monroe Grade School.
4	5km Path / Cross Country Route	Connectivity	Medium-Term	This approximately 2.5- to 2.8-mile route would start at the Monroe Library and follow the Bailey Branch Corridor pathway south to Main Street (or Commercial Street), turning west up through the Reservoir Heights Park to Shady Oak Drive/ Orchard Street to the Alpine Cutoff Road Bailey Branch access point. An alternative route could connect Shady Oak/Fairwood Drive with the Cemetery Road and Bailey Branch Rail Corridor.	This pathway will likely be constrained to existing infrastructure, but may benefit from signage.

5	Long Tom West Side Trail	Connectivity	Long-Term	This trail would run north and south on the west side of the Long Tom River, connecting the proposed Long Tom foot bridge to future developments near the Brick Yard property and high school.	Explore ownership /access.
6	Long Tom Foot Bridge	Accessibility	Medium-Term	Proposed bike/pedestrian bridge connecting Monroe commercial/school districts to Monroe City Park east of the Long Tom River. Would serve as a critical connection to recreational site as well as key connection for potential future river side trail.	
7	Orchard Street and 6th Intersection	Intersection Improvement	Short-Term	The intersection, which is one of the primary intersections on the Bailey Branch Rail Corridor, lacks adequate demarcation for pedestrian crossing and advanced motorist warning. Suggested improvements include stop signs on Orchard Street, and more visible crosswalk paint.	More community input is needed to define improvements to this intersection.
8	Library Connection	Connectivity	Short-Term	Build improved pathway connection between the Monroe Community Library sidewalks and the Bailey Branch Rail Corridor.	Provides great meeting spot/starting area for community walks. The Library has the only improved parking along the Bailey Branch Rail Corridor.
9	Depot Street through Street Intersection	Intersection Improvement	Short-Term	Add bollards to North/South Bailey Branch Corridor travel and add stop signs for East/West Depot Street travel.	Public feedback suggests this intersection with the Bailey Branch should be better identified for safety. Look at ownership/right of way at industrial site (west Block of Depot Street).

10	Bailey Branch Industrial Site Barrier	Livability	Medium-Term	Vegetative or other barrier to provide separation between the Bailey Branch Rail Corridor from Wilbur-Ellis industrial facility between Pine Street and Kelley Street.	
11	Industrial Site Bailey Branch Drainage Improvements	Usability	Short-Term	Improve drainage along the Bailey Branch between Pine Street and Kelley Street This may also involve raising the proposed Bailey Branch pathway.	The strip of "wetland" behind the Wilbur Ellis site floods and spills into Bailey Branch during the winter.
	Secondary				
18	Connect Fairview Drive to Bailey Branch	Connectivity	Medium-Term	This connection would link additional neighborhoods with the proposed Bailey Branch pathway development and create a safer alternative to using the Alpine Cut-off Road for the 5km cross-country route.	Explore Right of Way issues/feasibility.
19	Wayfinding Signage for Pathways	Usability	Medium-Term	Wayfinding, even for residents, has come up as lacking and needed (i.e., direction to parks/school/library).	
20	Improved Amenities for Dog Walkers	Usability	Medium-Term	Poo-Bag dispensers/"dog on leash" signage, etc.	
21	Cemetery Road Parking	Usability	Long-Term	Pave first section of Cemetery Road and add parking for Bailey Branch users.	
22	Alpine Road Cut-off Parking	Usability	Long Term	Improved parking here would provide a useful amenity for south Benton County residents to access the proposed shared use path and future bike path to Alpine and Bellfountain.	Possible property is directly to the west of the Bailey Branch Rail Corridor and south of Alpine Road.

Recommended Criteria for Evaluating Proposals⁶⁹

The following criteria were developed in order to implement the *Bailey Branch Corridor Decision* making process. Decisions on use proposals (including license, easement, structural modification, purchase, etc.) within the Bailey Branch Corridor will be made through the following two-tiered process:

1. Administrative: Uses determined to be temporary / short-term and low-impact will be reviewed and authorized by the Natural Areas and Parks Director.
2. Board of Commissioners Decisions: All other proposed uses will be evaluated by the:
 - a. Avery Department Directors based on criteria that implement the guiding principles of the *Bailey Branch Management Strategy*. The following criteria and any additional criteria deemed necessary, will be requested by the person(s) proposing a use within the corridor:
 - i. What are the legal implications of the proposal?
 - ii. What are the costs and benefits of the proposal? To whom?
 - iii. Will the proposed use seriously interfere with uses on adjacent property?
 - iv. Will the proposed use impose an undue burden on public improvements, facilities, utilities, or services?
 - v. What are the long-term implications of the proposal?
 - vi. What are the economic, environmental, and community effects of the proposal?
 - vii. Is the proposal consistent with the *Strategy's* mission and goals for the corridor, and other adopted plans?
3. Avery Department Directors forward findings and recommendation to the Board of Commissioners.
4. Board of Commissioners decides on the proposal at a public meeting. Public notification of a Board of Commissioners meeting and Board decisions will be provide as determined necessary by the Board of Commissioners.

⁶⁹ (“Bailey Branch Rail Corridor Management Strategy” 2014, 50)

APPENDIX E. ACRONYMS

ACC	- Alpine Community Center
ADA	- Americans with Disabilities Act
AFRANA	- Alliance for Recreation and Natural Areas
BCF	- Benton Community Foundation
BOC	- Benton County Board of Commissioners
CHIP	- <i>Benton County Community Health Improvement Plan</i>
CIRD	- Citizens' Institute on Rural Design
FHWA	- Federal Highways Administration
LCDC	- Land Conservation and Development Commission
LID	- Local Improvement Districts
MACRO	- Monroe Area Community Revitalization Opportunities
MUTCD	- <i>Manual on Uniform Traffic Control Devices</i>
OAR	- Oregon Administrative Rule
OCF	- Oregon Community Foundation
OCWCOG	- Oregon Cascades West Council of Governments
ODOT	- Oregon Department of Transportation
OPF	- Oregon Parks Foundation
OPRD	- Oregon Parks and Recreation Department
ORS	- Oregon Revised Statutes
OSU	- Oregon State University
PBIC	- Pedestrian and Bicycle Information Center
SAC	- Stakeholder Advisory Committee
SBCC	- South Benton County Connectivity Committee.
SBCRA	- South Benton County Recreation Alliance
SDC	- System Development Charges
TAC	- Technical Advisory Committee
TGM	- Transportation and Growth Management
TRP	- Transportation Review Process
TSP	- Transportation Systems Plan
TUF	- Transportation Utility Fees
USACE	- U.S. Army Corps of Engineers
UBG	- Urban Growth Boundaries

APPROVED BY:

_____ DATE: _____

APPROVERS NAME/TITLE

(CITY OF MONROE)

APPROVED BY:

_____ DATE: _____

APPROVERS NAME/TITLE

(BENTON COUNTY)