GILLIAM COUNTY TRANSPORTATION SYSTEM PLAN

VOLUME 1

October 2015

Prepared for:

Gilliam County &
Oregon Department of
Transportation

Prepared by:

Kittelson & Associates, Inc.

In association with:

Tenneson Engineering Corporation
Browne Consulting, LLC

Gilliam County

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Oregon Department of Transportation

Transportation System Plan

Gilliam County Transportation System Plan

Gilliam County, Oregon

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Preface

The progress of this plan was guided by the Project Management Team (PMT) and the Project Advisory Committee (PAC). The PMT and PAC members are identified below, along with members of the consultant team. The PAC members devoted a substantial amount of time and effort to the development of Gilliam County Transportation System Plan (TSP), and their participation was instrumental in the development of this document. The Consultant Team and PMT believe that Gilliam County's future transportation system will be better because of their commitment.

Project Management Team (PMT)

Michelle Colby *Gilliam County Planning Director*	Susie Anderson *Gilliam County Planning Director*	Michael Duncan *ODOT*

Project Advisory Committee (PAC)

Marla Davies *Gilliam County Transportation Services*	Tim Wetherell *City of Arlington Public Works*	Chris Fatland *Gilliam County Bike Enthusiast*
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Kathryn Greiner *City of Condon*	Chris Fitzsimmons *Gilliam County Emergency Management*	Pam Rosenbaum *City of Arlington*
Dewey Kennedy *Gilliam County Roadmaster*	Shannon Coppock *Gilliam County Fire Services Coordinator*	Leah Watkins *Commercial Trucking Company & Wheat Farm Operator*
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Section 1
Introduction

Introduction

BACKGROUND

The Gilliam County Transportation System Plan (TSP) documents the County, Cities, and ODOT's priority projects, policies, and programs that are carried forward for funding from state and federal agencies over the next 20 years. The TSP builds consensus among Cities, the County, and ODOT on the transportation needs and priority projects for the communities, and is based on input from local citizens, stakeholders, and appointed officials. The TSP is intended to be flexible to respond to changing community needs and revenue sources over the next 20 years and will be updated approximately every 10 years.

The previous TSP was developed in 1999. Since 1999, time, growth, and development patterns altered Gilliam County's forward vision. The following information provides context and illustrates the challenges, opportunities, and needs tied to the County's evolving transportation system:

- The Cities of Arlington and Condon nearly exhausted the project lists identified in the 1999 TSP. In addition, revised zoning ordinances are not reflected in the 1999 TSP.
- The County has prioritized building livable, connected communities. This TSP Update includes strategies that promote accessibility and connectivity and preserve the local character of the cities of Arlington, Lonerock, and Condon, including:
    - Networks that provide safe and more comfortable access for pedestrians and bicyclists to and from schools, downtown, grocery stores, government buildings, healthcare facilities, and residential areas.
    - Balancing mobility with safety and livability to provide vibrant communities throughout the County.
- Since the adoption of the 1999 TSP, land use patterns have changed within the County that requires planned transportation system projects, policies, and programs to support the emerging trends. Since the 1999 TSP was adopted, nearly 500 acres of industrial lands were added to the Urban Growth Boundary (UGB) and city limits of the City of Arlington. The County has also become home to a growing wind turbine industry. The ability to transport turbines for both installation and servicing is central to the development of this industry. This TSP update includes elements from the Port of Arlington Strategic Plan and the Gilliam County Strategic Plan to better

integrate the County's industrial areas with future transportation system improvements.

- The three Cities are widely dispersed and rely on a sizable and remote system of roadways for safe and effective travel. A number of these roadways are aging and could benefit from widened roadbeds, reduced grades, straightened curves, snow fencing, offset intersection/junction realignment or bridge upgrades. These improvements address basic transportation needs of these communities and their industries. Enhancement and preservation projects such as these also bolster the system of emergency routes available in the event of a natural disaster and school bus routes transporting the students.

TSP PROCESS

The Gilliam County TSP was developed through a process that identified transportation needs, developed and analyzed potential alternative approaches for addressing those needs, and developed an improvement and financing plan that best address Gilliam County's forecasted needs. The following steps were involved in this process:

- Reviewing state, regional, and local transportation plans and policies that the Gilliam County TSP must either comply with or be consistent with.
- Providing public open houses to provide project information to, and gather feedback from, the public at key points during the TSP development process, establishing project advisory committees, and developing transportation plan goals and objectives.
- Identifying a detailed inventory of existing transportation facilities and services.
- Evaluating current transportation operations and deficiencies.
- Evaluating transportation needs in the year 2035 if growth occurs as expected and without any additional transportation improvements beyond those already funded.
- Identifying and evaluating improvement alternatives intended to address Gilliam County's future transportation needs.
- Developing a prioritized set of improvements and strategies that meet the plan goals and objectives.
- Estimating the revenue available for transportation projects through the year 2035 assuming reduced, consistent, and increased transportation funding.
- Compiling the results of this work into this TSP document,
- Review and adoption of the TSP by Gilliam County Planning Commission and County Court, as well as the Arlington and Condon City Councils.

PUBLIC INVOLVEMENT

The planning process was guided by a Project Advisory Committee (PAC), which was comprised of key stakeholder agencies and other community representatives. These included Gilliam County Planning Department, Gilliam County Roadmaster, the City of Arlington, the City of Condon, the Oregon Department of Transportation, the Oregon Department of Land Conservation and Development, Emergency Services, the Port of Arlington, the Sheriff Department, School Districts, the Port of Arlington, and major employers in the County.

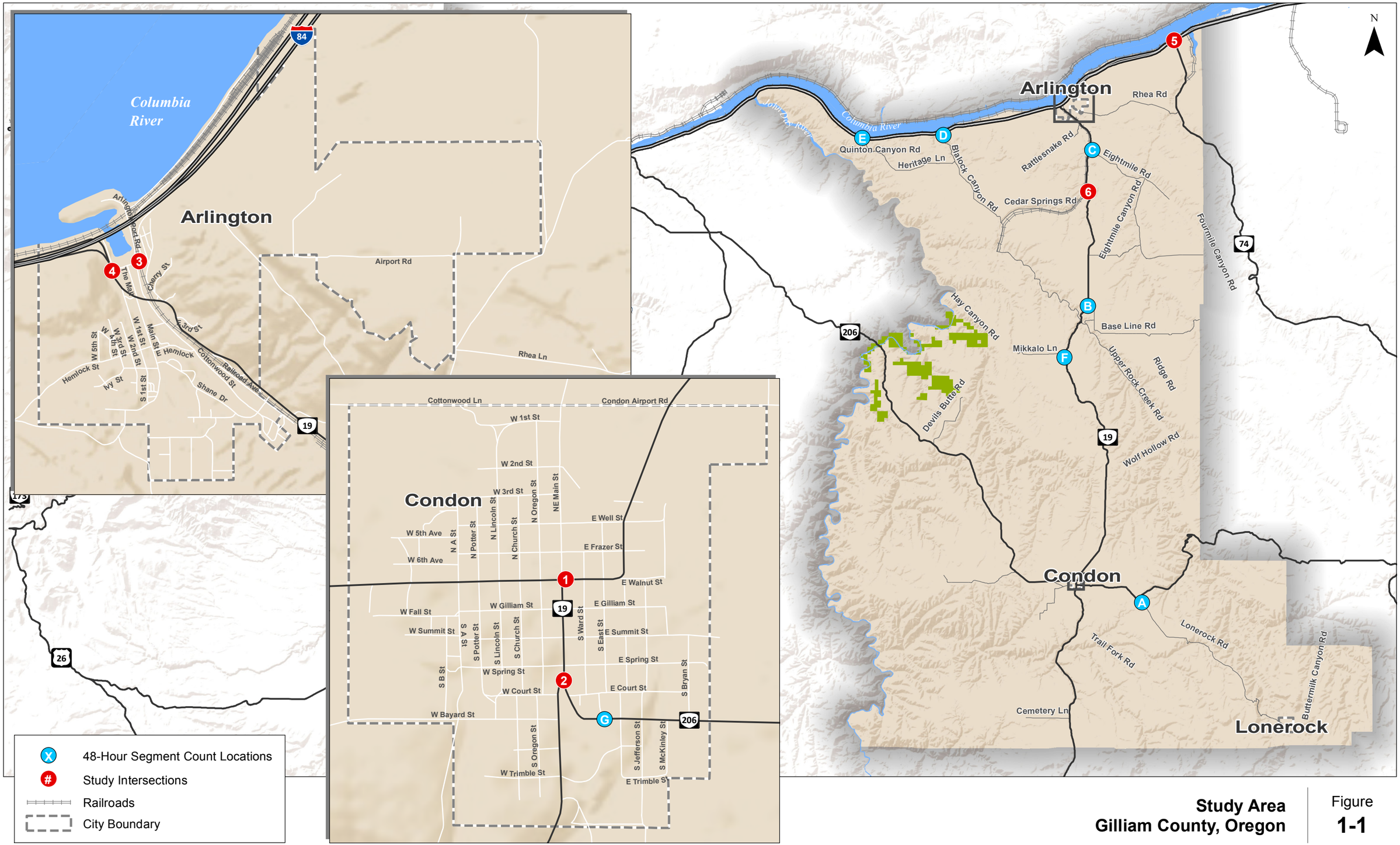
The PAC was responsible for reviewing the technical aspects of the TSP. The PAC reviewed several memoranda and convened at a total of four TAC meetings during the process of developing the TSP. The PAC meetings focused on all aspects of the TSP development including existing deficiencies and forecast needs; presentation and review of alternatives; presentation and review of a preferred transportation and funding plan; and, presentation and review of recommended ordinance amendments.

In addition to the established advisory committees, two public meetings were held at key junctures in the process to obtain public comment regarding transportation concerns, future transportation improvement projects, and priorities. These meetings were held in the City of Condon and the City of Arlington. All comments were addressed in the alternatives analysis and final plan development. Finally, the draft plans were discussed with the Planning Commission and County Court at public hearings.

PLAN STUDY AREA

Gilliam County is located in north-central Oregon and includes an area of 1,223 square miles. Figure 1-1 shows a map of Gilliam County, including the city boundaries of each incorporated city within the County. The study area for the Gilliam County TSP consists of all areas of the county, including the incorporated cities.

Based on the requirements of the Transportation Planning Rule, the study of County roadways and intersections is generally limited to those with the highest classifications – collectors and arterials – as well as state highways. However, local street issues such as street connectivity, design standards, and safety are also discussed where appropriate.



Study Area
Gilliam County, Oregon

Figure
1-1

K:\H_Portland\proj\fe\17679 - Gilliam County TSP\gis\final TSP - section 7\1-1 Study Area.mxd - agriffin - 5:21 PM 9/15/2015

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

TSP ORGANIZATION AND METHODOLOGY

The development of Gilliam County's TSP began with a review of the local and statewide plans and policies that guide land use and transportation planning in the County. The plan and policy review is presented in **Section 2** of this plan. Goals and objectives for the TSP, as developed in collaboration with the Project Advisory Committee (PAC) are presented in **Section 3.**

An inventory of the existing transportation system documented all major transportation-related facilities and services within the County. The transportation system inventory allowed for an objective assessment of the current system's operational performance, safety, and general function, which is summarized in **Section 4**.

Long-term (year 2035) transportation system forecasts were developed based on ODOT future volume estimates. **Section 5** of this report details the development of anticipated long-term (year 2035) future transportation needs.

A preferred plan was developed that reflected a consensus on which elements should be incorporated into the County's long-term transportation system. The preferred plan was based on transportation needs summarized in **Section 6**. Transportation needs were identified by the PAC, comments received from the County staff, Gilliam County residents, and ODOT representatives.

Having identified a preferred set of alternatives, the next phase of the planning process involved presenting and refining the individual elements of the TSP through a series of decisions and recommendations leading to the preferred plan. The preferred plan identified in **Section 7**, Transportation System Plan, includes a roadway plan and a pedestrian and bicycle plan, as well as plans for other transportation modes serving Gilliam County.

Section 8, Transportation Finance Element, provides an analysis and summary of the alternative funding sources to finance the identified transportation system improvements. **Section 9** documents how the document complies with County and State plans and requirements.

Sections 1 through 9 comprise Volume 1 of the TSP and provide the main substance of the plan. These are supplemented by Technical Appendices in Volume 2 which contains the technical memoranda documenting the existing conditions analysis, forecast needs, and alternatives analysis.

Section 2
Plans, Policies, and Standards Review

Plans, Policies, and Standards Review

One of the project objectives of the TSP Update is to provide consistency between the County's TSP and local and state transportation policies and standards. To meet these objectives, a review and evaluation of existing plans, policies, standards, and laws that are relevant to the TSP update was conducted. Detailed information from this review, including a complete list of the documents reviewed, can be found in Technical Memorandum #1 located in Volume 2 of the Technical Appendix.

The summary of federal, state, regional, and local documents as they relate to transportation planning in Gilliam County, provided the policy framework for the TSP planning process. State documents and requirements were summarized as they applied to the Gilliam County TSP, as were applicable local city policies and regulations that had potential impacts on the County transportation system.

Given the prominence of the Cities of Arlington and Condon in the County, a number of local documents were also reviewed for policies that could have impacts to the Gilliam County TSP. Reviewed documents include the City of Arlington Comprehensive Plan (2003), the City of Arlington Transportation System Plan (1999), the City of Condon Comprehensive Plan (2011 update), the City of Condon Transportation System Plan (1999), the Condon State Airport Layout Plan (2002), and the City of Condon Buildable Lands Inventory (2001).

This review of plans and policies identified the following key elements of the 1999 TSP that were updated to remain consistent with current State, County, and City plans and policies.

- Identified improvements completed since the 1999 TSP and future improvements to the street network needed in order to improve freight mobility, consistent with the Oregon Freight Plan.
- Documented public transportation services available to residents of Gilliam County, Oregon that support the goals of the Public Transportation Plan.
- Documented pedestrian and bicycle facilities available to residents of Gilliam County, Oregon that support the goals of the Oregon Pedestrian and Bicycle Plan.
- Accounted for revisions to the Oregon State Rail Plan.
- Included analysis that supports the Transportation Safety Action Plan (TSAP) Emphasis Areas, and identify performance goals consistent with the Oregon Transportation Safety Action Plan.

Section 3
Goals and Objectives

Goals and Objectives

The goals and objectives presented in this section guided the development of the transportation system in Gilliam County. The goals relate to: Mobility and Connectivity; Multimodal Users; Safety; Environment; and, Planning and Funding. Objectives for each goal are also provided, which identify the course of action intended to achieve each goal.

GOAL 1: MOBILITY AND CONNECTIVITY

Promote a transportation system within the County that links all three cities and serves existing and future needs for transporting goods and people throughout the County and within each City.

Objectives

- Identify the 20-year roadway system needs to accommodate developing or undeveloped areas without undermining the rural nature of the county.
- Promote transportation linkages between the widely dispersed cities of Arlington, Condon, and Lone Rock by promoting an integrated system of principal highways that move people and goods throughout the County and connect to other adjoining Counties; a County road system that facilitates transportation between various areas of the County and between principal highways; and a local road system that serves as access to commercial and residential areas while preserving the function, operation, capacity, level of service, and safety of State highways and local roads in a manner consistent with adopted state and local plans.
- Coordinate with the Oregon Department of Transportation and local cities to identify priority roadway improvements and maintenance needs.
- Improve traffic circulation within the three cities, the Port of Arlington, and I-84 interchanges within the County, while maintaining the local character of each community.
- Promote and plan for future industrial, commercial, and residential growth areas.
- Update roadway performance standards to ensure the efficient movement of people, goods, and commercial waste.
- Update policies and standards that address street connectivity, spacing, and access management.
- Balance local community and state goals for the state highways that run through the cities.

GOAL 2: ECONOMIC DEVELOPMENT

Provide a transportation system that supports existing industry and encourages economic development in the County.

Objectives

- Develop and promote a multi-modal transportation network that supports the existing agriculture, waste management, and wind turbine industries and supports economic diversification in the future.
- Promote railroad and waterway freight service when possible and upgrade highways in nexus areas that lack this option.
- Prioritize improving and maintaining the key freight routes of OR 19 between Arlington and Condon, and OR 206 and OR 74 throughout the County.
- Maintain and enhance the 10-mile rail segment between Arlington and the Columbia Ridge Landfill and Recycle Center to serve existing and emerging industrial and commercial uses.
- Identify the 20-year roadway system needs to accommodate developing or undeveloped areas without undermining the rural nature of the county.
- Ensure that the transportation system plan supports planned river port terminal facilities in the Columbia River gorge.
- Coordinate with the Port of Arlington Strategic Plan and the Gilliam County Strategic Plan to better integrate the County's industrial areas with these future transportation system improvements.
- Ensure that the Arlington and Condon Airports are adequately served by the transportation system and that the transportation system supports the development of supporting land uses around the airports.
- Encourage bicycle tourism by promoting and upgrading recreational routes through the County.
- Promote a transportation system that balances the needs of downtown businesses with the need to preserve through traffic on State Highways by evaluating alternative solutions.

GOAL 3: SAFETY

Provide a transportation system that promotes the safety of current and future travel modes for all users.

Objectives

- Promote a transportation system that facilitates the use of state highways for safe and efficient travel and also provides safe, livable, and vibrant multimodal corridors in the downtown neighborhoods and central business districts.
- Ensure that roadways are designed, constructed, and maintained to an appropriate standard for their expected use, vehicle speeds, and vehicle traffic.
- Reduce incidence and severity of motor vehicle crashes.
- Evaluate and respond to crash trends across the County, including overrepresented crash types and crash characteristics.
- Evaluate and respond to crash trends associated with an aging population.
- Provide a transportation system that allows for adequate emergency vehicle access to all land uses.
- Promote railway and highway safety at and near railway/highway intersections.
- Update County access management standards for all county roads.

GOAL 4: MULTIMODAL USERS

Provide a multimodal transportation system that permits the safe and efficient transport of people and goods through active modes.

Objectives

- Promote alternative modes, transit/dial-a-ride service, and rideshare/carpool programs through community awareness and education.
- Support the development of regional public transit opportunities.
- Promote an interconnected network of bicycle, pedestrian, and transit facilities throughout the County.
- Consider bicycle and pedestrian facility needs during construction of new roads and during upgrades of existing roads.
- Promote a transportation system that includes pedestrian and bicycle facilities within the cities to promote active transportation to and from schools, downtown areas, grocery stores, government buildings, and healthcare facilities.
- Develop plan elements that guide pedestrian and bicycle pathways and facilities to achieve maximum connectivity between bicycle, pedestrian, transit, and vehicle routes and facilities, securing an intermodal network of safety and access for all types of users.

GOAL 5: ENVIRONMENT

Provide a transportation system that balances transportation services with the need to protect the environment.

Objectives

- Develop a multi-modal transportation system that avoids reliance upon one form of transportation as well as minimizes energy consumptions and air quality impacts.
- Encourage development patterns that decrease reliance on motor vehicles within cities.
- Promote design standards that support acquiring only the minimum roadway width necessary for the roadway, including facilities for all users for the roadway classification, and maintenance to reduce weed infestation and conserve agricultural land.

GOAL 6: PLANNING AND FUNDING

Maintain the safety, physical integrity, and function of the County's multi-modal transportation network.

Objectives

- Maintain long-term funding stability for transportation maintenance projects.
- Identify new innovative funding sources for transportation improvements.
- Ensure that the existing transportation network is conserved and enhanced through maintenance and preservation.
- Identify interim, short-term, and long-term transportation solutions that will encourage development within the existing Urban Growth Boundaries.
- Identify areas where refinement plans or interim measures would increase the life of a facility or delay the need for improvements.
- Develop a TSP that complies with the Transportation Planning Rule (TPR), the Oregon Transportation Plan (OTP), and the Oregon Highway Plan (OHP).
- Continue and enhance relationships and improve coordination among Gilliam County, ODOT, the Federal Highway Administration (FHWA), the Port of Arlington, and local jurisdictions.
    - Cooperate with ODOT in the implementation of the Statewide Transportation Improvement Program (STIP);
    - Encourage the improvement of state highways;

- Work with local jurisdictions in establishing cooperative road improvement programs, funding alternatives, and schedules;
- Work with the local jurisdictions in establishing the right-of-way needed for new roads identified in the TSP;
- Leverage federal and state highway funding programs.

Section 4
Existing 2015 Transportation Conditions

Existing 2015 Transportation Conditions

Gilliam County's transportation system provides facilities serving many different modes of transportation. This section documents the existing system, including the following modes:

- Road System (auto/truck)
- Pedestrian and Bicycle
- Public Transit
- Rail
- Marine
- Air
- Pipeline and Transmission System

STREET SYSTEM AND TRAFFIC ANALYSIS

Gilliam County is served by three state highways and a network of highways, arterials, collectors, and local streets maintained by the County. Primary roadway facilities, their characteristics, and existing operational performance are summarized below.

Street System Overview

Roadways within Gilliam County fall under the jurisdiction of the state (ODOT), the County, or local cities. The following sections describe the characteristics of the roadways under each jurisdiction.

State Roadways

The state facilities within Gilliam County provide interstate, statewide, and regional connectivity. These facilities include Interstate 84 (I-84), Oregon Highway 19 (OR 19), Oregon Highway 206 (OR 206), and Oregon Highway 74 (OR 74). The state facilities serve two of the three cities in Gilliam County. I-84 and OR 19 provide connections to the City of Arlington, and OR 19 and OR 206 provide connections to the City of Condon.

County Roadways

Eighty-five roadways, totaling an estimated 406 miles, are under the County's jurisdiction. Sixteen percent of the roadway miles are paved, 14 percent are chip sealed, and 70 percent are gravel roads. The County roads provide connections to the state highway system and serve rural areas and the city of Lonerock.

City Roadways

The City of Condon is comprised of streets in a grid pattern, with Main Street running north-south through the center of the City. OR 19 and OR 206 meet and share the alignment with Main Street through the downtown area. Blocks in the downtown area are generally 300 feet wide (east-west) and 500 feet long (north-south).

The City of Arlington is located at the interchange of I-84 and OR 19. OR 19 runs north-south through Arlington, crossing the railroad as it enters town, and provides access to the commercial areas of the City on the north end. The remaining streets are primarily residential streets, with the exception of Airport Road which serves as access to the Industrial lands on the bluff above the City.

The City of Lonerock's roadways are maintained by Gilliam County. The city's seven roads form a small grid pattern.

Street System Characteristics

The State, County, and City roadways are categorized based on functional classification, which is based on the road's purpose and use characteristics. Volume 2 of the Technical Appendix summarizes the existing functional classification, roadway design standards, and access management standards based on the 1999 TSP. **Section 7** of this document summarizes the current functional classification, roadway design standards, and access management standards for each facility.

Street System Traffic Analysis

The focus of this section is to report the existing traffic operations for study intersections and roadway segments identified for the TSP update, as shown in Figure 1-1. The sub-sections below present information on the traffic count data used in the evaluation, the analysis methodology applied, the operational standards used to assess the results, and the traffic operations results for the study intersections. Technical Memorandum #3 located in Volume 2 of the Technical Appendix contains the traffic count data obtained from ODOT and used in the analysis, the Methodology Memorandum documenting the analysis method applied, and the existing conditions traffic operations and queuing analysis worksheets.

Analysis Methodology and Performance Standards

All operations analysis were performed in accordance with the procedures in the *2010 Highway Capacity Manual*.

Per the Methodology Memorandum (included in Technical Memorandum #3, in Technical Appendix Volume 2) and the ODOT *Analysis Procedures Manual* (APM), intersection operational evaluations were conducted based on the peak 15-minute flow rate observed during the weekday peak hour. Using the peak 15-minute flow rate ensures this analysis is based on a reasonable worst-case scenario. For this reason, the analysis reflects conditions that are likely to occur for 15 minutes out of each average weekday peak hour. The transportation system will

likely operate under conditions better than those described in this report during other typical time periods.

The operational results for study intersections and segments were compared with their corresponding mobility targets, summarized in Table 4-1 and Table 4-2, to assess performance and identify potential areas for improvement. Gilliam County does not have operational standards for roadway facilities. ODOT operational targets are identified in the Oregon Highway Plan and are summarized below for the state highways within the County.

TABLE 4-1 VOLUME TO CAPACITY RATIO TARGETS FOR PEAK HOUR OPERATION CONDITIONS

Route Name	Facility Extents	Facility Designation	Inside UGB			Outside UGB	
			Posted speed <= 35 mph	Posted speed > 35 mph but <45 mph	Posted speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate 84	Entire Section within County Limits	Interstate	N/A	N/A	0.80	0.70	0.70
OR 206	West of Condon	Regional Highway	N/A	N/A	N/A	0.75	0.70
	East of Condon	District Highway	N/A	N/A	N/A	0.80	0.75
	Within Condon City Limits	Regional Highway	0.90	0.85	0.85	N/A	N/A
	Within Condon City Limits	District Highway	0.95	0.90	0.90	N/A	N/A
OR 19	Entire Section within County Limits, Outside of Cities	Regional Highway	N/A	N/A	N/A	0.75	0.70
	Within Arlington City Limits		0.90	0.85	0.80	N/A	N/A
	Within Condon City Limits		0.90	0.85	0.80	N/A	N/A
OR 74	Entire Section within County Limits	District Highway	N/A	N/A	N/A	0.80	0.75

TABLE 4-2 INTERSECTION PERFORMANCE STANDARDS

Intersection Name	Location	Jurisdiction	Type of Intersection Control*	Performance Standard (v/c ratio)**
Walnut Street/Main Street	Condon	ODOT	TWSC	0.90 for all approaches
E Bayard Street/Main Street	Condon	ODOT	TWSC	0.90 for Main Street approaches; 0.95 for E Bayard Street approaches
I-84/Beech Street	Arlington	ODOT	TWSC	0.80 for interstate ramp approaches; 0.90 for Beech Street approaches
I-84/Locust Street	Arlington	ODOT	TWSC	0.80 for interstate ramp approaches; 0.90 for Locust Street approach
I-84/OR 74 (Eastbound Ramps)	County	ODOT	TWSC	0.70 for all movements
Cedar Springs Lane/OR 19	County	ODOT	TWSC	0.75 for Cedar Springs Lane approach movements; 0.70 for OR 19 approach movements

*TWSC = Two-way stop-controlled intersection

** v/c = volume-to-capacity ratio

Roadway Segment Analysis

Seven study segments were identified throughout the County. Traffic volumes were collected for 48 hours between Tuesday, July 29, 2014 and Thursday, July 31, 2014. These traffic volumes were used to conduct capacity analysis to determine how the facility operates under peak hour conditions. Based on the 48-hour counts, the hour with the highest traffic volume was identified as the peak hour for that facility. Two-lane highway capacity analysis was conducted for each roadway segment based on the peak hour traffic volumes. Table 4-3 summarizes the peak hour, traffic volumes, and volume-to-capacity ratio for each study segment. Although the County does not have operational targets for County facilities, the peak hour analysis reveals that all of the roadways currently operate well below capacity.

TABLE 4-3 ROADWAY SEGMENT OPERATIONS ANALYSIS

ID	Roadway	ADT from 2014 Traffic Counts (veh/day)	Peak Hour Time Period	Seasonally-Adjusted Peak Hour Count (pc/h)	PHF *	Two-Way Demand Flow (pc/h)	Critical Flow Rate (pc/h)	Calculated V/C Ratio
A	Lonerock Road, South of OR 19	173	5:00 - 6:00 p.m.	19	0.68	29	3,200	0.009
B	Baseline Road, east of OR 19	240	9:30-10:30 am, 1:30-2:30 pm	26	0.93	29	3,200	0.009
C	Fourmile Road, SE of OR 19	192	1:45 - 2:45 pm	28	0.65	45	3,200	0.014
D	Blalock Canyon Road, South of I-84	142	5:15 - 6:15 pm	19	0.86	23	3,200	0.007
E	Quinton Canyon Road, South of I-84	67	8:45 - 9:45 am	10	0.59	18	3,200	0.005
F	Mikkalo Lane west of OR 19	145	11:45 am - 12:45 pm	16	0.78	22	3,200	0.006
G	East Bayard Street, East of OR 19	576	10:45 - 11:45 am	55	0.68	85	3,200	0.026

*PHF = peak hour factor

Intersection Analysis

Six study intersections were identified throughout the County and Cities. Traffic counts at the six study intersections were completed on Wednesday, November 19, 2014 between the hours of 5:00 a.m. and 9:00 p.m. Each intersection count was seasonally adjusted based on ODOT's methodology to obtain 30th highest hour volumes (additional detail regarding these adjustments can be found in Technical Appendix Volume Two). The existing conditions traffic operational analysis was conducted based on the 30th highest hour traffic volumes at each study intersection. Exhibit 4-1 shows the existing intersection traffic control and lane configurations. Exhibit 4-2 summarizes the 2014 30th highest hour traffic volumes, and Table 4-4 summarizes the 2014 operational analysis results at the study intersections. As shown in Table 4-4, all intersections were found to operate at level-of-service "A" and with volume-to-capacity (v/c) ratios of less than 0.10. The 95th percentile queue lengths reflect the maximum expected during the peak 15 minutes. As shown in the table, the 95th percentile queue lengths do not exceed two vehicles at all study intersections.

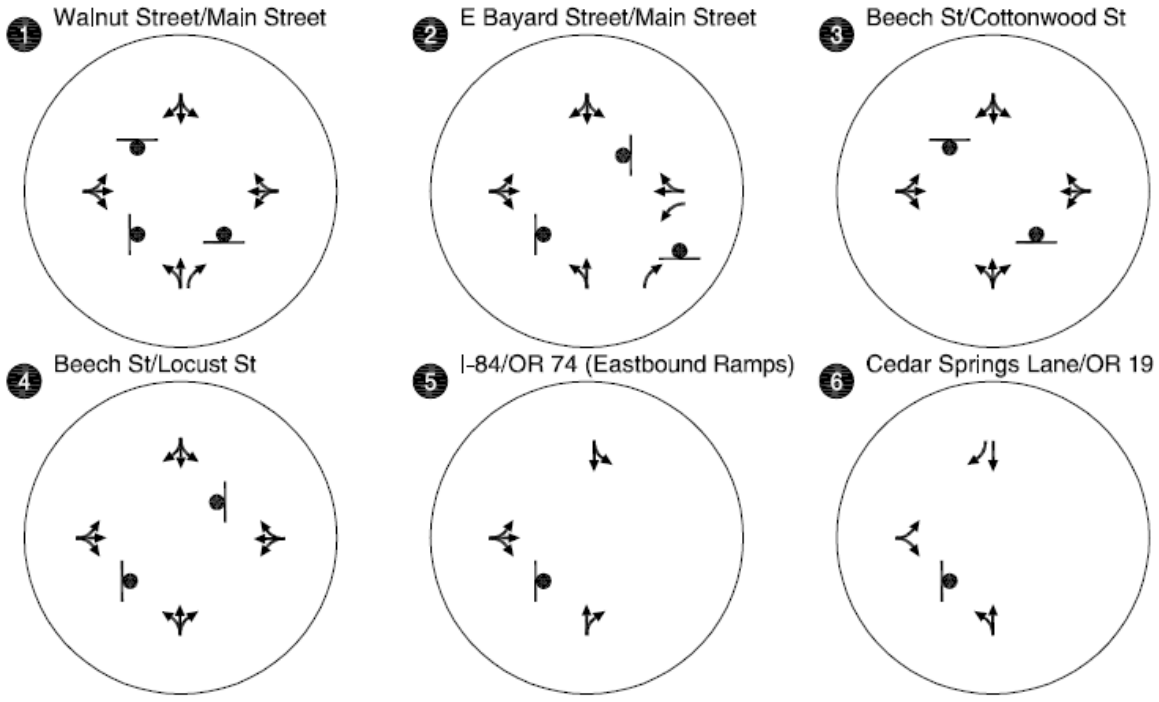


Exhibit 4-1. Study Intersection Traffic Control and Lane Configurations

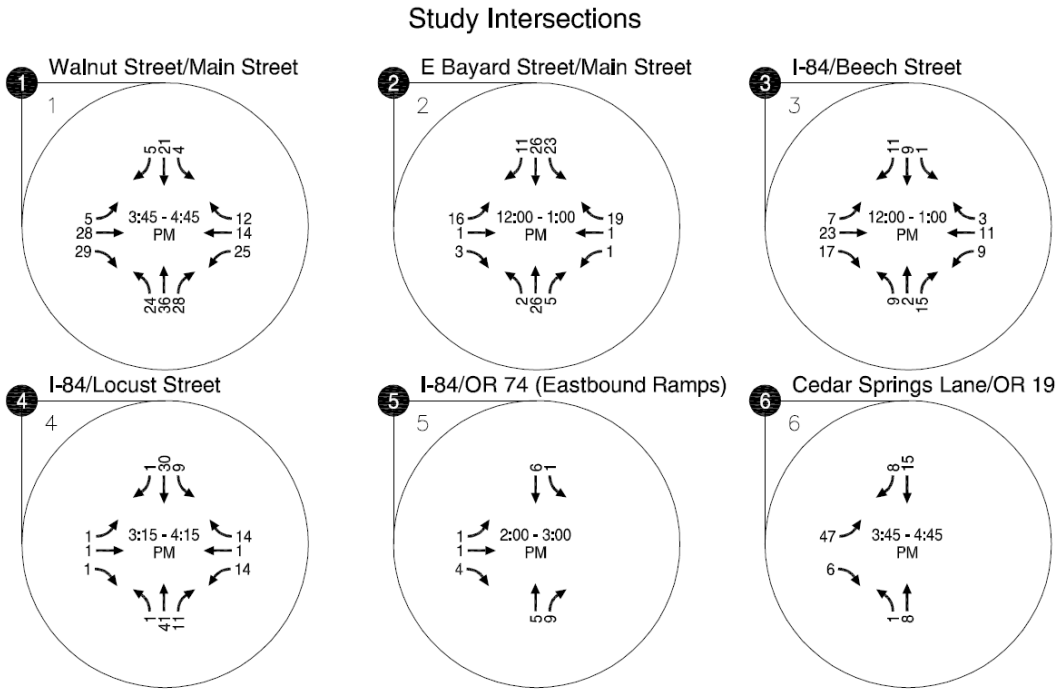


Exhibit 4-2. 2014 30th Highest Hour Traffic Volumes

TABLE 4-4 INTERSECTION OPERATIONAL ANALYSIS RESULTS

ID	Name	Critical Movement	V/C Ratio	LOS	Delay (sec)	95th % Queue (# vehicles)	Performance Standard (v/c ratio)
1	Walnut St/ Main St	WB	0.09	A	9.5	1	0.90
2	E Bayard St/ Main St	EBL	0.03	A	4.2	2	0.95
3	I-84 Ramp/ Beech St	SBT	0.02	A	4.8	1	0.90
4	I-84 Ramp/ Locust St	EBT	0.01	A	3.0	1	0.90
5	I-84 EB Ramp/ OR 74	WBL	0.00	A	2.1	1	0.70
6	Cedar Springs Ln/ OR 19	EBL	0.06	A	5.9	2	0.75

v/c = volume-to-capacity

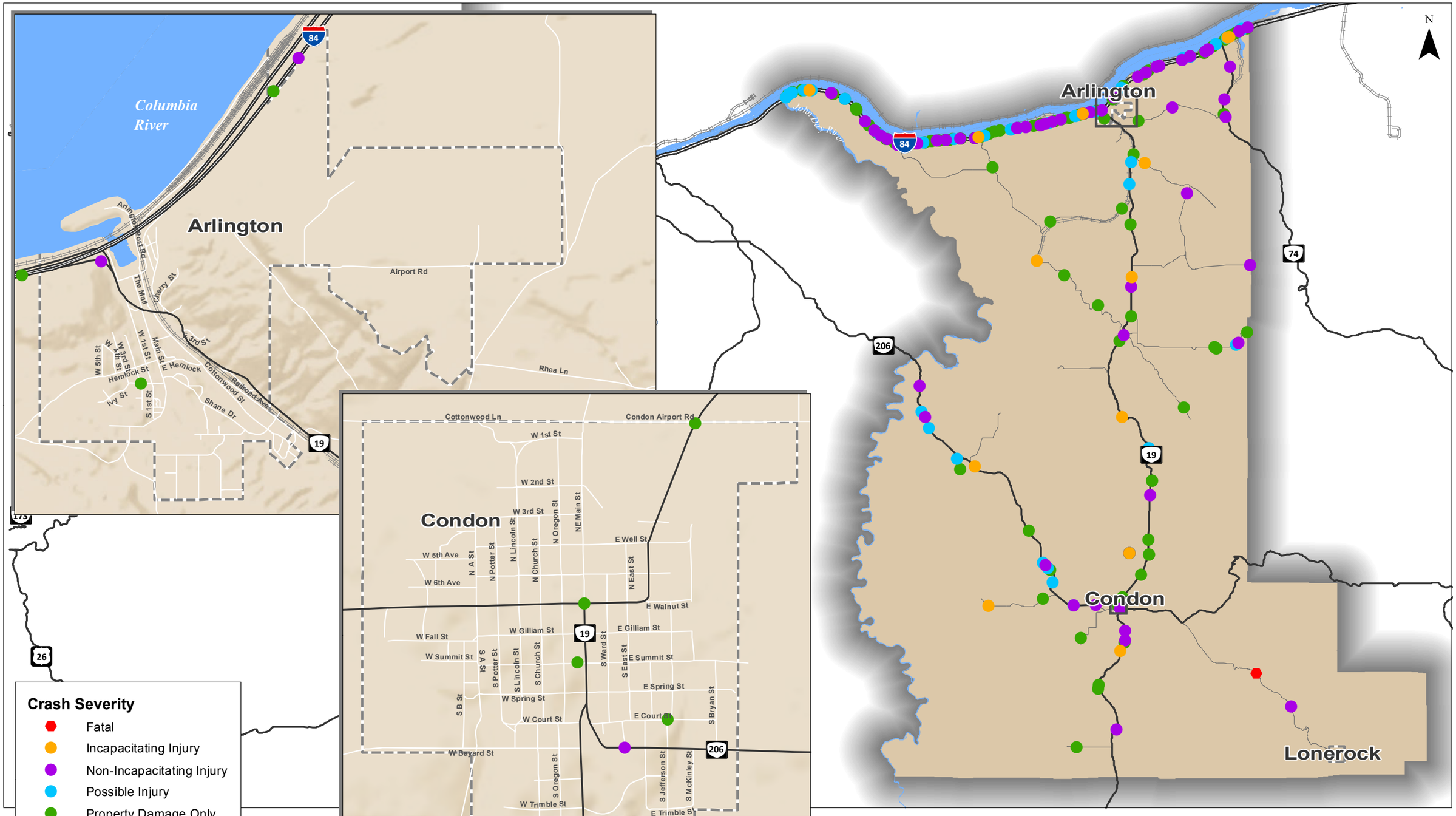
ROAD SAFETY

Crash data from the latest five years (January 1, 2009 through December 31, 2013) was obtained from ODOT for all roadways within Gilliam County. Figure 4-1 illustrates reported crash

locations throughout the county. As shown in Figure 4-1, the majority of reported crashes are located along state highways.

County Historic Crash Analysis

Crash data from the latest five years (January 1, 2009 through December 31, 2013) was obtained from ODOT for all roadways within Sherman County. Figure 4-1 illustrates reported crash locations throughout the County. As shown in Figure 4-1, the majority of the reported crashes are located along state highways, particularly the OR 19 and I-84 corridors. Crash data is provided in Technical Memorandum #3 in Volume 2 of the Technical Appendix.



Reported Crash History (2009-2013)
Gilliam County, Oregon

Figure **4-1**

H:\proj\fel17679 - Gilliam County TSP\gis\4-5 Crash History.mxd - openbnd - 5:40 PM 9/15/2015

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Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

County Crash Patterns

A total of 228 crashes were reported in Gilliam County between 2009 and 2013. The majority of reported crashes (147 crashes, 65%) occurred on I-84. Table 4-5 summarizes the reported crashes by severity.

Almost half of the reported crashes involved an injury, and one crash involved a fatality. The fatal crash was reported as a fixed object, overturned crash on a curve on Lonerock Road, approximately nine miles north of the City of Lonerock. The crash report indicates speed was a contributing factor. The weather and light conditions at the time of the crash were not reported.

Of the 13 reported severe injury crashes, several trends were noted:

- Seven involved a vehicle collision with a fixed object.
- Excessive speed was reported in at least six.
- Alcohol was indicated as a factor in two.
- Eleven occurred during daylight and on dry road surface.

The severe injury crashes were located throughout the County on the interstate, state highways, and County and local roads.

TABLE 4-5 REPORTED CRASHES BY SEVERITY IN GILLIAM COUNTY (2009 – 2013)

	Crash Severity					
	Fatal	**Injury A**	**Injury B**	**Injury C**	**PDO**	**Total**
Number of Reported Crashes	1	13	56	38	120	228
Percentage of Total Crashes	<1%	6%	24%	17%	53%	100%

Exhibit 4-3 shows the number of crashes reported by month.

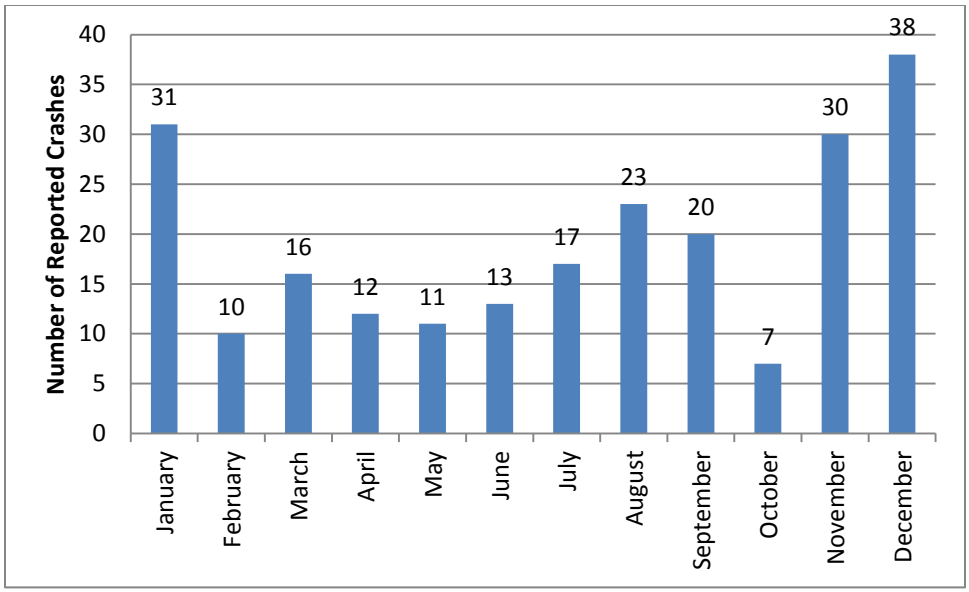


Exhibit 4-3. Reported Crashes by Month (2009-2013)

As shown in Exhibit 4-3 the highest crash frequency occurred during winter months, from November through January. Winter months in Gilliam County can include inclement weather conditions producing wet, icy, and/or snowy conditions. Further review of crashes in November, December, and January (99 crashes) indicate that 80% (79 crashes) occurred on roadway surfaces that were wet, icy, or snow-covered. Just over 50% (51 crashes) occurred in dark, dawn, or dusk lighting conditions.

Over the study period, almost 70% of crashes (156 crashes) were reported as fixed object or non-collision crashes. Over 41% (94 crashes) occurred on roadway surfaces that were wet, icy, or snow-covered. The same number (94 crashes) occurred in dark, dawn, or dusk lighting conditions. One reported crash on I-84 involved a pedestrian in the western end of the County during icy roadway conditions.

Of the 81 crashes that occurred on non-interstate facilities, 47 crashes (58%) occurred on rural minor arterials, 14 crashes (17%) occurred on rural major collectors, 2 crashes (3%) occurred on rural minor collectors, and 18 crashes (22%) occurred on rural local streets or roads.

Intersection and Segment Crash Analysis

Study intersections and segments were analyzed individually and compared to statewide averages for similar facilities, when possible. *Technical Memorandum 3 in Volume 2 of the Technical Appendices summarizes the analysis.* Based on the results of the crash analysis at study intersections and study segments, two segments (Quinton Canyon Road and E Bayard Street) exceed the statewide average. However, these are both short segments with only one crash reported during the most recent five years. The high crash rate was likely skewed by the short segment distance.

Statewide Priority Index System (SPIS)

ODOT developed the Safety Priority Index System (SPIS) to identify and prioritize sites where countermeasures could be implemented to potentially reduce the number of crashes. No segments or intersections within Gilliam County were identified in the top ten percent of the 2012 and 2013 SPIS lists (which use crash data from 2009 to 2011, and 2010 to 2012, respectively). The 2011 SPIS list includes one site on I-84, east of the interchange with OR 74, in the 90th – 95th percentile list.

Based on the 2009 to 2013 crash data, eight crashes were reported on I-84 along the approximately one-mile long segment between the interchange with OR 74 and the eastern County border. Four of the crashes occurred in the eastbound direction, and four crashes occurred in the westbound direction. The road character for three of the crashes in the eastbound direction was reported as a vertical curve. Six of the crashes were reported as fixed object crashes, one was a rear-end crash, and one was an animal crash. One crash occurred on a wet roadway, one occurred in snow conditions, and the remaining six crashes occurred on dry pavement in clear weather. The crash reports indicated that driver fatigue contributed to three crashes, inattention and improper driving contributed to two crashes, speed too fast for conditions contributed to one crash, tire failure contributed to one crash, and following too closely contributed to one crash. Five crashes were logged at milepost 148.0, including a fatal crash that involved drugs. These five crashes likely contributed to the location making the SPIS list; ODOT proposed to monitor the site in the future.

Observed Safety Issues

The following locations were identified by the Project Advisory Committee (PAC) as having existing safety issues:

- Walnut Street/Main Street intersection in Condon: The four-way intersection is 3-way stop-controlled. Confusion among drivers has been observed by residents; drivers at the intersection do not always realize one leg of the intersection is not stop-controlled.
- Sight distance is a concern at three intersections in the County: Main Street/Walnut Street in Condon (northbound approach), Main Street/Gilliam Street in Condon, and Quinn Road/OR 19 in Mayville.
- Drivers have been observed entering the I-84 westbound on-ramp when they intend to go eastbound, leaving Arlington as they enter I-84; the signage will be reviewed at this location.
- Railroad crossings in Arlington cause traffic to back-up on the interstate ramps and within Arlington. The trains have been observed stopping on the tracks for relatively long periods of time. During this time, emergency vehicles cannot access I-84.
- The intersection of Lone Rock Road/OR 206 is located on a curve and at an angle, which has caused concern that there is limited sight distance. The PAC advised that drivers may drive on the wrong side of the road at times to increase sight distance around the curve.

- Snow drifting is a concern on OR 206 near milepost 22, where vehicles have been trapped in snow drifts in the past.

PEDESTRIAN AND BICYCLIST SYSTEM

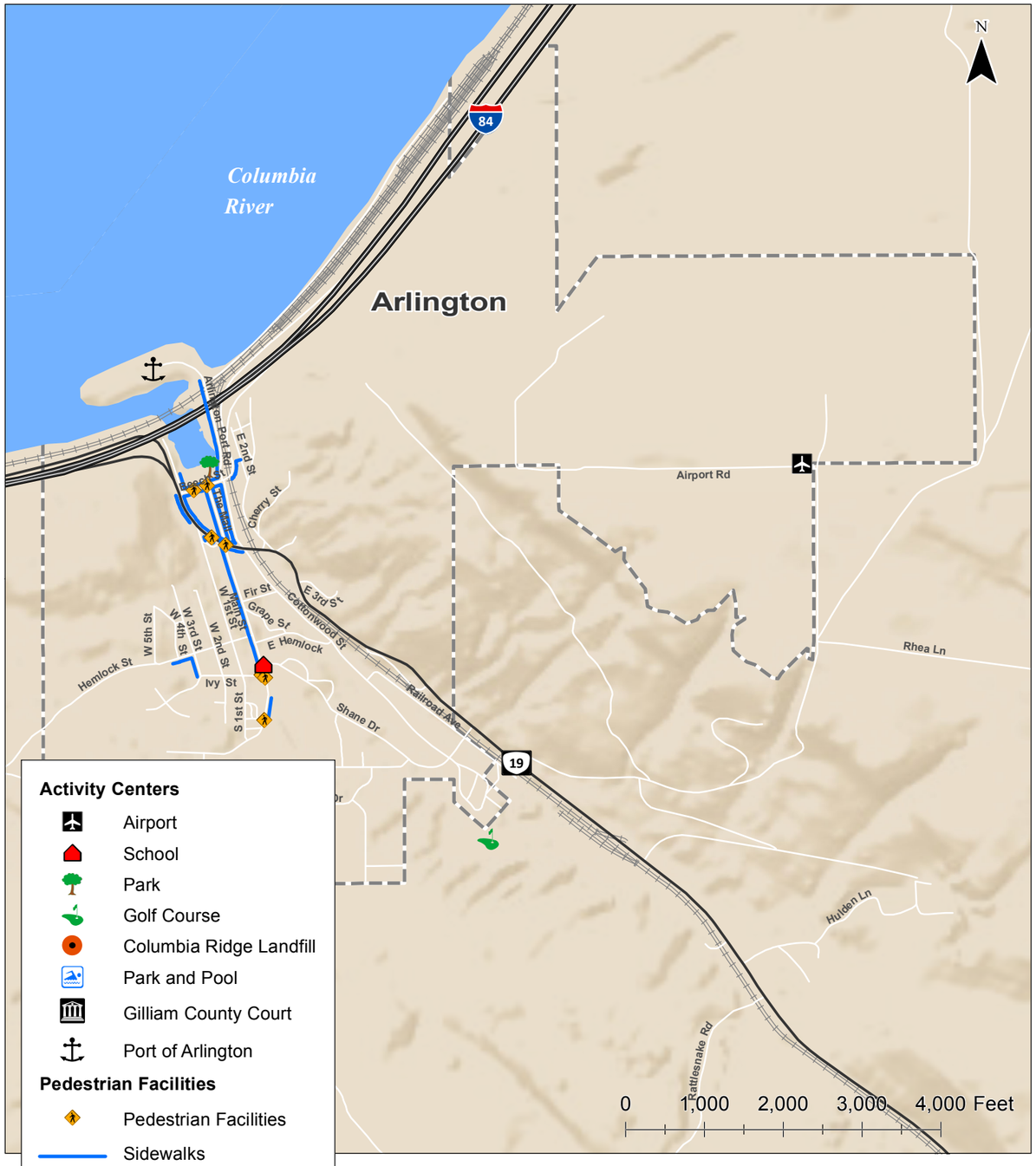
The pedestrian and bicycle modes serve a variety of needs including relatively short trips to major attractors, recreational trips, and circulation within parklands. Bicycle travel can be a viable commuting option, particularly in areas where bicycle lanes, paved shoulders and other amenities (such as: secure bicycle parking, work-place showers, and bus-mounted bicycle racks) are provided. Walking is also a viable choice for commute trips in areas with residential neighborhoods adjacent to employments centers; pedestrians are common in the downtown areas of Arlington and Condon. In rural areas of the County, walking and bicycling mainly serves as a form of recreation or exercise, rather than to serve as a viable mode of transportation for commerce due to the relatively long distances between originations and destinations.

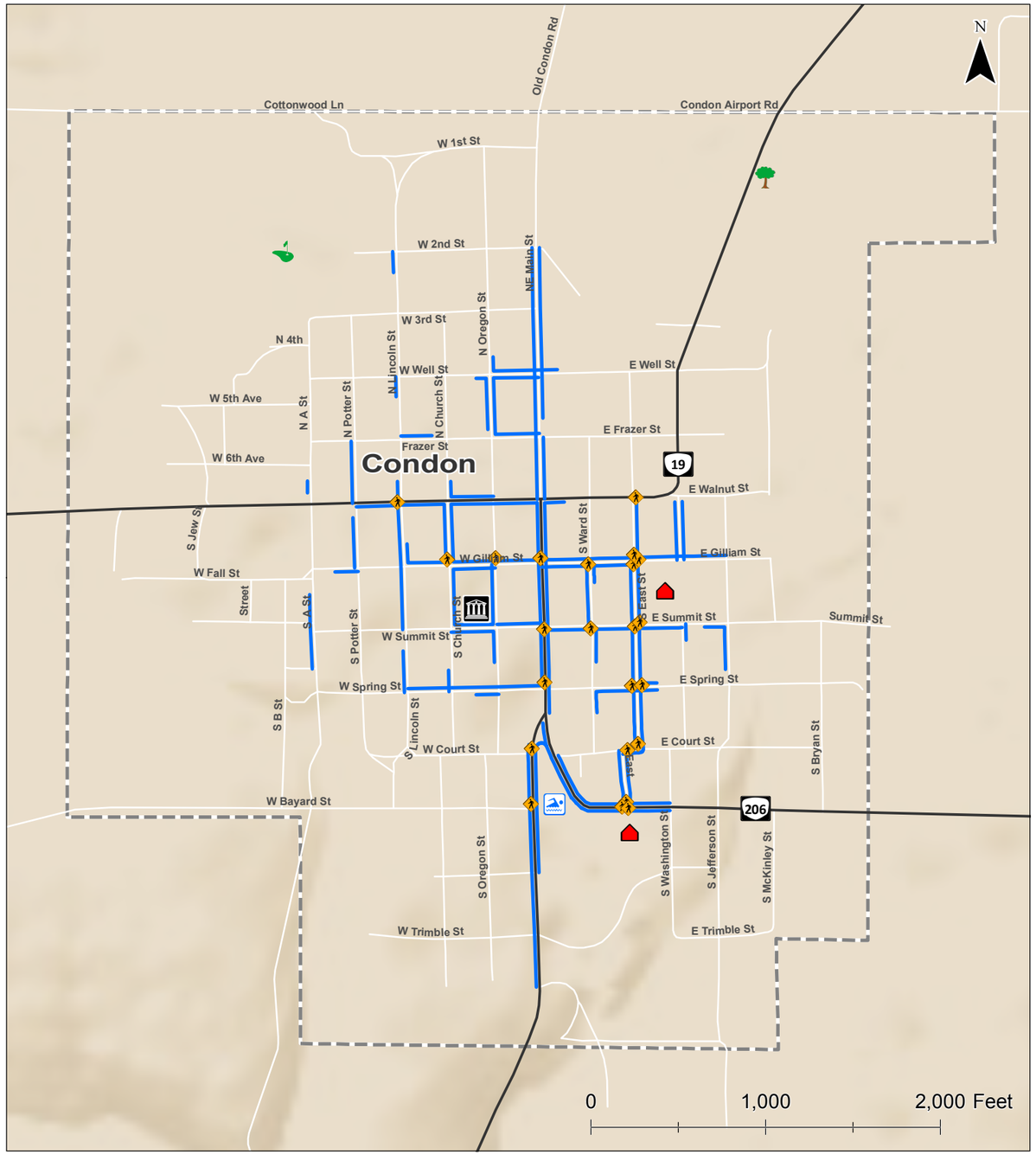
The pedestrian and bicyclist system for Gilliam County are summarized in Figure 4-2 and Figure 4-3, respectively. The inventory was completed based on ODOT's data for state facilities and a review of the downtown areas using Google Earth aerial imagery. No sidewalks or bicycle facilities are located within the City of Lonerock.

The pedestrian facilities inventory map in Figure 4-2 shows the location of existing sidewalks and crosswalks within the downtown areas of Condon and Arlington. As shown in the figure, sidewalks are located along the downtown commercial cores of both cities, but the sidewalks are discontinuous beyond the downtown cores. Schools in both cities are connected to the downtown commercial cores by continuous sidewalks and crosswalks. In Condon, the elementary school and high school locations are also connected by sidewalks and crosswalks. Residential areas are not connected to schools and commercial areas by continuous sidewalks.

The bicyclist facilities shown in Figure 4-3 were obtained from ODOT's inventory of bicycle facilities. In Arlington, these facilities are primarily striped shoulders that can be used by bicyclists. In Condon, the roadways are wide and provide adequate space for bicyclists, although no marked bicycle lanes are present. Within the downtown areas, no bicyclist facilities are provided on non-state facilities. The local streets are typically not marked for bicyclists, consistent with recommendations in the Oregon Bicycle and Pedestrian Design Guide, that urban and suburban roadways with posted speeds below approximately 20 miles per hour (mph) operate as shared facilities in which bicyclists share the road with vehicles.

Gilliam County is also a popular recreational bicycling location for bicyclists from around the state who are attracted by the scenery and low traffic roads. The John Day River Territory is a popular attraction. Many of the roadways are low volume, gravel roadways and scenic roadways. Popular recreational routes include OR 19 south of Condon to Fossil, OR 206 west of Condon to Wasco, and OR 206 east of Condon to Heppner. The majority of these routes have minimal shoulders and rough pavement conditions. In addition, there are no commercial or public locations on these routes for bicyclists to stop and hydrate, with the exception of the new Cottonwood State Park located off of OR 206.





Activity Centers

- Airport
- School
- Park
- Golf Course
- Columbia Ridge Landfill
- Park and Pool
- Gilliam County Court
- Port of Arlington

Pedestrian Facilities

- Pedestrian Facilities
- Sidewalks
- Railroads
- City Boundary

Pedestrian System Inventory
Gilliam County, Oregon

Figure
4-2

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

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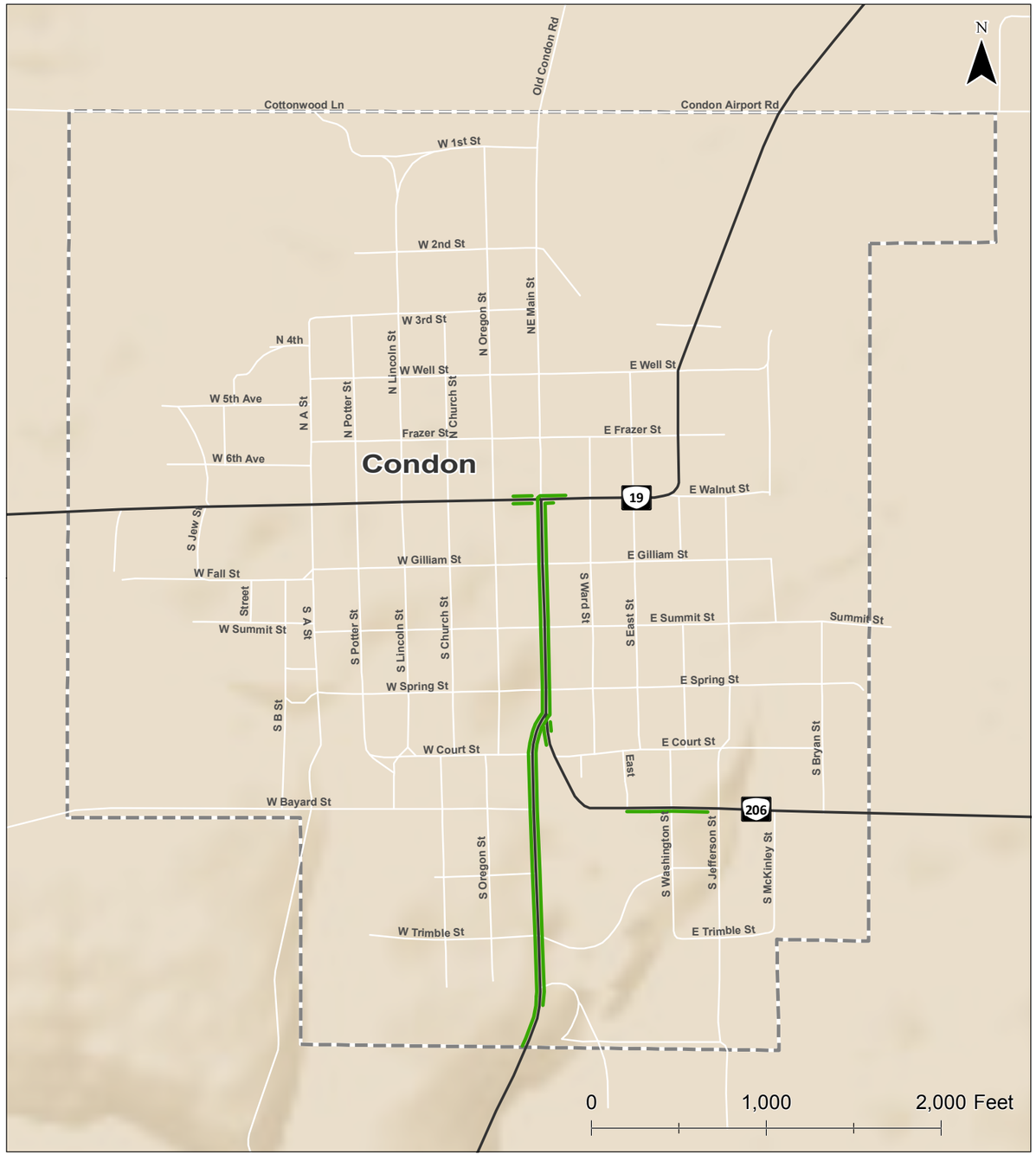

Bicycle Facilities
Railroads
City Boundary

Bicycle System Inventory
Gilliam County, Oregon

Figure
4-3

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

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PUBLIC TRANSPORTATION SYSTEM

Gilliam County Special Transportation (GCST) operates dial-a-ride transit service for the County. The service provides approximately 10,000 trips each year. No fixed route service exists within the County.

GCST operates eight vehicles, with five in Condon and three in Arlington. Service was recently expanded to include a vehicle in Lonerock. The County sold one ADA bus due to expensive repairs and needs to replace the bus with a smaller vehicle that includes an easy-to-operate wheelchair device that does not require the assistance of volunteers, who are often elders. Two of the remaining vehicles are accessible, and all vehicles are driven by a team of 21 volunteers. Two additional volunteers live in Lonerock and provide rides between Lonerock and Condon, where residents can catch another vehicle going to their final destination. When drivers are unavailable, the GCST director is sometimes required to drive the vehicles. There are no part-time dispatch staff currently available to cover these occasions when the director, who also functions as the dispatcher, must leave. The County has expressed interest in a carport at the Lonerock community center to protect the vehicle year-round and an expanded garage or similar facility in Condon to keep vehicles clear year-round.

The dial-a-ride service may be used by the general public for any purpose. About 80 percent of the trips serve seniors or people with disabilities. Residents are asked to call 36 hours in advance to schedule their trip. Rides are available Monday through Friday from 7:00 a.m. to 6:00 p.m., although some longer distance medical trips extend beyond these hours. Most trips are for medical purposes (90 percent), shopping, social, or business purposes. There is often a need for volunteer caregivers to ride along with passengers to provide assistance to the passengers traveling to medical appointments. The nearest medical facilities are located in either The Dalles or Hermiston. Frequent trips are also made to Portland for OHSU.

GCST is funded through grants, donations, and medical mileage reimbursement programs. GCST has expressed the need for more maintenance money to cover tires, snow tires, brake repairs, etc. There is currently no funding for training for the defensive driving passenger assistance training required for volunteers by the transportation brokerage. The Gilliam County Transportation Services Director is interested in becoming certified to provide this training to volunteers from Gilliam County and other nearby counties. Riders are not charged a fee, but suggested donations are recommended and vary from $2 to $30 depending on the length of the trip, purpose of the trip, and type of vehicle used. Veterans often must travel longer distances for their services and are not asked to provide donations for their ride. The County lacks existing funding for drivers to take veterans to hospitals and wait until the following day to bring veterans back from procedures.

TRUCK FREIGHT ROUTES

I-84 is the only state facility in Gilliam County designated as a state truck freight route, as shown in Figure 4-4. National and regional truck freight movements are intended to occur via I-84, which is part of the National Highway System. Although not designated as a state truck

freight route, OR 19 also carries local and regional truck traffic, particularly between the landfill and I-84 in Arlington. Other roadways within the County that were noted as carrying high truck traffic included Ridge Road and Fourmile Canyon Road.

A project was implemented to straighten sections of OR 19 between Condon and Arlington so that trucks carrying large loads such as wind turbines could traverse the corridor, but the project stopped short of completing the section between approximately milepost 16 and milepost 19. Therefore, there remains a two-to-three mile section of OR 19 immediately south of Upper Rock Creek Road that requires roadway closure for large agriculture and wind turbine loads to pass through it.

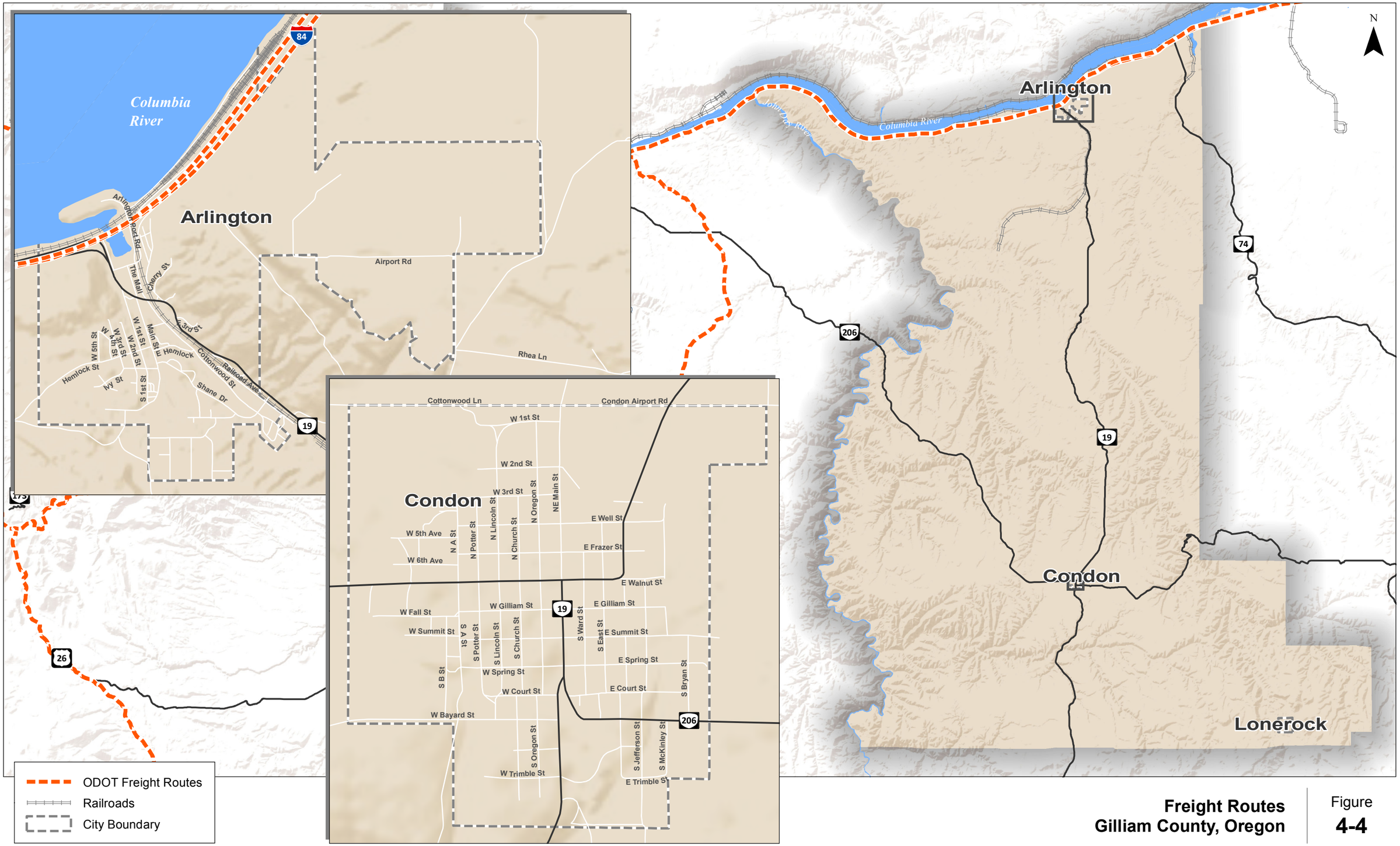
RAIL SYSTEM

Union Pacific (UP) provides freight rail service through Gilliam County. There is currently no passenger rail service in the County. UP Rail lines follow I-84 and the Columbia River and provide access to Portland and the Hinkle Railyard in Hermiston.

Rail service is also available between Arlington and the Columbia Ridge Landfill and Recycling Center, located approximately 10 miles south of the primary Columbia River line in Arlington. The landfill receives solid waste by rail from major metropolitan areas up and down the west coast, and that traffic keeps operations over the remnant of the line healthy. All trains on the branch are operated by Watco through their Palouse River and Coulee City Railroad. The Watco line is a Class III or short-line railroad which has an annual operated revenue of less than 20 million dollars (1991 dollars). Class III railroads are typically local short-line railroads serving a small number of towns and industries or hauling cars for one or more larger railroads. The only materials shipped by rail currently are solid waste from metro areas. Six unit trains run on this branch per week. The train speed from I-84 to the end of the line at the Columbia Ridge Landfill and Recycling Center is 25 mph. The track is in good condition with regular maintenance conducted.

There are two crossings within the City of Arlington that are associated with issues. When the trains cross the roadways, there are times when the train is stopped or traveling at slow speeds, prohibiting emergency vehicles from accessing OR 19 and I-84. Additionally, traffic entering Arlington westbound can back up on the I-84 exit to the interstate.

Additional rail connections were abandoned in 1993. The 44-mile railroad between Arlington and Condon was completed in 1905 from a junction with the mainline at Arlington south to the agricultural town of Condon. The Columbia River & Oregon Central Railroad built the line with the financial backing of the Union Pacific, who assumed ownership of the line after it was completed. Traffic over the line was primarily agricultural until 1928, when the Condon Kinzua & Southern completed its line from Condon south to Kinzua, OR. Forest products off of the CK&S became the primary source of traffic handled until 1978, when the big sawmill in Kinzua closed and the short line was abandoned. The decline of carloadings received from the CK&S prompted UP to close the Condon depot in 1975.



Freight Routes
Gilliam County, Oregon

Figure
4-4

Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

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Agricultural traffic, primarily grain, kept the trains running to Condon through the late 1980's. By the early 1990's operations over the line were non-existent, and UP applied to abandon the line. The only remaining shipper on the line, Condon Grain Growers, argued against the abandonment, stating that UP's inability to guarantee a certain number of cars during the past two years prevented it from loading any cars. The ICC rejected this argument with the comment that a problematic car supply did not explain why nothing had been shipped over the railroad in 18 months. UP's last run to Condon took place in late summer 1992, when some light engines made the long run up the branch to retrieve a cut of grain hoppers ordered but never loaded by Condon Grain Growers. The ICC granted permission to abandon the line in September 1992, and the rails were removed in 1993. A little over eleven miles of the branch remains in place today, from Arlington to Columbia Ridge Landfill.

The 33 miles of abandoned railroad may be reviewed and considered for rails-to-trail opportunities to create shared-use paths for pedestrian and bicyclist travel in the County, if connections can be created for the 11-mile section to Arlington that is still served by active rail.

The County prioritizes maintaining the 10-mile connection to the Columbia Ridge Landfill and Recycling Center. If the railroad that allows unit-trains to haul solid waste to Columbia Ridge Landfill and Recycle Center were to be discontinued, the adverse impacts to I-84, OR 19 and Cedar Springs Road would be substantial. The average intermodal rail container carrying solid waste from Seattle to CRLRC has a large tonnage capacity. With six unit trains currently operated per week, many trucks would be added to the road system with the potential for increased wear and tear on the roadways, increased air pollution, and increased risk for crashes involving trucks.

AIR TRANSPORTATION SYSTEM

Gilliam County has two general aviation airports. One airport is located in Arlington, and the other is in Condon.

Arlington Airport

Arlington Municipal Airport (FAA LID: 1S8) is a non-towered public airport located one mile northeast of the central business district of Arlington. It is owned by the City of Arlington and was activated in December 1943. Arlington Municipal Airport covers an area of 80 acres (32 ha), including one runway with a gravel and dirt/turf surface measuring 5,000 x 50 feet (1,524 x 15 m). The gravel runway is difficult to maintain for the City. The runway was reported in poor condition in 2013, due to bunchgrass growth. In the longer term (20 years or more), the airport is likely to need a paved runway. The elevation at the Arlington Airport is 890 feet/271.3 meters. There are no general aviation services at the Arlington Municipal Airport with the exception of parking tie downs for aircraft. The Arlington Municipal Airport has municipal water and sewer available on adjacent Arlington Mesa Industrial Park along with Fiber Optic Conduit.

Aircraft operations averaged 76 per month for a 12 month period ending May 20, 2014 and consisted of 55% local general aviation, 44% transient general aviation, and 1% air taxi. Insitu uses the airport as a testing location for Unmanned Aerial Vehicles (UAVs) and has a dedicated

structure on Airport property. According to the 2007 Oregon Aviation Plan, the Arlington Municipal Airport is considered a *Category V – Remote Access/Emergency Service Airport*.

The Arlington Municipal Airport is located in the Enterprise Zone within the City Limits of Arlington and is Zoned M1 and M2 (industrial) with an Airport Development (AD) overlay zone (AD). The Airport is adjacent to the Arlington Mesa Industrial Park. The surrounding uses in the immediate area are agricultural and industrial nature with residential uses in the City of Arlington and I-84 within one mile but separated by steep terrain.

Condon Airport

Condon State Airport (Pauling Field) is located approximately one-mile northeast of the City of Condon. Regionally, the Airport is located approximately 150 miles east of Portland and 140 miles north of Bend. OR 19 provides access to the Airport and also provides a critical ground transportation link to eastern Oregon and to the rest of the state.

Condon State Airport was constructed by the Board of Aeronautics in 1953. The Airport is owned and operated by the State of Oregon Department of Aviation (ODA) and is included in the National Plan of Integrated Airport Systems (NPIAS), making this airport eligible for federal funding. Condon State – Pauling Field, designated by the airport code 3S9, occupies approximately 103 acres of land. According to the 2007 Oregon Aviation Plan, the Condon Airport-Pauling Field is considered a Category IV – Local General Aviation Airport. The airport is located at an elevation of 2,911 feet/887.3 meters.

The Condon State Airport plays a supportive role in the current system, providing geographic coverage and access to the state's airport system. The airport also serves as a base for agricultural spraying operations. Aircraft operations averaged 76 per week in the 12 month period ending February 05, 2013. Of these, 76% were transient general aviation, 22% were local general aviation, and 2% were air taxi.

The airfield consists of many components that are required to accommodate safe aircraft operations. This consists of runways, taxiways, and an apron network; the visual and electronic navigational aids associated with runways; runway protection zones; and general aviation facilities.

With assistance from the FAA in 1986, the Aeronautics Division rebuilt the airport with improved runway alignment. The airport has a single paved runway, Runway 07-25. The runway is 3,500 feet long and 60 feet wide with a concrete surface. The Airport currently has an Airport Reference Code (ARC) of B-I. The existing taxiway system at the Airport consists of two connecting taxiways from the hangar and apron areas to the runway. Aircraft turnarounds are located on both runway ends. There is one apron used for aircraft parking. The apron has 10 small aircraft tie down spaces. The apron is constructed of asphalt.

There are no general aviation services nor fueling facilities at the Airport. Hangar space at the Airport is comprised of limited T-Hangars located adjacent to the apron area. There are 13 hangar facilities at the Airport. Vehicle parking is located adjacent to the apron area. There are

approximately 10 parking spaces in this location. In addition, there are vehicle parking spaces available next to each hangar. The County and City have been would like to bring the airport into the City's Urban Growth Boundary and serve it with water and sewer access.

The Airport's lighting and navigational systems extend the Airport's usefulness into night and/or poor visibility. Pavement edge lighting consists of light fixtures located near the edge of the runway/taxiway to define the lateral limits of the pavement. This lighting is essential for the safe and efficient movement of aircraft during periods of darkness or poor visibility. Runway 07-25 is equipped with medium intensity runway lighting (MIRL). A four-light precision approach path indicator (PAPI) is installed on both runway ends. A PAPI is a system of either two or four identical light units that provide pilots with either red, white, or a combination of red/white lights which indicate whether a pilot is below, above, or on the glide path to the runway. Runway end identifier lights (REILs) consist of two synchronized flashing lights located near the runway threshold which provide rapid and positive identification of the approach end of a runway. REILs help pilots identify the end of a runway especially when other light sources obscure other runway lighting. REILs are installed on both runway ends.

INTERMODAL CONNECTIONS

Intermodal connections for passenger service exist in the form of transit, pedestrian and bicycle, and automobile connections. Intermodal connections for freight exist in the form of rail, truck, air, and water transport connections.

Freight Transportation

Industrial activities are important economic catalysts in Gilliam County, with energy, waste management, and agriculture being key industries in the County. Therefore, the intermodal connections for freight are important for the County.

The Port of Arlington supports economic development and intermodal transportation connections that include rail, highway, and marine transportation. The Port owns 30 acres located at the Arlington Mesa Industrial Park and provides a Barge Facility for river access. The Port of Arlington does not have capability to transfer containers to/from barges, and the Port would like more efficient grain handling from truck to barge. The industrial park at Willow Creek (Heppner Junction) had a barge dock, and its use is transitioning.

With the expected increase in activity at the Arlington Mesa Industrial park around the airport, the roadways that provide access to the airport may need upgrades. Currently there are no shoulders on the roads and some steep drop-offs just beyond the edge of the roadway.

The landfill site and several industrial sites south of Arlington are connected to the rail line that runs between Arlington and the landfill. In addition, OR 19 serves these industrial sites south of the City. OR 19 and the rail service connect up to the Port of Arlington. Shutler Station (located at the intersection of OR 19/Cedar Spring Lane) needs rail crossovers that would make movement of rail cars within the park easier. Additionally, the City has developed an industrial zoned area around the airport to encourage supporting land uses in this area.

In Condon, rail service no longer exists. However, the City's industrial lands are primarily located in the northeast area of the City, in close proximity to OR 19 for freight transportation and the Condon airport.

Passenger Transportation

The ODOT Region 4 Park and Ride Plan reviewed existing park and ride lots throughout the Region and recommended priority locations for new lots and/or upgrades to existing lots. There are no formal park and ride lots in the County, but there are several informal lots located in the County:

- Earl Snell Park, Arlington: The lot is used for some carpooling for commuters and for medical or shopping trips. There is unpaved, unused area on the west side of the park that could be developed as a park and ride lot. This area is also adjacent to the downtown core of Arlington, which contains connected sidewalks for pedestrians.
- Gravel pull-out lot at Clem-Mikkalo Road and OR 19: This lot serves people traveling from Condon to Arlington and The Dalles.
- Bus Barn in Condon
- St. Johns Catholic Church in Condon
- United Church of Christ in Condon
- Bank of Eastern Oregon in Arlington

The demand for park and ride lots was determined to be medium to low based on stakeholder interviews conducted as part of the plan. The lower priority designation is due to the fact that the area is relatively rural and there is abundant parking available to be used informally as a park and ride lot.

The interviews revealed that the highest demand for park and ride lots in the County is for travel to the Arlington area by employees of Waste Management and the Shepherds Flat Wind Farm. The interviewees indicated that the west end of Earl Snell Park in Arlington had the greatest potential for becoming a park and ride lot. Beyond upgrading existing informal park and ride lots, the interviewees indicated there is no need for additional park and ride lots. Carpooling, vanpooling, and transit can also be used to serve the demand. Upgrades to existing informal lots should consider pedestrian and bicycle connectivity to support bike tourism in the County.

BRIDGE CONDITIONS

ODOT maintains an inventory of bridge conditions for State, County, and City owned facilities within the County. One bridge on Lonerock Road currently has a load restriction posted, and one bridge on Cayuse Canyon Road is currently closed to all traffic, causing an estimated 18-mile detour. Previous work estimated the cost of repairing or replacing that bridge to be $2 million.

Sufficiency rating is a measure between 0 and 100 calculated by the Federal Highway Administration (FHWA), based on factors such as condition, materials, load capacity, and geometry (i.e., dimensions). FHWA uses the rating as a tool to prioritize the allocation of funds for bridge repairs. In general, bridges with a sufficiency rating of less than 50 are given priority. The sufficiency rating is used to identify deficiencies, which may include structural issues or functional issues. For example, older bridges may be narrow and not designed to the same width or height clearance of today's standards. Therefore, a sufficiency rating does not necessarily indicate a structural issue.

There are two bridges with sufficiency ratings below 50 within Gilliam County: the Cayuse Canyon Road bridge over Rock Creek, which is currently closed to traffic, and the I-84 Eastbound bridge over Willow Creek at milepost 148.6. Although the Lonerock Road bridge is posted for load, it has a sufficiency rating of 57. The I-84 bridge is a state owned facility, while the Cayuse Canyon Road bridge is a County facility. The I-84 bridge is too narrow to accommodate the adjacent highway facilities, which is why the bridge is given a low sufficiency rating. However, the bridge is structurally sufficient. The closed County bridge on Cayuse Canyon Road is structurally deficient and may need repairs or replacement before it could be reopened. In addition to ODOT's records, the County Roadmaster indicated another bridge, located on Eightmile Canyon Road, needs replacement.

MARINE TRANSPORTATION SYSTEM

Gilliam County is located on the Columbia River, a major water transportation route. The Port of Arlington manages river cargo and marina operations. The Port has a Barge Facility available for river access and a grain silo. Farmers in the region use the Port to export grain, which is an important economic activity for the County. From the Columbia River, the grain can travel to Portland and be exported internationally.

The marina also serves as access to the river for recreational purposes, although it lacks a good beach or location for recreational users such as kite boarders and wind surfers to access the water. The marina is in the process of adding a fuel dock to its amenities.

PIPELINE TRANSPORTATION SYSTEM

Pipeline transportation within the Gilliam County area includes numerous substations and transmission lines, which are currently being upgraded. These transmission lines are maintained by Pacific Gas Transmission provide access to the main power grid at multiple locations.

EXISTING CONDITIONS SUMMARY

This section summarizes the key findings from the existing conditions inventory and analysis.

- All study intersections and study segments operate below capacity and within their performance targets.

- A total of 228 crashes were reported in Gilliam County between 2009 and 2013. The highest crash frequency occurred during winter months. Almost 70 percent of the reported crashes were fixed-object or non-collision crashes.
- A number of intersections in the County were identified by the PAC due to safety concerns associated with sight distance and driver expectation. These intersections were evaluated during the TSP Update process.
- Both Condon and Arlington have existing sidewalks in the downtown areas but lack connected systems of sidewalks and crossings to connect residential areas, schools, and other destinations with the downtown areas.
- Existing shoulders on the state facilities within the downtown areas of Arlington and Condon can be used as bicycle facilities. The local, low-volume and low-speed residential streets in the cities operate as shared-facilities.
- Dial-a-ride service is available for residents between Monday and Friday.
- I-84 is the only truck freight route in the County. However, OR 19 also carries local and regional truck traffic, particularly between the Columbia Ridge Landfill and I-84 in Arlington.
- Rail service is provided by Union Pacific (UP) along the Columbia River in Gilliam County. A spur line connects the Columbia Ridge Landfill with the UP line in Arlington. Two at-grade crossings exist in Arlington. When trains block these crossings, emergency vehicle access through the City is restricted.
- Four bridges were identified for further evaluation in the TSP Update: Lonerock Road, Cayuse Canyon Road bridge over Rock Creek, and I-84 Eastbound bridge over Willow Creek.
- Two airports serve Gilliam County: the Condon State Airport and the Arlington Municipal Airport.

Section 5
Future 2035 Transportation Conditions

Future 2035 Transportation Conditions

This section provides a summary of 2035 future transportation conditions and identifies transportation needs and subsequent impact on the transportation system based on future land uses, and projected population and employment demographics. Transportation needs were identified for multimodal elements of the transportation system including: auto/truck, pedestrian, bicycle, transit, rail, marine, air, and pipeline/transmission modes.

POPULATION AND EMPLOYMENT PROJECTIONS

Reporting on population and employment projections is important in understanding the demand and impact that projected growth may have on transportation facilities over the next 20 years. The Gilliam County 2010 population of 1,871 is forecast to grow by more than 25% to a future population of 2,378 in 2035 according to the Portland State University Center for Population Research. Thirty-four percent of the population is located in unincorporated areas of the County, 39 percent in the City of Condon, 26 percent in the City of Arlington, and one percent in the City of Lonerock.

Based on the State of Oregon Employment Department's Labor Trends summary report from November 2014, Gilliam County lost a total of 111 jobs in 2013, some of which can be attributed to the completion of wind farm construction projects. The only industry that experienced an increase in jobs in 2013 was the Natural Resources and Mining industry, which grew by nine jobs.

Gilliam County is working to increase economic activity by developing new industrial parks. The growth in traffic volumes reflects this potential for economic growth and the need for transportation infrastructure to support industrial growth in the County.

FUTURE TRAFFIC CONDITIONS AND NEEDS

An analysis of the forecast 2035 transportation system capacity of study intersections and segments was conducted to identify improvements needed to meet State and County operational standards for each respective functional class in 2035.

Year 2035 Forecast Traffic Volumes

Annual growth rates were applied to existing 2014 volumes to estimate 2035 traffic volumes. Future (2035) traffic volumes were developed using Oregon Department of Transportation's (ODOT's) historical trends method, which relies on historic traffic volumes to develop an annual growth rate. ODOT maintains Future Volumes Tables that summarize current and

future year traffic volumes for state roadways. Based on guidance from ODOT's Analysis Procedure Manual (APM), the projected average annual growth is 1.25 percent for all Gilliam County roadways (see Technical Memorandum #4 in Volume 2 of the TSP for more information). No historic volume data was available for County roadways. Therefore, the same growth rate was used on state and county roadways.

The projected 1.25 percent annual growth rate was applied to existing 2014 volumes to estimate forecast year 2035 traffic volumes. Exhibit 5-1 shows the added traffic at the study intersections and segments.

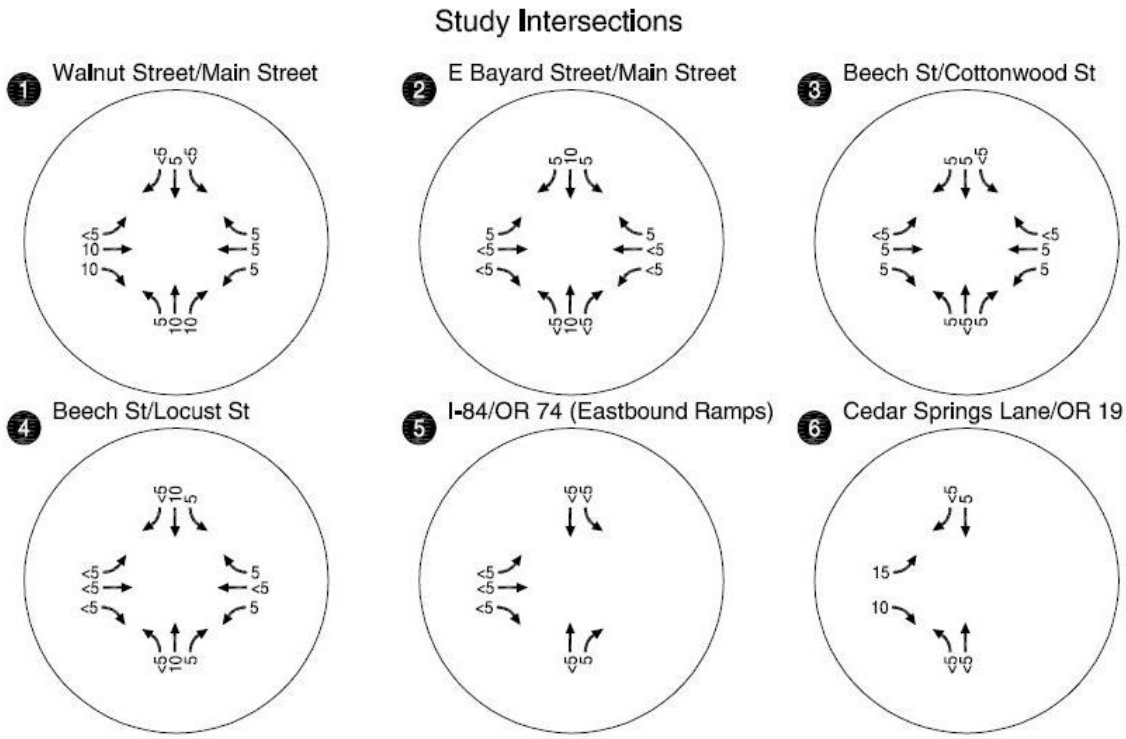


Exhibit 5-1. Forecasted 2014 – 2035 Study Intersection Volume Growth

Year 2035 Forecast Intersection Operations

Forecast 2035 transportation system capacity analysis was conducted based on forecast traffic volumes. The operational results indicate that no operational improvements are anticipated to meet State, County, or City operational standards for each respective facility in 2035.

The future conditions operational analysis was conducted based on the peak 15-minute period of traffic flow at each study intersection. Exhibit 5-2 illustrates the lane configurations and traffic control devices used in the future conditions analysis. No changes to the existing lane configurations and traffic control devices were incorporated in this analysis because there are no planned improvements at the intersections.

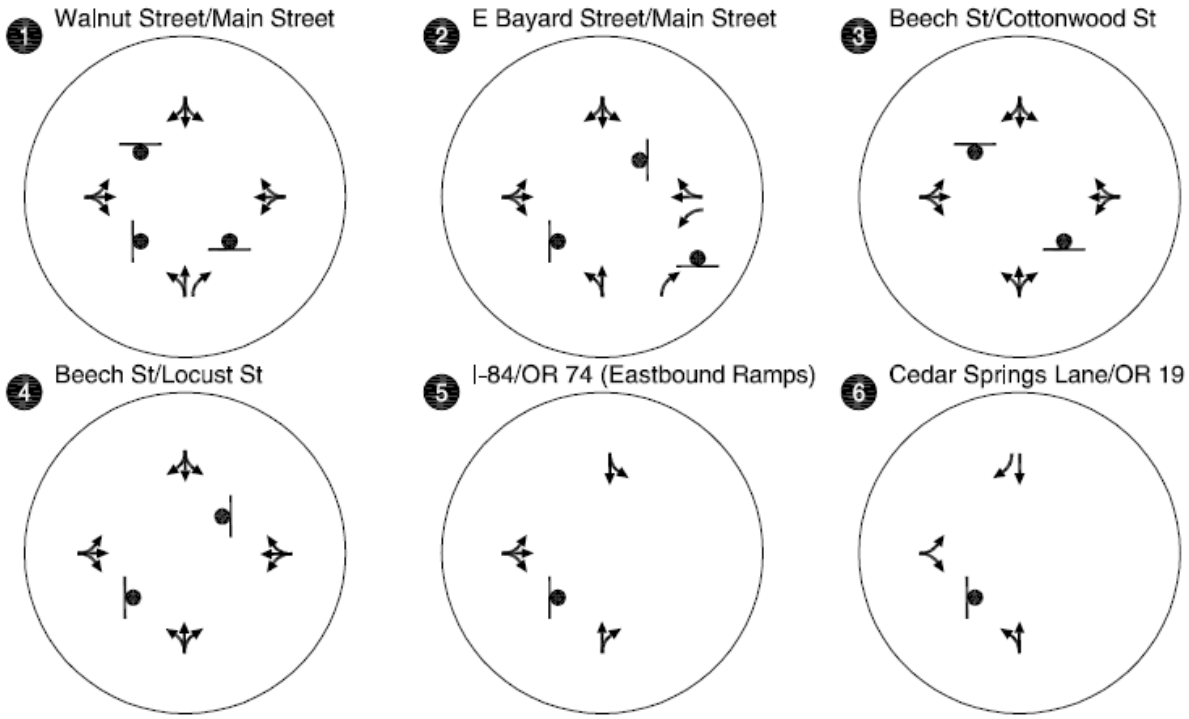


Exhibit 5-2. 2035 Study Intersection Lane Configurations

Exhibit 5-3 summarizes the 2035 30th highest hour traffic volumes and the resulting intersection operations. All study intersections are expected to operate with volume-to-capacity (v/c) ratio of less than 0.10 and level-of-service "B" or better. All intersections are expected to meet their performance standard in 2035.

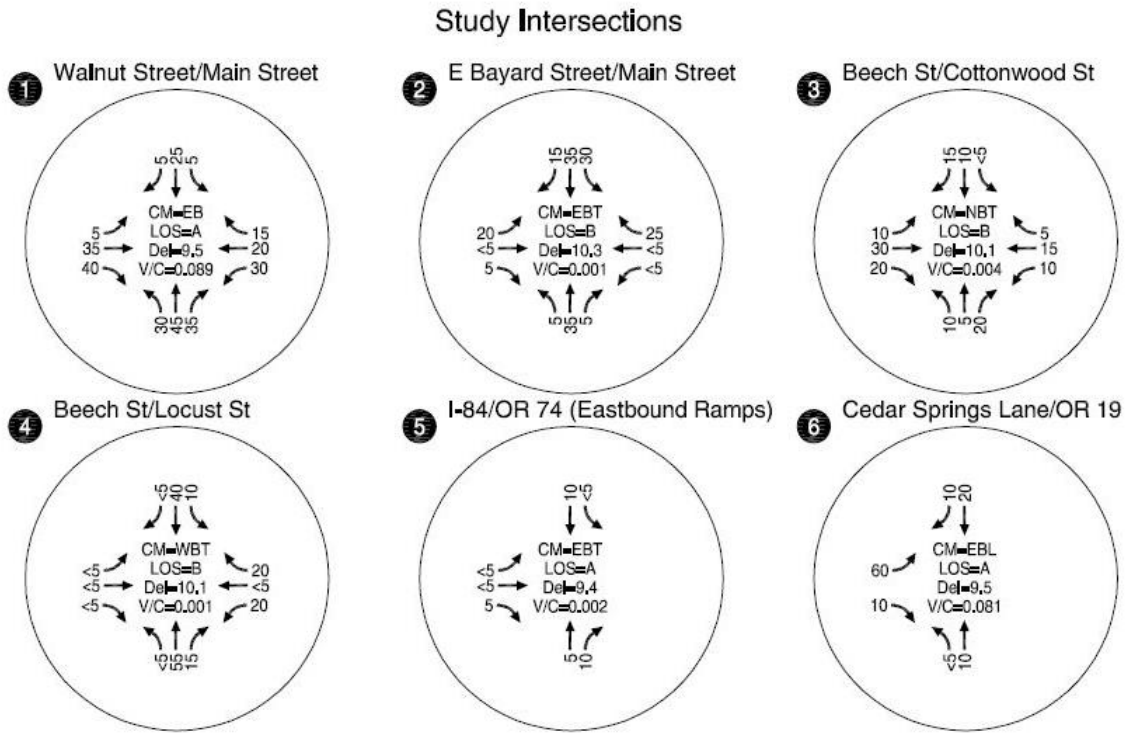


Exhibit 5-3. Forecasted 2035 Intersection Traffic Volumes and Operations

Year 2035 Forecast Roadway Segment Operations

Using the forecast volumes, the seven study roadway segments were analyzed to determine how they are expected to perform in 2035. Table 5-1 summarizes the forecasted 2035 traffic volumes and resulting operations. None of the roadway segments are expected to experience traffic growth that would result in over capacity conditions.

TABLE 5-1 2035 ROADWAY SEGMENT OPERATIONS

ID	Roadway	ADT* for 2035	Peak Hour Time Period	Seasonally-Adjusted Peak Hour Count	PHF^	Two-Way Demand Flow	Critical Flow Rate (pc/h)	Calculated V/C Ratio
A	Lonerock Road, south of OR 19	225	5:00 - 6:00 p.m.	25	0.85	31	3,200	0.01
B	Baseline Road, east of OR 19	312	9:30-10:30 am, 1:30-2:30 pm	34	0.90	40	3,200	0.01
C	Fourmile Road, SE of OR 19	249	1:45 - 2:45 pm	36	0.90	43	3,200	0.01
D	Blalock Canyon Road, south of I-84	184	5:15 - 6:15 pm	25	0.90	29	3,200	0.01
E	Quinton Canyon Road, south of I-84	87	8:45 - 9:45 am	13	0.85	17	3,200	0.01
F	Mikkalo Lane, west of OR 19	188	11:45 am - 12:45 pm	21	0.90	25	3,200	0.01
G	East Bayard Street, east of OR 19	748	10:45 - 11:45 am	71	0.95	80	3,200	0.03

*ADT = Average Daily Traffic volume
^PHF = Peak Hour Factor, a ratio of the total hourly traffic volumes to the peak 15-minute traffic flow
pc/h = passenger cars per hour
V/C = volume-to-capacity

Section 6
Future 2035 Transportation Needs & Alternatives

Future 2035 Transportation Needs & Alternatives

This section identifies the future multimodal transportation needs in Gilliam County. As noted in the 2035 Future Conditions summary, there are no forecast capacity deficiencies identified for any of the major highway or roadway facilities serving the County. As such, the identification of future transportation needs and alternatives primarily focused on improving roadway and intersection operations from a safety, maintenance, and modernization perspective. From these needs, a list of projects was developed, refined, and finalized as part of the formal TSP (see **Section 7**).

Roadway Needs

Although the study roadways and intersections in Gilliam County are anticipated to operate acceptably, the County expects growth in industrial areas, in Arlington, in Condon, and in areas surrounding the Port of Arlington. To accommodate this new growth, these industrial areas need adequate connectivity to key highways. The lane width, curve radii, shoulder width, and shoulder type along these key industrial routes should be designed to accommodate freight traffic. Known connectivity needs include:

- Pave shoulders and strengthen roadbed on Airport Road and Rhea Lane in Arlington to accommodate larger trucks accessing Arlington Mesa Industrial Park;
- Reclassify Ridge Road, Fourmile Road, and Lonerock Road to Major Collectors and upgrade roadway to match Major Collector design standards to accommodate agriculture truck traffic;
- Reclassify Quinton Canyon Road, Rattlesnake Road, Eightmile Canyon Road, Cemetery Road, and Heritage Lane from local streets to Minor Collectors and upgrade roadway to Minor Collector design standards to accommodate existing and forecast volume.
- Reclassify Devils Butte Road, Mikkalo Lane, and Hay Canyon Road to Minor or Major Collectors and upgrade roadway to match Major Collector design standards. These roads provide access to Cottonwood Canyon State Park.
- Reclassify Wolf Hollow Road and Upper Rock Creek Road from Major Collectors to Minor Collectors due to the decline in usage of these roads associated with changing agriculture uses.
- Reclassify Buttermilk Canyon Road and Trail Fork Road from Minor Collectors to Local Roads due to the decline in use of the roads.
- Improve Lower Rock Creek Road by widening the roadway, adding shoulders, and adding curve signage to serve the recreational traffic using the road for river access.

Transportation Safety Needs

Although no locations with safety deficiencies were identified from the historical crash analysis documented in **Section 4**, there are several locations within the County where countermeasures could reduce crash potential. Input from the Project Advisory Committee and the existing crash trend analysis identified the following needs:

- Weather-related crashes
  - A high percentage of crashes on I-84 were associated with adverse weather and roadway conditions. Intelligent Transportation Systems (ITS) treatments could be considered to address weather-related crashes.
  - Observations from local residents indicate the need for treatments to prevent snow drifts that frequently occur on OR 206 near milepost 22.
- Single-vehicle and speed-related crashes
  - A high percentage of crashes in the County were single-vehicle run-off-road crashes and crashes associated with speed. Options for reducing these crash types using systemic countermeasures such as shoulder widening, rumble strips, and additional curve warning signage will be considered. Priority locations for systemic treatments include: OR 19 between milepost (MP) 40 and 42, OR 206 between MP 33.4 and 35.2, OR 206 between MP 17.6 and 20.2, Baseline Road between MP 8.9 and 9.3, OR 19 between MP 15.9 and 22.2, and OR 206 between MP 30.68 and 31.25.
- Intersection geometry/traffic control deficiencies
  - Safety concerns were identified at several intersections due to sight distance concerns, intersection design, and traffic control, including: Walnut/Main Street; E Bayard Street/Main Street (Exhibit 6-1); Lonerock Road/OR 206 (Exhibit 6-2); OR 19/Cedar Springs Road; Blalock Canyon Road/Cedar Springs Road; Blalock Canyon Road/Heritage Lane; OR 19/Eightmile Road; OR 19/Baseline Road.

Exhibit 6-1. Restricted Sight Distance at E Bayard Street/Main Street in Condon

Exhibit 6-2. Restricted Sight Distance at OR 206/Lonerock Road

- Directional signage
  - Drivers have been observed entering the I-84 ramps in the wrong direction in Arlington. Options to modify directional signage at the I-84 ramps in Arlington to reduce the number of wrong-way vehicles on ramps included larger signs, pavement markings, and relocation of signs.
- Railroad crossings
  - There is concern about emergency vehicle access in Arlington during periods when trains block the railroad crossings and prevent vehicles from accessing the interstate. Strategies to allow emergency vehicle access during these times included coordination with the Union Pacific and Watco to minimize train length and increase train power for traveling uphill through this area, continued communication between the City and Union Pacific, coordination of train schedules with special events, and alternate emergency vehicle access using opposite direction ramps during emergencies if needed.

Systemic Safety Program

ODOT allocates Oregon's Highway Safety Improvement Program (HSIP) funds through the ARTS program. The program currently splits funding between hot-spot and systemic safety projects. Hot spot safety projects are individual locations where a unique countermeasure could be applied to reduce the frequency and severity of crashes. Systemic safety projects include multiple locations where many low-cost countermeasures can be applied.

ARTS project funding will be allocated through the Statewide Transportation Improvement Program (STIP). The project locations are selected based on reported history of fatal and severe injury crashes.

Systemic Safety Prioritization Methodology

Although no safety projects in Gilliam County are included in the draft 2017-2021 STIP lists, a set of objective criteria were established to generate a prioritized list of projects that could be considered for future updates to the STIP.

- A list of projects was generated based on a review of crash trends and locations with history of crashes in the County, including:
- Projects developed by the consultant team to address safety concerns identified by the Project Advisory Committee;
- Projects identified in ODOT's Roadway Departure, Intersection, and Pedestrian/Bicycle Safety Implementation Plans;

Projects identified for locations with geometric and traffic control characteristics where low-cost, systemic countermeasures could reduce risk of roadway departure or intersection crash types. Gilliam County has a high percentage of run-off-the-road crashes.

Systemic countermeasures that may be applied for the Roadway Departure projects include centerline rumble strips, edgeline rumble strips, shoulder widening, guardrail, and curve warning signs, as summarized in Table 6-1. Intersection treatments may include additional signage, pavement marking, right-turn deceleration lanes, left-turn lanes, and mountable raised medians, as shown by the concepts in Table 6-2.

TABLE 6-1 SYSTEMIC SAFETY COUNTERMEASURE TOOLBOX FOR RURAL ROADWAYS

Systemic Safety Countermeasure	Description	Documented Effectiveness
Milled Rumble Strip – Centerline  Photo: ODOT	Rumble strips are grooves in the roadway placed on the roadway in such a manner that, as the tires of a vehicle contact them, they produce sound (noise) and vibration. The noise and vibration produced by rumble strips is intended to alert inattentive drivers that they have departed from their lane. They can be placed on the shoulder (if adequate paved shoulder is available) or on the centerline.	38 to 50 percent reduction in injury crashes resulting from head-on and opposite direction sideswipe crashes on rural two-lane roads. (Source: NCHRP Report 641)
Milled Rumble Strip – Shoulder or Edgeline 		26 to 46 percent reduction in single-vehicle run-off-road injury crashes on two-lane rural roads (Source: NCHRP Report 641)
Horizontal Curve Signage  Photo: Speed Concepts: Informational Guide, FHWA	Provide Static Combination Horizontal Alignment/Advisory Curve Warning Sign, Install RECOMMENDED Chevron Signs on Rural Horizontal Curves	13 to 16 percent reduction in run-off-road injury crashes rural two-lane roads. Source: *Manual for Selecting Safety Improvements on High Risk Rural Roads (FHWA-SA-14-075)*
Shoulder Widening  Photo: Low Cost Treatments for Horizontal Curve Safety (http://safety.fhwa.dot.gov/roadway_dept/horicurves/fhwasa07002/ch6.cfm)	Widen the paved roadway shoulder to provide additional space for vehicles to recover if they exit the travel lane.	3 to 6 percent reduction in crashes per one foot of shoulder widening. (Source: *CMF Clearinghouse* and *ODOT's List of Approved CRFs*)
Safety Edge  Photo: Selecting Speed Treatments, FHWA (http://safety.fhwa.dot.gov/hsip/hrrr/manual/sec45.cfm)	Install Safety Edge treatment on the pavement edge drop-off to provide a more gradual drop-off and increase the likelihood of vehicle recovery if the vehicle exits the roadway. This may be done in conjunction with shoulder widening or pavement maintenance activities.	5 to 15 percent reduction in rural roadway crashes. (Source: *CMF Clearinghouse* and *ODOT's List of Approved CRFs*)
Guardrail  Photo: FHWA Horizontal Curve Safety (Source: http://safety.fhwa.dot.gov/roadway_dept/horicurves/cmhoricurves/)	Install guardrail to prevent vehicles from entering areas that are not recoverable. When guardrail is located close to the roadway, vehicles are more likely to hit it. However, these crashes are typically less severe than roadway departure crashes in locations without guardrail. Guardrail is often used in situations where there is limited recovery area for vehicles and steep drop offs or fixed objects are present.	38 percent reduction to 23 percent increase in run off the road crashes. Source: *CMF Clearinghouse* (CMF ID: 39). *Note: This item is not included in ODOT's list of approved systemic countermeasures.*

TABLE 6-2 SYSTEMIC SAFETY COUNTERMEASURE TOOLBOX FOR RURAL INTERSECTIONS

Systemic Safety Countermeasure	Description	Documented Effectiveness
Basic Set of Sign and Marking Improvements  Photo: Low-Cost Safety Enhancements for Stop-Controlled and Signalized Intersections, FHWA	Install basic set of signs/markings from the ODOT Intersection Safety Implementation Plan, including: double up oversize warning signs, double STOP signs, mountable curb on stop approach (if feasible), street name signs, and stop bars.	40 percent reduction in intersection crashes at rural two-way stop controlled intersections. Source: *Low-Cost Safety Enhancements for Stop-Controlled and Signalized Intersections* (FHWA-SA-09-020)
Reduce Intersection Skew by Realignment  (Example of skewed approach prior to realignment.)	Realign the intersection to create a 90-degree intersection, removing any skewed approaches.	The effectiveness of this treatment varies depending on the skew angle of the intersection prior to realignment.
Improve Intersection Sight Distance  *(Example of restricted sight distance that could be mitigated by tree removal.)*	Improve intersection sight distance to meet minimum AASHTO guidance based on the posted speed limit of the major roadway.	44 to 89 percent reduction in crashes at rural unsignalized intersections. (Source: *ODOT's List of Approved CRFs*)

Objective criteria outlined in Table 6-3 were applied to prioritized projects.

TABLE 6-3 OBJECTIVE CRITERIA FOR IDENTIFYING AND PRIORITIZING SYSTEMIC SAFETY PROJECTS

	Roadway Departure Projects	Intersection Projects
Criteria for Identifying Locations for Systemic Projects	▪ ≥1 Fatal or Injury A Crash ▪ ≥2 Injury B or C Crashes ▪ ≥3 PDO Crashes ▪ Presence of Roadway Departure Crashes ▪ Presence of a Horizontal Curve ▪ Higher ADT (or Functional Classification)	▪ ≥1 Fatal or Injury A Crash ▪ ≥2 Injury B or C Crashes ▪ ≥3 PDO Crashes ▪ Restricted intersection sight distance ▪ Skewed intersection approach ▪ Presence of a high-speed uncontrolled approach ▪ Higher Minor Street ADT (or Functional Classification if ADT is unavailable)

Systemic Safety Projects

Lists of Systemic Safety Roadway Departure projects and intersection projects are provided in Table 6-4 and Table 6-5. **Section 7** includes the Systemic Safety Plan figure showing the location of each of the projects.

TABLE 6-4 SYSTEMIC SAFETY ROADWAY DEPARTURE PROJECTS

Project ID	Road	Start MP	End MP	Number of Reported Crashes (2009-2013)					Number of Roadway Departure Crashes	Presence of a horizontal curve?	ADT* / Functional Class	Potential Countermeasures					
				Fatal	Inj A	Inj B	Inj C	PDO				Inlaid Raised Pavement Markers	Widen Shoulder & Install Safety Edge (where feasible)	Install Centerline and Shoulder Rumble Strips	Curve Warning Signs	Chevrons at Curves	Guardrail
S-11	OR 19	40	42	0	1	2	0	1	4	Yes	570 / Arterial	X	X	X	X	X	
S-12	OR 206	33.4	35.2	0	0	1	3	1	5	Yes	360 / Arterial	X	X	X	X	X	
S-13	OR 206	17.6	20.2	0	0	1	2	0	2	Yes	490 / Arterial	X	X	X	X	X	
S-14	Baseline Road	8.9	9.3	0	0	1	1	0	2	Yes	240 / Major Collector	X	X	X	X	X	
S-15	OR 19 (Olex Grade)	15.5	22.2	0	0	1	0	1	1	Yes	170 / Arterial	X	X	X	X	X	X
S-16	OR 206	30.68	31.25	0	0	0	0	0	0	No	360 / Arterial	X	X				

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

TABLE 6-5 SYSTEMIC SAFETY INTERSECTION PROJECTS

Project ID	Major Road	Minor Road	Number of Reported Crashes (2009-2013)					Restricted intersection sight distance?	Does the intersection have skewed approach?	High speed uncontrolled approach?	ADT / Functional Class		Potential Countermeasures		
			Fatal	Inj A	Inj B	Inj C	PDO				Major Road*	Minor Road	Rural Intersection Signing and Marking Improvements	Improve sight distance	Reduce intersection skew
S-17	OR 19 (Main St)	OR 206 (Walnut St)	0	0	0	0	1	Yes (NB)	No	No	1600 / Arterial	690 / Arterial	X		
S-18	OR 19	Eightmile Rd	0	0	0	0	1	No	No	Yes	860 / Arterial	192 / Major Collector	X		
S-19	OR 19	Baseline Rd	0	0	0	0	1	No	No	Yes	250 / Arterial	240 / Major Collector		X	
S-20	Blalock Canyon Rd	Heritage Ln	0	0	0	0	1	No	Yes	Yes	142 / Major Collector	Minor Collector	X	X	X
S-21	OR 206	Lonerock Rd	0	0	0	0	0	Yes (NB)	Yes	Yes	190 / Arterial	173 / Major Collector	X	X	X
S-22	OR 19	Cedar Springs Rd	0	0	0	0	0	No	No	Yes	660 / Arterial	Major Collector	X		
S-10	Blalock Canyon Rd	Cedar Springs Rd	0	0	0	0	0	Yes (EB)	No	Yes	142 / Major Collector	Major Collector	X		

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

Pedestrian Needs

Although the cities of Arlington and Condon have an existing limited network of connected sidewalks, both cities have gaps and deficiencies in their respective pedestrian systems. Prioritizing these pedestrian routes will inform funding decisions.

In Arlington, no sidewalks exist along Ivy Street, between W 3rd Street and Main Street. This route connects the Columbia Hills Manor Independent Living Center to the sidewalk along Main Street. Other priority gaps in the system include Cottonwood Street, Shane Drive, and W 1st Street, all of which lack sidewalks.

In Condon, residential areas in both cities are not connected to schools and commercial areas by continuous sidewalks. The sidewalks on the east side of Main Street between W 2nd Street and Walnut Street are in poor condition and need improvement. Within this section, the sidewalks on the east side of Main Street between Walnut Street and Well Street are higher priority for improvement due to their existing condition. OR 19 lacks sidewalks from Main Street east to the edge of the City limits. OR 19, between Main Street and S East Street, should be highest priority for installing new sidewalks along this stretch of road due to the businesses located along this section of roadway, and to create a connected network of sidewalks by connecting to the existing sidewalk on S East Street. Additionally, pedestrians have been observed crossing OR 19 in Condon at S Ward Street, although the marked crossing exists at S East Street.

On the south side of Condon, there are no sidewalk connections to the baseball fields on the corner of E Spring Street and Jefferson Street. Constructing sidewalks on E Spring Street between S East Street and Jefferson Street would provide a connected pedestrian system to the baseball fields from the schools and Main Street. There is also a gap in sidewalk connections on the east side of OR 206 between OR 19 and E Court Street, as shown in Exhibit 6-3, which connects the high school with the downtown Main Street corridor.

Exhibit 6-3. Sidewalk gap on OR 206 at Main Street in Condon

In Condon, residents have expressed a desire for more continuous sidewalk or paths for recreational purposes. Currently, residents use the school track to walk due to the limited sidewalks, but they would prefer a route around the City. One potential route (the inner loop) follows W Bayard Street west of downtown, turns north on Potter Street, and connects back to Main Street on OR 206. Another potential route (the outer loop) would follow W Bayard Street to the west of the City, connect north just outside of the City and along the edge of the golf course, and connect with Cottonwood Lane to the north to provide a longer loop.

Bicycle Needs

There are no marked bicycle facilities in Gilliam County. Some of the state highways have shoulders that can accommodate bicyclists. On local/residential streets, bicyclists share the roadway with the slower vehicles. This practice is consistent with recommendations in the Oregon Bicycle and Pedestrian Design Guide, that urban and suburban roadways with posted speeds below approximately 20 miles per hour (mph) operate as shared facilities in which bicyclists share the road with vehicles. The Design Guide also recommends that urban and suburban roadways with average daily traffic volumes below approximately 1,500 vehicles per day have shared facilities rather than separated bicycle lanes regardless of the posted speed limit. County roads in Gilliam County currently carry less than 1,500 vehicles per day. Exhibit 6-4 illustrates an example of a shared roadway marking in Cottonwood Canyon State Park.

Exhibit 6-4. Example of shared roadway in Cottonwood Canyon State Park

Several recreational routes attract bicyclists from around the state. Popular recreational routes include OR 19 south of Condon to Fossil, OR 206 west of Condon to Wasco, and OR 206 east of Condon to Heppner. Bicyclists are not frequently observed riding OR 19 between Condon and Arlington. The majority of these routes have minimal shoulders and rough pavement conditions. In addition, there are no commercial or public rest areas on these routes for bicyclists to stop and hydrate on the ride. As recreational riding increases, strategic locations for these rest areas will be useful. The downtown areas of Condon and Arlington also lack bicycle parking for cyclists that would like to stop in town.

Transit Needs

There are several needs to improve the County's dial-a-ride system in the future, including additional staff, vehicles, and funding. These needs are further explained below:

- When drivers are unavailable, the GCST director is sometimes required to drive the vehicles. There are no part-time dispatch staff currently available to cover these occasions when the director, who also functions as the dispatcher, must leave. The County is interested in additional staff.
- The County has expressed interest in a carport at the Lonerock community center to protect the vehicle year-round and an expanded garage or similar facility in Condon to keep vehicles clean year-round.
- Most trips (90 percent) are for medical purposes. Shopping, social, or business trips are other common reasons for trips. There is often a need for volunteer caregivers to ride along with passengers to provide assistance to the passengers traveling to medical appointments. The nearest medical facilities are located in either The Dalles or Hermiston. Frequent trips are also made to Portland area hospitals.
- GCST is funded through grants, donations, and medical mileage reimbursement programs. GCST has expressed the need for more maintenance money to cover tires, snow tires, brake repairs, etc. GCST also lacks funding for the defensive driving passenger assistance training, which is required for volunteer drivers. The Gilliam County Transportation Services Director is interested in becoming certified to provide this training to volunteers from Gilliam County and other nearby counties. Riders are not charged a fee for rides, but suggested donations are recommended and vary from $2 to $30 depending on the length of the trip, purpose of the trip, and type of vehicle used. Veterans often must travel longer distances for their services and are not asked to provide donations for their ride. The County lacks existing funding for drivers to take veterans to hospitals and wait until the following day to bring veterans back from procedures.

Downtown Parking Needs

During the large events held in Arlington in summer months there is inadequate parking available with the limited on-street parking and parking lots in the commercial areas, which has led to illegal parking throughout the City. Few members of the PAC indicated a desire to address this deficiency given the limited time periods when these events occur. If the City desires, they could require traffic control and parking management plans for special events to alleviate the issues.

Freight Needs

Although I-84 is the only facility in the County that is designated as a state truck freight route, several County and State roads are heavily relied on for transporting agricultural or other industrial goods to I-84 and the Port of Arlington. Some of these routes are local roads that need upgrades to accommodate larger freight loads. The routes that carry freight traffic or are expected to carry freight traffic and may be considered for upgrade include:

- OR 19 between I-84 and Condon, as illustrated in Exhibit 6-5;
- Cedar Springs Road between OR 19 and the Columbia Ridge Landfill;
- Ridge Road between Baseline Road and Flett Road;
- Fourmile Canyon Road;
- Airport Road and Rhea Lane, connecting the Arlington Mesa Industrial Park to OR 19.

Exhibit 6-5. Truck turning from OR 19 onto Cedar Springs Road

Aviation Needs

The two airports and port also serve an important role in freight transportation. The Arlington airport currently has an unpaved runway. As the surrounding industrial park grows, the runway will need to be paved.

Rail Needs

Rail service between the Columbia Ridge landfill and Arlington serves an important role for transporting waste and should be maintained. At Shutler Station, there is a need for rail crossovers for more efficient movement of railcars within the station.

Bridge Needs

The bridge conditions inventory, summarized in **Section 4**, identified one County bridge on Cayuse Canyon Road at Rock Creek (MP 4.0) that is closed due to structural reasons. This requires an 18-mile detour to get around the closure. The road is passable during summer months without a bridge. Another County bridge, on Lonerock Road at Lonerock Creek, is posted with load restrictions. The Lonerock Road bridge serves the primary access into the City of Lonerock.

In addition, the I-84 eastbound bridge over Willow Creek at MP 148.6 has a low sufficiency rating due to the width of the structure, which is narrower than current standards require.

Section 7
Transportation System Plan

Transportation System Plan

This section outlines the draft preferred transportation system plan for Gilliam County, which includes TSP elements consistent with OAR 660-12-020 and goals of OAR 660-12-025. The preferred plan includes recommendations for the County's transportation system, including:

- Roadway System Plan
- Access Management Plan
- Pedestrian and Bicycle System Plan
- Public Transportation System Plan
- Air/Marine/Rail/Pipeline/Transmission System Plan

The transportation components presented in this section were developed in accordance with the requirements of Oregon's Transportation Planning Rule (TPR). Each modal plan has been developed concurrent with the findings presented in the existing and future forecast conditions analysis. The plan also conveys the interests of the citizens, business owners, and governmental agencies within Gilliam County, as expressed by the Project Advisory Committee (PAC).

The preferred plan applies to the entire county, including areas within the incorporated cities of Condon and Arlington and the unincorporated community of Lonerock.

ROADWAY SYSTEM PLAN

The Gilliam County roadway system plan reflects the anticipated operations and circulation needs through the year 2035 and provides guidance on how to facilitate vehicular and freight traffic over the next 20 years. The plan focuses on the City and County owned and maintained roadway system. All state highways residing within the County are identified for coordination purposes.

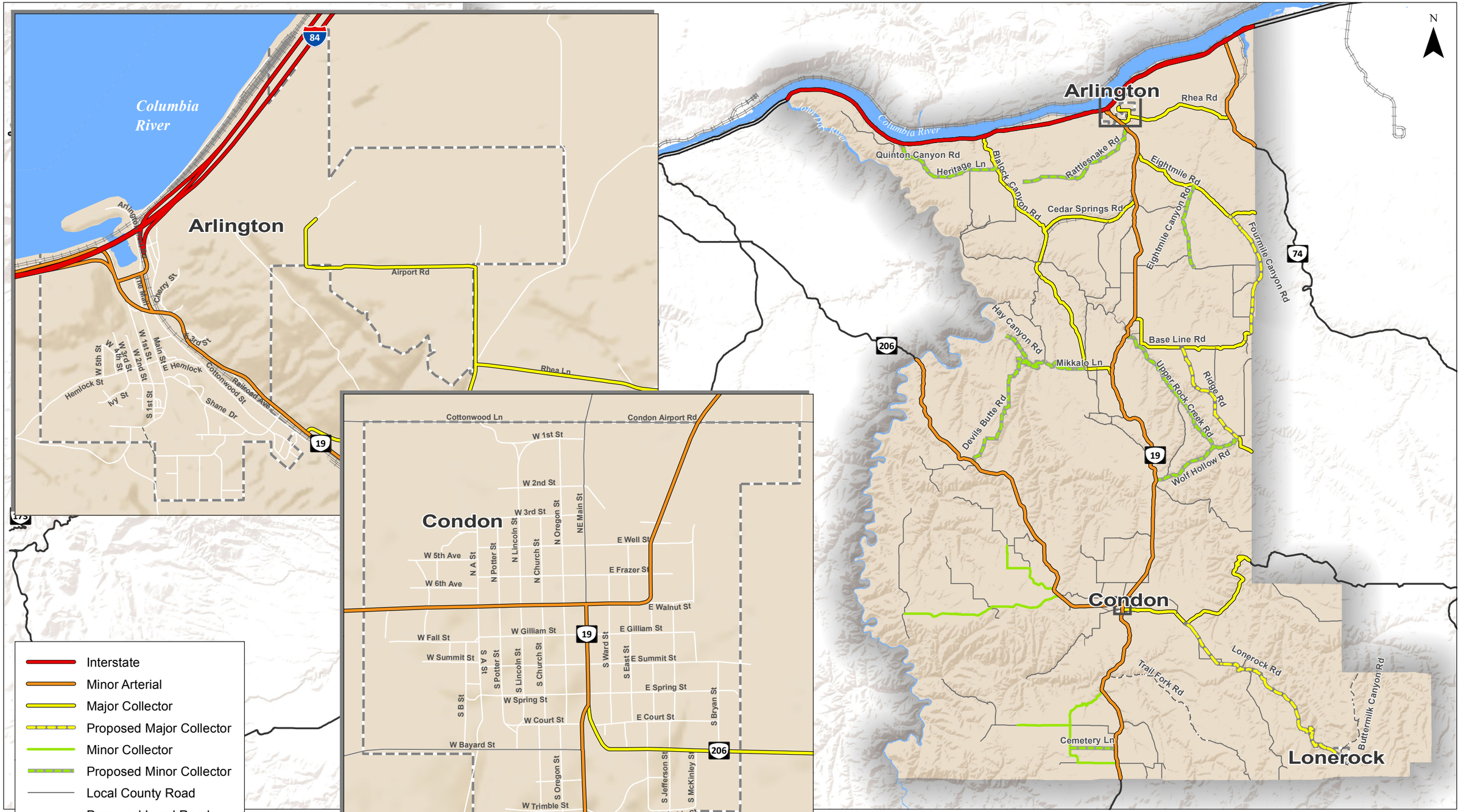
Functional Classifications

Functional classification of a roadway characterizes the intended purpose, amount and type of vehicular traffic it is expected to carry, provisions for non-auto travel, and the roadway's design standards. The classification considers access to adjacent land uses and the transportation modes to be accommodated.

The preferred functional classification system in Gilliam County includes: Minor Arterial, Major Collector, Minor Collector, and Local Road. Table 7-1 provides a detailed description of each classification. Figure 7-1 presents the preferred functional classifications for all existing and planned County roadways.

TABLE 7-1 GILLIAM COUNTY FUNCTIONAL CLASSIFICATION DESCRIPTIONS

Functional Classification	Description
Interstate	Primary function is mobility and to serve long-distance travel. These roadways are high-speed, divided roadways with limited access. Interstates link urban areas across the United States.
Minor Arterial	Primary function is to carry high levels of regional vehicular traffic at high speeds. These roads connect the collector road system to freeways, provide access to other cities and communities, and serve major traffic movements. Access is limited but can be accommodated with at-grade intersections.
Major Collector	Primary function is to serve traffic from local roads and move them to arterials. These roads provide some degree of access to adjacent properties, while maintaining circulation and mobility for all users. Major Collectors carry lower traffic volumes at slower speeds than arterials. Major Collectors are often longer in length and have lower driveway density, higher speed limits, higher traffic volumes, and may have more travel lanes than Minor Collectors. Major Collectors can be located in urban or rural environments. In rural environments, Collectors generally serve intra-county travel. In rural areas, traffic volumes and spacing may be the most significant designation factors between Major and Minor Collectors. In urban areas, these roads serve both access and traffic circulation in higher dense residential, commercial, and industrial areas. They typically have higher speeds and more signalized intersections.
Minor Collector	Primary function is to serve traffic from local roads and connect traffic to arterials. These roads can be urban or rural. In urban areas, they serve both access and traffic circulation but in lower density areas than Major Collectors. They also penetrate neighborhoods, but often for a shorter distance than Major Collectors. They typically have lower speeds and fewer signalized intersections. In rural areas, they serve to bring traffic from local roads to developed areas or connections to those areas. They provide service to smaller communities not served by a higher class facility and link locally important traffic generators with rural areas.
Local Road	Local roads account for the largest percentage of all roadways in terms of mileage. Their primary function is to provide direct access to adjacent land uses. They are characterized by short roadway distances, slow speeds, and low volumes. Local roads offer a high level of accessibility, serves passenger cars, pedestrians, and bicycles, but not through trucks.



Functional Classification Map
Gilliam County, Oregon

Figure
7-1

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Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

Design Standards

Roadway design standards were established for rural and urban conditions. The design standards take into consideration roadway function and operational characteristics, including traffic volume, capacity, operating speed, and safety. The design standards are necessary to ensure that as the road system develops, it will be capable of safely and efficiently serving the traveling public, while also accommodating orderly development of adjacent lands.

While not specifically outlined in this plan, improvements on state highways must meet ODOT design and operating standards provided in the ODOT Highway Design Manual.

Rural Design Standards

Rural roadway design standards for all County-owned and maintained facilities are shown in Exhibit 7-1, Exhibit 7-2, and Exhibit 7-3. Deviations from these design standards should be pursued through the managing agency.

Sidewalks have not been included in the roadway design standards because the majority of County roadways are rural in nature and sidewalks are not typically provided. Bicyclists are expected to share the travel lane with vehicles in rural areas, consistent with guidance provided in the Oregon Bicycle and Pedestrian Design Guide.

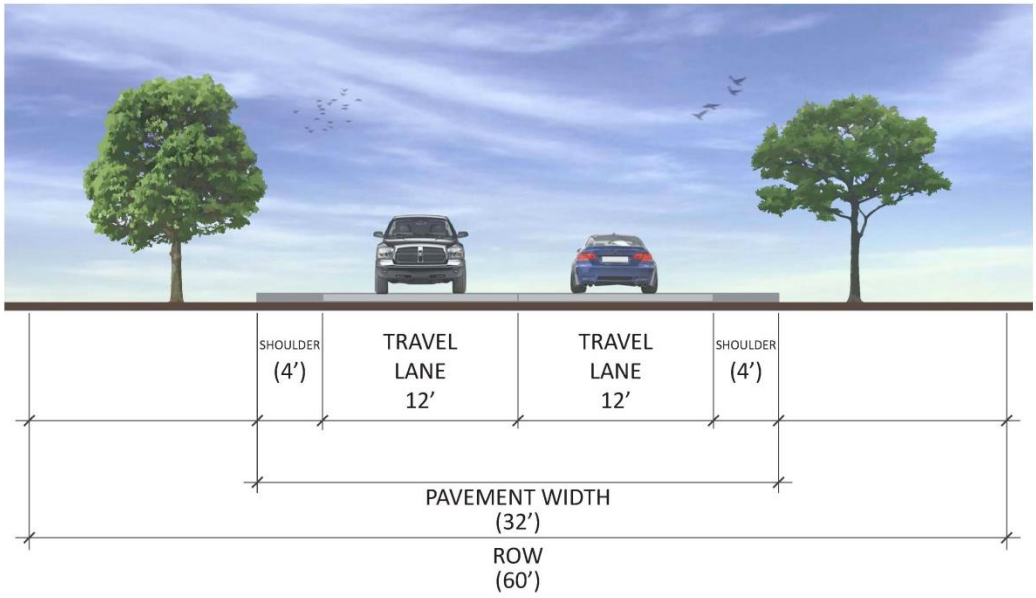


Exhibit 7-1. Rural Arterial Street Cross-Section

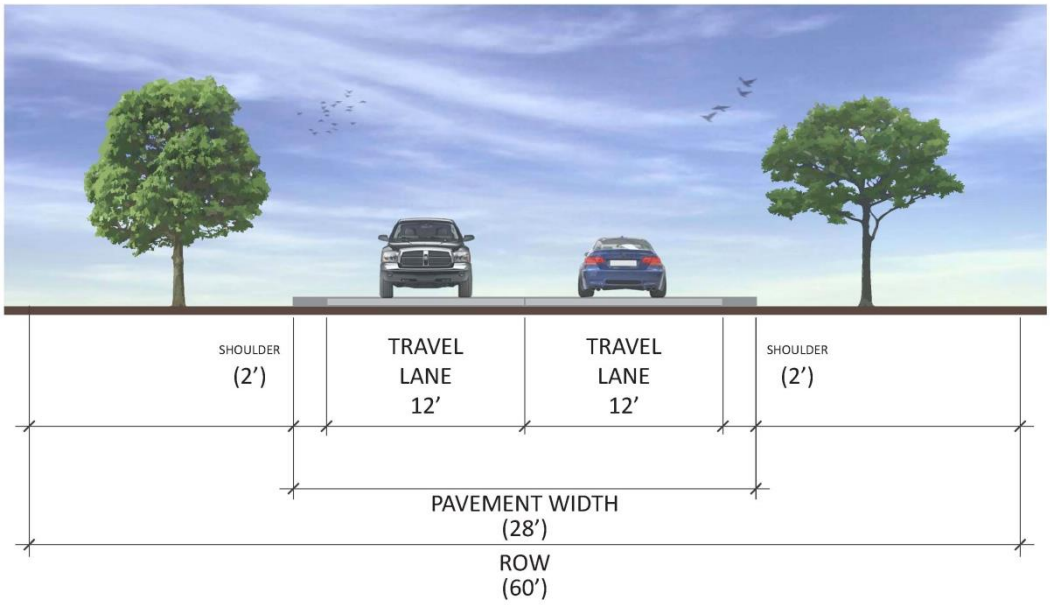


Exhibit 7-2. Rural Major and Minor Collector Street Cross-Section

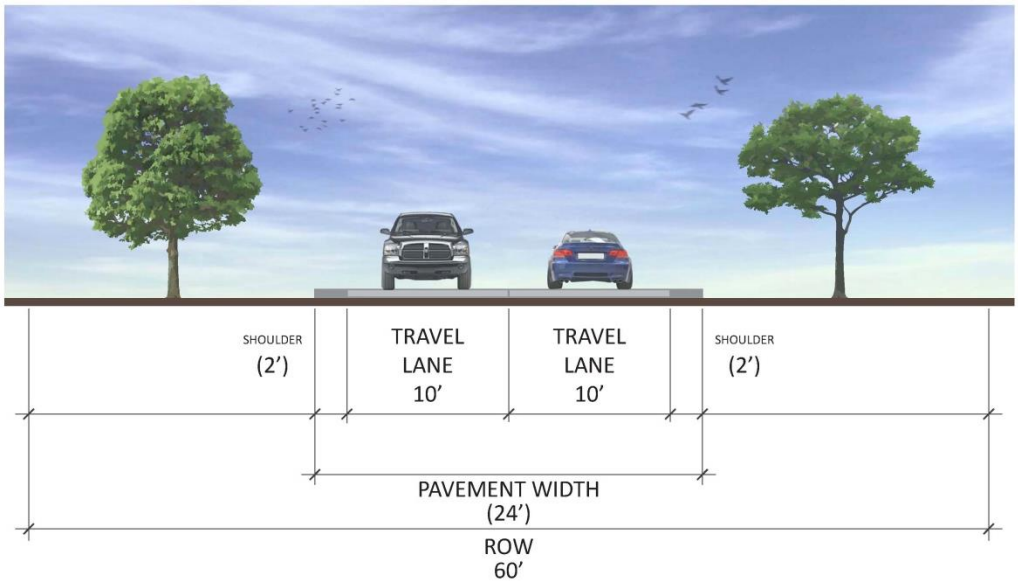


Exhibit 7-3. Rural Local Street Cross-Section

City of Arlington Design Standards

Design standards for City roadways within Arlington are provided in Exhibit 7-4, Exhibit 7-5, and Exhibit 7-6.

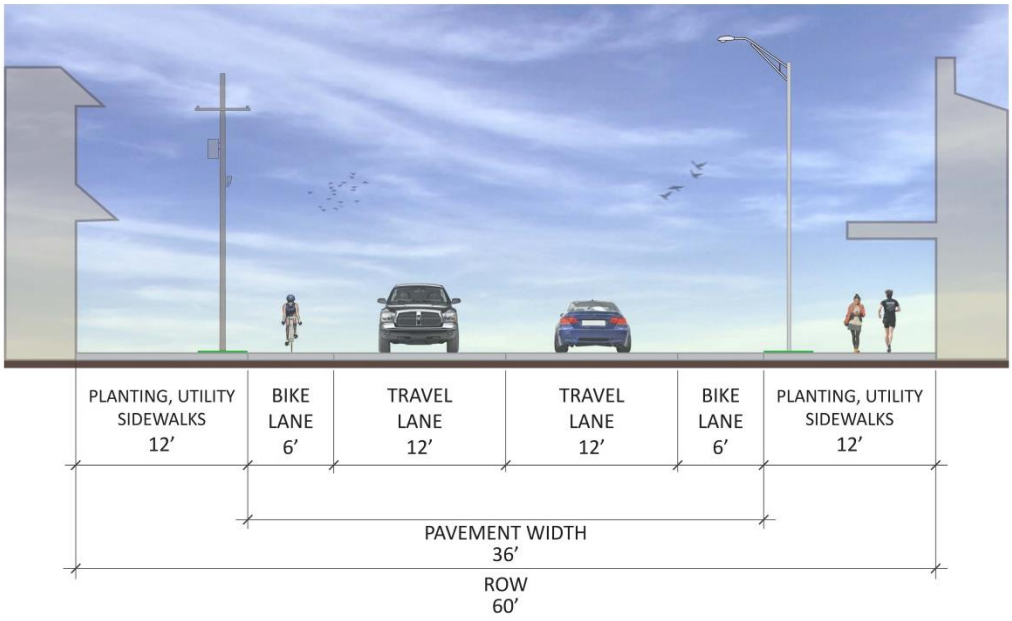


Exhibit 7-4. Urban Arterial Street Cross-Section

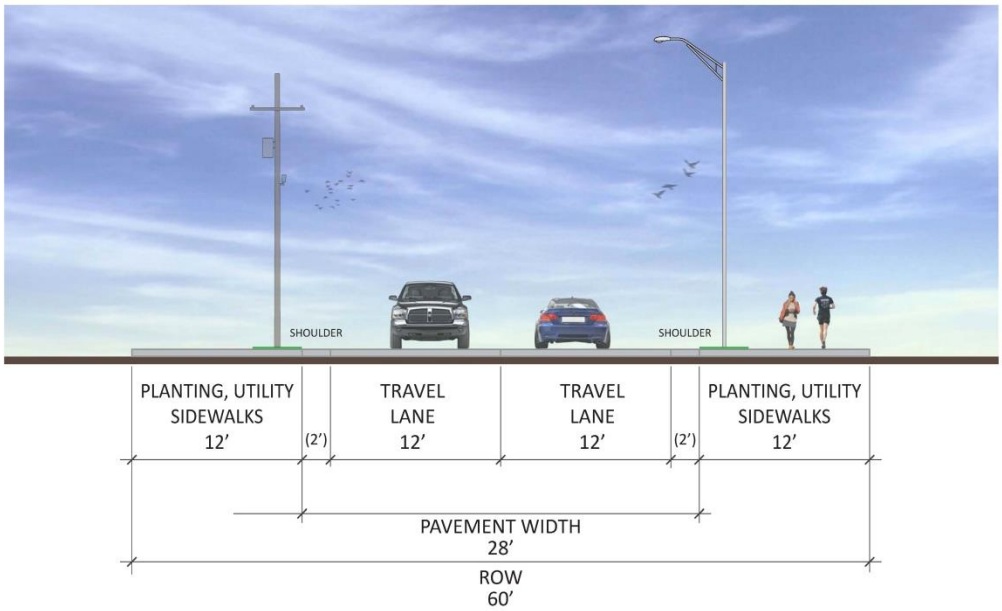


Exhibit 7-5. Urban Major and Minor Collector Street Cross-Section

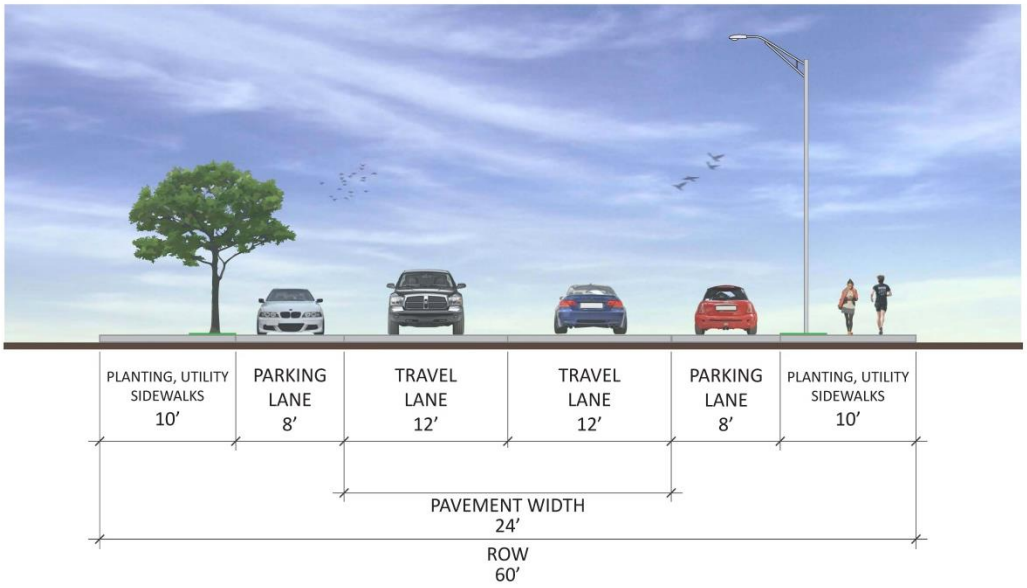


Exhibit 7-6. Urban Local Street Cross-Section

City of Condon Design Standards

Design standards for City roadways within Condon are provided in the Condon Public Works Standards Technical Specifications and Drawings, Figures R-1 through R-4.

Access Management Policy

Managing access to the County's road system is necessary to preserve capacity and maintain safety of the County's arterial and collector system. Capacity is preserved by minimizing the number of points where traffic flow may be disrupted by traffic entering and exiting the roadway. Access management also enhances safety along roadways by minimizing the number of potential conflict points.

Access spacing standards for all driveways and private roads accessing County collector and arterial roadways are provided in Table 7-2 (rural) and Table 7-3 (urban).

Access to state facilities is governed by ODOT's access management standards provided in the most current version of the 1999 Oregon Highway Plan and in Oregon Administrative Rule 734-051. ODOT's standards also apply to access spacing on County facilities located within the management area of a freeway or expressway interchange, as defined by OAR 734-051.

The Oregon Transportation Planning Rule (TPR) defines access management as a set of measures regulating access to streets, roads, and highways, from public roads and private driveways. The TPR requires that new connections to arterials and state highways be consistent with designated access management categories. This TSP includes an access management policy that maintains and enhances the integrity (i.e., capacity, safety, and level of service) of Gilliam County's roadways.

TABLE 7-2 ACCESS MANAGEMENT SPACING STANDARDS FOR RURAL GILLIAM COUNTY ROADWAYS

Functional Classification	Public Road Spacing	Private Drive Spacing
Collector	¼ mile	1,200 ft
Local Street	200-400 ft	Vary

TABLE 7-3 ACCESS MANAGEMENT SPACING STANDARDS FOR URBAN ROADWAYS

Functional Classification	Public Road Spacing	Private Drive Spacing
Collector	300 ft	150 ft
Local Street	300 ft	Each Lot

These standards apply to new development or redevelopment; existing accesses are allowed to remain as long as the land use does not change. As a result, access management is a long-term process in which the desired access spacing to a street slowly evolves over time as redevelopment occurs.

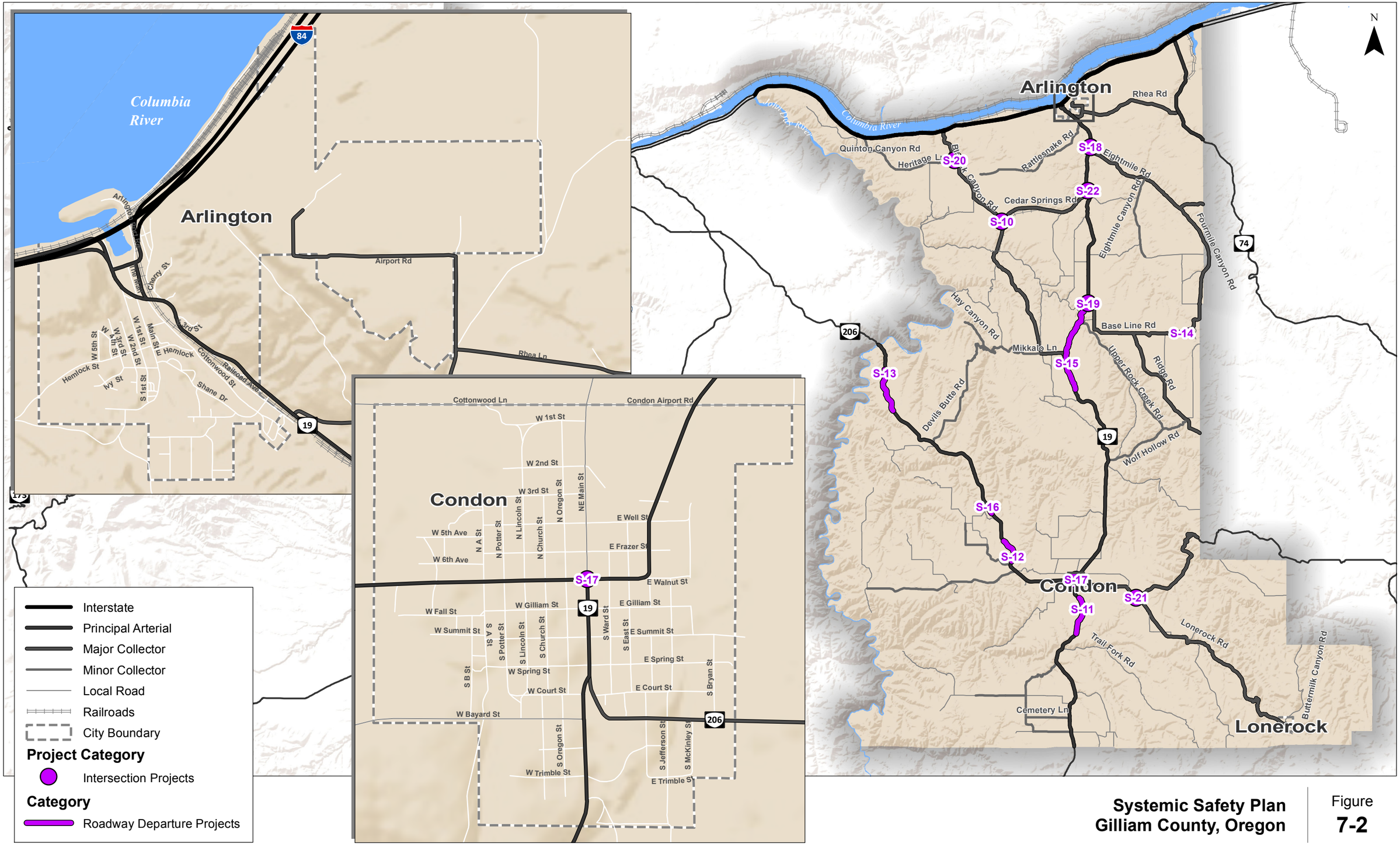
Traffic Operations Standards

Gilliam County has an obligation to maintain a safe, convenient, and economical transportation system. A maximum volume-to-capacity (v/c) ratio of 0.85 during a typical weekday peak hour should be maintained for all City- and County-owned or maintained intersections. At intersections with an ODOT facility, ODOT standards shall apply. For unsignalized intersections, the v/c ratio should be based on the intersection's critical movement. For signalized intersections, the ratio is based on the overall intersection operation.

Systemic Safety Plan

The Systemic Safety Plan identifies relatively low-cost safety projects that can be implemented systemically at locations with similar characteristics throughout the County. The methodology used to develop this Plan is summarized in **Section 6**.

Lists of prioritized Roadway Departure projects and Intersection projects, based on the set of objective criteria, are shown in Figure 7-2 and described in Table 7-4 and Table 7-5.



Systemic Safety Plan
Gilliam County, Oregon

Figure
7-2

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Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

TABLE 7-4 SYSTEMIC SAFETY ROADWAY DEPARTURE PROJECTS

Project ID	Road	Start MP	End MP	Potential Countermeasures					
				Inlaid Raised Pavement Markers	Widen Shoulder & Install Safety Edge (where feasible)	Install Centerline and Shoulder Rumble Strips	Curve Warning Signs	Chevrons at Curves	Guardrail
S-11	OR 19	40	42	X	X	X	X	X	
S-12	OR 206	33.4	35.2	X	X	X	X	X	
S-13	OR 206	17.6	20.2	X	X	X	X	X	
S-14	Baseline Road	8.9	9.3	X	X	X	X	X	
S-15	OR 19 (Olex Grade)	15.5	22.2	X	X	X	X	X	X
S-16	OR 206	30.7	31.3	X	X				

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

TABLE 7-5 SYSTEMIC SAFETY INTERSECTION PROJECTS

Project ID	Major Road	Minor Road	Potential Countermeasures		
			Rural Intersection Signing and Marking Improvements	Improve sight distance	Reduce intersection skew
S-17	OR 19 (Main St)	OR 206 (Walnut St)	X		
S-18	OR 19	Eightmile Rd	X		
S-19	OR 19	Baseline Rd		X	
S-20	Blalock Canyon Rd	Heritage Ln	X	X	X
S-21	OR 206	Lonerock Rd	X	X	
S-22	OR 19	Cedar Springs Rd	X		
S-10	Blalock Canyon Rd	Cedar Springs Rd	X		

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

ROADWAY SYSTEM PLAN

This section outlines specific transportation system improvement projects, policies, programs, pilot projects, and studies of the Plan as well as overall prioritization: near-term and long-term. The prioritization presented reflects the relative time period in which it may be foreseeable for the County and Cities to implement the project; it is not intended to limit the selection of a project or the order in which projects will be implemented. The County will need to periodically update its TSP and will review the need and timing of improvements during those updates.

Long-term projects may or may not be feasible within the twenty-year planning horizon, for reasons of both need and resources. However, they represent a vision for an efficient transportation system in the future, and they have been identified to support the preservation of the opportunities as future conditions may warrant them.

The construction of roads, water, sewer, and electrical facilities in conjunction with local development activity should be coordinated if the County is to develop in an orderly and efficient way. Consequently, the planned improvements identified should be considered in light of developing infrastructure sequencing plans, and may need to be modified accordingly.

The planned transportation improvement alternatives in Gilliam County include those identified to address various types of transportation issues, which generally include:

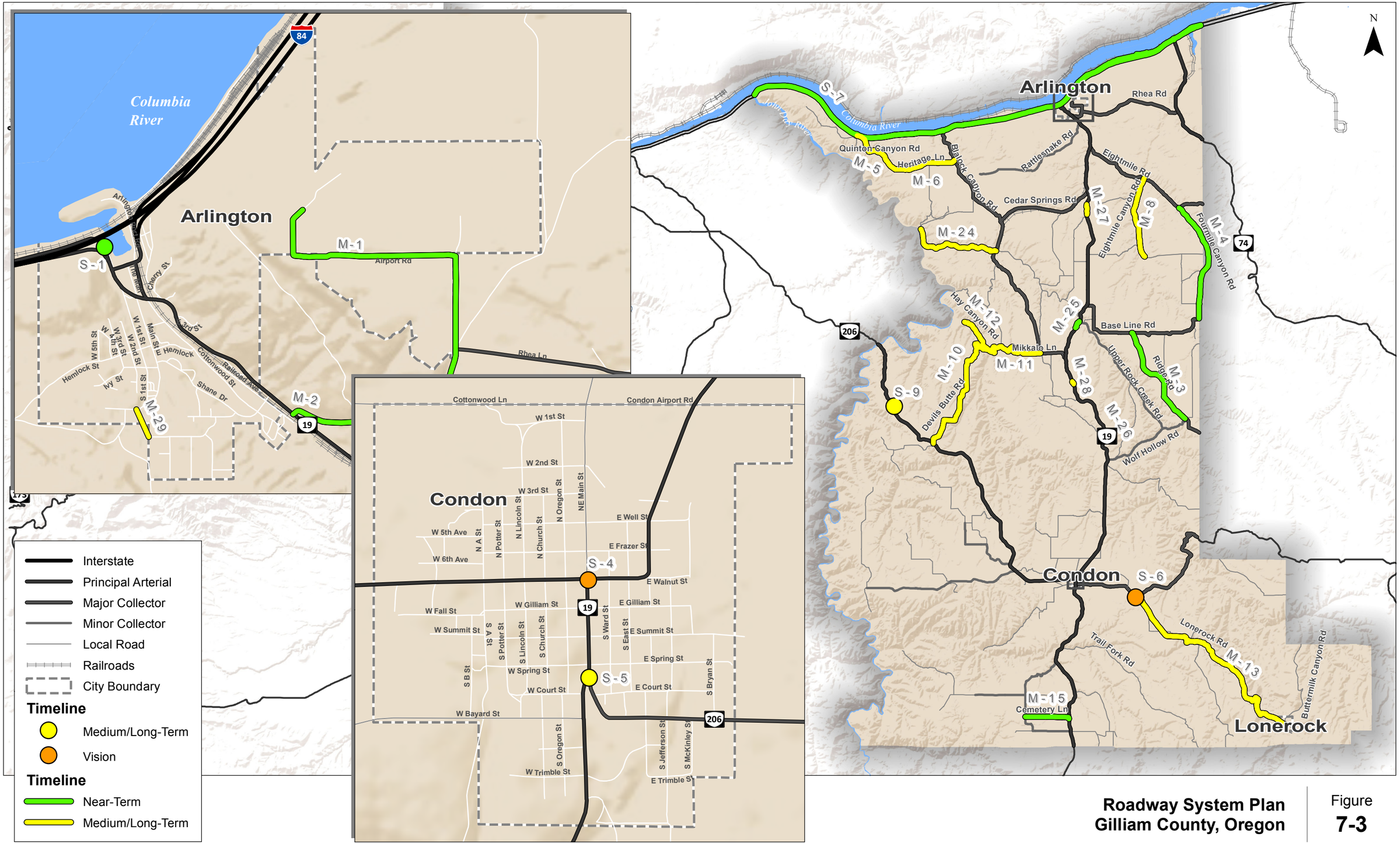
- *Operations:* These projects provide the roadway capacity needed to accommodate future traffic flows and reduce delay.
- *Safety:* These projects consider opportunities to improve existing facilities to reduce probability and severity of crashes. These projects include those identified as part of the Systemic Safety Plan for the County.
- *Pedestrian and Bicycle Enhancements:* These projects improve existing facilities or create new facilities that provide greater connectivity and increase access to pedestrian and bicycle routes.
- *Heavy Maintenance:* These projects address the needs identified by the County that relate to roadway, roadside, or drainage and cannot be conducted as part of regular maintenance activities.
- *Full Reconstruction:* These projects include reconstruction of the roadway including removal of existing roadway and placement of aggregate base and asphalt pavement.
- *Feasibility Studies:* These projects have identified the need for some level of long-term improvements to different roadway segments or intersections. Given the size and complexity, a more detailed evaluation of potential improvements has been identified that is beyond the scope of the TSP.
- *Pilot Projects*: Pilot projects are innovative projects that can be done on an interim basis and can be reversed if needed.
- *Programs/Policies*: The programs and policies reflect changes to County or City operations or code that has an impact on the transportation system.

While site-specific projects, such as adding turn lanes at an existing intersection, have been included to improve conditions at individual locations, the alternatives collectively reflect a broader goal which is to develop an efficient transportation network that will reduce reliance on the state highways and limit potential for motor vehicle crashes while encouraging economic activity.

Roadway Transportation Plan Elements

The near- and long-term transportation improvements within unincorporated areas of Gilliam County are shown in Figure 7-3 and described in Table 7-6. The table includes a project identification letter and number for reference to the project location illustrated in Figure 7-3. Additionally, the table includes preliminary cost estimates with 40-percent contingency for the projects, excluding right-of-way. Potential non-binding funding sources were also identified for each project and are subject to negotiation at the time of project execution. Projects that were identified but not expected to receive funding within the TSP horizon were identified as Vision Projects. *Cost estimate calculations and assumptions are provided in **Appendix B**. Project prospectus sheets for each alternative are provided in **Appendix C**.*

The implementation plan incorporates the preferred financing plan that indicates a limited amount of money will be available to fund projects. As a result, only improvements that are planned for implementation and are expected to have funding are shown in the near-term time frame. The long-term project timeline reflects the fact that some projects are not needed immediately and that it will take time to accumulate the funds to build those projects.



Roadway System Plan
Gilliam County, Oregon

Figure
7-3

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Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

TABLE 7-6 PLANNED ROADWAY IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
Short-Term Projects								
M-1	Airport Road	Overlay Airport Road with 2 inches of asphalt and add 2-foot gravel shoulders from the intersection of Rhea Road to the end of the Arlington Mesa industrial park. Airport Road was previously widened several years ago. This project will be completed in conjunction with Rhea Lane (M-2).	Heavy Maintenance	$109,200	X	X	X	X
M-2	Rhea Lane	Overlay with 5 inches of recycled asphalt and the addition of 2-ft gravel shoulders from OR 19 to Airport Road to serve the higher truck volumes associated with the Arlington Mesa Industrial Park. This project will be done in conjunction with Airport Road (M-1).	Heavy Maintenance	$837,330	X	X	X	X
M-3	Ridge Road	Upgrade roadway to Major Collector standards from Baseline Road to County limits to support the freight traffic that uses this route to transport hay, cattle, and wheat from Gilliam and SW Morrow County to I-84. The project includes 2 inches of overlay on existing asphalt and paving the currently unpaved section. Two foot gravel shoulders will be added where possible.	Heavy Maintenance	$1,177,735		X		
M-4	Fourmile Canyon Road	Upgrade roadway to Major Collector standards from Fairview Lane to Baseline Road by paving the road and adding 2-foot gravel shoulders where possible to support the truck traffic that carries wheat out of Morrow and Gilliam County.	Full Reconstruction	$1,015,820		X		
M-15	Cemetery Road	Upgrade Road to Minor Collector to serve the wheat area as part of Wehrli Canyon loop. Project includes paving the surface. Widening has already been completed.	Heavy Maintenance	$100,000		X		
S-1	I-84 Westbound On-Ramp in Arlington	Replace existing sign with larger sign and add pavement markings to indicate correct direction for drivers.	Operations	$3,000	X			
S-7	I-84 ITS Warning System throughout County	Evaluate effectiveness and feasibility of ITS treatments to provide warnings to drivers when roadway conditions are icy.	Feasibility Study	$15,000	X			
M-25	Olex Grade Realignment	Complete OR 19 realignment between approximately MP 16 and 17.	Feasibility	$10,000	X			
Long-Term Projects								
M-5	Quinton Canyon Road	Upgrade roadway to Minor Collector standards from Heritage Lane to I-84 interchange to serve the wind farms on the bluff and agricultural land. Project includes widening from the current 18' roadway width to 20' and paving the second from I-84 to the top of the hill. Widening requires significant cost due to rock bluff.	Heavy Maintenance	$1,000,000		X		X
M-6	Heritage Lane	Upgrade roadway to Minor Collector standards from Blalock Canyon Road to Quinton Canyon Road to serve wind farms and agricultural land. Project includes removing S-curves and paving the west end of the road.	Heavy Maintenance	$325,000		X		
M-8	Eightmile Canyon Road	Upgrade roadway to Minor Collector standards to support the increased truck traffic using this route due to the new irrigated farming in the area and the traffic associated with homes. Project includes paving the road and adding 2' gravel shoulders where possible.	Heavy Maintenance	$1,015,846		X		
M-10	Devils Butte Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 206. Project includes culvert extensions, widening shoulders, and improving sight lines for trucks and vehicles pulling boat trailers.	Heavy Maintenance	$156,000	X	X		X

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
M-11	Mikkalo Ln	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 19. Project includes culvert extensions, widening shoulders, and sight improvements.	Heavy Maintenance	$61,100	X	X		
M-12	Hay Canyon Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Devils Butte Road to the Cottonwood Canyon State Park. Project includes road realignment and reconstruction to avoid eroding road adjacent to river.	Full Reconstruction	$2,752,422	X	X		
M-13	Lonerock Road	Upgrade from Minor Collector to Major Collector from OR 206 to City of Lonerock to support the cattle and hay operations and serve the Lonerock community. Project includes some grade improvements on the east side of the Ericson grade.	Heavy Maintenance	$500,000		X	X	
M-24	Lower Rock Creek Road	Improve roadway (widen, add shoulders, curve signage, etc.) due to high recreational traffic associated with river access.	Operations	$400,000		X		
S-5	E Bayard Street/Main Street Intersection Reconfiguration	Reconfigure intersection to two-way stop-controlled intersection to improve sight distance for westbound approach.	Safety / Operations	$106,000	X		X	
S-9	Snow Drifts on OR 206	Evaluate the occurrence of snow drifts on OR 206 near milepost 22	Study	$1,000	X	X		
M-29	Columbia View Drive Extension	Extend Columbia View Drive to Main Street to provide alternate access to residents in this area.	Operations	$700,000		X	X	
M-26	OR 19 Realignment Projects	Evaluate the feasibility and develop cost estimates for the following projects on OR 19: soften corner on OR 19 near MP 27 at Pennington Corner; realign S-curves at MP 8; soften curve and slopes to improve line of sight on OR 19 near MP 21 at Wilkins Corner.	Feasibility Study	$10,000	X			
Vision Projects								
S-4	Main Street/Walnut Street Intersection Reconfiguration	Reconfigure the intersection to a two-way stop-controlled intersection to provide a traffic control scenario that does not violate driver expectancy.	Project	$10,000	X		X	
S-6	Lonerock Road/OR 206 Intersection	Reconfigure the intersection to bring the eastern leg of OR 206 to a stop perpendicular to Lonerock Road to increase sight distance at this intersection.	Project	$150,000	X	X		

[1] Cost estimate is planning level only. Does not include right-of-way costs.

The total cost of projects, policies, programs, and feasibility studies shown in Table 7-6 that are expected to be implemented in the near-term is approximately $3,500,000. In addition, several low-cost systemic safety projects are included in the near-term projects, including edgeline rumble strips on state highways and enhanced signing and striping to improve safety, as identified by the criteria in the Systemic Safety Plan.

PEDESTRIAN AND BICYCLE SYSTEM PLAN

The future population growth in the incorporated areas of Arlington and Condon will increase the need to expand the existing sidewalks in the Cities and to provide new paths in and around the incorporated areas to encourage residents and visitors to ride bicycles for transportation. Providing a connected network of pedestrian and bicycle facilities is important for:

- Serving shorter trips from neighborhoods to area activity centers, such as schools, churches, and neighborhood commercial uses;
- Providing access to regional park and ride lots to enhance intermodal connections; and
- Meeting residents' and visitors' recreational needs, further promoting economic activity in the County.

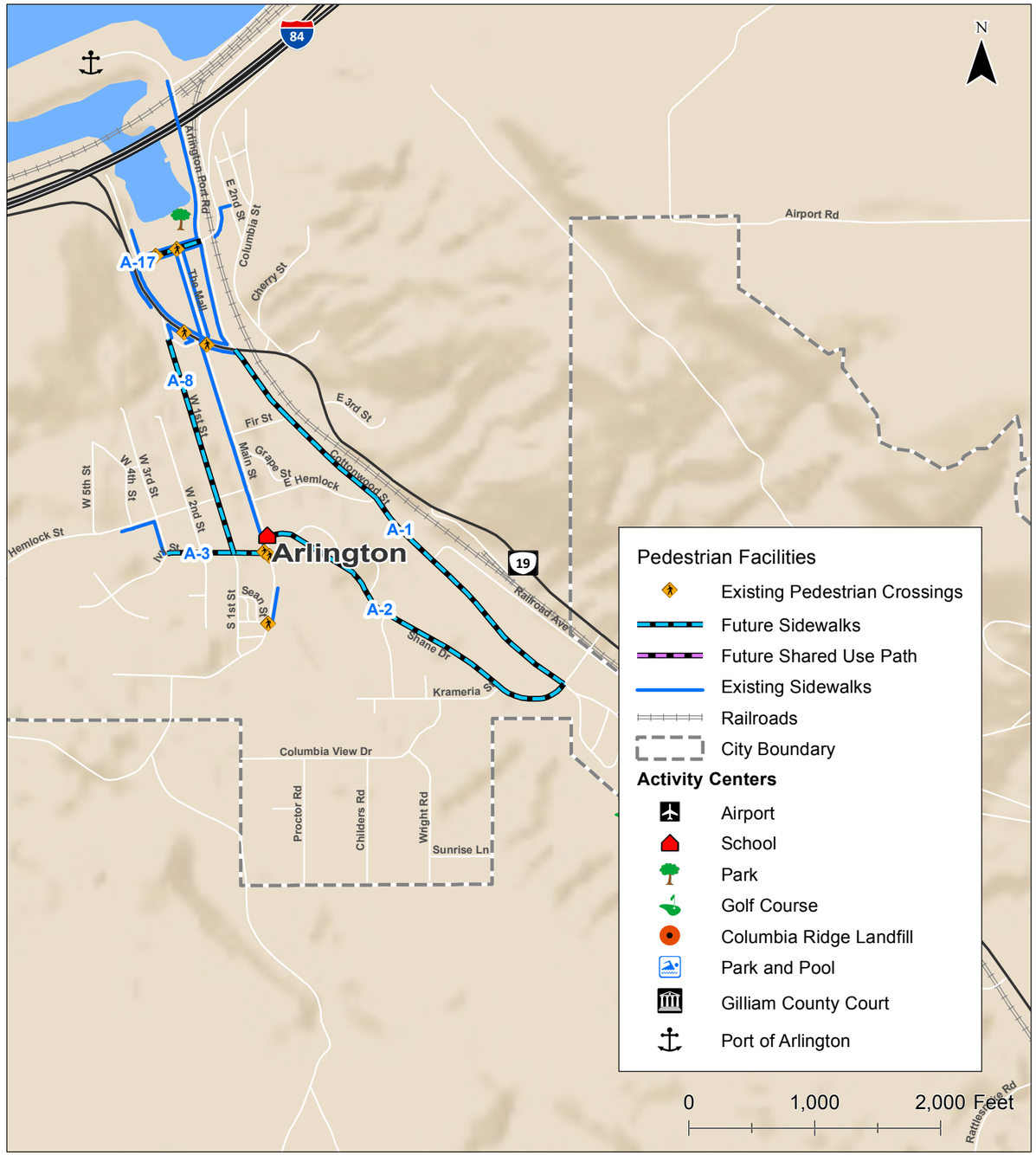
Figure 7-4 and Table 7-7 summarize the planned pedestrian and bicycle projects for the next twenty years. In rural Gilliam County, bicycle and pedestrian design standards provide paved shoulders on arterials and minimum two-foot paved or unpaved shoulders on all other, lower volume roads to facilitate pedestrian and bicycle travel. Table 7-7 includes a feasibility study and pilot project to identify opportunities for bike rest areas at strategic locations along OR 206 where cyclists can rest, get water, and have access to bicycle tools. These bicycle rest areas may also provide opportunities for local businesses to advertise and provide wayfinding signage to direct tourists to local businesses. Exhibit 7-7 provides an example of a bicycle rest area. The cities of Arlington and Condon should also add bicycle parking within their downtown areas. Exhibit 7-8 shows an example of a decorative bicycle rack that can be used in the downtown areas and add to the main street character.

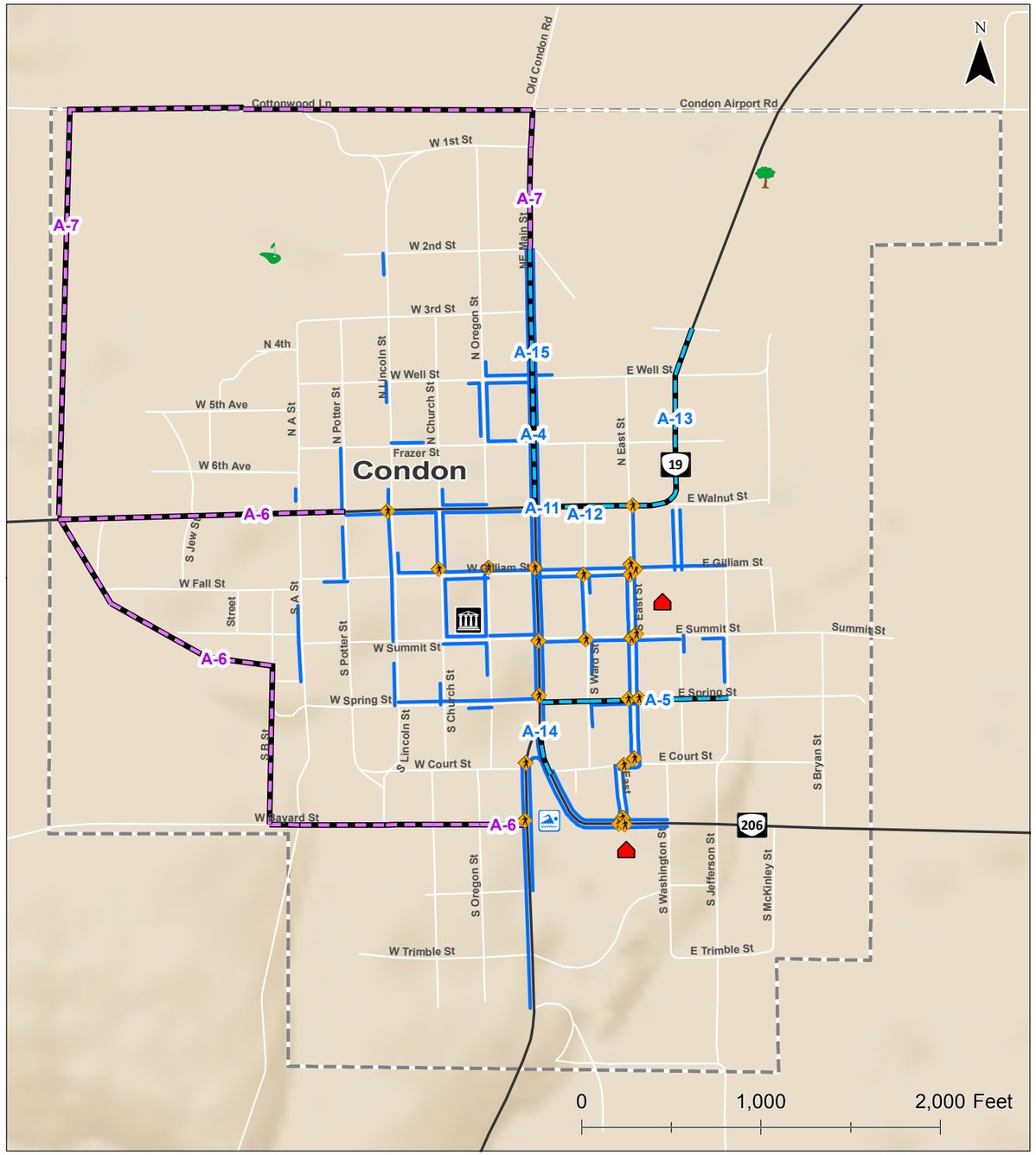
Within the cities, the standards for arterials include a bike lane to provide space for bicyclists to ride separate from vehicles. Bicyclists are expected to share the road with vehicles on the other local roads in the cities due to the low speeds and low volumes. Arterials, collectors, and local streets should include sidewalks as they are developed within the city limits. A complete connected sidewalk network will encourage walking as a mode of transportation within the City. Sidewalk construction projects that fill gaps in the existing sidewalk infrastructure and repair existing sidewalk are identified in Figure 7-4 and included in Table 7-7.

Cottonwood Canyon State Park is located on the John Day River between Gilliam and Sherman Counties. The park is long-term plans to develop hiking trails on the Gilliam County side of the park. Although the alignment of these trails is not confirmed, the County supports the development of these trails and will look for opportunities to provide recreational connections between existing County roads when possible.

Exhibit 7-7. Example of bicycle rest area

Exhibit 7-8. Example of decorative bicycle parking





Pedestrian System Implementation Plan
Gilliam County, Oregon

Figure
7-4

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Coordinate System: NAD 1983 StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation, US Census

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TABLE 7-7 PLANNED PEDESTRIAN AND BICYCLE IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
Short-Term Projects								
A-3	Ivy Street Sidewalks (Arlington)	Install sidewalks from 3rd Street to Main Street in Arlington, connecting to the Columbia Hills Manor Independent Living Center	Ped/Bike	$147,000			X	
A-4	Sidewalks on East Side of Main Street (Condon)	Replace sidewalks on the east side of Main Street from E Well Street to OR 206/Walnut Street in Condon.	Ped/Bike	$50,000			X	
A-5	Sidewalks on E Spring Street	Install sidewalks from S East Street to S Jefferson Street, connecting to ball fields	Ped/Bike	$25,000			X	
A-9	OR 206 Cyclist Rest Areas	Evaluate feasibility and cost of providing bicyclist rest areas with water stations and bike tools at strategic locations along OR 206 in the County. Implement as pilot project.	Feasibility Study / Pilot Project	$5,000	X	X		X
A-10	Bicycle Parking	Add bicycle parking in downtown areas of Condon and Arlington	Ped/Bike	$3,500			X	
A-11	OR 19 Sidewalks	Add sidewalks from Main Street to N East Street in Condon.	Ped/Bike	$100,000	X		X	
A-16	Shared-use Path from Condon to Mountain Identifier	Conduct a feasibility study to determine the cost of constructing a shared-use path from Condon to the mountain identifier on OR 206.	Feasibility Study/ Ped/Bike	$10,000	X	X	X	
Long-Term Projects								
A-1	Cottonwood Street Sidewalks (Arlington)	Install sidewalks from Shane Drive to OR 19	Ped/Bike	$508,000			X	
A-2	Shane Drive Sidewalks (Arlington)	Install sidewalks from Main Street to Cottonwood Street	Ped/Bike	$414,000			X	
A-6	Inner Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street/Potter Street to OR 206	Ped/Bike	$87,750		X	X	
A-7	Outer Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street to Cottonwood Street/Main Street	Ped/Bike	$109,200		X	X	
A-8	W 1st Street Sidewalks	Install sidewalks from Cedar Street to Ivy Street	Ped/Bike	$277,000			X	
A-12	Pedestrian crossings in Condon	Provide an enhanced pedestrian crossing of OR 19 as it enters town, east of Main Street	Ped/Bike	$10,000	X		X	
A-13	OR 19 Sidewalks (East)	Add sidewalks from N East Street to the Fairgrounds driveway in Condon.	Ped/Bike	$200,000	X		X	
A-14	E Bayard Street Sidewalks	Add sidewalks to complete gap on east side of E Bayard Street between E Court Street and Main Street.	Ped/Bike	$25,000	X		X	
A-15	Sidewalks on east side of Main Street (north)	Complete sidewalk gaps on the east side of Main Street between E Well Street and W 2nd Street in Condon.	Ped/Bike	$30,000			X	
A-17	Beech Street Streetscape in Arlington	Improve the streetscape of Beech Street in Arlington to make the environment more pedestrian/bicycle friendly with wider sidewalks, raised crossings, landscaped buffers, and pedestrian-scale lighting.	Ped/Bike	$176,000	X		X	X

PUBLIC TRANSPORTATION PLAN

Gilliam County Special Transportation (GCST) operates a dial-a-ride transit service for the County. The service provides approximately 10,000 trips each year and can be used by the general public for any use. About 80 percent of the trips serve seniors or people with disabilities. Residents call in advance to schedule their rides any time Monday through Friday from 7:00 am to 6:00 pm. Currently, all rides are provided by volunteer drivers. GCST is funded through grants, donations, and medical mileage reimbursement programs but currently has a need for additional funding to cover driver salaries, vehicle maintenance and capital costs, and training programs.

Gilliam County is an Oregon Special Transportation Fund Agency and is therefore responsible for developing a Human Services – Public Transportation Coordinated Plan ("Coordinated Plan") that must be updated every five years. This plan identifies transit projects, focusing on addressing the needs for three target populations: older adults, people with disabilities, and people with low incomes. It is intended to help focus regional resources on strategies with the greatest benefit to the target populations and transportation service providers. Gilliam County will be updating its Coordinated Plan with a grant from ODOT in 2015 and 2016.

AIR SERVICE

Two airports serve Gilliam County. The Condon State Airport is located just outside the City of Condon. It is owned and operated by the State of Oregon Department of Aviation (ODA) and is included in the National Plan of Integrated Airport Systems (NPIAS), making it eligible for federal funding. The airport plays a supportive role in the current transportation system, providing geographic coverage and access to the state's airport system. The airport also serves as a base for agricultural spraying operations. To encourage future airport development, the City of Condon is planning to provide water service to the airport. A study is recommended to determine if upgrades are needed for any of the airport facilities to serve the future growth and activity.

The Arlington Municipal Airport is located adjacent to the Arlington Mesa Industrial Park, in the Enterprise Zone within the City Limits of Arlington. The airport's runway is a gravel and dirt/turf surface that was reported in poor condition in 2013. The Arlington Municipal Airport has municipal water and sewer available on the adjacent Arlington Mesa Industrial Park along with Fiber Optic Conduit. Based on the opportunities available for industrial uses and the existing industrial uses at the airport, a feasibility study is recommended to determine the cost to pave and maintain the runway at the Arlington Airport.

MARINE SYSTEM PLAN

Gilliam County is located on the Columbia River, a major water transportation route. The Port of Arlington manages river cargo and marina operations. The Port has a Barge Facility available for river access and a grain silo. Farmers in the region use the Port to export grain, which is an important economic activity for the County. From the Columbia River, the grain can travel to Portland and be exported internationally.

The marina also provides access to the river for recreational purposes and is in the process of adding a fuel dock to its amenities.

RAIL SERVICE

Union Pacific (UP) provides freight rail service through Gilliam County. There is currently no passenger rail service in the County. UP Rail lines follow I-84 and the Columbia River and provide access to Portland and the Hinkle Railyard in Hermiston.

Rail service is also available between Arlington and the Columbia Ridge Landfill and Recycling Center, located approximately 10 miles south of the primary Columbia River line in Arlington, as shown in Exhibit 7-9. The landfill receives solid waste by rail from major metropolitan areas up and down the west coast. All trains on the branch are operated by Watco Companies through their Palouse River and Coulee City Railroad. The Watco line is a Class III or short-line railroad with annual operated revenue of less than 20 million dollars (1991 dollars). Class III railroads are typically local short-line railroads serving a small number of towns and industries or hauling cars for one or more larger railroads. Six unit trains run on this branch per week. The train speed from I-84 to the end of the line at the Columbia Ridge Landfill and Recycling Center is 25 mph. The track is in good condition and is regularly maintained. One rail project was identified as high priority during the TSP Update:

- New rail crossovers are needed in the near-term at Shutler Station to support rail operations.

There are two crossings of the Watco line within the City of Arlington and two along Cedar Springs Road. The City, County, and Waste Management should maintain coordination with UP and Watco to minimize delay and maintain emergency vehicle access.

Exhibit 7-9. Existing Watco Rail Line and Shutler Station

PIPELINE AND TRANSMISSION SYSTEM PLAN

Pipeline transportation within the Gilliam County area includes numerous substations and transmission lines, which are currently being upgraded. These transmission lines are maintained by Pacific Gas Transmission and provide access to the main power grid at multiple locations.

Future extension of a high-speed broadband service is planned from Idaho along the Columbia River. Gilliam County may be able to provide broadband services to its citizens through this line. A broadband internet connection could allow for implementation of Intelligent Transportation Solutions along I-84 that could have a positive effect on transportation safety and mobility. Other benefits of this added service could spur economic development.

BRIDGE PLAN

Three bridge projects were identified in Gilliam County to update bridges to current standards or replace the bridge for structural reasons. These bridges include:

- I-84 Eastbound Bridge: The bridge will be widened at MP 148.6 (Willow Creek) to meet current design standards. The estimated cost of this project is $1.1 million.
- I-84 John Day River Bridge Deck Overlay: ODOT has planned a bridge deck overlay on I-84 from MP 114.45 to 114.75. Preliminary engineering is scheduled for 2016, and construction is scheduled for 2018. The estimated cost of this project is $2,482,000.

- Lonerock Road Bridge Replacement: The County plans to replace the Lonerock Road bridge. The road serves as the primary route in and out of Lonerock and is therefore a high priority for the County. However, the replacement is estimated to cost $2,000,000.

Section 8
Transportation Finance Element

Transportation Finance Element

Funding for transportation projects is increasingly in short supply as existing infrastructure ages and transportation demands increase. This section provides a means for evaluating the likelihood that projects can be funded within the timelines identified in the TSP and defines priorities based on available funding opportunities.

The TPR requires that the Gilliam County TSP address transportation funding, including the following elements:

- A list of planned transportation facilities and major improvements;
- A general estimate of the timing for planned transportation facilities and major improvements;
- Determination of rough cost estimates for the transportation facilities and major investments identified in the TSP; and,
- A discussion of existing and potential financing sources for each transportation facility and major improvement (which can be described in terms of guidelines or local policies).

Current Gilliam County Transportation Funding Revenues

Gilliam County's annual revenue has been approximately $1.3 million per year over the past ten years. As shown in Exhibit 8-1, this funding comes from a variety of sources. The largest portions come from the property tax assessments, the Special County Allotment, and the State Highway Fund Apportionment.

Exhibit 8-2 shows that the County has spent the majority of its revenue each year over the past four years, with the expenditures exceeding the revenue in fiscal years 2011 and 2012. As shown in Exhibit 8-3, the majority of the transportation expenditures were used for maintenance activities, leaving little funding left over to complete capital improvement projects. The County Roadmaster indicated that he typically includes at least one improvement project per year in his budget and work schedule, such as paving a new road.

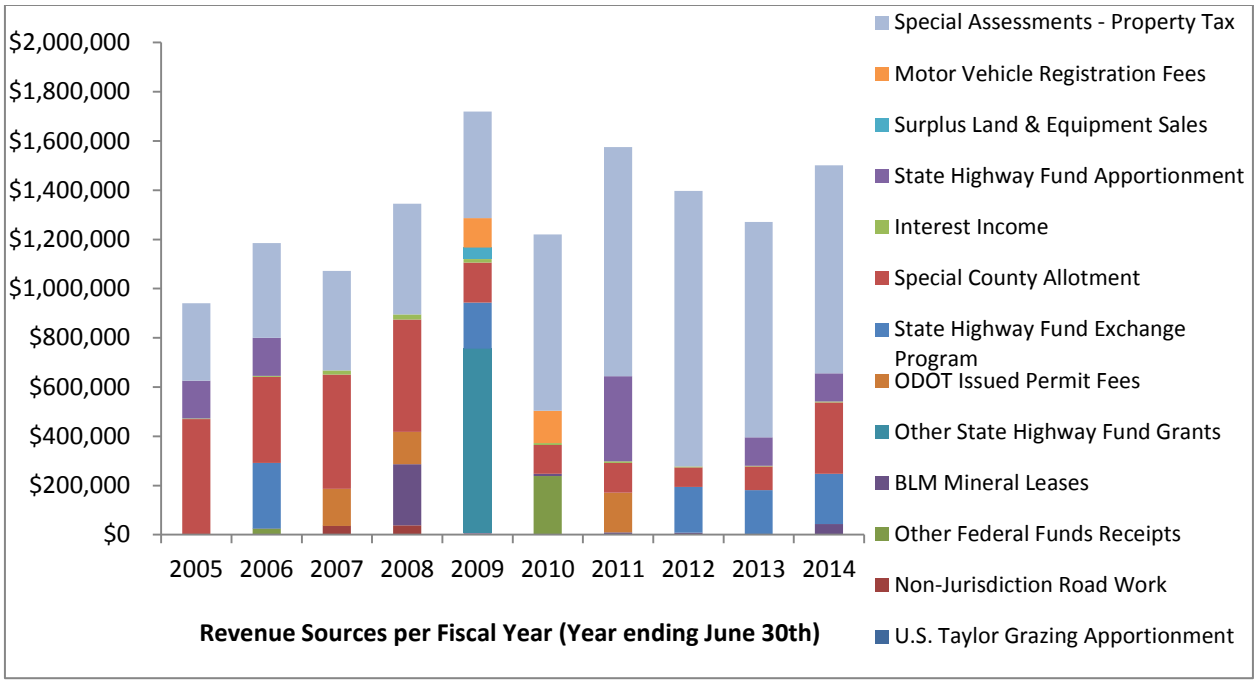


Exhibit 8-1. Gilliam County Transportation Revenue Sources (2005 – 2014)

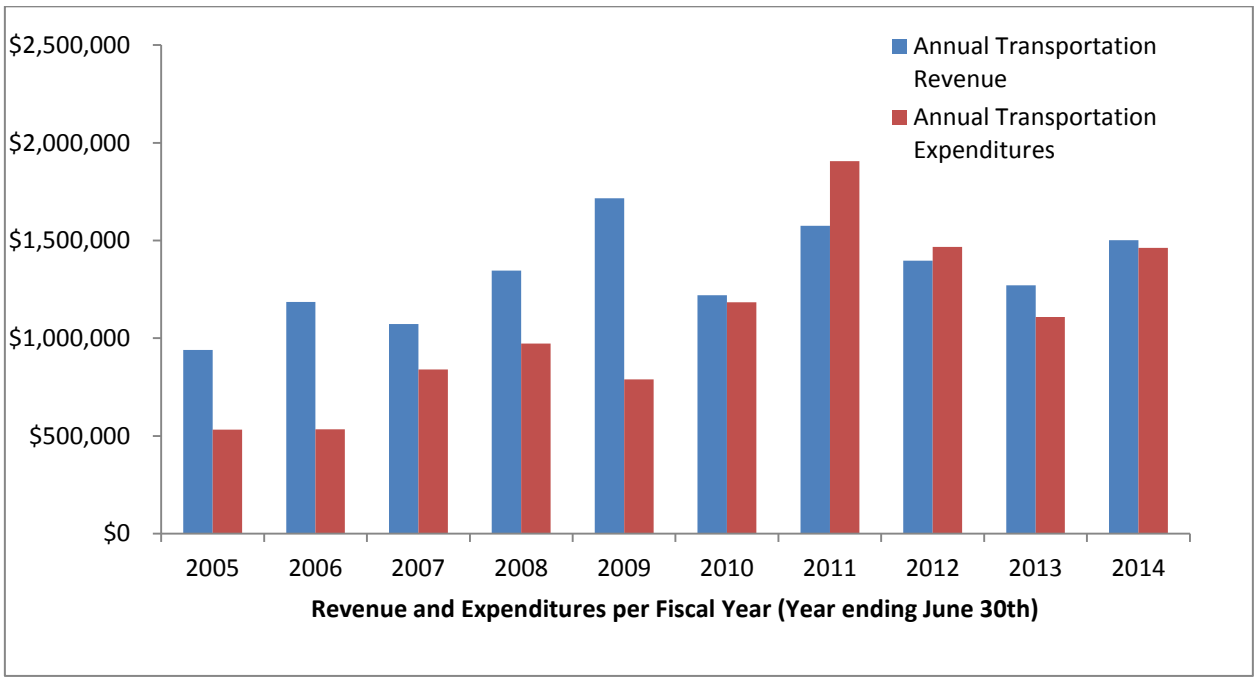


Exhibit 8-2. Gilliam County Transportation Revenue Compared to Transportation Expenditures (2005 – 2014)

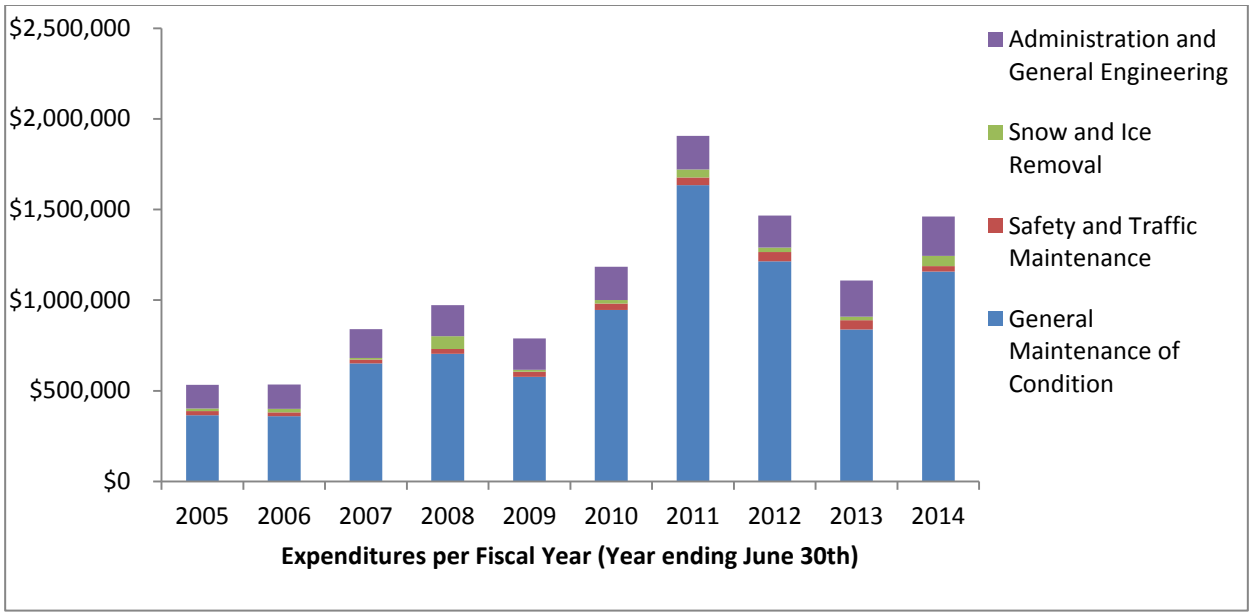


Exhibit 8-3. Gilliam County Transportation Expenditures (2005 – 2014)

Transportation Funding Options

Gilliam County faces two inter-related financing issues: how to finance operations and maintenance and how to finance capital projects. Presently, all public works funding is devoted to operations and maintenance; there is no funding for capital projects. The total funding needed to accomplish all of the near-term alternatives, including state funded bridge projects, summarized in this plan approaches $7,600,000.

Potential strategies for addressing these needs in Gilliam County may generally be grouped into three categories: secure more external funding, identify public/private sponsorship opportunities, and raise local revenue through user fees and taxes. Observations on the use of these strategies are discussed below. They are not all mutually exclusive.

Identify Additional Grant Opportunities

ODOT offers multiple grant opportunities to support transportation projects. The County and Cities should identify grants from those summarized in Table 8-1 that are applicable to their projects. Some of these programs require a local match. The County and Cities should begin identifying these programs early in order to allocate funding necessary to satisfy a local match. Using local dollars as a match for a grant opportunity is a strategy to stretch the local funding even farther.

TABLE 8-1 GRANT OPPORTUNITIES

Source ID	Source Title	Award Cycle	Intended Use	Applicable Project Types	Administration Agency	Deadline	Local Match	Website
1	Rivers, Trails, and Conservation Assistance Program	Annual	Technical assistance for recreation and conservation projects.	Shared-use paths	National Park Service	August	None	http://www.nps.gov/ncrc/programs/rtca/contactus/cu_apply.html
2	Highway Safety Improvement Program	Annual	Address safety issues on highways and High Risk Rural Roads	All	ODOT	Varies	10%	www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/highway_safety_program.shtml
3	Oregon Parks and Recreation Local Government Grants	Annual	Primary use is recreation; transportation allowed. Construction limited to outside road right-of-way, only in public parks or designated recreation areas	Shared-use paths	OPRD	Varies	20%	http://www.oregon.gov/OPRD/GRANTS/local.shtml
4	Recreational Trails Program	Annual	Recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling, and all-terrain vehicle riding.	Shared-use paths	OPRD	Varies	20%	http://www.oregon.gov/OPRD/GRANTS/trails.shtml
5	Land and Water Conservation Fund	Annual	Acquire land for public outdoor recreation or develop basic outdoor recreation facilities	Shared-use paths, bikeways, sidewalks	OPRD	Varies	50%	http://www.oregon.gov/OPRD/GRANTS/lwcf.shtml
6	Statewide Transportation Improvement Program	Biennial	Multi-year, statewide, intermodal program of transportation projects	Sidewalk, bikeways, crossing improvements	ODOT	Varies	Varies	http://www.oregon.gov/ODOT/HWY/STIP/
7	ATV Grant Program	Annual	Operation and maintenance, law enforcement, emergency medical services, land acquisition, leases, planning, development, and safety education in Oregon's OHV (off-highway vehicle) recreation areas	Shared-use paths	OPRD	February / April	20%	http://www.oregon.gov/oprd/ATV/pages/grants.aspx
8	Immediate Opportunity Funds	Biennial	Support primary economic development through the construction and improvement of street and roads.	All	ODOT	On-going	50%	http://www.oregon.gov/ODOT/TD/EA/reports/IOF_PolicyGuidelines2015%20doc.pdf
9	Enhance (STIP)	Biennial	Activities that enhance, expand, or improve the transportation system. Projects that improve or enhance the state's multimodal transportation system.	All	ODOT	August	10%	http://www.oregon.gov/ODOT/TD/STIP/Pages/WhatsChanged.aspx
10	ConnectOregon	Biennial	Non-highway transportation projects that promote economic development in Oregon.	Non-highway modes	ODOT	November	20%	http://www.oregon.gov/ODOT/TD/TP/pages/connector.aspx
11	All Roads Transportation Safety (ARTS)	Biennial	Address safety needs on all public roads in Oregon; reduce fatal and serious injury crashes.	All hot spot and systemic safety projects	ODOT	Varies	8%	http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/Pages/ARTS.aspx

Public/Private Sponsorship Opportunities

Public/Private sponsorships involve a private entity such as a local business owner working with the public agency to fund a project. In return for their investment in the community, these business owners often have recognition for their role, providing a marketing venue for the business. In Gilliam County, one potential opportunity for this type of partnership is the pilot project for bicycle rest areas. Private organizations that sponsor a rest area should have the opportunity to provide an advertisement and map at these locations directing cyclists to their community and business.

Local Taxes and User Fees

Many types of user fees and taxes may be collected to finance road construction and operations. On that premise, it is assumed that the County will need to develop local revenue sources to supplement or replace federal resources if it hopes to maintain current levels of service and assuming that changes in state of federal financing, coupled with efficiency measures are not enough to close the funding gap. Table 8-2 lists options that the County and Cities may wish to consider for funding local roads. The sources include a mix of fees and taxes, some of which if implemented would have implications for other aspects of the County and City budgets. Some of these fees could also be used to provide a local match to obtain greater federal or state funding, further stretching local dollars.

Development Code Updates

In order to fund sidewalk projects, a change to the development code may be beneficial to local jurisdictions. The development code identifies the requirements that a developer must meet before obtaining permission to build. Local jurisdictions may choose to require developers to complete sidewalks in locations where they are identified in the TSP and enforce the completion through the development code. The jurisdiction may also choose to collect a payment in lieu of sidewalk construction from the developers and then use the money to construct complete sections of sidewalk when enough is collected to create efficiencies.

TABLE 8-2 LOCAL TAXES AND USER FEE OPTIONS

Source	Description	Comments
General Fund	Property taxes from the county's permanent tax rate.	Diverting general fund revenue to the Road Fund would have significant consequences for other county services.
Supplemental 5-year Serial Levy	Voter approved property tax levied in addition to the county's permanent tax rate.	A road fund serial levy would have to be approved by voters every five years. A one-time approval would buy time for the county to develop other options. This method could fund operations and capital programs, some of which might reduce future maintenance requirements.
Road Utility Fee	Monthly user fee with revenue dedicated to road operations. May be enacted legislatively but could be challenged and brought to a vote.	This type of fee is becoming more common in cities but would require substantial investment in rate studies, administrative staffing, software and computer systems to enable the county to collect the revenue. This source is generally better suited to funding operations than for capital improvements, but it may free up existing resources for capital projects.
Vehicle Registration Fee	An extra fee on all registered motor vehicles in the county. May be authorized legislatively but could be challenged and brought to a vote.	State must be willing to act as a collection agent for the county, otherwise would be easy to implement. This source could fund operations or capital programs.
Motor Vehicle Title Fee	Require that all motor vehicles registered in the county also have their title recorded as personal property with the County.	This would generate two sources of revenue: from the fee itself and from personal property taxes levied on motor vehicles. This could be problematic for renters and would increase taxable property that the Assessor must account for.
County Gas Tax	May be enacted legislatively but could be challenged and brought to a vote.	A local-option fuel tax would be easy to collect because the infrastructure is already in place. Would generate revenue for the county from motorists passing through the county. This method could fund operations and capital programs.

Section 9
Transportation Planning
Rule Findings

Transportation Planning Rule (TPR) Findings

BACKGROUND

The 2015 Transportation System Plan (TSP) Update is designed to guide the management and implementation of transportation facilities, policies, and programs within Gilliam County over the next 20 years. The document consists of background information, goals and objectives, recommended projects, and implementation measures. Recommended projects address all transportation modes and for purposes of implementation have been organized into short- and long-term projects.

Gilliam County, the City of Arlington, and the City of Condon Comprehensive Plan changes are summarized below.

1. Goal 12: Transportation. The Comprehensive Plan amendment revises the Comprehensive Plans for each jurisdiction to remove reference to the 1999 TSP and make reference to the 2015 TSP. This includes revising the goals and objectives for the TSP to reflect those developed during the 2015 TSP Update process.

FINDINGS OF FACT

Consistency with Statewide Planning Goals

As documented below, with the proposed amendments to the Gilliam County Comprehensive Plan, the 2015 Gilliam County TSP meets all statewide planning goals, as outlined in Oregon Administrative Rules Chapter 660, Division 015.

As required, the Gilliam County Comprehensive Plan is consistent with the statewide planning goals. Where appropriate, specific reference to Comprehensive Plan Policies has been made to document consistency between the updated TSP and the County's Comprehensive Plan.

Goal 1 Citizen Involvement

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

The proposed amendments are the result of the Gilliam County Transportation System Plan Update process, which involved a number of public participation opportunities including: four Public Advisory Committee (PAC) meetings, two public workshops, two virtual workshops, a joint work session, a Planning Commission hearing and a City Council hearing. A variety of methods were used to notify community members of these meetings, including the local new paper and on the public project website.

The proposed amendments are consistent with *Policy (1) which is to provide for widespread citizen involvement* by having TAC/PAC meetings and public meetings in both Arlington and Condon during the TSP development process.

Policies (2) and (3) were provided for by having multiple TSP development meetings, open houses, virtual open houses, and mechanisms (e.g., www.gilliamcountytsp.com) for submitting comments including digitally, hand written, and verbally communicated to TSP development team members.

Goal 2 Land Use Planning

To establish a land use planning process and policy framework as a basis for all decision and action related to use of land and to assure an adequate factual base for such decisions and actions.

Because the TSP is a sub-element of the City's Comprehensive Plan, the application to adopt the TSP was processed pursuant to the prescribed legislative process.

In addition to the County's Comprehensive Plan, a review of other existing state, regional, and local plans, policies, standards, and laws that are relevant to local transportation planning was conducted at the beginning of the TSP update process, and is documented in Section 2: Plans, Policies, and Standards Review of the TSP.

The tables of prioritized projects identified within the TSP were developed in coordination with ODOT, Gilliam County, City of Condon, and City of Arlington. Condon and Arlington will conduct a formal TSP adoption process in parallel to the County.

Goal 3 Agricultural Lands

To preserve and maintain agricultural lands.

The updated TSP identifies and prioritizes multiple projects to preserve and enhance transportation of agricultural goods and services throughout the county. Specifically, upgrading the functional classification of specific roadways will ensure that critical routes are built to accommodate the existing and future demands of the agricultural community. The sustainability of agriculture is apparent in Gilliam County seeing that it is one of the top three largest industries in the County.

The proposed amendments are consistent with Goal 3, Policy 9 which in part is to encourage diversified economic development through transportation opportunities by rail in the County.

Goal 4 Forest Lands

To conserve forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of sol, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.

There are no inventoried forest lands in Gilliam County.

Goal 5 Natural Resources, Scenic and Historic Areas, and Open Spaces

To protect natural resources and conserve scenic and historic areas and open spaces.

The updated TSP identifies and prioritizes projects to preserve and enhance facilities that serve scenic and historic areas. Specifically, the functional classification of specific roadways will ensure that critical routes are built to accommodate the existing and future demands of the natural resources and mining industries, the only two industries to grow jobs in Gilliam County in 2013.

The TSP addresses the need to preserve the rural nature of the county and the encouragement of recreational landscapes for bicycle and pedestrian paths. The proposed amendments identify projects related to the new Cottonwood Canyon State Park.

The proposed amendments *"encourage the development of alternative sources of energy"* by identifying energy as an important industrial activity for which intermodal connections must be maintained.

Goal 6 Air, Water, and Land Resources Quality

To maintain and improve the quality of the air, water, and land resources of the state.

The proposed amendments support "efforts directed towards the preservation and improvement of the environment," by identifying and prioritizing projects that could promote use of alternative modes (e.g., walking, bicycling) to minimize air quality impacts.

Goal 7 Areas Subject to Natural Hazards

To protect people and property from natural hazards.

The proposed projects will bolster the emergency routes available in the event of a natural disaster.

Goal 8 Recreational Needs

To satisfy the recreational needs of the citizens of the states and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.

The County boasts numerous recreational opportunities including but not limited to state parks, fishing along both the Columbia and John Day Rivers, boating and bicycling. The list of prioritized projects allows for the continued safe and convenient access to these sites as well as includes expansion and/or implementation of numerous bicycling enhancements.

The proposed amendments are consistent with Goal 7, Policy 4 which in part "encourages the development of bicycle…facilities" through the inclusion of identified projects in Table 7-10 of the TSP.

Goal 9 Economic Development

To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

The proposed amendments are the result of the Gilliam County Transportation System Plan Update process, they include economic development. The economic development addressed in the Updated TSP is determined through the incorporation of the economic development section of the plan. This section addresses the incorporation of industry and other economic stimulation in the County.

Goal 10 Housing

To provide for the housing needs of citizens of the state.

Housing needs for the residents of the County are aided by the Transportation System Plan through residential streets, sidewalks, bicycle paths and walking trails. These assets allow for easy access to employment, local businesses and schools.

Goal 11 Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The proposed amendments in the TSP include roadway systems, pedestrian and bicycle systems, public transportation systems, and air/marine/rail/pipeline/transmission systems. The existing and planned public service provided under the TSP known as dial-a-ride and provide rides to citizens around Gilliam County for any reason and for anyone who wishes to use it.

Goal 12 Transportation

To provide and encourage a safe, convenient, and economic transportation system.

The proposed amendments include a transportation safety element and many other projects that promote convenient routes throughout the County and support economic development.

Proposed amendments to Comprehensive Plan policies support recommendations in the TSP that principal highways in the county serve to provide for the mobility, connectivity, and economic development of the county and cities within.

Findings and recommendations within the 2015 TSP support the expected development at and surrounding the Arlington and Condon airports.

Goal 13 Energy Conservation

To conserve energy.

The proposed amendments are the result of the Gilliam County Transportation System Plan Update process, they include energy conservation. The conservation of energy will be

incorporated into the multi-modal transportation system by avoiding reliance upon one form of transportation and encouraging a reduction in motor vehicle reliance within city limits.

Goal 14 Urbanization

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide livable communities.

It is through planning and funding that the Transportation System Plan sets a goal to maintain the safety, physical integrity, and function of the counties multimodal transportation network. The encouragement of this goal within the existing urban growth boundaries of Condon, Arlington, and Lone Rock is a short-term and long-term objective of the Transportation System Plan.

Goal 15 through Goal 19 are not applicable to the Gilliam County TSP Update.

Consistency with OAR 660 Division 12 Transportation Planning Rule (TPR)

The Transportation Planning Rule (TPR) implements Statewide Planning Goal 12. The purpose of the TPR is to "direct transportation planning in coordination with land use planning" to ensure that planned land uses are supported by and consistent with planned transportation facilities and improvements. The TPR's purpose statement includes promoting the development of transportation systems that serve the mobility needs of the transportation disadvantaged, provide a variety of transportation choices, and provide safe and convenient access and circulation for vehicles, transit, pedestrians and bicycles. The TPR also directs jurisdictions to "provide for the construction and implementation of transportation facilities, improvements and services necessary to support acknowledged comprehensive plans" and that there is "coordination among affected local governments and transportation service providers and consistency between state, regional and local transportation plans."

The proposed TSP and associated code amendments are consistent with OAR 660 Division 12, as described below.

Section 660-012-0005 through 660-012-0055

These sections of the TPR contain policies for preparing and implementing a transportation system plan.

The updated TSP was prepared in compliance with TPR Section -0015 and was coordinated with affected state and federal agencies, and local governments through Project Advisory Committee Meetings. The TSP update includes elements required by the TPR Section -0020 such as modal inventories, modal plans, and financial plans. The TSP documents an assessment of existing and future transportation needs and an evaluation of various alternatives to satisfy those needs, per Sections -0030 and -0035. The implementation of the updated TSP is being conducted in compliance with TPR Section -0045. **The proposed TSP and associated code amendments are consistent with TPR Sections -0005 to -0045.**

Section 660-012-0060

This section of the TPR contains policies for preparing Plan and Land Use Regulation Amendments.

The proposed amendments to the Plan and Development Codes require findings of compliance with applicable Statewide Land Use Planning Goals and related administrative rules, including TPR Section -0060. No procedures need to be amended to ensure consistency with TPR Section -0060.

CONCLUSION

The proposed Comprehensive Plan Amendments are consistent with and supportive of statewide planning goals, County plans and policies, and other community objectives.

List of Appendices

APPENDIX, VOLUME 1

Appendix A
Public Involvement Process for TSP Development

Appendix A - Public Involvement Process

The Gilliam County Transportation System Plan benefited from an effective public process, facilitating the identification of transportation system deficiencies as well as potential solutions. The following table summarizes the public involvement meetings and open houses, and the dates on which they occurred.

TABLE A-1 PUBLIC INVOLVEMENT MEETINGS AND OPEN HOUSE SUMMARY

Event	Location	Date
PAC Meeting #1	Condon, OR	December 3, 2014
Public Presentation #1	Condon, OR	December 3, 2014
PAC Meeting #2	Arlington, OR	March 18, 2015
Public Presentation #2	Arlington, OR	March 18, 2015
PAC Meeting #3	Condon, OR	May 7, 2015
PAC Meeting #4	Concurrent Meetings in Arlington, OR and Condon, OR	July 8, 2015

As shown in Table A-1, a total of four meetings were held with the PAC members over an 8-month period beginning in December 2014. Two open houses were held, one in Arlington, one in Condon. The open house locations were chosen in order to provide more convenient locations for residents that live in or around the two largest cities in the County.

Appendix B Cost Estimate Calculations and Assumptions

SYSTEMIC SAFETY ROADWAY DEPARTURE PROJECTS

Project ID	Road	Start MP	End MP	Potential Countermeasures						Cost Estimate^
				Inlaid Raised Pavement Markers	Widen Shoulder & Install Safety Edge (where feasible)	Install Centerline and Shoulder Rumble Strips	Curve Warning Signs	Chevrons at Curves	Guardrail	
S-11	OR 19	40	42	X	X	X	X	X		$901,000
S-12	OR 206	33.4	35.2	X	X	X	X	X		$812,000
S-13	OR 206	17.6	20.2	X	X	X	X	X		$1,171,000
S-14	Baseline Road	8.9	9.3	X	X	X	X	X		$183,000
S-15	OR 19 (Olex Grade)	15.5	22.2	X	X	X	X	X	X	$4,334,000
S-16	OR 206	30.7	31.3	X	X					$267,000
									Total	**$7,668,000**

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.
^Cost estimates are based on the following unit costs: $4.20 per raised pavement marker; $15 per sq ft of shoulder widening; $3,000 per mile of centerline rumble strips; $850 per mile of shoulder rumble strips; $500 per additional large signs; $250 per additional small sign; $26 per ln ft of guardrail; $25,000 per guardrail anchor. Cost estimates include 40 percent contingency in addition to calculated estimates from the unit costs.

SYSTEMIC SAFETY INTERSECTION PROJECTS

Project ID	Major Road	Minor Road	Potential Countermeasures			Cost Estimate^
			Rural Intersection Signing and Marking Improvements	Improve sight distance	Reduce intersection skew	
S-17	OR 19 (Main St)	OR 206 (Walnut St)	X			$3,000
S-18	OR 19	Eightmile Rd	X			$3,000
S-19	OR 19	Baseline Rd		X		$7,000
S-20	Blalock Canyon Rd	Heritage Ln	X	X	X	$35,000
S-21	OR 206	Lonerock Rd	X	X		$10,000
S-22	OR 19	Cedar Springs Rd	X			$3,000
S-10	Blalock Canyon Rd	Cedar Springs Rd	X			$3,000
					Total	**$64,000**

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.
^Cost estimates are based on the following unit costs: $5,000 for improving sight distance; $15 per sq ft of new pavement to realign intersection and reduce skew; $2,000 for rural intersection signing and marking improvements. Cost estimates include 40 percent contingency in addition to calculated estimates from the unit costs.

PLANNED ROADWAY IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source				Cost Estimate Source or Assumptions^
					ODOT/ State	County	Cities	Private	
Short-Term Projects									
M-1	Airport Road	Overlay Airport Road with 2 inches of asphalt and add 2-foot gravel shoulders from the intersection of Rhea Road to the end of the Arlington Mesa industrial park. Airport Road was previously widened several years ago. This project will be completed in conjunction with Rhea Lane (M-2).	Heavy Maintenance	$109,200	X	X	X	X	County
M-2	Rhea Lane	Overlay with 5 inches of recycled asphalt and the addition of 2-ft gravel shoulders from OR 19 to Airport Road to serve the higher truck volumes associated with the Arlington Mesa Industrial Park. This project will be done in conjunction with Airport Road (M-1).	Heavy Maintenance	$837,330	X	X	X	X	County
M-3	Ridge Road	Upgrade roadway to Major Collector standards from Baseline Road to County limits to support the freight traffic that uses this route to transport hay, cattle, and wheat from Gilliam and SW Morrow County to I-84. The project includes 2 inches of overlay on existing asphalt and paving the currently unpaved section. Two foot gravel shoulders will be added where possible.	Heavy Maintenance	$1,177,735		X			County
M-4	Fourmile Canyon Road	Upgrade roadway to Major Collector standards from Fairview Lane to Baseline Road by paving the road and adding 2-foot gravel shoulders where possible to support the truck traffic that carries wheat out of Morrow and Gilliam County.	Full Reconstruction	$1,015,820		X			County
M-15	Cemetery Road	Upgrade Road to Minor Collector to serve the wheat area as part of Wehrli Canyon loop. Project includes paving the surface. Widening has already been completed.	Heavy Maintenance	$100,000		X			County
S-1	I-84 Westbound On-Ramp in Arlington	Replace existing sign with larger sign and add pavement markings to indicate correct direction for drivers.	Operations	$3,000	X				Assumes Signing and Striping only
S-7	I-84 ITS Warning System throughout County	Evaluate effectiveness and feasibility of ITS treatments to provide warnings to drivers when roadway conditions are icy.	Feasibility Study	$15,000	X				Study
M-25	Olex Grade Realignment	Complete OR 19 realignment between approximately MP 16 and 17.	Feasibility	$10,000	X				Study
			Total	**$3,269,000**					
Long-Term Projects									
M-5	Quinton Canyon Road	Upgrade roadway to Minor Collector standards from Heritage Lane to I-84 interchange to serve the wind farms on the bluff and agricultural land. Project includes widening from the current 18' roadway width to 20' and paving the second from I-84 to the top of the hill. Widening requires significant cost due to rock bluff.	Heavy Maintenance	$1,000,000		X		X	County
M-6	Heritage Lane	Upgrade roadway to Minor Collector standards from Blalock Canyon Road to Quinton Canyon Road to serve wind farms and agricultural land. Project includes removing S-curves and paving the west end of the road.	Heavy Maintenance	$325,000		X			County
M-8	Eightmile Canyon Road	Upgrade roadway to Minor Collector standards to support the increased truck traffic using this route due to the new irrigated farming in the area and the traffic associated with homes. Project includes paving the road and adding 2' gravel shoulders where possible.	Heavy Maintenance	$1,015,846		X			County
M-10	Devils Butte Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 206. Project includes culvert extensions, widening shoulders, and improving sight lines for trucks and vehicles pulling boat trailers.	Heavy Maintenance	$156,000	X	X		X	County
M-11	Mikkalo Ln	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 19. Project includes culvert extensions, widening shoulders, and sight improvements.	Heavy Maintenance	$61,100	X	X			County
M-12	Hay Canyon Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Devils Butte Road to the Cottonwood Canyon State Park. Project includes road realignment and reconstruction to avoid eroding road adjacent to river.	Full Reconstruction	$2,752,422	X	X			County

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source				Cost Estimate Source or Assumptions^
					ODOT/ State	County	Cities	Private	
M-13	Lonerock Road	Upgrade from Minor Collector to Major Collector from OR 206 to City of Lonerock to support the cattle and hay operations and serve the Lonerock community. Project includes some grade improvements on the east side of the Ericson grade.	Heavy Maintenance	$500,000		X	X		County
M-24	Lower Rock Creek Road	Improve roadway (widen, add shoulders, curve signage, etc.) due to high recreational traffic associated with river access.	Operations	$400,000		X			County
S-5	E Bayard Street/Main Street Intersection Reconfiguration	Reconfigure intersection to two-way stop-controlled intersection to improve sight distance for westbound approach.	Safety / Operations	$106,000	X		X		See "TEC" Calculations
S-9	Snow Drifts on OR 206	Evaluate the occurrence of snow drifts on OR 206 near milepost 22	Study	$1,000	X	X			Study
M-29	Columbia View Drive Extension	Extend Columbia View Drive to Main Street to provide alternate access to residents in this area.	Operations	$700,000		X	X		Calculated based on unit cost for similar project.
M-26	OR 19 Realignment Projects	Evaluate the feasibility and develop cost estimates for the following projects on OR 19: soften corner on OR 19 near MP 27 at Pennington Corner; realign S-curves at MP 8; soften curve and slopes to improve line of sight on OR 19 near MP 21 at Wilkins Corner.	Feasibility Study	$10,000	X				Study
			Total	**$7,028,000**					
Vision Projects									
S-4	Main Street/Walnut Street Intersection Reconfiguration	Reconfigure the intersection to a two-way stop-controlled intersection to provide a traffic control scenario that does not violate driver expectancy.	Project	$10,000	X		X		Assumes signing and striping only.
S-6	Lonerock Road/OR 206 Intersection	Reconfigure the intersection to bring the eastern leg of OR 206 to a stop perpendicular to Lonerock Road to increase sight distance at this intersection.	Project	$150,000	X	X			Based on cost of new pavement.
			Total	**$160,000**					

[1] Cost estimate is planning level only. Does not include right-of-way costs.

^Cost estimate sources that indicate County were provided by the County Roadmaster. Calculations are included following the project tables when available. "TEC" estimates were prepared by Tenneson Engineering Corporation and are provided on the pages following these tables. Feasibility studies were assumed to cost $10,000 unless otherwise indicated.

PLANNED PEDESTRIAN AND BICYCLE IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source				Cost Estimates Source^
					ODOT/ State	County	Cities	Private	
Short-Term Projects									
A-3	Ivy Street Sidewalks (Arlington)	Install sidewalks from 3rd Street to Main Street in Arlington, connecting to the Columbia Hills Manor Independent Living Center	Ped/Bike	$147,000			X		See "TEC" Calculations
A-4	Sidewalks on East Side of Main Street (Condon)	Replace sidewalks on the east side of Main Street from E Well Street to OR 206/Walnut Street in Condon.	Ped/Bike	$50,000			X		See "TEC" Calculations
A-5	Sidewalks on E Spring Street	Install sidewalks from S East Street to S Jefferson Street, connecting to ball fields	Ped/Bike	$25,000			X		See "TEC" Calculations
A-9	OR 206 Cyclist Rest Areas	Evaluate feasibility and cost of providing bicyclist rest areas with water stations and bike tools at strategic locations along OR 206 in the County. Implement as pilot project.	Feasibility Study / Pilot Project	$5,000	X	X		X	Study
A-10	Bicycle Parking	Add bicycle parking in downtown areas of Condon and Arlington	Ped/Bike	$3,500			X		--
A-11	OR 19 Sidewalks	Add sidewalks from Main Street to N East Street in Condon.	Ped/Bike	$100,000	X		X		Based on unit cost from other estimates
A-16	Shared-use Path from Condon to Mountain Identifier	Conduct a feasibility study to determine the cost of constructing a shared-use path from Condon to the mountain identifier on OR 206.	Feasibility Study/ Ped/Bike	$10,000	X	X	X		Study
			Total	**$341,000**					
Long-Term Projects									
A-1	Cottonwood Street Sidewalks (Arlington)	Install sidewalks from Shane Drive to OR 19	Ped/Bike	$508,000			X		See "TEC" Calculations
A-2	Shane Drive Sidewalks (Arlington)	Install sidewalks from Main Street to Cottonwood Street	Ped/Bike	$414,000			X		See "TEC" Calculations
A-6	Inner Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street/Potter Street to OR 206	Ped/Bike	$87,750		X	X		Based on unit cost from other project estimates
A-7	Outer Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street to Cottonwood Street/Main Street	Ped/Bike	$109,200		X	X		Based on unit cost from other project estimates
A-8	W 1st Street Sidewalks	Install sidewalks from Cedar Street to Ivy Street	Ped/Bike	$277,000			X		See "TEC" Calculations
A-12	Pedestrian crossings in Condon	Provide an enhanced pedestrian crossing of OR 19 as it enters town, east of Main Street	Ped/Bike	$10,000	X		X		Assumes enhanced crossing with signage and potential RRFB
A-13	OR 19 Sidewalks (East)	Add sidewalks from N East Street to the Fairgrounds driveway in Condon.	Ped/Bike	$200,000	X		X		Based on unit cost from other project estimates

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source				Cost Estimates Source^
					ODOT/ State	County	Cities	Private	
A-14	E Bayard Street Sidewalks	Add sidewalks to complete gap on east side of E Bayard Street between E Court Street and Main Street.	Ped/Bike	$25,000	X		X		Based on unit cost from other project estimates
A-15	Sidewalks on east side of Main Street (north)	Complete sidewalk gaps on the east side of Main Street between E Well Street and W 2nd Street in Condon.	Ped/Bike	$30,000			X		Based on unit cost from other project estimates
A-17	Beech Street Streetscape in Arlington	Improve the streetscape of Beech Street in Arlington to make the environment more pedestrian/bicycle friendly with wider sidewalks, raised crossings, landscaped buffers, and pedestrian-scale lighting.	Ped/Bike	$176,000	X		X	X	Based on unit costs of $430 per street tree; $5,000 per street light; $40 per ln ft sidewalk; and $35 per ln ft curb.
			Total	**$1,837,000**					

^ "TEC" estimates were prepared by Tenneson Engineering Corporation and are provided on the pages following these tables. Feasibility studies were assumed to cost $10,000 unless otherwise indicated.

OTHER PROJECTS

Name	Description	Category	Cost	Timeline	Cost Estimate Source^
Coordinated Plan	Gilliam County will be updating its Coordinated Plan with a grant from ODOT in 2015 and 2016.	Transit	--	Near-term	--
Condon Airport	Complete feasibility study to determine if upgrades are needed for any of the airport facilities to serve future growth and activity. The City of Condon is planning to provide water service to the airport to increase future airport development and activity.	Air	$10,000	Long-term	Study
Arlington Airport	Based on the opportunities available for industrial uses and the existing industrial uses at the airport, a feasibility study is recommended to determine the cost to pave and maintain the runway at the Arlington Airport.	Air	$10,000	Long-term	Study
Shutler Station Rail Crossovers	New rail crossovers are needed at Shutler Station to support rail operations.	Rail	$300,000	Near-term	Port of Arlington
At-grade railroad crossings in the City of Arlington	The City, County, and Waste Management should maintain coordination with UP and Watco to minimize delay and maintain emergency vehicle access.	Rail	--	Near-term	--
I-84 Eastbound Bridge	The bridge will be widened at MP 148.6 (Willow Creek) to meet current design standards.	Bridge	$1.1 million	Near-term	Calculated from unit cost provided by ODOT
I-84 John Day River Bridge Deck Overlay	ODOT has planned a bridge deck overlay on I-84 from MP 114.45 to 114.75. Preliminary engineering is scheduled for 2016, and construction is scheduled for 2018.	Bridge	$2.482 million	Near-term	ODOT
Lonerock Road Bridge Replacement	The County plans to replace the Lonerock Road bridge. The road serves as the primary route in and out of Lonerock and is therefore a high priority for the County.	Bridge	$2 million	Long-term	County
		Total	**$5,902,000**		

^Cost estimate sources that indicate County were provided by the County Roadmaster.

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-1: Cottonwood St. Sidewalks

ITEM #	DESCRIPTION	U/M QTY	UNIT COST	TOTAL
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS 1	$ 30,000.00	$ 30,000.00
2	PROVIDE TRAFFIC CONTROL	LS 1	$ 10,000.00	$ 10,000.00
3	F&P EROSION CONTROL MEASURES	LS 1	$ 2,000.00	$ 2,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS 1	$ 11,200.00	$ 11,200.00
5	F&P CONCRETE CURBS	LF 7,424	$ 16.00	$ 118,784.00
6	F&P CONCRETE WALK	SQ FT 37,120	$ 5.00	$ 185,600.00
		CONSTRUCTION QUOTE =		**$ 357,584.00**
7	ENGINEERING, SURVEYING, MANAGEMENT	LS 1	22%	$ 78,668.48
8	CONTINGENCY	LS 1	20%	$ 71,516.80
		TOTAL QUOTE =		**$ 507,769.28**

Project A-1: Cottonwood St. Sidewalks

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-2: Shane Dr. Sidewalks

ITEM #	DESCRIPTION	U/M QTY	UNIT COST	TOTAL
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS 1	$ 25,000.00	$ 25,000.00
2	PROVIDE TRAFFIC CONTROL	LS 1	$ 7,500.00	$ 7,500.00
3	F&P EROSION CONTROL MEASURES	LS 1	$ 2,000.00	$ 2,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS 1	$ 9,600.00	$ 9,600.00
5	F&P CONCRETE CURBS	LF 5,752	$ 18.00	$ 103,536.00
6	F&P CONCRETE WALK	SQ FT 28,760	$ 5.00	$ 143,800.00
			CONSTRUCTION QUOTE=	**$ 291,436.00**
7	ENGINEERING, SURVEYING, MANAGEMENT	LS 1	22%	$ 64,115.92
8	CONTINGENCY	LS 1	20%	$ 58,287.20
			TOTAL QUOTE=	**$ 413,839.12**

Project A-2: Shane Dr. Sidewalks

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-3: Ivy St. Sidewalks				
ITEM #	**DESCRIPTION**	**U/M / QTY**	**UNIT COST**	**TOTAL**
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 9,000.00	$ 9,000.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 5,000.00	$ 5,000.00
3	F&P EROSION CONTROL MEASURES	LS / 1	$ 1,000.00	$ 1,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS / 1	$ 2,800.00	$ 2,800.00
5	F&P CONCRETE CURBS	LF / 1,614	$ 23.00	$ 37,122.00
6	F&P CONCRETE WALK	SQ FT / 8,070	$ 6.00	$ 48,420.00
		CONSTRUCTION QUOTE=		**$ 103,342.00**
7	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 22,735.24
8	CONTINGENCY	LS / 1	20%	$ 20,668.40
		TOTAL QUOTE=		**$ 146,745.64**
Project A-3: Ivy St. Sidewalks				

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-4: Main St. Sidewalk				
ITEM #	**DESCRIPTION**	**U/M QTY**	**UNIT COST**	**TOTAL**
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS 1	$ 4,000.00	$ 4,000.00
2	PROVIDE TRAFFIC CONTROL	LS 1	$ 2,500.00	$ 2,500.00
3	F&P EROSION CONTROL MEASURES	LS 1	$ 1,000.00	$ 1,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS 1	$ 4,000.00	$ 4,000.00
5	PROVIDE DEMOLITION & PAVEMENT REMOVAL	SQ FT 6,415	$ 1.50	$ 9,622.50
5	F&P CONCRETE WALK	SQ FT 5,300	$ 7.00	$ 37,100.00
			CONSTRUCTION QUOTE=	**$ 58,222.50**
6	ENGINEERING, SURVEYING, MANAGEMENT	LS 1	22%	$ 12,808.95
7	CONTINGENCY	LS 1	20%	$ 11,644.50
			TOTAL QUOTE=	**$ 82,675.95**
Project A-4: Main St. Sidewalk				

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-5: Spring St. Sidewalks				
ITEM #	**DESCRIPTION**	**U/M / QTY**	**UNIT COST**	**TOTAL**
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 4,000.00	$ 4,000.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 1,500.00	$ 1,500.00
3	F&P EROSION CONTROL MEASURES	LS / 1	$ 1,000.00	$ 1,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS / 1	$ 1,600.00	$ 1,600.00
5	F&P CONCRETE WALK	SQ FT / 1,042	$ 9.00	$ 9,378.00
		CONSTRUCTION QUOTE=		**$ 17,478.00**
6	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 3,845.16
7	CONTINGENCY	LS / 1	20%	$ 3,495.60
		TOTAL QUOTE=		**$ 24,818.76**
Project A-5: Spring St. Sidewalks				

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project A-8: W 1st Street Sidewalks

ITEM #	DESCRIPTION	U/M / QTY	UNIT COST	TOTAL
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 9,000.00	$ 9,000.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 5,000.00	$ 5,000.00
3	F&P EROSION CONTROL MEASURES	LS / 1	$ 1,000.00	$ 1,000.00
4	PROVIDE CLEARING & SUBGRADE PREPERATION	LS / 1	$ 2,800.00	$ 2,800.00
5	F&P CONCRETE CURBS	LF / 3,000	$ 23.00	$ 69,000.00
6	F&P CONCRETE WALK	SQ FT / 18,000	$ 6.00	$ 108,000.00
		CONSTRUCTION QUOTE=		**$ 194,800.00**
7	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 42,856.00
8	CONTINGENCY	LS / 1	20%	$ 38,960.00
		TOTAL QUOTE=		**$ 276,616.00**

Project A-8: W 1st Street Sidewalks

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project S-4, Option A: Walnut St. and Main St. Intersection All-Way Stop				
ITEM #	**DESCRIPTION**	**U/M / QTY**	**UNIT COST**	**TOTAL**
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 500.00	$ 500.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 1,000.00	$ 1,000.00
3	F&P PAINT STRIPING	LS / 1	$ 1,000.00	$ 1,000.00
4	F&P ALL NECESSARY SIGNAGE	LS / 1	$ 1,000.00	$ 1,000.00
		CONSTRUCTION QUOTE =		**$ 3,500.00**
1	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 770.00
2	CONTINGENCY	LS / 1	20%	$ 700.00
		TOTAL QUOTE =		**$ 4,970.00**
Project S-4, Option A: Walnut St. and Main St. Intersection All-Way Stop				

Plus $5,000 per sign for flashing stop sign

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project S-4, Option B: Walnut St. and Main St. Intersection Modification

ITEM #	DESCRIPTION	U/M QTY	UNIT COST	TOTAL
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS 1	$ 3,000.00	$ 3,000.00
2	PROVIDE TRAFFIC CONTROL	LS 1	$ 2,500.00	$ 2,500.00
3	F&P EROSION CONTROL MEASURES	LS 1	$ 500.00	$ 500.00
4	PROVIDE DEMOLITION & PAVEMENT REMOVAL	SQ FT 2,000	$ 2.00	$ 4,000.00
5	PROVIDE SUBGRADE PREPARATION	LS 1	$ 2,000.00	$ 2,000.00
6	F&P 1-1/2" MINUS AGGREGATE BASE	TON 42	$ 35.00	$ 1,470.00
7	F&P 3/4" MINUS AGGREGATE BASE	TON 12	$ 45.00	$ 540.00
8	F&P 1/2" DENSE ODOT LEVEL 2 MHMAC PAVING	TON 20	$ 110.00	$ 2,200.00
9	F&P CONCRETE CURBS	LF 150	$ 25.00	$ 3,750.00
10	F&P CONCRETE WALK	SF 1,400	$ 8.00	$ 11,200.00
11	F&P PAINT STRIPING	LS 1	$ 1,000.00	$ 1,000.00
12	F&P ALL NECESSARY SIGNAGE	LS 1	$ 500.00	$ 500.00
		CONSTRUCTION QUOTE =		**$ 32,660.00**
1	ENGINEERING, SURVEYING, MANAGEMENT	LS 1	22%	$ 7,185.20
2	CONTINGENCY	LS 1	20%	$ 6,532.00
		TOTAL QUOTE =		**$ 46,377.20**

Project S-4, Option B: Walnut St. and Main St. Intersection Modification

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project S-5: E. Bayard St. and Main St. Intersection Realignment				
ITEM #	**DESCRIPTION**	**U/M / QTY**	**UNIT COST**	**TOTAL**
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 6,700.00	$ 6,700.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 10,000.00	$ 10,000.00
3	F&P EROSION CONTROL MEASURES	LS / 1	$ 2,000.00	$ 2,000.00
4	PROVIDE DEMOLITION & PAVEMENT REMOVAL	SQ FT / 3,400	$ 2.00	$ 6,800.00
5	F&P STORM CATCH BASIN	EA / 2	$ 1,500.00	$ 3,000.00
6	F&P STORM SEWER	LF / 200	$ 40.00	$ 8,000.00
7	PROVIDE SUBGRADE PREPARATION	LS / 1	$ 2,000.00	$ 2,000.00
8	F&P 1-1/2" MINUS AGGREGATE BASE	TON / 63	$ 35.00	$ 2,205.00
9	F&P 3/4" MINUS AGGREGATE BASE	TON / 18	$ 45.00	$ 810.00
10	F&P 1/2" DENSE ODOT LEVEL 2 MHMAC PAVING	TON / 15	$ 110.00	$ 1,650.00
11	F&P CONCRETE CURBS	LF / 290	$ 25.00	$ 7,250.00
12	F&P CONCRETE WALK	SF / 1,450	$ 8.00	$ 11,600.00
13	F&P PAINT STRIPING	LS / 1	$ 7,500.00	$ 7,500.00
14	F&P ALL NECESSARY SIGNAGE	LS / 1	$ 5,000.00	$ 5,000.00
		CONSTRUCTION QUOTE =		**$ 74,515.00**
1	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 16,393.30
2	CONTINGENCY	LS / 1	20%	$ 14,903.00
		TOTAL QUOTE =		**$ 105,811.30**
Project S-5: E. Bayard St. and Main St. Intersection Realignment				

Gilliam County Transportation System
T.E.C. Engineers Estimate

Project S-6: OR 206 and Lonerock Road Intersection Reconstruction

ITEM #	DESCRIPTION	U/M / QTY	UNIT COST	TOTAL
1	MOBILIZATION, PROJ MGT, TEMP. FACILITIES, ETC.	LS / 1	$ 8,000.00	$ 8,000.00
2	PROVIDE TRAFFIC CONTROL	LS / 1	$ 7,500.00	$ 7,500.00
3	F&P EROSION CONTROL MEASURES	LS / 1	$ 1,500.00	$ 1,500.00
4	PROVIDE DEMOLITION & PAVEMENT REMOVAL	SQ FT / 6,300	$ 2.00	$ 12,600.00
5	PROVIDE SUBGRADE PREPARATION	LS / 1	$ 5,000.00	$ 5,000.00
6	F&P 1-1/2" MINUS AGGREGATE BASE	TON / 290	$ 35.00	$ 10,150.00
7	F&P 3/4" MINUS AGGREGATE BASE	TON / 85	$ 45.00	$ 3,825.00
8	F&P 1/2" DENSE ODOT LEVEL 2 MHMAC PAVING	TON / 150	$ 110.00	$ 16,500.00
9	F&P PAINT STRIPING	LS / 1	$ 5,000.00	$ 5,000.00
10	F&P ALL NECESSARY SIGNAGE	LS / 1	$ 3,000.00	$ 3,000.00
		CONSTRUCTION QUOTE =		**$ 73,075.00**
1	ENGINEERING, SURVEYING, MANAGEMENT	LS / 1	22%	$ 16,076.50
2	CONTINGENCY	LS / 1	20%	$ 14,615.00
		TOTAL QUOTE =		**$ 103,766.50**

Project S-6: OR 206 and Lonerock Road Intersection Reconstruction

[illegible] Alternate Route

PAVE SHOULDERS TO MAKE 24' ROAD
OVERLAY TO 24'
REBUILD SHOULDERS TO MATCH NEW PAVEMENT

[illegible] @ 45#	18,000
[illegible] @ 45#	36,200
[illegible] @ 2##	7040
[illegible]	1800
[illegible]	1000
Broom	1200
Travel shoulders	5000
Travel Pave	2000
Paver	5000
Mtn Roller	1000
Travel	1000
	83,040

Engineer Report

PAVE FROM 4 MILE INTERSECTION TO LEMON BRIDGE
WITH 1.5' GRAVEL

6 MILES	12,900 cu yds	580,500
[illegible]		90,000
PAVER		45,000
[illegible]		2500
[illegible]		2000
[illegible]		2500
TRAVEL		5000
SHOULDERS	2400 cu yds @ 8.80	21120
DUMP TRUCKS		20,000
LOADER W/ SHOULDER MACHINE		7200
LOADER		5600
		781,420

FOURMILE CANYON

SAME AS 8 MILE

PAVE FROM [illegible] LANE TO COUNTY LINE AND FROM COUNTY LINE TO BASELINE WITH GRINDINGS FROM I84 @ 4" [illegible]

6 MILES @ 22' ± [illegible]1,420^{00}

RHEA ROAD

5 miles @ 24' 11,800 cu yds grubbing @ 4/5	$31,000
Belly Dumps	50,000
Paver	22,500
Roller	1000
Water Truck	2000
Grader w/ shoulder machine	6000
Dump Trucks	13,200
Foreman	2000
Shoulder rock 2000 cu yds @ $7.50	15,000
	$144,100

MANDELL PLANT

WHEEL LOOP

3.4 MILES

7500 CU YDS MIX & HAUL DYER STOCKPILE

GRADER	1200
ROLLER	800
WATER TRUCK	2700
PUG MILL	
LOADER	
MIX & FREIGHT	418750
PAVER	
ROLLER	
1500 CU YDS SHOULDER ROCK	12,000
BROOM	3200
GRADER W/SHOULDER ATTACHMENT	4800
4- DUMP TRUCKS	11500
LOADER	1550
	525250

RIDGE ROAD

IMPROVE SHOULDERS AND OVERLAY TO (W) RANCH PAVE FROM (W) TO COUNTY LINE

SHOULDER ROCK	2000 cu yds @ 8.80	$17,600
GRADER		6500
SMALL ROLLER RENT		9000
BELLY DUMPS		8000
BROOM		1250
WATER TRUCK		3600
LOADER		3800
TRAVEL		1000
		50,750

4000 cu yds	2" OVERLAY	260,000
8650 cu yds	5" PAVE GRAVEL	562,200
SHOULDER ROCK	1000 cu yds	8,800
EQUIPMENT		24,150
TOTAL		$905,950

Quemados Canyon
Grade

[illegible] Repave
<u>Wind Mill Project</u>

Herritage Lane

Remove S curves
Pave

Excavator		4500
Scraper		6000
Roller		2700
Belly Dumps		35,000
Grader		4500
Loader		3000
Watertruck		4000
Base Rock	3600 [illegible]	21 600
Road Rock	1200 cu yds	10 560
Pavement	1200 cu yds	54,000
Travel		10,000
		146,860
		250,000

DEVILS BUTTE

GRADE INTO HAY CANYON

WIDEN GRADE WHERE NEEDED		$25,000
EXTEND CULVERTS		15,000
IMPROVE LINE OF SIGHT		25,000
IMPROVE ROAD SURFACE	3000 cu yds	40,000
SIGNAGE & SIGHT POSTS		15,000
TOTAL		$120,000

Hay Canyon Road

Oregon State Park

1.95 miles 10,296 ft

95,000 cu yds excavation

615 Scraper	@ 185 $/hr		125,000 $
D6	@ 135 $/hr		108,000 $
2 - Graders	@ 85 $/hr		185,000 $
Loader	@ 94 $/hr		160,480 $
2 - Dump Trucks	@ 90 $/hr		244,000 $
Excavator	@ 165 $/hr		62,800 $
Water Truck	@ 90 $		48,800 $
Water Pump	@ 15 $		4,800 $
Roller	@ 90 $		28,800 $
2 Belly Dumps	@ 100 $		180,000 $
12,000 cu yds	Base Rock @ 6 $	40 days 2 Belly Dumps 2 Truck Crews	72,000 $
5,000 cu yds	Road Rock @ 8 $		40,000 $
Haul Truck			
Mob			16,000 $
Travel			150,000 $
Haul Truck			
Excavator			1,015,680
			101568
			2,112,248 $

MIKKALO LANE

M1 WEST GRADE INTO HALL CANYON

IMPROVE LINE OF SIGHT		$12,000
ROAD SURFACE	1000 [illegible]	$15,000
SIGNAGE & [illegible]		$20,000
[illegible]		[illegible]
TOTAL		$47,000

Appendix C
Transportation
Improvement Project
Prospectus Sheets

Systemic Safety Plan

ID: S-11

OR 19 from MP 40 to 42

Description: Potential countermeasures include: Inlaid raised pavement markers, widen shoulders and install safety edges (where feasible), install centerline and shoulder rumble strips, curve warning signs, and chevrons at curves

Category: Systemic Safety Roadway Departure Projects

Priority: Near-term

Potential Funding Partners: ODOT

Project Location/Images:

ID: S-12	**OR 206 from MP 33.4 to 35.2**
Description:	Potential countermeasures include: Inlaid raised pavement markers, widen shoulders and install safety edges (where feasible), install centerline and shoulder rumble strips, curve warning signs and chevrons at curves
Category: Systemic Safety Roadway Departure Projects	**Priority:** Near-term
Potential Funding Partners: ODOT	

Project Location/Images:

ID: S-13	**OR 206 from MP 17.6 to 20.2**
Description:	Potential countermeasures include: Inlaid raised pavement markers, widen shoulders and install safety edges (where feasible), install centerline and shoulder rumble strips, curve warning signs and chevrons at curves
Category: Systemic Safety Roadway Departure Projects	**Priority:** Near-term
Potential Funding Partners: ODOT	

Project Location/Images:

ID: S-14	**Baseline Road from MP 8.9 to 9.3**
Description:	Potential countermeasures include: Inlaid raised pavement markers, widen shoulders and install safety edges (where feasible), install centerline and shoulder rumble strips, curve warning signs and chevrons at curves
Category: Systemic Safety Roadway Departure Projects	**Priority:** Long-term
Potential Funding Partners: County; ODOT	

Project Location/Images:

ID: S-15

OR 19 (Olex Grade) from MP 15.5 to 22.2

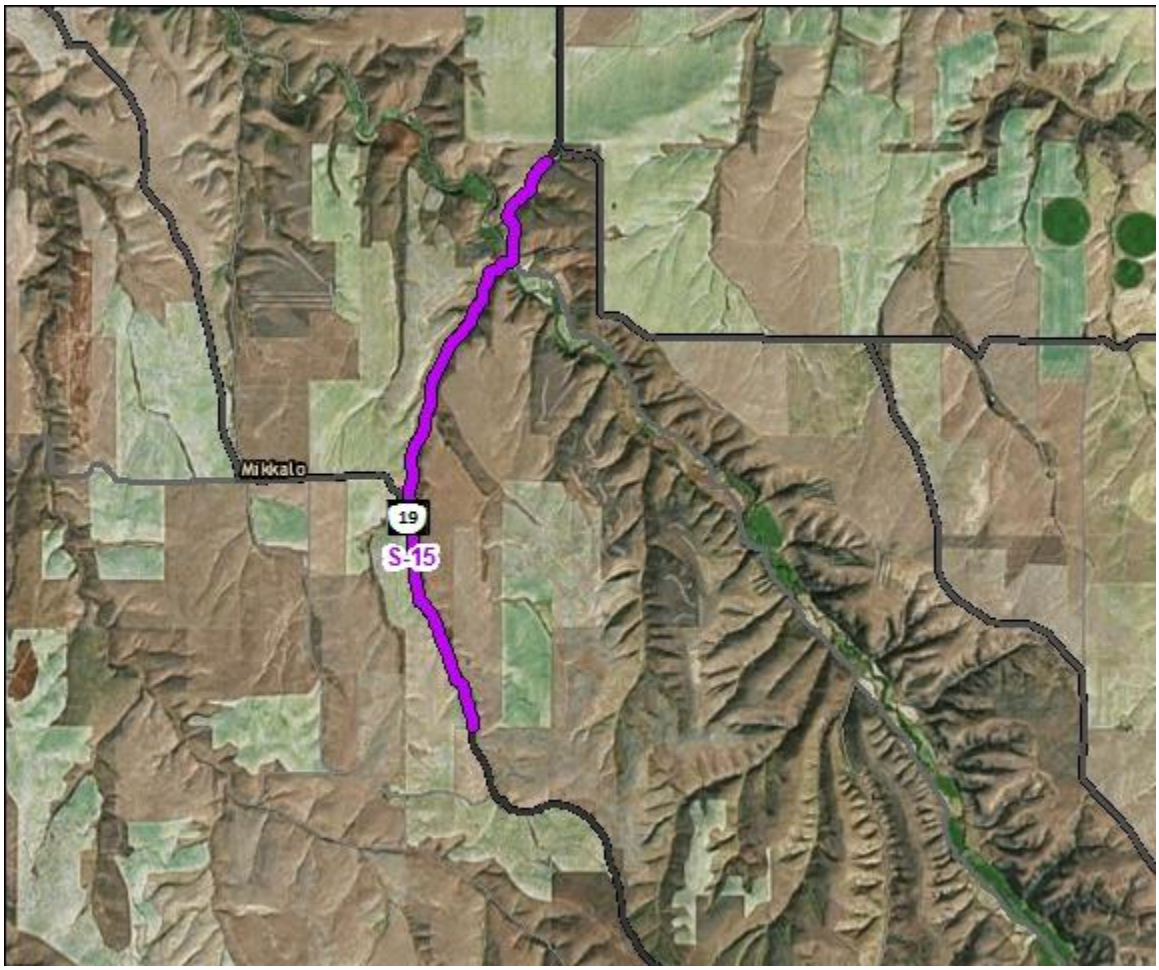
Description: Potential countermeasures include: Inlaid raised pavement markers, widen shoulders and install safety edges (where feasible), install centerline and shoulder rumble strips, curve warning signs, chevrons at curves and guardrails.

Category: Systemic Safety Roadway Departure Projects

Priority: Long-term

Potential Funding Partners: ODOT

Project Location/Images:



ID: S-16

OR 206 from MP 30.7 to 31.3

Description: Potential countermeasures include: Inlaid raised pavement markers, and widen shoulders and install safety edges (where feasible)

Category: Systemic Safety Roadway Departure Projects

Priority: Long-term

Potential Funding Partners: ODOT

Project Location/Images:

ID: S-17

OR 19 (Main Street) and OR 206 (Walnut Street)

Description: Potential countermeasures include: Rural intersection signing and marking improvements

Category: Systemic Safety Intersection Projects

Priority: Near-term

Potential Funding Partners: ODOT

Project Location/Images:

ID: S-18

OR 19 and Eightmile Road

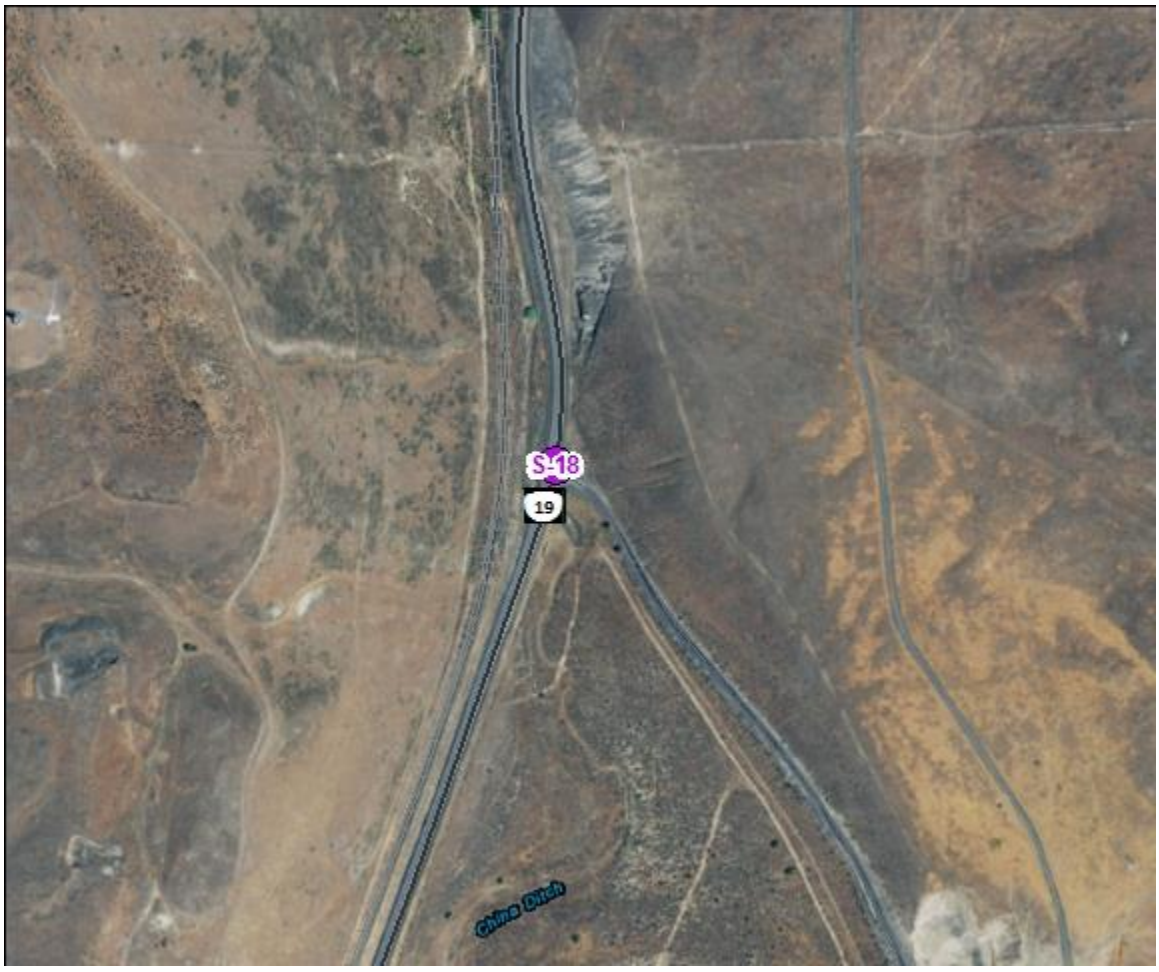
Description: Potential countermeasures include: Rural intersection signing and marking improvements

Category: Systemic Safety Intersection Projects

Priority: Near-term

Potential Funding Partners: ODOT; County

Project Location/Images:



ID: S-19

OR 19 and Baseline Road

Description: Potential countermeasures include: Improve sight distance

Category: Systemic Safety Intersection Projects	**Priority:** Near-term

Potential Funding Partners: ODOT; County

Project Location/Images:

ID: S-20	**Blalock Canyon Road and Heritage Lane**
Description:	Potential countermeasures include: Rural intersection signing and marking improvements, improve sight distance and reduce intersection skew
Category: Systemic Safety Intersection Projects	**Priority:** Near-term
Potential Funding Partners: County; ODOT	

Project Location/Images:

ID: S-21

OR 206 and Lonerock Road

Description: Potential countermeasures include: Rural intersection signing and marking improvements and improve sight distance

Category: Systemic Safety Intersection Projects

Priority: Near-term

Potential Funding Partners: County; ODOT

Project Location/Images:

ID: S-22

OR 19 and Cedar Springs Road

Description: Potential countermeasures include: Rural intersection signing and marking improvements

Category: Systemic Safety Intersection Projects	**Priority:** Long-term

Potential Funding Partners: County; ODOT

Project Location/Images:

ID: S-10

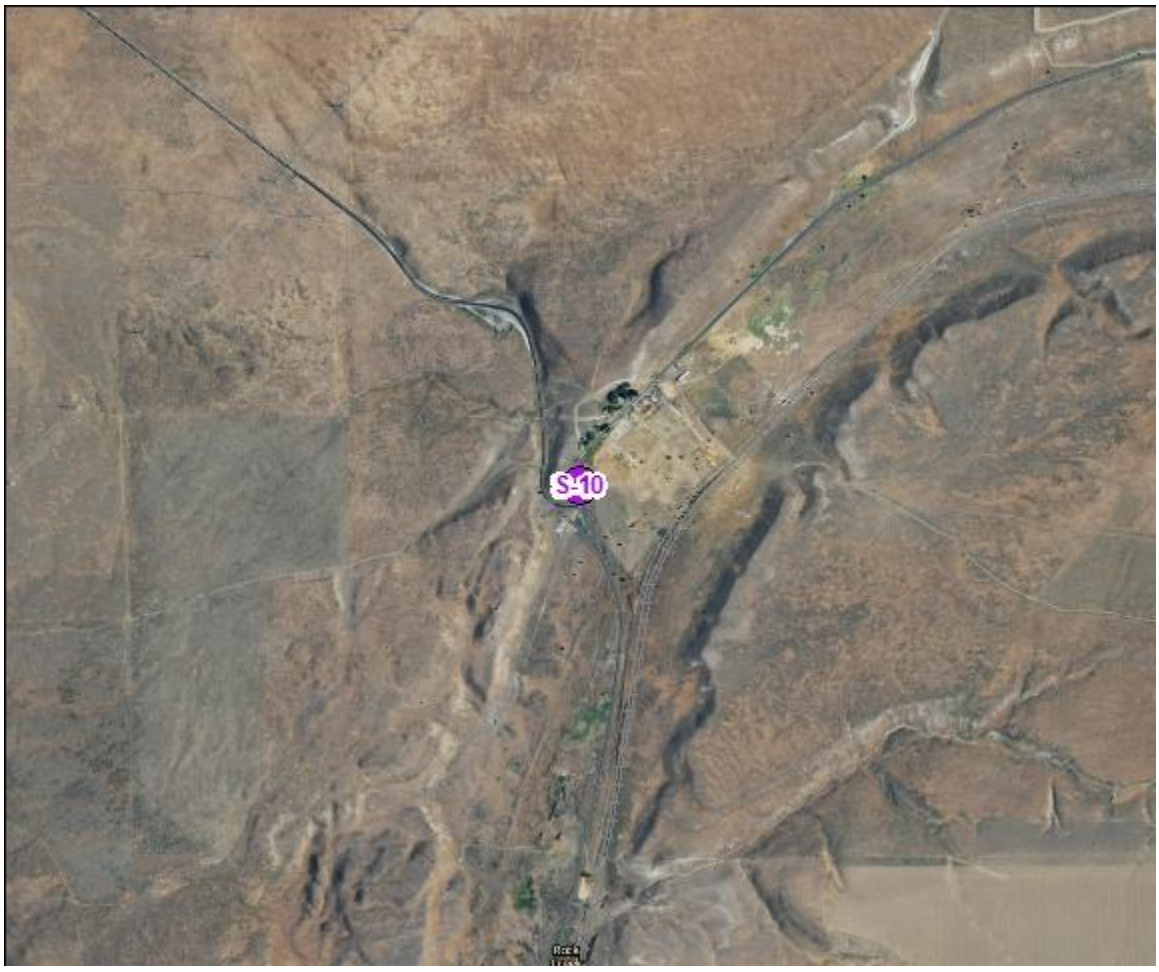
Blalock Canyon Road and Cedar Springs Road

Description: Potential countermeasures include: Rural intersection signing and marking improvements

Category: Systemic Safety Intersection Projects	**Priority:** Long-term

Potential Funding Partners: County; ODOT

Project Location/Images:



Roadway Implementation Plan

ID: M-1	**Airport Road**
Description:	Overlay Airport Road with 2 inches of asphalt and add 2-foot gravel shoulders from the intersection of Rhea Road to the end of the Arlington Mesa industrial park. Airport Road was previously widened several years ago. This project will be completed in conjunction with Rhea Lane (M-2).
Purpose:	Roadway serves truck traffic associated with Arlington Mesa Industrial Park. Roadway has little base rock and lacks shoulders.
Category: Heavy Maintenance	**Priority:** Short-term
Cost: $109,200	**Potential Funding Partners:** ODOT/ State, County, Cities and private

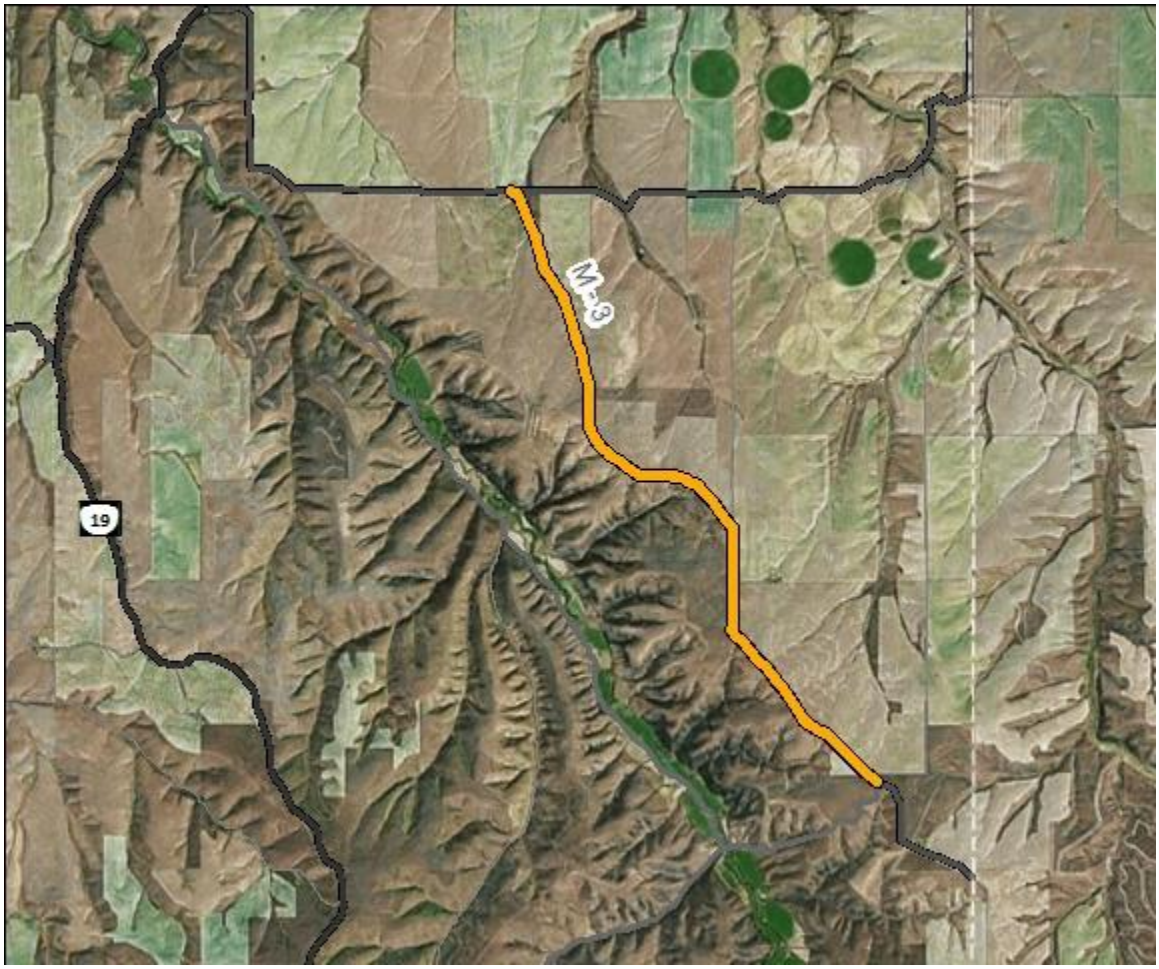
Project Location/Images:

ID: M-2	**Rhea Lane**
Description:	Overlay with 5 inches of recycled asphalt and the addition of 2-ft gravel shoulders from OR 19 to Airport Road to serve the higher truck volumes associated with the Arlington Mesa Industrial Park. This project will be done in conjunction with Airport Road (M-1).
Purpose:	Roadway serves truck traffic associated with Arlington Mesa Industrial Park.
Category: Heavy Maintenance	**Priority:** Short-term
Cost: $837,330	**Potential Funding Partners:** ODOT/ State, County, Cities and private

Project Location/Images:

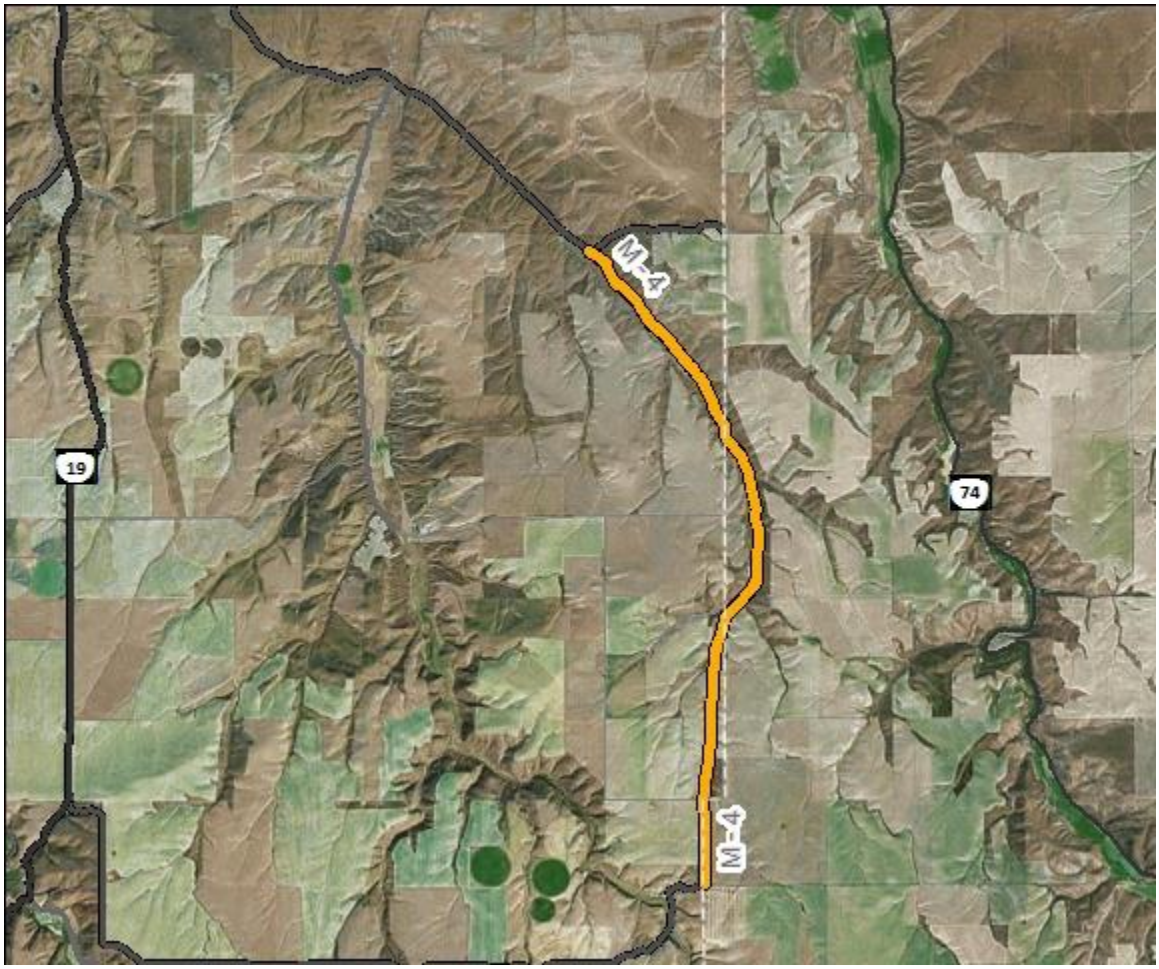
ID: M-3	**Ridge Road**
Description:	Upgrade roadway to Major Collector standards from Baseline Road to County limits to support the freight traffic that uses this route to transport hay, cattle, and wheat from Gilliam and SW Morrow County to I-84. The project includes 2 inches of overlay on existing asphalt and paving the currently unpaved section. Two foot gravel shoulders will be added where possible.
Purpose:	Roadway serves higher volume of agricultural truck traffic than intended based on classification.
Category: Heavy Maintenance	**Priority:** Short-term
Cost: $1,177,735	**Potential Funding Partners:** County

Project Location/Images:



ID: M-4	**Fourmile Canyon Road**
Description:	Upgrade roadway to Major Collector standards from Fairview Lane to Baseline Road by paving the road and adding 2-foot gravel shoulders where possible to support the truck traffic that carries wheat out of Morrow and Gilliam County.
Purpose:	Roadway serves higher volume of agricultural truck traffic than intended based on classification. (Note: some of this section loops through Morrow County)
Category: Full Reconstruction	**Priority:** Short-term
Cost: $1,015,820	**Potential Funding Partners:** County

Project Location/Images:



ID: M-15	**Cemetery Road**	
Description:	Upgrade Road to Minor Collector to serve the wheat area as part of Wehrli Canyon loop. Project includes paving the surface. Widening has already been completed.	
Purpose:	Road serves agricultural traffic and should be upgraded in functional classification.	
Category: Heavy Maintenance		**Priority:** Short-term
Cost: $100,000	**Potential Funding Partners:** County	

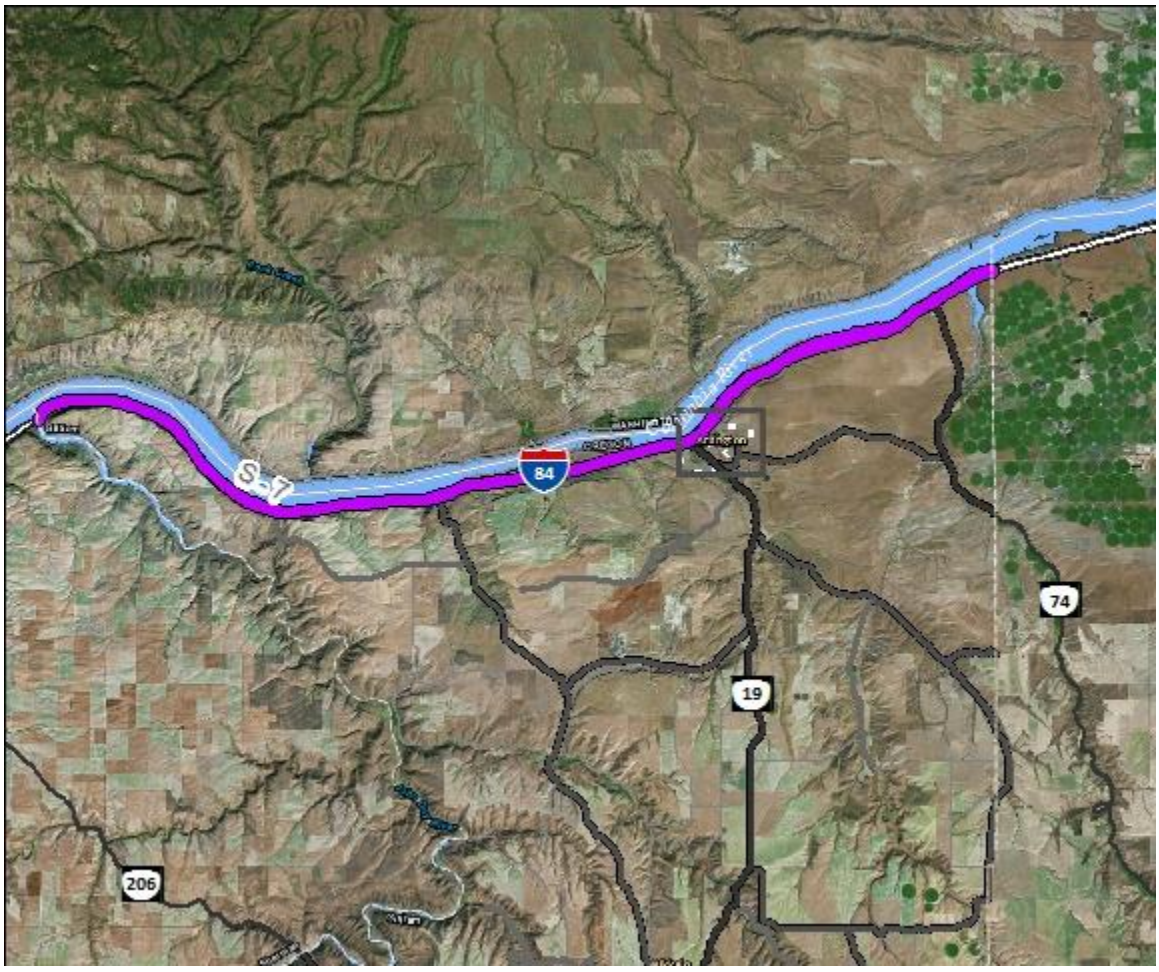
Project Location/Images:

ID: S-1	**I-84 Westbound On-Ramp in Arlington**	
Description:	Replace existing sign with larger sign and add pavement markings to indicate correct direction for drivers.	
Purpose:	Drivers have been observed entering the westbound on-ramps when they want to go eastbound.	
Category: Operations		**Priority:** Short-term
Cost: $3,000	**Potential Funding Partners:** ODOT/ State	

Project Location/Images:

ID: S-7	**I-84 ITS Warning System throughout County**	
Description:	Evaluate effectiveness and feasibility of ITS treatments to provide warnings to drivers when roadway conditions are icy.	
Purpose:	Crash history shows a high percentage of snow and ice related crashes on I-84 in Gilliam County.	
Category: Feasibility Study		**Priority:** Short-term
Cost: $15,000	**Potential Funding Partners:** ODOT/ State	

Project Location/Images:



ID: M-25

Olex Grade Realignment

Description: Complete OR 19 realignment between approximately MP 16 and 17.

Purpose: An ODOT project to smooth curves ended before this section was completed. The community has observed crashes in this area, although not all of the crashes observed are reported. The curves also restrict large truck traffic, such as those carrying wind turbines, and require them to use both travel lanes to pass through.

Category: Feasibility

Priority: Short-term

Cost: $10,000

Potential Funding Partners: ODOT/ State

Project Location/Images:

ID: M-5

Quinton Canyon Road

Description:	Upgrade roadway to Minor Collector standards from Heritage Lane to I-84 interchange to serve the wind farms on the bluff and agricultural land. Project includes widening from the current 18' roadway width to 20' and paving the second from I-84 to the top of the hill. Widening requires significant cost due to rock bluff.
Purpose:	Roadway needs to be upgraded in functional classification because it serves as popular connection to I-84 and serves wind farms and agricultural land.

Category: Heavy Maintenance

Priority: Long-term

Cost: $1,000,000

Potential Funding Partners: County and private

Project Location/Images:

ID: M-6

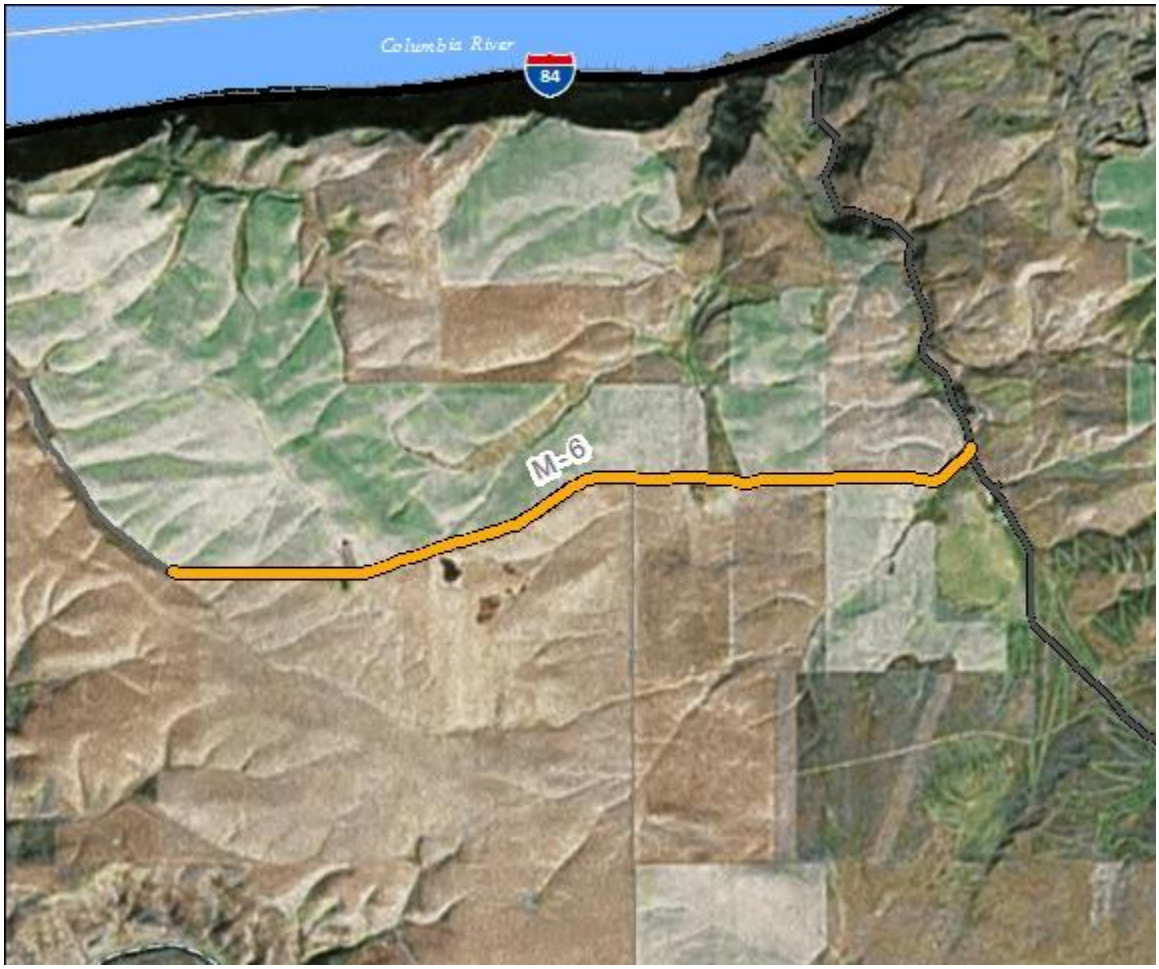
Heritage Lane

Description:	Upgrade roadway to Minor Collector standards from Blalock Canyon Road to Quinton Canyon Road to serve wind farms and agricultural land. Project includes removing S-curves and paving the west end of the road.
Purpose:	Roadway needs to be upgraded in functional classification because it serves as popular connection to I-84 and serves wind farms and agricultural land.

Category: Heavy Maintenance | **Priority:** Long-term

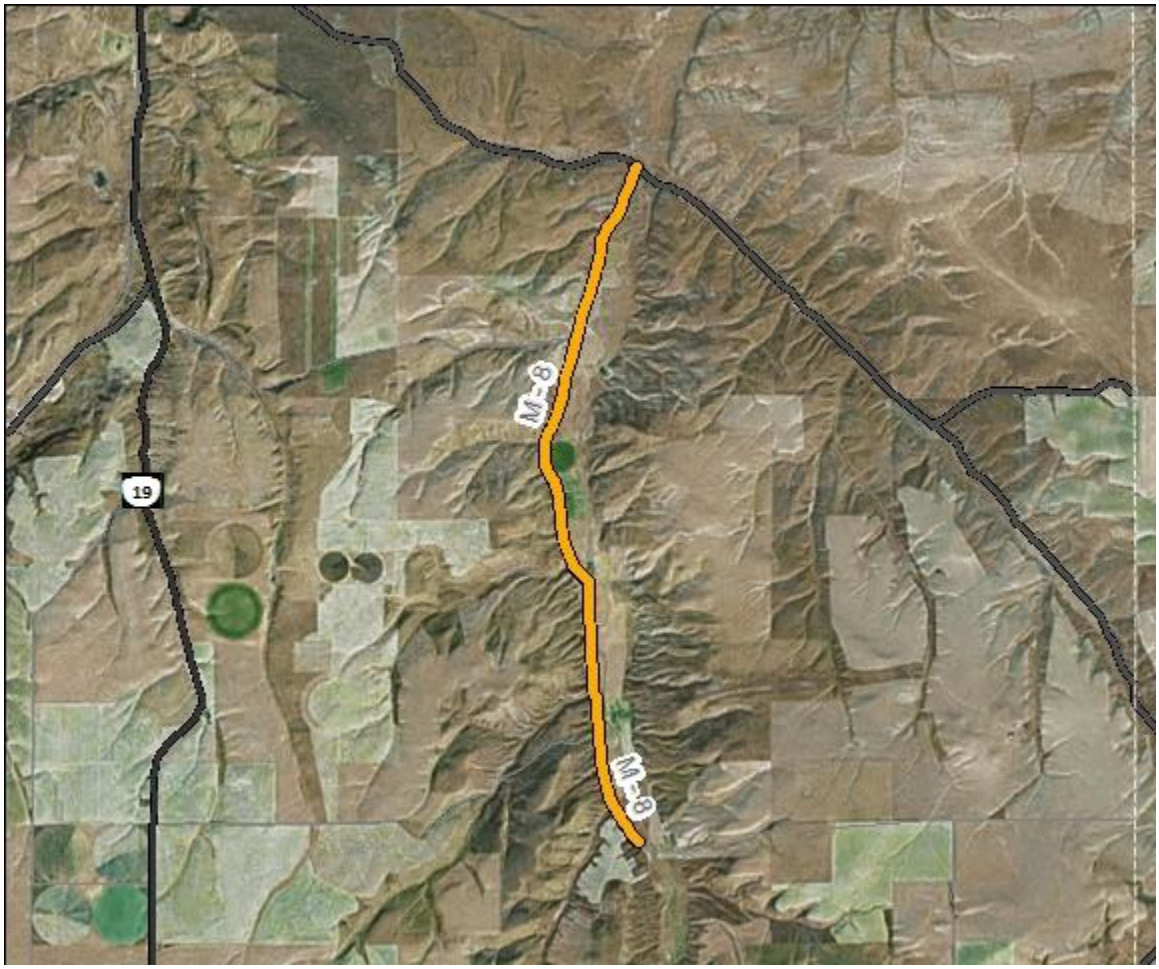
Cost: $325,000 | **Potential Funding Partners:** County

Project Location/Images:



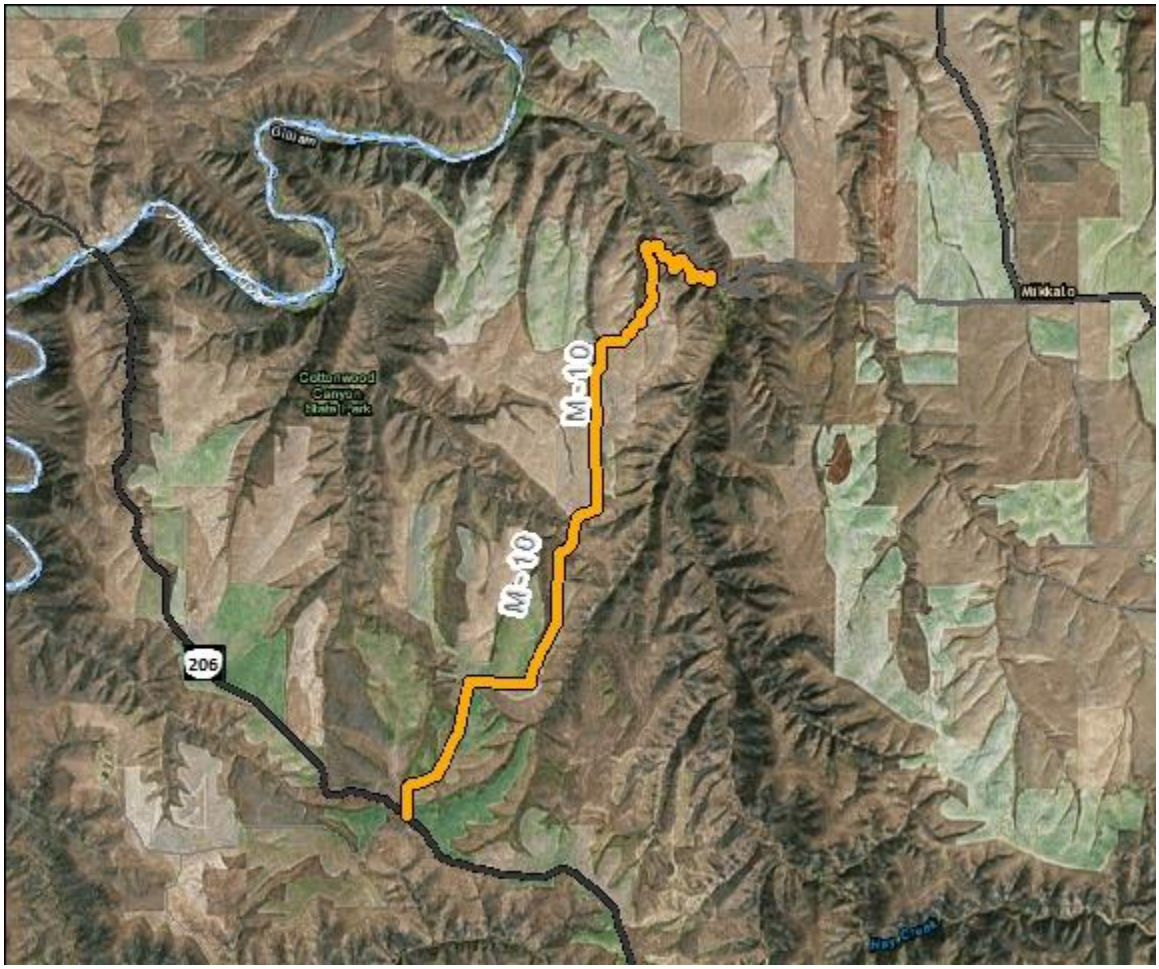
ID: M-8	**Eightmile Canyon Road**
Description:	Upgrade roadway to Minor Collector standards to support the increased truck traffic using this route due to the new irrigated farming in the area and the traffic associated with homes. Project includes paving the road and adding 2' gravel shoulders where possible.
Purpose:	Roadway serves higher volume of agricultural truck traffic than intended based on classification.
Category: Heavy Maintenance	**Priority:** Long-term
Cost: $1,015,846	**Potential Funding Partners:** County

Project Location/Images:



ID: M-10	**Devils Butte Road**	
Description:	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 206. Project includes culvert extensions, widening shoulders, and improving sight lines for trucks and vehicles pulling boat trailers.	
Purpose:	Roadway was not intended to serve Cottonwood Canyon State Park traffic, but may in future.	
Category: Heavy Maintenance		**Priority:** Long-term
Cost: $156,000	**Potential Funding Partners:** ODOT/ State, County and private	

Project Location/Images:



ID: M-11

Mikkalo Lane

Description:	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 19. Project includes culvert extensions, widening shoulders, and sight improvements.
Purpose:	Roadway was not intended to serve Cottonwood Canyon State Park traffic, but may in future.
Category: Heavy Maintenance	**Priority:** Long-term
Cost: $61,100	**Potential Funding Partners:** ODOT/ State and County

Project Location/Images:

ID: M-12	**Hay Canyon Road**	
Description:	Upgrade roadway to a Minor Collector to serve State Park traffic from Devils Butte Road to the Cottonwood Canyon State Park. Project includes road realignment and reconstruction to avoid eroding road adjacent to river.	
Purpose:	Roadway was not intended to serve Cottonwood Canyon State Park traffic, but may in future.	
Category: Full Reconstruction		**Priority:** Long-term
Cost: $2,752,422	**Potential Funding Partners:** ODOT/ State and County	

Project Location/Images:

ID: M-13	**Lonerock Road**
Description:	Upgrade from Minor Collector to Major Collector from OR 206 to City of Lonerock to support the cattle and hay operations and serve the Lonerock community. Project includes some grade improvements on the east side of the Ericson grade.
Purpose:	Roadway serves high traffic volumes as it is the primary access to the Lonerock community; it should be upgraded in functional classification.
Category: Heavy Maintenance	**Priority:** Long-term
Cost: $500,000	**Potential Funding Partners:** County, Cities

Project Location/Images:

ID: M-24	**Lower Rock Creek Road**	
Description:	Improve roadway (widen, add shoulders, curve signage, etc.) due to high recreational traffic associated with river access.	
Purpose:	Roadway is heavily traveled by rafters & river users but was not designed to carry river traffic.	
Category: Operations		**Priority:** Long-term
Cost: $400,000	**Potential Funding Partners:** County	

Project Location/Images:

ID: S-5	**E Bayard Street and Main Street Intersection Reconfiguration**
Description:	Reconfigure intersection so that westbound approach is perpendicular with OR 19 to reduce skew and improve sight distance to the south.
Purpose:	Sight distance concern at skewed intersection.
Category: Safety / Operations	**Priority:** Long-term
Cost: $106,000	**Potential Funding Partners:** ODOT/ State and Cities

Project Location/Images:

ID: S-9

Snow Drifts on OR 206

Description: Evaluate the occurrence of snow drifts on OR 206 near milepost 22.

Purpose: Snow drifts frequently at this location.

Category: Study

Priority: Long-term

Cost: $1,000

Potential Funding Partners: ODOT/ State and County

Project Location/Images:

ID: M-29

Columbia View Drive Extension

Description: Extend Columbia View Drive to Main Street to provide alternate access to residents in this area.

Purpose: The residential area served by Columbia View Drive lacks alternate access. In addition, the grade is steep on the entrance to the area, making emergency vehicle access challenging during winter conditions.

Category: Operations

Priority: Long-term

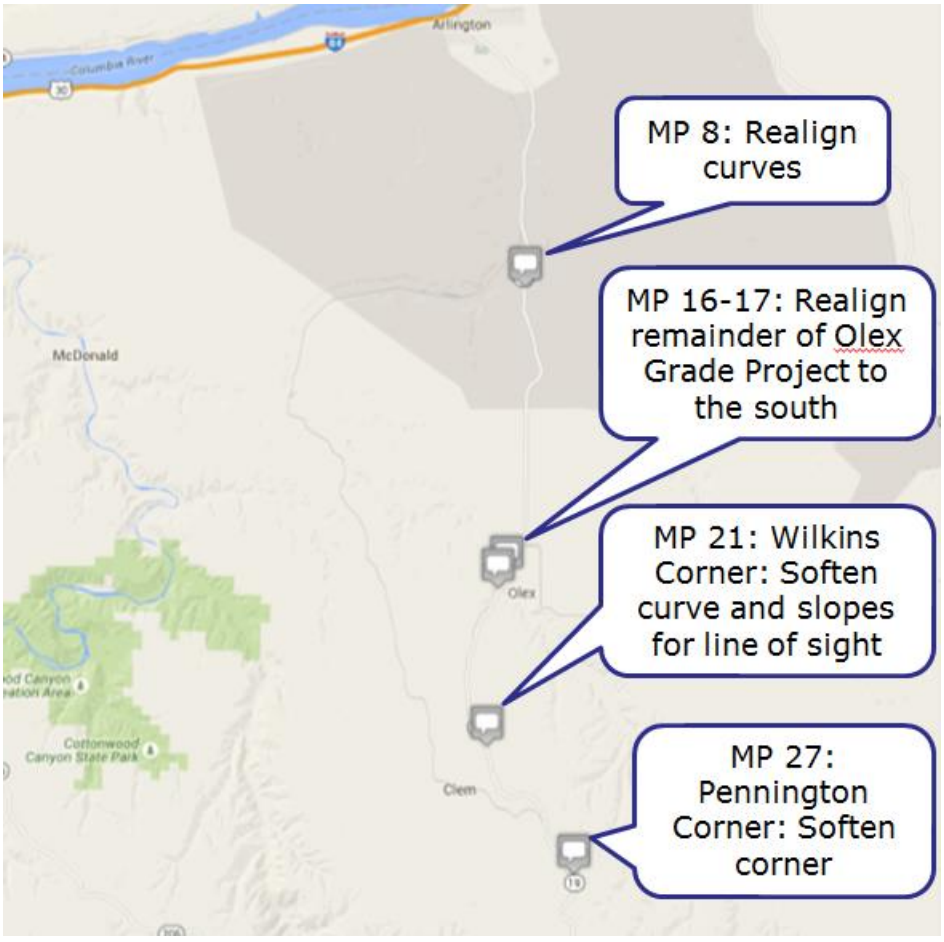
Cost: $700,000

Potential Funding Partners: County and Cities

Project Location/Images:

ID: M-26	**OR 19 Realignment Projects**
Description:	Evaluate the feasibility and develop cost estimates for the following projects on OR 19: soften corner on OR 19 near MP 27 at Pennington Corner; realign S-curves at MP 8; soften curve and slopes to improve line of sight on OR 19 near MP 21 at Wilkins Corner.
Purpose:	The public has concerns with safety at these key curves in the County and has observed crashes occurring at these locations.
Category: Feasibility Study	**Priority:** Long-term
Cost: $10,000	**Potential Funding Partners:** ODOT/ State

Project Location/Images:

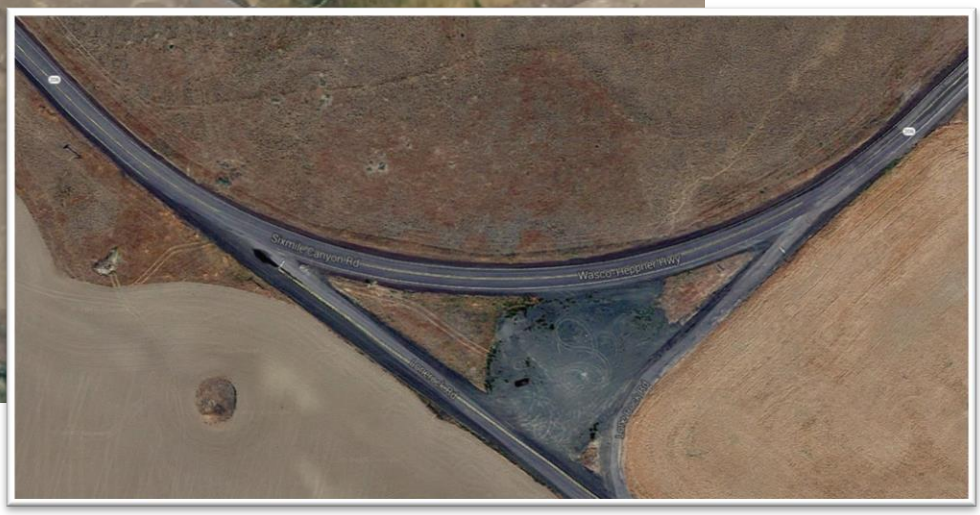


ID: S-4	**Main Street and Walnut Street Intersection Reconfiguration**
Description:	Reconfigure the intersection to a two-way stop-controlled intersection to provide a traffic control scenario that does not violate driver expectancy.
Purpose:	Safety concern due to sight distance and driver expectation.
Category: Project	**Priority:** Vision
Cost: $10,000	**Potential Funding Partners:** ODOT/ State and Cities

Project Location/Images:

ID: S-6	**Lonerock Road/OR 206 Intersection**	
Description:	Reconfigure the intersection to bring the eastern leg of OR 206 to a stop perpendicular to Lonerock Road to increase sight distance at this intersection.	
Purpose:	Restricted sight distance; intersection located on curve.	
Category: Project		**Priority:** Vision
Cost: $150,000	**Potential Funding Partners:** ODOT/ State and County	

Project Location/Images:



Pedestrian and Bicycle Implementation Plan

ID: A-3	**Ivy Street Sidewalks (Arlington)**	
Description:	Install sidewalks from 3rd Street to Main Street in Arlington, connecting to the Columbia Hills Manor Independent Living Center.	
Purpose:	Lacking connected sidewalks; Connects to the Columbia Hills Manor Independent Living Center.	
Category: Pedestrian/Bike		**Priority:** Short-term
Cost: $147,000	**Potential Funding Partners:** Cities	

Project Location/Images:

ID: A-4	**Sidewalks on East Side of Main Street (Condon)**	
Description:	Replace sidewalks on the east side of Main Street from E Well Street to OR 206/Walnut Street in Condon.	
Purpose:	Sidewalks in poor condition.	
Category: Pedestrian/Bike		**Priority:** Short-term
Cost: $50,000	**Potential Funding Partners:** Cities	

Project Location/Images:

ID: A-5

Sidewalks on E Spring Street

Description: Install sidewalks from S East Street to S Jefferson Street, connecting to ball fields

Purpose: No sidewalks connecting to baseball field.

Category: Pedestrian/Bike

Priority: Short-term

Cost: $25,000

Potential Funding Partners: Cities

Project Location/Images:

ID: A-9	**OR 206 Cyclist Rest Areas**	
Description:	Evaluate feasibility and cost of providing bicyclist rest areas with water stations and bike tools at strategic locations along OR 206 in the County. Implement as pilot project.	
Purpose:	Popular cycling route with no rest area locations for cyclists.	
Category: Feasibility Study / Pilot Project		**Priority:** Short-term
Cost: $5,000	**Potential Funding Partners:** ODOT/ State, County and privates	

Project Location/Images:

ID: A-10

Bicycle Parking

Description: Add bicycle parking in downtown areas of Condon and Arlington. The bicycle parking racks should be aesthetically pleasing and add to the downtown character of the areas.

Purpose: Lack of bicycle parking in downtown areas.

Category: Pedestrian/Bike 

Priority: Short-term

Cost: $3,500

Potential Funding Partners: Cities

Project Location/Images:

Example of decorative bicycle parking

ID: A-11

OR 19 Sidewalks

Description: Add sidewalks from Main Street to N East Street in Condon.

Purpose: Lack of sidewalks.

Category: Pedestrian/Bike

Priority: Short-term

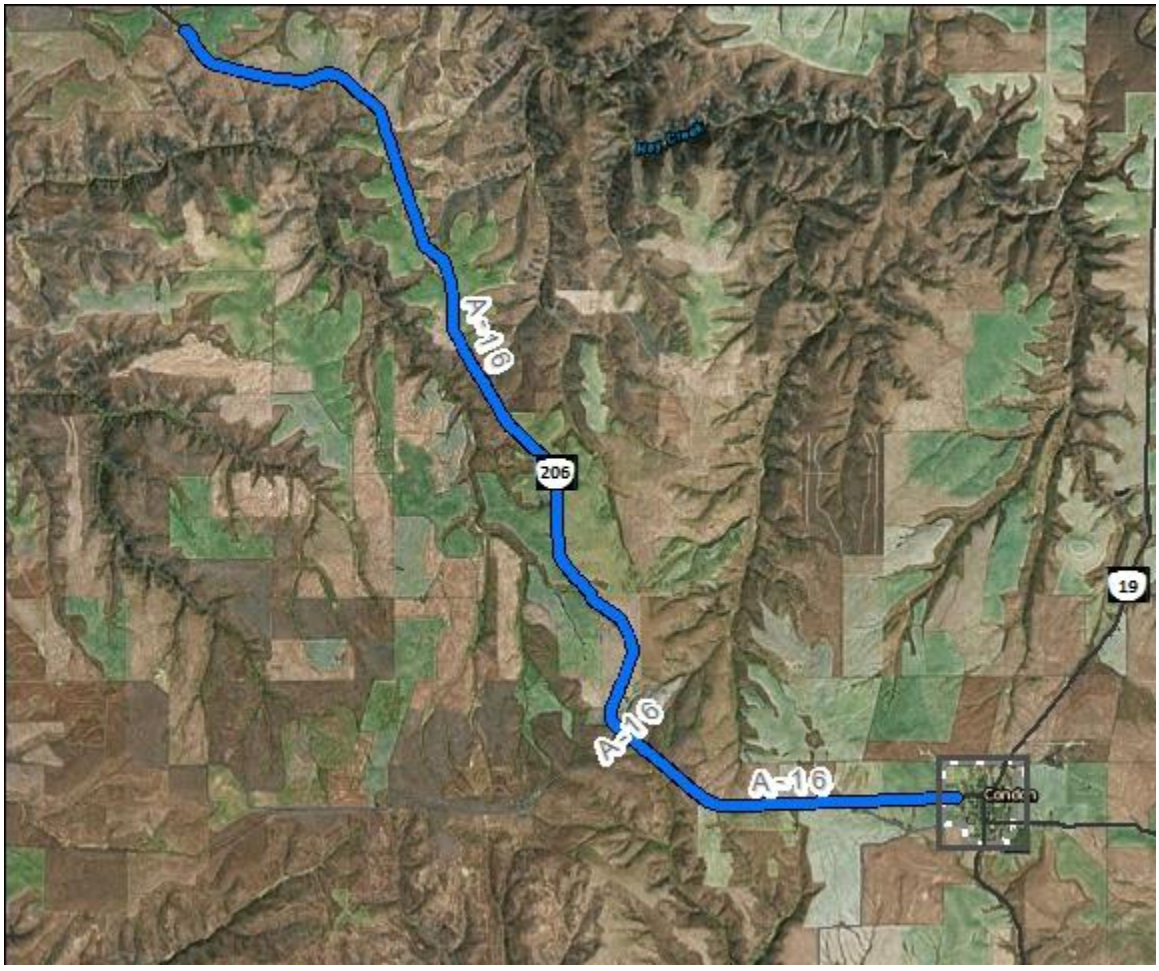
Cost: $100,000

Potential Funding Partners: ODOT/ State and County

Project Location/Images:

ID: A-16	**Shared-use Path from Condon to Mountain Identifier**
Description:	Conduct a feasibility study to determine the cost of constructing a shared-use path from Condon to the mountain identifier on OR 206.
Purpose:	Recreational cycling is popular in the County, and there is currently no bicycle lanes on OR 206 connecting the mountain identifier to Condon.
Category: Feasibility Study and Pedestrian/Bike	**Priority:** Short-term
Cost: $10,000	**Potential Funding Partners:** ODOT/ State, County and Cities

Project Location/Images:



ID: A-1	**Cottonwood Street Sidewalks (Arlington)**	
Description:	Install sidewalks from Shane Drive to OR 19	
Purpose:	Lacking connected sidewalks.	
Category: Pedestrian/Bike		**Priority:** Long-term
Cost: $508,000	**Potential Funding Partners:** Cities	

Project Location/Images:

ID: A-2

Shane Drive Sidewalks (Arlington)

Description: Install sidewalks from Main Street to Cottonwood Street.

Purpose: Lacking connected sidewalks.

Category: Pedestrian/Bike

Priority: Long-term

Cost: $414,000

Potential Funding Partners: Cities

Project Location/Images:

ID: A-6	**Inner Pedestrian Recreational Route West of Condon**
Description:	Create recreational unpaved walking path east of Condon for residents from W Bayard Street/Potter Street to OR 206.
Purpose:	Need for recreational walking route. Residents currently use track.
Category: Pedestrian/Bike	**Priority:** Long-term
Cost: $87,750	**Potential Funding Partners:** County and Cities

Project Location/Images:

ID: A-7	**Outer Pedestrian Recreational Route West of Condon**
Description:	Create recreational unpaved walking path east of Condon for residents from W Bayard Street to Cottonwood Street/Main Street.
Purpose:	Need for recreational walking route. Residents currently use track.
Category: Pedestrian/Bike	**Priority:** Long-term
Cost: $109,000	**Potential Funding Partners:** County and Cities

Project Location/Images:

ID: A-8

W 1st Street Sidewalks

Description: Install sidewalks from Cedar Street to Ivy Street.

Purpose: Lack of connected sidewalks.

Category: Pedestrian/Bike

Priority: Long-term

Cost: $277,000

Potential Funding Partners: Cities

Project Location/Images:

ID: A-12	**Pedestrian crossings in Condon**
Description:	Provide an enhanced pedestrian crossing of OR 19 as it enters town, east of Main Street.
Purpose:	Pedestrians are observed to cross in this location frequently. Adding a marked crosswalk with appropriate signage will help raise driver awareness of potential pedestrians in this area.
Category: Pedestrian/Bike	**Priority:** Long-term
Cost: $10,000	**Potential Funding Partners:** ODOT/ State and Cities

Project Location/Images:

ID: A-13

OR 19 Sidewalks (East)

Description: Add sidewalks from N East Street to the Fairgrounds driveway in Condon.

Purpose: Lack of sidewalks between the downtown area and the Fairgrounds.

Category: Pedestrian/Bike

Priority: Long-term

Cost: $200,000

Potential Funding Partners: ODOT/ State and Cities

Project Location/Images:

ID: A-14	**E Bayard Street Sidewalks**
Description:	Add sidewalks to complete gap on east side of E Bayard Street between E Court Street and Main Street.
Purpose:	There is a gap in the connected sidewalks. These sidewalks provide complete connections from the high school to downtown Condon.
Category: Pedestrian/Bike	**Priority:** Long-term
Cost: $25,000	**Potential Funding Partners:** ODOT/ State and Cities

Project Location/Images:

ID: A-15	**Sidewalks on east side of Main Street (north)**
Description:	Complete sidewalk gaps on the east side of Main Street between E Well Street and W 2nd Street in Condon.
Purpose:	There are gaps in the sidewalk. The existing sidewalk is in poor shape in some locations and needs to be redone.
Category: Pedestrian/Bike	**Priority:** Long-term
Cost: $30,000	**Potential Funding Partners:** Cities

Project Location/Images:

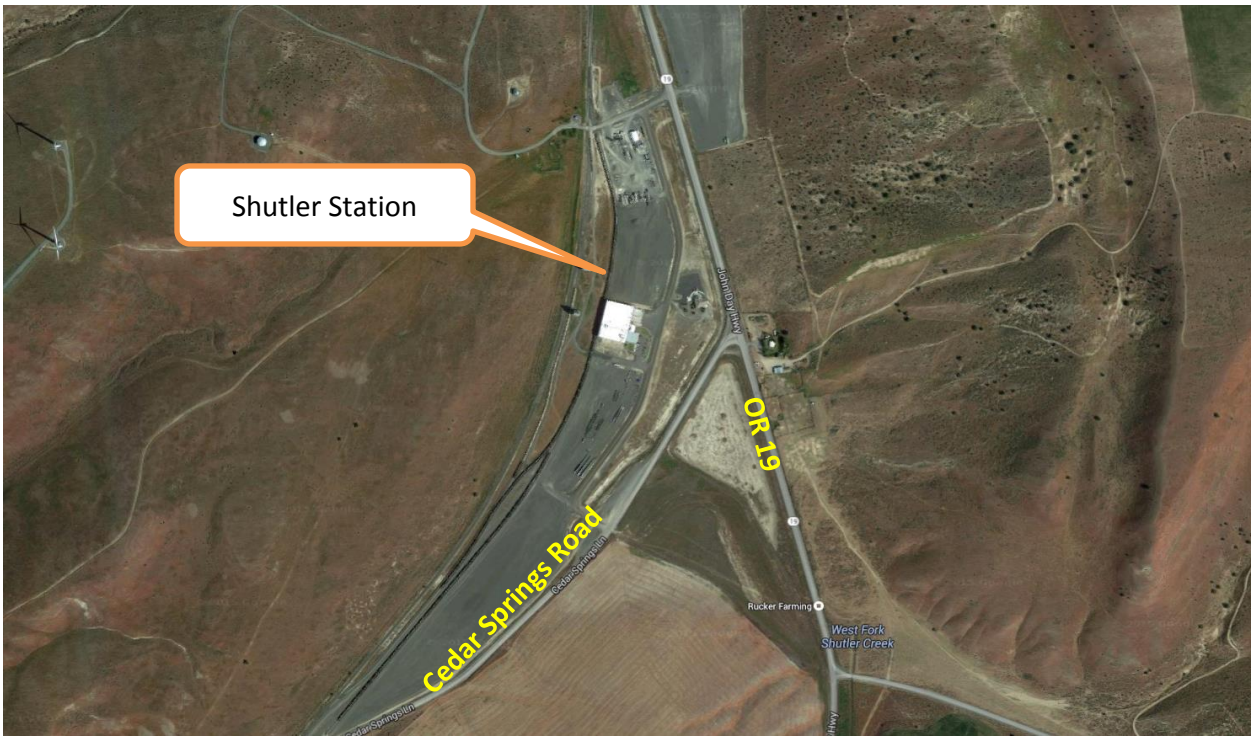
ID: A-17	**Beech Street Streetscape in Arlington**
Description:	Improve the streetscape of Beech Street in Arlington to make the environment more pedestrian/bicycle friendly with wider sidewalks, raised crossings, landscaped buffers, and pedestrian-scale lighting.
Purpose:	This road carries high traffic volumes and truck traffic, but it also serves as a connection between the park and commercial areas. There is a need to better balance these functions.
Category: Pedestrian/Bike  	**Priority:** Long-term
Cost: $176,000	**Potential Funding Partners:** ODOT/ State, Cities and private

Project Location/Images:

Rail Plan

ID: M-22	**Shutler Station Rail Crossovers**
Description:	Install rail crossovers at Shutler Station.
Purpose:	Need for rail crossovers to make movements within the park easier.
Category: Rail	**Priority:** Near-term
Cost: $300,000	**Potential Funding Partners:** ODOT, private

Project Location/Images:



Bridge Plan

ID: B-2

I-84 Eastbound Bridge

Description: Widen bridge at MP 148.6 (Willow Creek) to meet current design standards.

Purpose: The bridge width does not meet current design standards.

Category: Bridge	**Priority:** Near-term
Cost: $1.1 million	**Potential Funding Partners:** ODOT

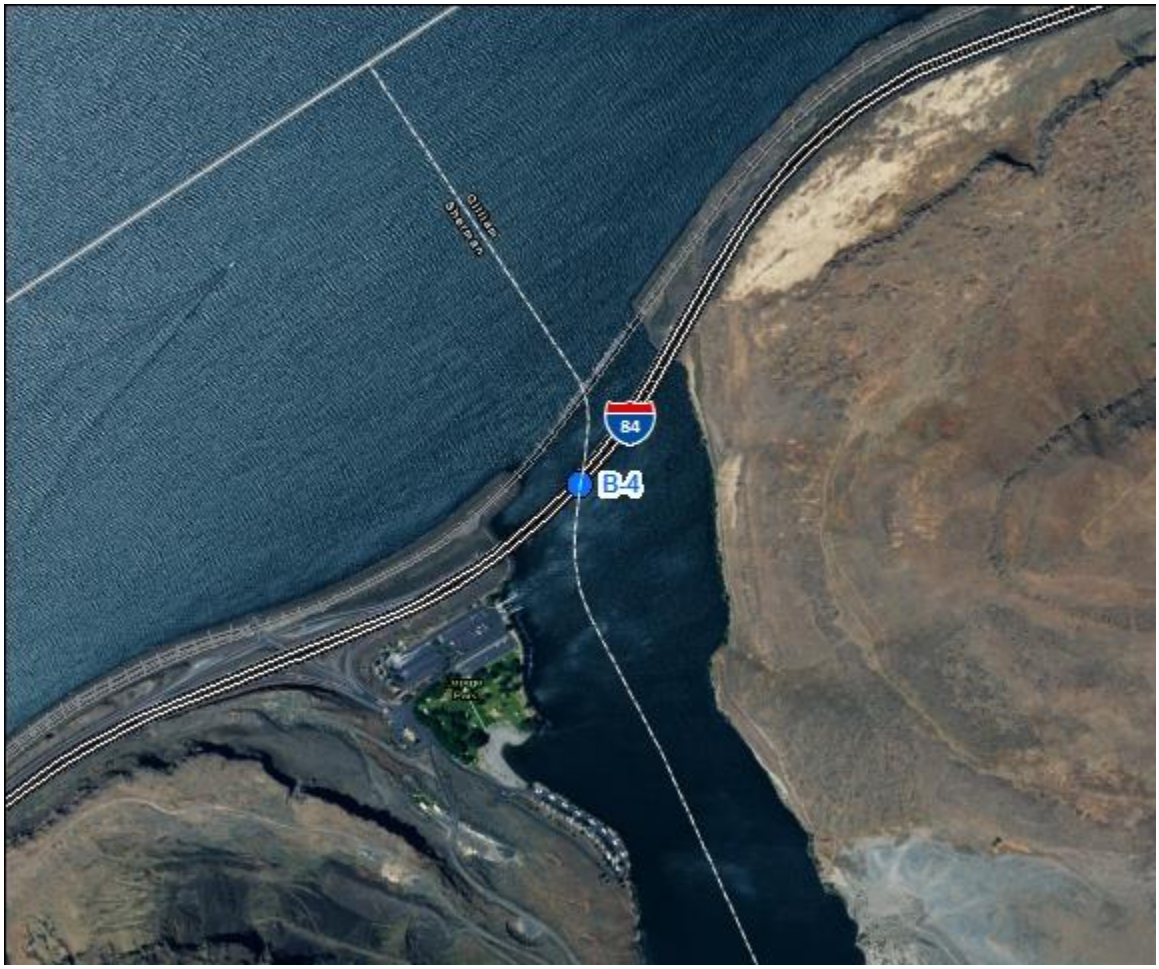
Project Location/Images:

ID: B-3	**Lonerock Road Bridge Replacement**	
Description:	The County plans to replace the Lonerock Road bridge, which serves the primary route in and out of Lonerock and is therefore a high priority for the County.	
Purpose:	The bridge needs repair or replacement.	
Category: Bridge		**Priority:** Long-term
Cost: $2 million	**Potential Funding Partners:** ODOT, County	

Project Location/Images:

ID: B-4	**I-84 John Day River Bridge Overlay**	
Description:	ODOT has planned a bridge deck overlay on I-84 from MP 114.45 to 114.75. Preliminary engineering is scheduled for 2016, and construction is scheduled for 2018.	
Purpose:	The bridge is in need of a pavement overlay.	
Category: Bridge		**Priority:** Near-term
Cost: $2.5 million	**Potential Funding Partners:** ODOT	

Project Location/Images:



Appendix D Table of All Modal Plans

SYSTEMIC SAFETY ROADWAY DEPARTURE PROJECTS

Project ID	Road	Start MP	End MP	Potential Countermeasures						Cost Estimate
				Inlaid Raised Pavement Markers	Widen Shoulder & Install Safety Edge (where feasible)	Install Centerline and Shoulder Rumble Strips	Curve Warning Signs	Chevrons at Curves	Guardrail	
S-11	OR 19	40	42	X	X	X	X	X		$901,000
S-12	OR 206	33.4	35.2	X	X	X	X	X		$812,000
S-13	OR 206	17.6	20.2	X	X	X	X	X		$1,171,000
S-14	Baseline Road	8.9	9.3	X	X	X	X	X		$183,000
S-15	OR 19 (Olex Grade)	15.5	22.2	X	X	X	X	X	X	$4,334,000
S-16	OR 206	30.7	31.3	X	X					$267,000
									Total	**$7,668,000**

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

SYSTEMIC SAFETY INTERSECTION PROJECTS

Project ID	Major Road	Minor Road	Potential Countermeasures			Cost Estimate
			Rural Intersection Signing and Marking Improvements	Improve sight distance	Reduce intersection skew	
S-17	OR 19 (Main St)	OR 206 (Walnut St)	X			$3,000
S-18	OR 19	Eightmile Rd	X			$3,000
S-19	OR 19	Baseline Rd		X		$7,000
S-20	Blalock Canyon Rd	Heritage Ln	X	X	X	$35,000
S-21	OR 206	Lonerock Rd	X	X		$10,000
S-22	OR 19	Cedar Springs Rd	X			$3,000
S-10	Blalock Canyon Rd	Cedar Springs Rd	X			$3,000
					Total	**$64,000**

*2013 AADT Obtained from ODOT's Traffic Volume Tables. ADT for County roads was obtained from 24-hour counts conducted in 2014 when possible.

PLANNED ROADWAY IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
Short-Term Projects								
M-1	Airport Road	Overlay Airport Road with 2 inches of asphalt and add 2-foot gravel shoulders from the intersection of Rhea Road to the end of the Arlington Mesa industrial park. Airport Road was previously widened several years ago. This project will be completed in conjunction with Rhea Lane (M-2).	Heavy Maintenance	$109,200	X	X	X	X
M-2	Rhea Lane	Overlay with 5 inches of recycled asphalt and the addition of 2-ft gravel shoulders from OR 19 to Airport Road to serve the higher truck volumes associated with the Arlington Mesa Industrial Park. This project will be done in conjunction with Airport Road (M-1).	Heavy Maintenance	$837,330	X	X	X	X
M-3	Ridge Road	Upgrade roadway to Major Collector standards from Baseline Road to County limits to support the freight traffic that uses this route to transport hay, cattle, and wheat from Gilliam and SW Morrow County to I-84. The project includes 2 inches of overlay on existing asphalt and paving the currently unpaved section. Two foot gravel shoulders will be added where possible.	Heavy Maintenance	$1,177,735		X		
M-4	Fourmile Canyon Road	Upgrade roadway to Major Collector standards from Fairview Lane to Baseline Road by paving the road and adding 2-foot gravel shoulders where possible to support the truck traffic that carries wheat out of Morrow and Gilliam County.	Full Reconstruction	$1,015,820		X		
M-15	Cemetery Road	Upgrade Road to Minor Collector to serve the wheat area as part of Wehrli Canyon loop. Project includes paving the surface. Widening has already been completed.	Heavy Maintenance	$100,000		X		
S-1	I-84 Westbound On-Ramp in Arlington	Replace existing sign with larger sign and add pavement markings to indicate correct direction for drivers.	Operations	$3,000	X			
S-7	I-84 ITS Warning System throughout County	Evaluate effectiveness and feasibility of ITS treatments to provide warnings to drivers when roadway conditions are icy.	Feasibility Study	$15,000	X			
M-25	Olex Grade Realignment	Complete OR 19 realignment between approximately MP 16 and 17.	Feasibility	$10,000	X			
			Total	**$3,269,000**				
Long-Term Projects								
M-5	Quinton Canyon Road	Upgrade roadway to Minor Collector standards from Heritage Lane to I-84 interchange to serve the wind farms on the bluff and agricultural land. Project includes widening from the current 18' roadway width to 20' and paving the second from I-84 to the top of the hill. Widening requires significant cost due to rock bluff.	Heavy Maintenance	$1,000,000		X		X
M-6	Heritage Lane	Upgrade roadway to Minor Collector standards from Blalock Canyon Road to Quinton Canyon Road to serve wind farms and agricultural land. Project includes removing S-curves and paving the west end of the road.	Heavy Maintenance	$325,000		X		
M-8	Eightmile Canyon Road	Upgrade roadway to Minor Collector standards to support the increased truck traffic using this route due to the new irrigated farming in the area	Heavy Maintenance	$1,015,846		X		

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
		and the traffic associated with homes. Project includes paving the road and adding 2' gravel shoulders where possible.						
M-10	Devils Butte Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 206. Project includes culvert extensions, widening shoulders, and improving sight lines for trucks and vehicles pulling boat trailers.	Heavy Maintenance	$156,000	X	X		X
M-11	Mikkalo Ln	Upgrade roadway to a Minor Collector to serve State Park traffic from Hay Canyon Road to OR 19. Project includes culvert extensions, widening shoulders, and sight improvements.	Heavy Maintenance	$61,100	X	X		
M-12	Hay Canyon Rd	Upgrade roadway to a Minor Collector to serve State Park traffic from Devils Butte Road to the Cottonwood Canyon State Park. Project includes road realignment and reconstruction to avoid eroding road adjacent to river.	Full Reconstruction	$2,752,422	X	X		
M-13	Lonerock Road	Upgrade from Minor Collector to Major Collector from OR 206 to City of Lonerock to support the cattle and hay operations and serve the Lonerock community. Project includes some grade improvements on the east side of the Ericson grade.	Heavy Maintenance	$500,000		X	X	
M-24	Lower Rock Creek Road	Improve roadway (widen, add shoulders, curve signage, etc.) due to high recreational traffic associated with river access.	Operations	$400,000		X		
S-5	E Bayard Street/Main Street Intersection Reconfiguration	Reconfigure intersection to two-way stop-controlled intersection to improve sight distance for westbound approach.	Safety / Operations	$106,000	X		X	
S-9	Snow Drifts on OR 206	Evaluate the occurrence of snow drifts on OR 206 near milepost 22	Study	$1,000	X	X		
M-29	Columbia View Drive Extension	Extend Columbia View Drive to Main Street to provide alternate access to residents in this area.	Operations	$700,000		X	X	
M-26	OR 19 Realignment Projects	Evaluate the feasibility and develop cost estimates for the following projects on OR 19: soften corner on OR 19 near MP 27 at Pennington Corner; realign S-curves at MP 8; soften curve and slopes to improve line of sight on OR 19 near MP 21 at Wilkins Corner.	Feasibility Study	$10,000	X			
			Total	**$7,028,000**				
Vision Projects								
S-4	Main Street/Walnut Street Intersection Reconfiguration	Reconfigure the intersection to a two-way stop-controlled intersection to provide a traffic control scenario that does not violate driver expectancy.	Project	$10,000	X		X	
S-6	Lonerock Road/OR 206 Intersection	Reconfigure the intersection to bring the eastern leg of OR 206 to a stop perpendicular to Lonerock Road to increase sight distance at this intersection.	Project	$150,000	X	X		
			Total	**$160,000**				

[1] Cost estimate is planning level only. Does not include right-of-way costs.

PLANNED PEDESTRIAN AND BICYCLE IMPROVEMENTS IN GILLIAM COUNTY

ID	Name	Description	Category	Cost Estimate[1]	Potential Funding Source			
					ODOT/ State	County	Cities	Private
Short-Term Projects								
A-3	Ivy Street Sidewalks (Arlington)	Install sidewalks from 3rd Street to Main Street in Arlington, connecting to the Columbia Hills Manor Independent Living Center	Ped/Bike	$147,000			X	
A-4	Sidewalks on East Side of Main Street (Condon)	Replace sidewalks on the east side of Main Street from E Well Street to OR 206/Walnut Street in Condon.	Ped/Bike	$50,000			X	
A-5	Sidewalks on E Spring Street	Install sidewalks from S East Street to S Jefferson Street, connecting to ball fields	Ped/Bike	$25,000			X	
A-9	OR 206 Cyclist Rest Areas	Evaluate feasibility and cost of providing bicyclist rest areas with water stations and bike tools at strategic locations along OR 206 in the County. Implement as pilot project.	Feasibility Study / Pilot Project	$5,000	X	X		X
A-10	Bicycle Parking	Add bicycle parking in downtown areas of Condon and Arlington	Ped/Bike	$3,500			X	
A-11	OR 19 Sidewalks	Add sidewalks from Main Street to N East Street in Condon.	Ped/Bike	$100,000	X		X	
A-16	Shared-use Path from Condon to Mountain Identifier	Conduct a feasibility study to determine the cost of constructing a shared-use path from Condon to the mountain identifier on OR 206.	Feasibility Study/ Ped/Bike	$10,000	X	X	X	
			Total	**$341,000**				
Long-Term Projects								
A-1	Cottonwood Street Sidewalks (Arlington)	Install sidewalks from Shane Drive to OR 19	Ped/Bike	$508,000			X	
A-2	Shane Drive Sidewalks (Arlington)	Install sidewalks from Main Street to Cottonwood Street	Ped/Bike	$414,000			X	
A-6	Inner Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street/Potter Street to OR 206	Ped/Bike	$87,750		X	X	
A-7	Outer Pedestrian Recreational Route West of Condon	Create recreational unpaved walking path east of Condon for residents from W Bayard Street to Cottonwood Street/Main Street	Ped/Bike	$109,200		X	X	
A-8	W 1st Street Sidewalks	Install sidewalks from Cedar Street to Ivy Street	Ped/Bike	$277,000			X	
A-12	Pedestrian crossings in Condon	Provide an enhanced pedestrian crossing of OR 19 as it enters town, east of Main Street	Ped/Bike	$10,000	X		X	
A-13	OR 19 Sidewalks (East)	Add sidewalks from N East Street to the Fairgrounds driveway in Condon.	Ped/Bike	$200,000	X		X	
A-14	E Bayard Street Sidewalks	Add sidewalks to complete gap on east side of E Bayard Street between E Court Street and Main Street.	Ped/Bike	$25,000	X		X	
A-15	Sidewalks on east side of Main Street (north)	Complete sidewalk gaps on the east side of Main Street between E Well Street and W 2nd Street in Condon.	Ped/Bike	$30,000			X	
A-17	Beech Street Streetscape in Arlington	Improve the streetscape of Beech Street in Arlington to make the environment more pedestrian/bicycle friendly with wider sidewalks, raised crossings, landscaped buffers, and pedestrian-scale lighting.	Ped/Bike	$176,000	X		X	X
			Total	**$1,837,000**				

OTHER PROJECTS

Name	Description	Category	Cost	Timeline
Coordinated Plan	Gilliam County will be updating its Coordinated Plan with a grant from ODOT in 2015 and 2016.	Transit	--	Near-term
Condon Airport	Complete feasibility study to determine if upgrades are needed for any of the airport facilities to serve future growth and activity. The City of Condon is planning to provide water service to the airport to increase future airport development and activity.	Air	$10,000	Long-term
Arlington Airport	Based on the opportunities available for industrial uses and the existing industrial uses at the airport, a feasibility study is recommended to determine the cost to pave and maintain the runway at the Arlington Airport.	Air	$10,000	Long-term
Shutler Station Rail Crossovers	New rail crossovers are needed at Shutler Station to support rail operations.	Rail	$300,000	Near-term
At-grade railroad crossings in the City of Arlington	The City, County, and Waste Management should maintain coordination with UP and Watco to minimize delay and maintain emergency vehicle access.	Rail		Near-term
I-84 Eastbound Bridge	The bridge will be widened at MP 148.6 (Willow Creek) to meet current design standards.	Bridge	$1.1 million	Near-term
I-84 John Day River Bridge Deck Overlay	ODOT has planned a bridge deck overlay on I-84 from MP 114.45 to 114.75. Preliminary engineering is scheduled for 2016, and construction is scheduled for 2018.	Bridge	$2.482 million	Near-term
Lonerock Road Bridge Replacement	The County plans to replace the Lonerock Road bridge. The road serves as the primary route in and out of Lonerock and is therefore a high priority for the County.	Bridge	$2 million	Long-term
		Total	**$5,902,000**	

Appendix E Gilliam County Implementing Ordinances

ORDINANCE NO. 2015-02
GILLIAM COUNTY, OREGON

AN ORDINANCE AMENDING THE COUNTY'S COMPREHENSIVE PLAN, AMENDED BY ORDINANCE #2011-04, REPEALING AND DELETING THE 1999 TRANSPORTATION SYSTEM PLAN, AND ADOPTING THE 2015 TRANSPORTATION PLAN, AND DECLARING AN EMERGENCY

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The 1999 Plan, prepared by David Evans and Associates, has become outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given a official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Arlington, Condon, and Lonerock; and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committee with a number of public forums to review the Plan material as it was available. There were four workshops conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of the pending adoption of the 2015 Transportation System Plan by a Post Acknowledgment Plan Amendment Notice on July 17, 2015; and

WHEREAS, the Gilliam County Planning Commission conducted a public hearing on September 8, 2015, and at the close of the public hearing, the Commission moved unanimously to recommend the updated Transportation System Plan to the Gilliam County Court; and

WHEREAS, the Gilliam County Court conducted a public hearing, on October 21, 2015. At the close of the public hearing, the County Court moved unanimously to repeal the 1999 Plan and adopt the 2015 Transportation System Plan,

NOW, THEREFORE, the Gilliam County Court hereby ordains:

SECTION 1. The 1999 Transportation System Plan, prepared by David Evans and Associates, is hereby repealed and deleted from the County's Comprehensive Plan.

SECTION 2. The 2015 Transportation System Plan, prepared by Kittelson & Associates and attached as Exhibit 1, is hereby adopted as a stand-alone document serving as Goal 12 of the County's Comprehensive Plan. The 2015 Transportation System Plan Goals and Policies may be reprinted under the Goal 12 section of the County's Comprehensive Plan.

EMERGENCY CLAUSE

Inasmuch as the safety, health, and welfare of the citizens of Gilliam County are impacted, it is important to have current plans in effect as quickly as possible. An emergency is deemed to exist and this ordinance shall begin full force and in effect upon approval and signed by the County Court.

SIGNATURES

APPROVED by the Gilliam County Court on the 21st day of October 2015.

ATTEST:

Ellen Wagenaar

Ellen Wagenaar, Gilliam County Clerk

GILLIAM COUNTY COURT

Steve Shaffer

Judge Steve Shaffer

Commissioner Dennis Gronquist

Michael Weimar

Commissioner Michael Weimar

Appendix F City of Arlington Implementing Ordinances

ORDINANCE NO. 416
CITY OF ARLINGTON, OREGON

AN ORDINANCE AMENDING THE CITY'S COMPREHENSIVE PLAN, ORDINANCE 394, REPEALING AND DELETING THE REFERENCE TO THE 1999 TRANSPORTATION SYSTEM PLAN, AND ADOPTING THE 2015 TRANSPORTATION SYSTEM PLAN

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The plan at that time had been prepared in 1999 by David Evans and Associates and was becoming outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given an official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Condon, Arlington, and Lonerock, and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committees with a number of workshops to review the Plan material as it was available. There were four workshops conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of a Post Acknowledgment Plan Amendment on July 23, 2015; and

WHEREAS, the Arlington City Planning Commission conducted a public hearing on September 24, 2015, at the close of the public hearing, the Commission moved unanimously to recommend the updated Transportation System Plan to the Arlington City Council; and

WHEREAS, the Arlington City Council conducted a public hearing on October 7, 2015, at the close of the public hearing, the County Court moved unanimously to repeal the 1999 Plan and adopt the 2015 Plan.

NOW, THEREFORE, the Common Council of the City of Arlington hereby ordains:

SECTION 1. The 1999 Transportation System Plan, prepared by David Evans and Associates, is hereby repealed and deleted from the County's Comprehensive Plan.

SECTION 2. The 2015 Transportation System Plan, attached as Exhibit 1, prepared by Kittelson & Associates, is hereby adopted as a stand-alone document serving as Goal 12 of the City's Comprehensive Plan. The 2015 Transportation System Plan Goals and Policies may be reprinted under Goal 12 of the City's Comprehensive Plan

Approved by the Common Council and signed by the Mayor this 4th day of November, 2015.

_____

Jeff Bufton, Mayor

ATTEST

_____

Pam Rosenbalm, City Recorder

ORDINANCE NO. 417
CITY OF ARLINGTON, OREGON

AN ORDINANCE AMENDING THE CITY'S SUBDIVISION ORDINANCE, ORDINANCE #255 AS AMENDED, TO IMPLEMENT THE 2015 TRANSPORTATION SYSTEM PLAN, AND ESTABLISH UPDATED STREET DESIGN STANDARDS FOR ROADS AND STREETS IN THE CITY

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The plan at that time had been prepared in 1999 by David Evans and Associates and was becoming outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given an official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Condon, Arlington, and Lonerock, and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committees with a number of workshops to review the Plan material as it was available. There were four workshops

conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of a Post Acknowledgment Plan Amendment on July 23, 2015; and

WHEREAS, the Arlington City Planning Commission conducted a public hearing on September 24, 2015, at the close of the public hearing, the Commission moved unanimously to recommend the amendments to the City's Subdivision Ordinance to the Arlington City Council; and

WHEREAS, the City Council conducted a public hearing on October 7, 2015, at the close of the public hearing, the City Council moved unanimously to amend the City's Subdivision Ordinance to update the Street Design Standards for future street development in the City.

NOW, THEREFORE, the Common Council of the City of Arlington hereby ordains:

The following Sections of the City's Subdivision Ordinance are amended as follows:

SECTION 1. Section 10-2-6 is revised in its entirety to read. **STREET WIDTHS: Future street Right of Way and Improved Roadway Widths shall be governed by the Design Standards in the 2015 Transportation System Plan.**

SECTION 2. Section 10-8-1(E) is revised to read. **FUTURE STREETS AND ROADS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE 2015 TRANSPORTATION SYSTEM PLAN.**

Approved by the common Council and signed by the Mayor this 4th day of November, 2015.

_____
Jeff Bufton, Mayor

ATTEST

_____
Pam Rosenbalm, City Recorder

ORDINANCE NO. 418
CITY OF ARLINGTON, OREGON

AN ORDINANCE AMENDING THE CITY'S ZONING ORDINANCE, ORDINANCE #383, AS AMENDED, TO IMPLEMENT THE 2015 TRANSPORTATION SYSTEM PLAN, AND ESTABLISH UPDATED STREET DESIGN STANDARDS FOR ROADS AND STREETS IN THE CITY

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The plan at that time had been prepared in 1999 by David Evans and Associates and was becoming outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given an official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Condon, Arlington, and Lonerock, and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committees with a number of workshops to review the Plan material as it was available. There were four workshops conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of a Post Acknowledgment Plan Amendment on July 23, 2015; and

WHEREAS, the Arlington City Planning Commission conducted a public hearing on September 24, 2015, at the close of the public hearing, the Commission moved unanimously to recommend the update implementing Ordinance amendments to reflect the new Transportation System Plan in the City's Zoning Ordinance to the Arlington City Council; and

WHEREAS, the City Council conducted a public hearing on October 7, 2015, at the close of the public hearing, the City Council moved unanimously to amend the City's Zoning Ordinance to update the Street Design Standards for future street development in the City.

NOW, THEREFORE, the Common Council of the City of Arlington hereby ordains:

SECTION 1. Section 4.19(1) of the City's Zoning Ordinance is revised to read. **FUTURE STREETS AND ROADS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE 2015 TRANSPORTATION SYSTEM PLAN.**

Approved by the Common Council and signed by the Mayor this 4th day of November, 2015.

_____
Jeff Bufton, Mayor

ATTEST

_____
Pam Rosenbalm, City Recorder

Appendix G City of Condon Implementing Ordinances

ORDINANCE NO. 2016-02__
CITY OF CONDON, OREGON

AN ORDINANCE AMENDING THE CITY'S ZONING ORDINANCE, #2012-01, TO IMPLEMENT THE 2015 TRANSPORTATION PLAN, AND ESTABLISH ROAD ACCESS MANAGEMENT STANDARDS FOR ROADS AND STREETS IN THE CITY, AND DECLARING AN EMERGENCY

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The plan at that time had been prepared in 1999 by David Evans and Associates and was becoming outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given an official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Condon, Arlington, and Lonerock, and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committees with a number of workshops to review the Plan material as it was available. There were four workshops

conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of a Post Acknowledgment Plan Amendment on July 28, 2015; and

WHEREAS, the Condon City Planning Commission conducted a public hearing on September 22, 2015, at the close of the public hearing, the Commission moved unanimously to recommend the updated Transportation System Plan to the Condon City Council; and

WHEREAS, the Condon City Council conducted a public hearing on October 7, 2015, at the close of the public hearing, the City Council moved unanimously to repeal the 1999 Plan and adopt the 2015 Plan, along with the Statement of Compliance with the Transportation Planning Rule.

NOW, THEREFORE, the Common Council of the City of Condon hereby ordains:

SECTION 1. The attached Access Management Standards, Exhibit 1, are hereby adopted and placed in the City's Zoning Ordinance in the Supplementary Provisions, Section 152.415.

EMERGENCY CLAUSE

Inasmuch as the safety, health, and welfare of the citizens of the City are impacted, it is important to have current plans in effect as quickly as possible. An emergency is deemed to

exist and this ordinance shall begin full force and in effect upon approval by the City Council and signed by the Mayor.

Jim Hassing, Mayor 10/7/15

ATTEST

Kathryn Greiner, City Administrator 10/7/15

EXHIBIT 1

1. ACCESS MANAGEMENT.

A. General. The intent of this section is to manage access to land development to preserve the transportation system in terms of safety, capacity, and function. This ordinance shall apply to all arterials and collectors within the City of Condon and to all properties that abut these roadways. This ordinance is adopted to implement the access management policies of the City of Condon as set forth in the Transportation System Plan.

B. Corner Clearance.

1. Corner clearance for connections shall meet or exceed the minimum connection spacing requirements for that roadway.

Functional Classification	Public Road Spacing	Private Drive Spacing
Arterial		
OR 19	300ft.	150 ft.
Other arterials in UGB	600 ft.	300 ft.
Collector	300 ft.	150 ft.
Minor Street	300 ft.	each lot

2. New connections shall not be permitted within the functional area of an intersection or interchange as defined by the connection spacing standards of this ordinance, unless no other reasonable access to the property is available.

3. Where no other alternatives exist, the City may allow construction of an access connection along the property line farthest from the intersection. In such cases, directional connections (i.e. right in/out, right in only, or right out only) may be required.

C. Joint and Cross Access.

1. Adjacent commercial or office properties classified as major traffic generators (i.e. shopping plazas, office parks), shall provide a cross access drive and pedestrian access to allow circulation between sites.

2. A system of joint use driveways and cross access easements shall be established wherever feasible and shall incorporate the following:

a. A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway

separation consistent with the access management classification system and standards.

b. A design speed of 10 mph and a maximum width of 20 feet to accommodate two-way travel aisles designated to accommodate automobiles, service vehicles, and loading vehicles;

c. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive;

d. A unified access and circulation system plan for coordinated or shared parking areas is encouraged.

3. Shared parking areas shall be permitted a reduction in required parking spaces if peak demands do not occur at the same time periods.

4. Pursuant to this section, property owners shall:

a. Record an easement with the deed allowing cross access to and from other properties served by the joint use driveways and cross access or service drive;

b. Record an agreement with the deed that remaining access rights along the roadway will be dedicated to the City and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;

c. Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners.

5. The City may reduce required separation distance of access points where they prove impractical, provided all of the following requirements are met:

a. Joint access driveways and cross access easements are provided in accordance with this section.

b. The site plan incorporates a unified access and circulation system in accordance with this section.

c. The property owner enters into a written agreement with the City, recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway.

6. The City may modify or waive the requirements of this section where the characteristics or layout of abutting properties would make a development of a unified or shared access and circulation system impractical.

(D) Access Connection and Driveway Design.

1. Driveways shall meet the following standards:

   a. If the driveway is a one way in or one way out drive, then the driveway shall be a minimum width of 10 feet and a maximum width of 12 feet and shall have appropriate signage designating the driveway as a one way connection.

   b. For two-way access, each lane shall have a minimum width of 10 feet and a maximum width of 12 feet.

2. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.

3. The length of driveways shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public road or causing unsafe conflicts with on-site circulation.

(E) Requirements for Phased Development Plans.

1. In the interest of promoting unified access and circulation systems, development sites under the same ownership or consolidated for the purposes of development and comprised of more than one building site shall be reviewed as single properties in relation to the access standards of this ordinance. The number of access points permitted shall be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage. All necessary easements, agreements, and stipulations shall be met. This shall also apply to phased development plans. The owner and all lessees within the affected area are responsible for compliance with the requirements of this ordinance and both shall be cited for any violation.

2. All access must be internalized using the shared circulation system of the principal development or retail center. Driveways shall be designed to avoid queuing across surrounding parking and driving aisles.

(F) Reverse Frontage.

1. Lots that front on more than one road shall be required to locate motor vehicle accesses on the road with the lower functional classification.

2. When a residential subdivision is proposed that would abut an arterial, it shall be designed to provide through lots along the arterial with access from a frontage road or interior local road. Access rights of these lots to the arterial shall be

dedicated to the City of Condon and recorded with the deed. A berm or buffer yard may be required at the rear of through lots to buffer residences from traffic on the arterial. The berm or buffer yard shall not be located with the public right-of-way.

(G) Shared Access.

1. Subdivisions with frontage on the state highway system shall be designed into shared access points to and from the highway. Normally a maximum of two accesses shall be allowed regardless of the number of lots or businesses served. If access off of a secondary road is possible, then access should not be allowed onto the state highway. If access off of a secondary road becomes available, then conversion to that access is encouraged, along with closing the state highway access.

(H) Lot Width-to-Depth Ratios.

1. To provide for proper site design and prevent the creation of irregularly shaped parcels, the depth of any lot or parcel shall not exceed 3 times its width (or 4 times its width in rural areas) unless there is a topographical or environmental constraint or an existing man-made feature.

(I) Connectivity.

1. The road system of proposed subdivisions shall be designed to connect with existing, proposed, and planned roads outside of the subdivision as provided in this section.

2. Wherever a proposed development abuts unplatted land or a future development phase of the same development, road stubs shall be provided to provide access to abutting properties or to logically extend the road system into the surrounding area. All road stubs shall be provided with a temporary turn-around unless specifically exempted by the Public Works Director, and the restoration and extension of the road shall be the responsibility of any future developer of the abutting land.

3. Minor collector and local residential access roads shall connect with surrounding roads to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access and evacuation. Connections shall be designed to avoid or minimize through traffic on local roads. Appropriate design and traffic control such as four-way stops and traffic-calming measures are the preferred means of discouraging through traffic.

4. Culs-de-sac or permanent dead-end roads may be used as part of a development plan. However, through roads are encouraged except where topographical, environmental, or existing adjacent land use constraints make connecting roads infeasible. Where culs-de-sac are planned, accessways shall be provided connecting the ends of culs-de-sac to each other, to other roads, or to neighborhood activity centers.

(J) Variances to Access Management Standards.

1. The granting of the variance shall meet the purpose and intent of these regulations and shall not be considered until every feasible option for meeting access standards is explored.

2. Applicants for a variance from these standards must provide proof of unique or special conditions that make strict application of the provisions impractical. Applicants shall include proof that:

   a. Indirect or restricted access cannot be obtained;

   b. No engineering or construction solutions can be applied to mitigate the condition; and

   c. No alternative access is available from a road with a lower functional classification than the primary roadway.

3. No variance shall be granted where such hardship is self-created.

(K) Nonconforming Access Features.

1. Legal access connections in place as of (date of adoption) that do not conform with the standards herein are considered nonconforming features and shall be brought into compliance with applicable standards under the following conditions:

   a. When new access connection permits are requested;

   b. Change in use or enlargements or improvements that will increase trip generation.

ORDINANCE NO. 2016-01_
CITY OF CONDON, OREGON

AN ORDINANCE AMENDING THE CITY'S COMPREHENSIVE PLAN, ORDINANCE #2012-01, REPEALING AND DELETING THE REFERENCE TO THE 1999 TRANSPORTATION SYSTEM PLAN, AND ADOPTING THE 2015 TRANSPORTATION PLAN, ALONG WITH A STATEMENT OF COMPLIANCE WITH THE TRANSPORTATION PLANNING RULE, AND DECLARING AN EMERGENCY

WHEREAS, in late 2013 the County applied to the Oregon Department of Transportation for a grant to assist in updating the County's Transportation System Plan. The plan at that time had been prepared in 1999 by David Evans and Associates and was becoming outdated; and

WHEREAS, the Oregon Department of Transportation funded the project in the beginning of 2014 and began a selection process to select a qualified consultant to assist the County in preparing the updated Transportation System Plan; and

WHEREAS, Kittelson & Associates of Bend, Oregon, was selected and was given an official notice to proceed on September 8, 2014; and

WHEREAS, the scope of the work is to provide an updated Transportation System Plan which serves Gilliam County and the three incorporated Cities of Condon, Arlington, and Lonerock, and

WHEREAS, the consultants began work preparing the updated Transportation System Plan and, at regular intervals, provided the Public Advisory Committees with a number of workshops to review the Plan material as it was available. There were four workshops

conducted beginning on December 3, 2014, with the second on March 18, 2015, the third on May 7, 2015, and joint work sessions in both Arlington and Condon on July 8, 2015; and

WHEREAS, the Department of Land Conservation and Development was notified of a Post Acknowledgment Plan Amendment on July 28, 2015; and

WHEREAS, the Condon City Planning Commission conducted a public hearing on September 22, 2015, at the close of the public hearing, the Commission moved unanimously to recommend the updated Transportation System Plan to the Condon City Council; and

WHEREAS, the Condon City Council conducted a public hearing on October 7, 2015, at the close of the public hearing, the City Council moved unanimously to repeal the 1999 Plan and adopt the 2015 Plan, along with the Statement of Compliance with the Transportation Planning Rule.

NOW, THEREFORE, the Common Council of the City of Condon hereby ordains:

SECTION 1. The 1999 Transportation System Plan, prepared by David Evans and Associates, is hereby repealed and deleted from the County's Comprehensive Plan.

SECTION 2. The 2015 Transportation System Plan, attached as Exhibit 1, prepared by Kittelson & Associates, is hereby adopted as a stand-alone document serving as Goal 12 of the City's Comprehensive Plan. The 2015 Transportation System Plan Goals and Policies may be reprinted under Goal 12 of the City's Comprehensive Plan.

EMERGENCY CLAUSE

Inasmuch as the safety, health, and welfare of the citizens of the City are impacted, it is important to have current plans in effect as quickly as possible. An emergency is deemed to exist and this ordinance shall begin full force and in effect upon approval by the City Council and signed by the Mayor.

Jim Hassing 10/7/15
Jim Hassing, Mayor

ATTEST
Kathryn Greiner 10/7/15
Kathryn Greiner, City Administrator